Cn° 9413

Govt. of Madras.

PUBLIC WORKS.

Dated

Rect.

Encl.

G.O., 18/12 1894 No. 3248 W

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Madras Harbour Works

The progress report of the — for the quarter ending 30th September 1894, ordered to be forwarded for the information of the Secy: of State & the Govt: of India.

— do —

Forwarding copy of Pros: enclosing the progress report of the — for the quarter ending 30-9-94, together with plans showing the progress of the work.

Forwarding the progress report of the Madras Harbour works for the quarter ending 30th September 1894 showing the principal quantity of work done during the quarter.

INDEXED

Sanction to Contract

Contract

Weekly Diarium

3/12

602 7 9

MARINE DEPARTMENT.

From

THE CHAIRMAN,
HARBOUR TRUST BOARD,
MADRAS.

To

THE CHIEF SECRETARY TO GOVERNMENT,
Marine Department.

DATED 23*rd November* 1894.

DESPATCHED 3rd December 94

RECEIVED

ENCLOSURES :—Tracings referred to in the Engineer's report.

No. 3018

SUBJECT.

MADRAS HARBOUR.

Submitting report upon progress made in the reconstruction of the———for the quarter ending 30th September 1894; also returns of Imports and Exports; with comparative statements of cash Receipts and Expenditure for the half-year April—September.

LAWRENCE ASYLUM PRESS, MADRAS.

MADRAS HARBOUR TRUST,
SECRETARY'S OFFICE,
23rd *November* 1894.

No. 3018

From

EDWARD TURNER, ESQ., I.C.S.,
CHAIRMAN, HARBOUR TRUST BOARD,
Madras.

To

THE HON'BLE MR. J. F. PRICE, C.S.I., I.C.S.,
Chief Secretary to Government,
Marine Department.

SIR,

I have the honor to submit, for the information of Government, the usual report upon the progress made in the reconstruction of the Madras Harbour, during the quarter ending 30th September 1894: together with the various tracings and statements referred to by the Board's Engineer; also the Traffic Manager's returns of Imports and Exports for the quarter; and statement of cash receipts, to which is appended a comparison between the receipts for the two half-years ending respectively 30th September 1893 and 1894.

2. *Imports.*—From Foreign Ports, record an increase in Coal: Kerosine Oil has also increased in quantity both in case oil and tons in bulk: but Iron has decreased by 6,988 tons, or more than one-half. Piece Goods show a substantial increase, Twist a reduction; other items call for no comment except the large decrease in the import of general Railway Stores.

3. *Exports.*—To Foreign ports, are on the whole well maintained, Coffee, Seeds of various sorts, Rice, Tanned Skins and Hides all show material advances; but Groundnut-kernels, and Jaggery are less than in the corresponding half of 1893-94.

4. *Coasting Trade.*—A large increase has been recorded in the *Export* of Groundnuts and Seeds. It is also to be noted that the shipment of Salt has been resumed. *Imports* call for no special comment except that Gram, Peas and Paddy show large reductions, while Coal, Flour, Rice and Sundries have increased.

5. *Cash Receipts.*—From all sources have aggregated Rs, 3,16,228 against Rs. 2,86,924 an increase of Rs. 29,304; but this excess is due to an increased contribution from Port Funds of Rs. 37,607; otherwise there is a reduction in receipts of Rs. 8,303.

6. *Expenditure.*—Excluding temporary advances for Harbour Construction, has increased from Rs. 4,15,485 to Rs. 4,33,483 a difference of Rs 17,998; due to Interest Rs. 4,434; Repairs, Rs. 6,245: Tools and Plant, Rs. 2,767: arrears of the Engineer's bills paid, really appertaining to 1893-94: Refunds Rs. 1,737: arrears of compensation allowance Rs. 2,703: and Rs. 1,123 increase in the Traffic Department Shore Staff, due to the return of the Traffic Manager from furlough. Total Rs. 19,009. Other items show small + and — variations, which are so noted: but call for no special comment.

7. *Harbour Works.*—The Engineer's Report fixes the date for the setting of the Caisson at the South Pier-Head as March 1895, and anticipates that there will be the advantage at that Pier-head of smooth water, under the lee of the Caisson at the North pier; and that therefore the delay which occurred at the end of the North arm will not recur at the South. Two other important points are alluded to: the accretion of sand to the south of the Harbour, and its erosion to the North. The advance of sand at the south during the quarter July—September, was no less than 150 feet, but as remarked this is only temporary, and on the change to the North-East monsoon taking place, the sea commences to rapidly encroach: the important point to be noted, however, is that behind this fluctuating series of accretion and erosion is establised a permanent advance which appears to be more rapid than was expected. The Engineer records that compared with the same date in 1893 the advance of the foreshore near the South arm has been 120 feet during the twelve months. At the North, beyond the extended protective revetment, the erosion reached 140 feet further inshore than had previously been recorded. Mr. Pogson anticipates that the bay thus formed at the end of the new revetment will probably increase, until it reaches the line shown upon the plan as the probable permanent High-water mark: which is the record of the greatest erosion, or bay, similarly formed at the North end of the old revetment, which terminated at Cassimode. The Trustees, however, feel by no means certain that this will be the case, for it must be remembered that the bay formed at the North end of the old revetment can hardly be considered to have reached its greatest limit: for to protect the land to the North of the old revetment the new extension was constructed, at a large expense, which would not have been necessary had the record of erosion formed by the bay at that spot reached a permanent high-water mark. Steps have been taken to acquire the threatened land, north of the extended protective revetment, under the provisions of the Land Acquisition Act I. of 1894. The northerly current caused by the south-west monsoon has ceased, and with it the erosion recorded. The combined actions of the surf, the southerly current now prevalent, with the wind northerly, are rapidly filling with sand the bay formed by the south west monsoon erosion. No further depletion of the land can take place until the south-west monsoon of 1895 has again eroded, the accretion which is now forming; and meantime the land lately attacked by the sea will be acquired. If Mr. Pogson is right in supposing that a permanent high-water mark will be reached next year, very little further expense on this account will be incurred; but should further encroachment take place, the land will be taken over under the provisions of the Land Acquisition Act: as the Engineer does not advise extending the protective revetment any further north.

8. The shipping accommodated in the Harbour during the quarter under review, aggregated a tonnage of 273,680 net register, represented by 156 vessels: and 8 vessels of 1,972 register tons, anchored outside the Harbour within port limits.

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

Chairman, Harbour Trust Board.

Madras Harbour Trust, Statement of Receipts and Charges from 1st April to 30th September 1894

		Rs. A. P.	Rs. A. P.	Rs. A. P.
Opening balance—				
Government Securities (Par value 8,20,000)			8,16,547 10 10	
1. Cash in the Bank of Madras ...		3,51,356 14 1		
2. General Cash in Office		337 10 8		
3. Advance for Contingencies... ...		500 0 0		
			3,52,194 8 9	
				11,68,742 3 7
Receipts.				
I. Contributions from Port Funds ...		...	.....	57,607 5 6
II. Beach Imports: dues under Section 45 (*a*) I (i) (ii) (iii) ...		79,156 14 3		
Pier do. do. do. ...		29,950 7 11		
Beach Exports do. do. ...		16,675 13 6		
Pier do. do. do. ...		27,264 8 3		
Wharfage do. II. ...		3,020 0 0		
Cranage do. III. ...		22,017 1 11		
Storage do. IV. ...		734 15 11		
Demurrage do. V. ...		246 8 6		
Dues for entry of Vehicles under Section 45 (*c*) VI ...		6,988 0 6		
Provisions:—Dues on under Section 45 (*a*) I (i)		331 2 6		
Rent of Properties		340 2 11		
Water: charge for—delivered at pier head		2,605 4 0		
Penalties under Section 84... ...		... ...		
Sundries		0 0 4		
			1,89,331 0 6	
III. Porterage under Section 45 (*a*) I (iv)		... ...	... ...	
Beach		33,910 4 7		
Pier		15,206 12 3		
Miscellaneous		105 15 4		
			49,223 0 2	
				2,38,554 0 8
IV. Interest on Government of India, 4 per cent. Promissory Notes.... ...		...	...	20,066 10 6
Total Rupees		...	...	14,84,970 4 3

Charges.

I. Interest (under Section 30) ...	...	2,22,912 8 1	
II. Repayment of Loan for Construction of Harbour under Sec. 31	...	1,00,000 0 0	3,22,912 8 1
II. Refunds	...	492 15 8	
IV. Establishment, etc.—			
1. Chairman's salary	2,400 0 0		
2. Secretary's do.	4,800 0 0		
3. Correspondence Department ...	1,822 5 1		
4. Accounts Department	3,280 0 0		
5. Cash Department	2,298 12 0		
6. Traffic Department (Shore Staff) ...	13,832 3 2		
7. Preventive Service	6,106 1 2		
8. Do. Boatmen ...	593 8 6		
9. Exchange Compensation Allowance	2,703 4 3		
10. Contribution to Govt. for Pensions...	418 11 10		
11. Do. to Provident Fund ...	35 7 0		
12. Fees to Trustees	3,210 0 0		
		41,500 5 0	

V.	Contingencies—									
	(*a*) Subject to Regular Audit.—									
	Postage				41	2	0			
	Receipt Stamps				106	14	0			
	Telegrams				27	6	0			
	Furniture				106	12	0			
	Fees for Audit				...	...	...			
	Law Charges				31	5	0			
	Stationery and Printing				1,257	2	11			
	Advertisement Charges				230	0	0			
	Uniform for Preventive Service, &c. ...				1,365	4	0			
								3,165	13	11
	(*b*) Admissible without Detailed Audit.—									
	Overtime Fees to Establishment ...				2,428	10	9			
	Do. Preventive Service and Boatmen... ...				1,710	9	4			
	Miscellaneous				1,573	8	6			
								5,712	12	7
VI.	Petty Construction and Repairs—									
	New Works...				6,245	2	1			
	Repairs				7,035	12	11			
	Tools and Plant				887	3	5			
								14,168	2	5
VII.	Porterage—									
	1. Coolies, Beach				22,129	4	6			
	2. Do. Pier				8,205	2	5			
	3. Do. Custom House				4,435	12	7			
	4 Coasting Cargo				756	1	6			
	5. Boat Hire				...	...	...			
	6. Engine Charges				1,069	4	7			
	7. Steam Crane Charges				1,415	5	0			
	8. Refunds				1,961	15	1			
	9. Claims for Losses and Damage ...				405	14	5			
	10. Provident Fund Deductions from Coolies' wages...				568	8	2			
	11. Do. Contributions by the Trust				568	8	2			
								41,515	12	5
	(*a*) Contingencies Subject to Regular Audit—									
	Postage				...	...	...			
	Receipt Stamps				2	0	0			
	Telegrams				...	...	...			
	Furniture				...	...	...			
	Tarpaulins				946	4	4			
	Law Charges				...	...	...			
	Stationery and Printing				307	11	2			
	Advertisement Charges				...	...	...			
	Lighting Pier and Yards				955	3	2			
								2,211	2	8
	(*b*) Contingencies Admissible without Detailed Audit—									
	Miscellaneous							1,804	0	3
										45,530 15 4
VIII.	Advances to Construction Account									11,000 0 0
	Total Expenditure									4,44,483 9 0
	Closing Balance on the 30th September 1894—									
	Government Securities (Par value 9,80,000) ...							9,82,336	6	10
	Cash in the Bank of Madras				56,862	6	5			
	General Cash in Office				787	14	0			
	Advance for Contingencies				500	0	0	58,150	4	5
										10,40,486 11 3
	Total Rupees									14,84,970 4 3

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

Comparative Statement of Receipts and Charges of the Madras Harbour Trust under Act II of 1886 for half years ending 30th September 1893 and 1894.

Items.	Actuals from 1st April to 30th Sept. 1893.	Actuals from 1st April to 30th Sept. 1894.	Plus or Minus.	Remarks.
REVENUE ACCOUNT.	Rs.	Rs.	Rs.	
Opening Balance	11,65,852	11,68,742	+ 2,890	
Receipts.				
I. Contributions from Port Funds	20,000	57,607	+ 37,607	
II. Beach Imports : dues under Section 45 (*a*) I (i) (ii) (iii)..	85,044	79,157	— 5,887	
Pier do. do. do....	30,969	29,950	— 1,019	
Beach Exports do do....	16,057	16,676	+ 619	
Pier do. do. do....	24,880	27,265	+ 2,385	
Wharfage do. II ...	3,750	3,020	— 730	
Cranage do. III ...	22,318	22,017	— 301	
Storage do. IV ...	1,495	735	— 760	
Demurrage do. V ...	...	247	+ 247	
Dues for entry of Vehicles under Section 45 (*c*) VI	6,648	6,988	+ 340	
Provisions :—Dues on under Section 45 (*a*) I (i)	306	331	+ 25	
Rent of Properties	620	340	— 280	
Water : charge for—delivered at pier head ...	2,249	2,605	+ 356	
Penalties under Section 84	...	...	...	
Sundries	2,370	...	— 2,370	
III. Porterage under Section 45 (*a*) I (iv)	...	...	...	
Beach	35,931	33,910	— 2,021	
Pier	16,998	15,207	— 1,791	
Miscellaneous	1,274	106	— 1,168	
IV. Interest realized on Govt. of India, 4 per cent Pro. Notes	16,015	20,067	+ 4,052	
Total...	2,86,924	3,16,228	...	
Total including the opening Balance ...	14,52,776	14,84,970	...	
Charges.				
I. Interest (under Section 30)...	2,18,478	2,22,912	+ 4,434	
II. Repayment of Loan for Construction of Harbour under Sec. 31....	1,00,000	1,00,000	...	
III Refunds	1,356	493	— 863	
IV. *Establishment, Etc.*—				
1. Chairman's salary	2,400	2,400	...	
2. Secretary's salary	5,066	4,800	— 266	
3. Correspondence Department	1,836	1,822	— 14	
4. Accounts Department	3,078	3,280	+ 202	
5 Cash Department	2,207	2,299	+ 92	
6. Traffic Department (Shore Staff) ...	12,709	13,832	+ 1,123	
7. Preventive Service	6,023	6,106	+ 83	
8. Preventive Service Boatmen	588	594	+ 6	
9. Exchange Compensation Allowance ..	...	2,703	+ 2,703	
10. Contribution to Government for Pensions	177	419	+ 242	
11. Do. to Provident Fund... ...	38	35	— 3	
12. Fees to Trustees	3,120	3,210	+ 90	
V. Contingencies.				
(*a*)—*Subject to Regular Audit.*—				
Postage	36	41	+ 5	
Receipt Stamps	112	107	— 5	
Telegrams	7	27	+ 20	
Furniture	...	107	+ 107	
Fees for Audit	...	...	...	
Law Charges	1,198	31	— 1,167	
Stationery and Printing	1,090	1,257	+ 167	
Advertisement Charges	393	230	— 163	
Uniform for Preventive Service, &c. ...	1,319	1,365	+ 46	
(*b*)—*Admissible without detailed Audit*—				
Overtime Fees to Establishment ..	1,953	2,429	+ 476	
Do. Preventive Service and Boatmen	1,466	1,711	+ 245	
Miscellaneous	3,179	1,574	— 1,605	
VI. *Petty Construction and Repairs.*—				
New Works	...	6,245	+ 6,245	
Repairs	4,269	7,036	+ 2,767	
Tools and Plant	545	887	+ 342	
VII *Porterage*—				
1. Coolies, Beach	23,337	22,129	— 1,208	
2. Do. Pier	8,098	8,205	+ 107	
3. Do. Custom House	5,144	4,436	— 708	
4. Coasting Cargo	603	756	+ 153	
5. Boat Hire	...	...	...	
6. Engine Charges	785	1,069	+ 284	
7. Steam Crane Charges	975	1,415	+ 440	
8. Refunds	225	1,962	+ 1,737	
9. Claims for Losses and Damage	123	406	+ 283	
10. Provident Fund Deductions from Coolies' wages	...	569	+ 569	
11. Do. Contributions by the Trust ...	486	569	+ 83	
(*a*) *Contingencies, Subject to Regular Audit.*—				
Postage	...	...	...	
Receipt Stamps	7	2	— 5	
Telegrams	...	...	...	
Furniture	...	...	...	
Tarpaulins	707	946	+ 239	
Law Charges	...	...	...	
Stationery and Printing	389	308	— 81	
Advertisement Charges	...	...	...	
Lighting Pier and Yards	832	955	+ 123	
(*b*) *Contingencies, Admissible without Detailed Audit.*—				
Miscellaneous...	1,131	1,804	+ 673	
VIII Advances to Construction Account	41,000	11,000	— 30,000	
Total ...	4,56,485	4,44,483	...	
Closing Balance ...	9,96,291	10,40,487	...	
Total ...	14,52,776	14,84,970	...	

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

I. STATEMENT OF GOODS IMPORTED FROM FOREIGN PORTS.

—	Packages.	1891-92.	1892-93.	1893-94	Half-year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or Decrease.
Apparel and Effects ...	Packages...	1,347	1,068	1,017	258	255	— 3
Alum	Barrels ...	326	686	910	852	250	— 602
Asphalte, Tar, & Pitch.	Casks ...	4,439	2,329	2,638	1,619	1,148	— 471
Acids	Cases ...	1,854	1,408	1,560	1,185	1,048	— 137
Arms and Guns ...	,, ...	442	221	250	162	50	— 112
Arrack	Casks ..	884	833	1,031	546	479	— 67
Blankets... ...	Bales ...	119	168	28	9	14	+ 5
Beef and Pork ...	Cases ...	36	...	...	...	...	
Bricks ...	100 ...	1,021	551	1,550	1,550	703	— 847
Beer	Cases ...	6,123	8,710	7,013	3,544	2,642	— 902
	Barrels ...	1,140	1,707	1,401	487	860	+ 373
	Hogsheads	6,808	8,210	4,310	2,303	2,657	+ 348
Boiler	No. ...	51	32	48	27	13	— 14
Corks	Bundles ...	88	72	50	16	17	+ 1
Canvas	Bales ...	121	193	615	455	32	— 423
Candles	Cases ...	16,637	31,017	27,463	13,681	13,089	— 592
Colours	,, ...	3,838	3,286	2,998	1,658	919	— 739
Confectionery Provisions and Oilmanstores	,, ...	23,395	22,129	20,829	9,653	6,489	— 3,164
Crockery & Glassware.	Crates & Casks.	4,538	3,817	5,300	2,828	1,051	— 1,777
Chalk	Barrels ...	370	140	134	10	50	+ 40
	Tons ..	...	...	...	...	30	+ 30
Cement ...	Casks ...	14,522	7,369	8,904	4,069	3,662	— 407
Cast Iron Pipes and Tubes ...	Tons ...	335	1,436	989	712	384	— 328
Camphor ...	Tubs ...	4,739	4,349	5,765	2,987	2,341	— 646
Coal	Tons ...	33,686	49,508	58,179	42,486	43,613	+ 1,127
Coke	,, ...	578	778	1,018	540	407	— 133
Fuel ...	,, ...	...	2,953	..	...	...	...
Crackers... ...	Cases ..	470	840	327	...	948	+ 948
Copper Plates and Tiles	No. ...	4,802	521	7,260	2,708	2,244	— 464
Corrugated Iron ...	Packages...	805	2,512	2,688	299	...	— 299
Dynamite ...	Cases ...	13,040	8,035	10,598	3,344	3,378	+ 34
Earthenware ...	Crates ...	2,318	1,886	2,168	917	546	— 371
Fire Clay ...	Casks ...	2,768	272	312	60	32	— 28
Flour	Bags ...	1,317	821	1,251	583	861	+ 278
Flannel ...	Bales ...	54	30	64	25	5	— 20
Gunpowder ...	Packages...	6,667	5,987	5,883	3,105	1,476	— 1,629
Harmonium ...	Cases ...	30	27	24	19	5	— 14
Hardware ...	Cases & Casks..	8,234	6,783	8,189	4,322	6,237	+ 1,915
Hops ...	Packages	129	64	297	31	128	+ 97
Iron ...	Tons ...	13,737	17,929	18,627	11,544	4,556	— 6,988
Iron Safes ...	No. ...	296	150	167	52	29	— 23
Kerosine Oil	Cases ...	397,862	251,320	342,671	164,116	166,395	+ 2,279
	Tons ...	...	3,361	5,455	1,518	3,471	+ 1,953
Malt ...	Bags ...	445	407	22	13	6	— 7
Millinery and Haberdashery ...	Cases ...	1,609	1,566	1,370	570	1,036	+ 466
Matches	,, ...	10,665	9,125	8,927	4,304	3,222	— 1,082
Machinery ...	Tons ...	3,099	3,241	4,817	1,506	1,906	+ 400
Nails	Kegs ...	13,744	10,547	14,022	7,648	3,249	— 4,399
Oil and Turpentine ...	Drums ...	7,225	15,500	4,581	1,652	2,176	+ 524
Piece Goods ... Piece Goods	Cases&Bales	85,079	51,551	57,676	30,002	32,782	+ 2,780
Piece Goods ... Twist.	Cases&Bales		18,664	24,071	12,072	10,979	— 1,093
Paper ...	Bales ...	6,546	5,518	6,038	3,769	2,300	— 1,469

I. STATEMENT OF GOODS IMPORTED FROM FOREIGN PORTS—*contd.*

—	Packages.	1891-92.	1892-93.	1893-94.	Half-year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or Decrease.
Piano	No.	153	99	112	57	29	— 28
Printing Types	Cases	492	727	346	166	53	— 113
Pig Lead	No.	2,198	1,098	2,612	1,989	167	— 1,822
Paint	Kegs	7,758	10,257	5,770	3,384	3,419	+ 35
Rattan	Bundles	3,823	5,669	2,362	627	1,137	+ 510
Soaps	Cases	1,650	970	2,172	1,332	402	— 930
Salt	,,	383	329	153	48	138	+ 90
Steel	Cases & Casks	864	3,343	794	568	166	— 402
Steel Bundles and Bars	No.	11,261	10,401	10,768	6,228	4,792	— 1,436
Steel Hoop	Bundles	5,567	1,597	4,930	4,874	1,057	— 3,817
Shovels	,,	275	499	29	2	30	+ 28
Sodawater Bottles	Crates	1,395	1,768	1,570	846	1,030	+ 184
Sulphur	Casks	752	435	1,128	225	10	— 215
Shot	Kegs	177	56	248	87	108	+ 21
Sundries	Packages	48,408	33,606	56,235	28,608	24,513	— 4,095
Specie	No.	1,229	888	768	364	252	— 112
Sugar	Bags	2,152	1,196	4,198	2,616	...	— 2,616
Slates and Pencils	Cases	1,242	848	1,333	733	981	+ 248
Spelter	Cakes	836	8,786	22,921	6,376	2,628	— 3,748
Saw	Cases	70	48	79	48	6	— 42
Twine and Rope	Bales & Coils	438	455	458	400	66	— 334
Tin Plates	Boxes	5,608	4,649	6,669	3,640	1,914	— 1,726
Tramway Material	Packages	...	...	...	...	5,152	+ 5,152
Wine and Spirits	Cases	37,877	44,739	36,048	18,235	13,001	— 5,234
	Casks	863	658	514	232	497	+ 265
	Puncheons	369	733	1,058	417	15	— 402
Window Glasses	Cases	5,972	12,000	10,425	9,156	2,043	— 7,113
White and Red Lead	Kegs	681	951	737	283	120	— 163
Yellow Metal	Cases	3,076	3,361	2,784	1,819	1,352	— 467
Zinc Sheets	Packages	2,749	1,690	1,761	558	627	+ 69
Horses	No.	816	959	835	313	133	— 180
Ponies	,,	70	112	131	127	53	— 74
Cows	,,	59	15	7	3	1	— 2
Dogs	,,	13	14	3	...	33	+ 33
Elephants	,,	10	7	6	6	4	— 2
Two-wheeled Carriage	..	..	8	9	2	1	— 1

II. STATEMENT OF STORES IMPORTED BY THE MADRAS RAILWAY COMPANY.

—	Packages.	1891-92.	1892-93.	1893-94.	Half-year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or Decrease.
Stores	Packages	82,105	72,434	47,040	40,342	5,110	— 35,232
	Tons	3,605	499	156	6	...	— 6
Fuel	,,	...	...	...	...	...	...
Coke	,,	1,437	544	716	628	703	+ 75
Coal	,,	27	300	237	...	2,948	+ 2,948
Timber	,,	2,477	2,083	1,448	...	853	+ 853
Fire Brick	100	115	330	...	...	75	+ 75

III. STATEMENT OF STORES IMPORTED BY THE SOUTH INDIAN RAILWAY COMPANY.

—	Packages.	1891-92.	1892-93.	1893-94.	Half-year ending 30th Sept. 1893.	Half year ending 30th Sept. 1894.	Increase or Decrease.
Stores	Packages	68,282	22,171	28,640	6,539	12,138	+ 5,599
	Tons	...	...	992	22	...	— 22
Coke	,,	14	...	...	...	...	...
Coal	,,	...	...	...	...	...	...
Timber	,,	..	...	...	...	...	...
Boiler	No.	4	12	10	10	...	— 10
Fire Bricks	100	...	...	...	...	160	+ 160

IV. STATEMENT OF GOODS IMPORTED FROM COAST PORTS.

—	Packages.	1891-92.	1892-93.	1893-94.	Half-year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or Decrease
Apparel and Effects	Packages	451	343	527	196	312	+ 116
Alum	Barrels	10	187	7	7	124	+ 117
Acids	Cases	89	125	269	202	200	— 2
Animals	No.	...	10	...	...	9	+ 9
Arms and Guns	Cases	45	12	13	4	6	+ 2
Boilers	No.	2	...	...	...	...	...
Bricks and Tiles	100	1,396	57	837	517	328	— 189
Coffee	Bags	379	595	575	480	336	— 144
Candles	Cases	...	...	11	2	1	— 1
Colours	,,	1,225	1,531	1,591	1,315	674	— 641
Crockery and Glassware	,,	322	466	426	202	513	+ 311
Coal	Tons	13,249	13,792	22,152	8,355	10,714	+ 2,359
Coke	,,	...	...	..	...	...	...
Carpets	Bales	77	94	99	46	47	+ 1
Camphor and Benjamin	Tubs	682	1,306	432	344	425	+ 81
Copra	Bags	32	...	122	...	67	+ 67
Crackers	Cases	...	...	...	..	...	...
Copper	,,	1,667	936	557	558	10	— 548
Do.	Tiles & Ingots	96	421	2,180	1,411	2,903	+ 1,492
Cutch and Lac	Packages	4,415	3,191	3,554	2,093	2,440	+ 347
Cocoanuts	No.	3	415	2,023	2,023	...	— 2,023
Earthenware	Crates	392	2,941	407	390	110	— 280
Do.	Pipes	2,626	6,315	950	936	156	— 780
Firewood	Tons	...	...	...	...	...	...
Flour	Bags & Barrels	7,248	11,682	12,270	5,969	7,579	+ 1,610
Gunnies	Bales	7,930	9,661	9,755	5,306	5,275	— 31
Gram and Peas, &c.	Bags	271,682	380,145	395,249	202,075	142,698	— 59,377
Garlic	,,	2,945	1,215	6,007	4,027	5,508	+ 1,481
Hardware	Cases	641	1,197	1,507	744	1,610	+ 866
Horns	Bundles	880	980	511	209	516	+ 307
Hides	Bales	6,127	9,539	6,013	2,664	3,368	+ 704
Iron	Tons	231	293	155	67	120	+ 53
Iron Safes	No.	31	38	34	14	12	— 2
Kerosine Oil	Cases	...	...	500	500	...	— 500
Leaves	Bundles	6,508	3,742	5,113	3,919	1,611	— 2,308
Liquor	Cases	...	...	2,193	1,185	901	— 284
Machinery	Tons	158	79	49	16	191	+ 175
Millinery and Haberdashery	Cases	208	245	144	65	166	+ 101
Oil and Turpentine.	Drums	8,340	6,369	5,941	3,464	3,156	— 308
Paddy	Bags	...	75,980	23,737	14,061	4,863	— 9,198
Piece-goods	Cases and Bales	3,802	4,756	3,499	2,117	2,638	+ 521
Paper	Bales	3,128	4,898	5,420	3,858	3,782	— 76
Paint	Kegs	224	693	247	128	106	— 22
Piano	No.	15	12	5	2	4	+ 2
Rice	Bags	1,147,048	205,176	110,181	48,559	56,070	+ 7,511
Rose Water	Cases	1,434	1,815	1,357	652	982	+ 330
Seeds	Bags	30,406	25,747	13,916	8,959	7,819	— 1,140
Skins	Bales	6,199	50,502	6,807	3,174	3,527	+ 353
Silk	,,	1,051	699	290	211	265	+ 54
Sandalwood	Bundles	143	121	42	32	169	+ 137
Sugar	Bags	1,381	866	1,333	675	299	— 376
Specie	No.	202	190	193	26	9	— 17
Sundries	Packages	47,533	47,137	48,614	16,671	28,993	+ 12,322
Soap	Cases	445	40	147	30	508	+ 478
Sulphur	Casks	471	544	506	249	295	+ 46
Spice	Packages	359	740	640	340	569	+ 229
Soda water Bottles	Crates	...	...	241	4	886	+ 882
Twine and Rope	Bales and Coils	839	775	1,063	909	463	— 446
Tin Plates	Boxes	1,807	912	858	462	620	+ 158
Twist	Bales	1,126	1,147	1,206	673	502	— 171
Turmeric	Bags	7,224	4,977	5,433	2,821	3,359	+ 538
Timber	Tons	15,137	10,595	15,264	6,921	7,153	+ 232
Tea	Cases	1,321	3,411	37	37	57	+ 20
Tamarind	Bundles	...	...	140	72	84	+ 12
Yellow Metal	Cases	6	542	1,078	1,074	74	— 1,000
Horses	No.	1	15	8	...	...	...
Two-wheeled Carriages.	No.	...	4	5	2	2	...
Four-wheeled Carriages.	No.	...	3	19	5	1	— 4

V. STATEMENT OF GOODS EXPORTED TO FOREIGN PORTS.

——	Packages.	1891-92.	1892-93.	1893-94.	Half-year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or Decrease
Bone Meal ...	...	...	...	...	...	3,701	+ 3,701
Beer and Ale ...	Cases ...	18	2	13	12	...	— 12
	Casks ...	60	7	...	...	...	...
	Hogsheads ...	3	...	...	...	...	...
Cinchona Bark ...	Bales ...	471	529	411	300	114	— 186
Chillies	Bags & Bundles.	2,760	9	816	145	528	+ 383
Cigars	Cases ...	1,249	556	643	201	357	+ 156
Coffee	Bags ...	23,764	34,613	17,737	3,517	9,128	+ 5,611
Cotton	Bales ...	48,202	26,140	56,768	35,641	34,763	— 878
Cotton Twist ...	„ ...	4,229	5,266	1,946	542	1,358	+ 816
Coriander and Omum Seeds ...	Bags ...	8,218	1,814	7,377	2,901	6,726	+ 3,825
Carpets	Bales ...	418	288	391	156	85	— 71
Coal	Tons ...	905	313	599	185	152	— 33
Deer Horns ...	Packages ...	1,574	1,549	767	385	682	+ 297
Explosive ...	Cases ...	21	1	...	...	1	+ 1
Firewood ...	Tons ...	...	...	...	...	...	...
Four-wheeled Carriages ...	No. ...	8	2	3	2	...	— 2
Ground Nuts ...	Bags ...	93,132	26,209	138,211	114,060	106,680	— 7,380
Gram, Peas, &c....	„ ...	519	161	1,662	1,604	207	— 1397
Horns, Cow and Buffalo ...	Tons ...	62	29	1,026	13	61	+ 48
Hides, Tanned ...	Bales & Bundles.	21,848	21,812	11,149	5,310	8,650	+ 3,340
Hardware ..	Cases & Casks.	...	...	...	...	232	+ 232
Indigo	Cases & Chests.	14,622	29,933	25,008	7,037	7,013	— 24
Iron	Tons ...	2	11	17	13	2	— 11
Jaggery	Bags ...	28,985	56,672	52,668	48,968	17,809	— 31,159
Myrabolams ...	Bags ...	235	91	563	563	1	— 562
Miscellaneous ...	Packages ...	37,808	28,547	36,531	10,732	8,833	— 1,899
Onions	Bags & Baskets	21,964	5,617	17,517	8,133	2,761	— 5,372
Oil	Casks ...	434	56	208	193	72	— 121
Provisions ...	Packages ...	...	...	..	...	1,772	+ 1,772
Piece-goods ...	Bales and Cases.	6,205	4,857	7,305	2,789	4,569	+ 1,786
Potatoes	Bags & Baskets.	2,437	282	1,716	824	1,061	+ 237
Poonac	Bags ...	33,880	16,127	31,311	16,641	25,154	+ 8,513
Piano	No. ...	41	10	15	4	3	— 1
Paddy ...	Bags ...	...	5	22	22	...	— 22
Rice	„ ..	1,138	3,229	16,915	6,102	28,376	+ 22,274
Redwood	Tons ...	699	1,654	733	423	665	+ 242
Seeds, Gingelly and Castor ...	Bags ...	1,313	12,654	14,777	9,361	40,176	+ 30,815
Skins, Sheep and Goat, Tanned...	Bales ...	32,194	34,063	31,535	13,809	19,309	+ 5,500
Sandalwood ...	Bundles ...	1,534	330	699	459	243	— 216
Spirits and Wine	Cases ...	332	41	67	19	14	— 5
	Casks ...	977	65	40	39	9	— 30
	Puncheons ...	...	...	...	...	...	...
Sugar	Bags	599	161	1,197	445	1,250	+ 805
Specie	Boxes	94	48	29	13	53	+ 40
Tamarind ...	Bundles ...	6,445	5,331	3,076	710	2,547	+ 1,837
Turmeric... ...	Bags	2,159	941	1,562	765	2,650	+ 1,885
Tea	Cases	2,265	1,769	1,649	1,060	1,294	+ 234
Two-wheeled Carriages ..	No.	1	...	3	...	3	+ 3
Wool	Bales	1,021	1,470	1,532	769	657	— 112
Yellow Metal ...	Tons	107	100	417	117	6½	— 110½
Horses	...	....	...	...	...	24	+ 24
Ponies	...	...	...	...	...	9	+ 9
Elephant	...	...	...	...	...	2	+ 2
Lion	...	...	...	...	...	1	+ 1
Tiger	...	...	...	...	...	1	+ 1
Leopards... ...	...	...	...	...	...	6	+ 6
Bear	...	...	...	...	...	1	+ 1
Sheep	...	...	...	...	...	24	+ 24

VI. STATEMENT OF GOODS EXPORTED TO COAST PORTS.

——	Packages.	1891-92.	1892-93.	1893-94.	Half-year ending 30th Sept. 1893	Half-year ending 30th Sept. 1894.	Increase or Decrease.
Beer and Ale ...	Cases ...	352	294	305	156	213	+ 57
	Casks ...	159	94	91	27	28	+ 1
	Hogsheads ...	7	41	161	128	65	— 63
Boiler ...	No. ...	...	...	1	1	...	— 1
Cinchona Bark ...	Bales	395	84	80	...	...	...
Chillies	Bags & Bundles	2,064	2,907	9,207	4,818	1,835	— 2,983
Cigars	Cases ...	1,418	1,136	789	311	293	— 18
Coffee	Bags ..	507	1,449	541	305	152	— 153
Cotton	Bales ...	5,721	4,245	7,080	5,844	2,957	— 2,887
Cotton Twist ...	„ ...	4,698	6,138	3,220	1,540	1,428	— 112
Coriander and Omum Seeds	Bags ...	2,970	7,002	6,894	3,180	1,368	— 1,812
Cement ..	Casks ...	...	8,908	132	54	18	— 36
Carpets	Bales ...	68	51	41	23	14	— 9
Coal	Tons ...	275	450	157	82	220	+ 138
Deer Horns ..	Packages ...	108	151	52	49	...	— 49
Explosive ...	Cases ...	2,668	1,331	1,067	20	20	...
Eggs	Pots ...	1,165	1,125	1,198	414	412	— 2
Firewood... ..	Tons ...	2	...	...	...	...	...
Four-wheeled Carriage	No. ...	21	31	27	14	11	— 3
Groundnuts ...	Bags ...	27,790	17,839	16,116	8,226	40,203	+ 31,977
Gram, Peas, &c. ...	„ ...	521	1,226	233	204	44	— 160
Horns, Cow and Buffalo...	Tons ...	310	307	166	85	404	+ 319
Hides ...	Bales & Bundles	379	526	535	331	119	— 212
Hardware ..	Cases and Casks.	...	...	...	...	146	+ 146
Indigo	Cases & Chests..	165	816	1,162	708	77	— 631
Iron	Tons ...	2,244	2,611	755	322	352	+ 30
Jaggery	Bags ...	258	1,448	336	120	251	+ 131
Kerosine Oil ...	Cases ...	10,327	659	1,117	580	5,746	+ 5,166
Myrabolams ...	Bags ...	1,054	291	1,112	1,087	31	— 1,056
Miscellaneous ...	Packages ...	50,510	69,584	61,706	39,334	9,806	— 29,528
Onions	Bags & Baskets	22,442	53,406	47,062	21,281	20,716	— 565
Oil	Casks ...	807	637	346	222	459	+ 237
Piece-goods ...	Bales & Cases	5,615	8,651	6,368	3,067	4,140	+ 1,073
Potatoes	Bags & Baskets	23,637	24,388	30,592	11,556	10,738	— 818
Poonac	Bags ...	4,770	22,131	9,853	8,128	350	— 7,778
Piano	No. ...	23	16	17	6	1	— 5
Paddy	Bags ..	....	8,806	8,400	5,100	3,423	— 1,677
Provisions ...	Packages ...	...	...	...	...	1,082	+ 1,082
Rice	Bags ...	5,448	31,893	11,083	6,645	3,872	— 2,773
Redwood	Tons ...	119	693	4	2	8	+ 6
Seeds, Gingelly and Castor	Bags ...	16,803	2,787	36,799	15,952	38,087	+ 22,135
Skins, Sheep & Goat, Tanned ...	Bales	721	1,046	871	529	203	— 326
Sandalwood ...	Bundles ..	153	256	2,786	523	156	— 367
Spirits and wines.	Cases	2,982	3,783	3,045	1,412	1,276	— 136
	Casks	727	716	992	596	258	— 338
	Puncheons ...	13	189	214	159	...	— 159
Sugar	Bags	773	1,419	473	316	476	+ 160
Specie	Boxes	236	510	47	25	48	+ 23
Salt	Bags ...	...	...	...	...	3,997	+ 3,997
Tamarind ...	Bundles ...	3,624	8,253	5,090	3,606	1,621	— 1,385
Turmeric	Bags	19,258	17,883	38,147	20,503	29,105	+ 8,602
Tea	Cases	341	62	50	24	40	+ 16
Two-wheeled Carriage	No.	15	16	12	6	11	+ 5
Wool	Bales	769	603	463	267	109	— 158
Yellow Metal ...	Tons	53	67	256	256	19	— 237

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

Department.	Description.	Class.	1891-92.	1892-93.	1893-94.	Half-year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or Decrease.
Accountant-General.	Specie Silver.	Boxes	403	582	533	174	277	+ 103
	,, Copper.	,,	5,100	710	780	560	100	— 460
	Silver&Copper	,,	...	...	...	...	...	...
	Notes ...	,,	32	19	30	...	...	...
	Packages ...	No.	27	1	...	...	...	...
Public Works Department	Boilers ...	No.	2	...	...	...	...	...
	Coal ...	Tons	50	20	...	...	...	...
	Iron ...	,,	271	9	19	...	...	...
	Stores ...	Pkgs.	15,148	6,494	10,812	1,856	827	— 1,029
Ordnance ...	Coal ...	Tons	...	...	1,450	...	145	+ 145
	Ammunition..	Boxes	2,148	...	109	...	5,913	+ 5,913
	Stores ...	Pkgs.	13,017	28,566	21,057	16,504	10,668	— 5,836
Madras Harbour Works	Cement ...	Casks	1,869	...	..	...	5,600	+ 5,600
	Stores ...	Pkgs.	3,869	...	...	...	40	+ 40
	Coal ...	Tons.	...	...	...	...	...	...
Clothing ...	Packages ...	No.	1,983	2,324	2,176	753	426	— 327
Police ...	,, ...	,,	122	167	196	124	123	— 1
Salt Revenue ...	,, ...	,,	272	291	109	46	71	+ 25
Post Office ...	,, ...	,,	1,119	858	742	350	1,635	+ 1,285
Medical ...	,, ...	,,	1,779	1,007	1,920	987	175	— 812
Telegraphs ...	,, ...	,,	34,768	24,126	9,129	5,161	2,193	— 2,968
Stationery ...	,, ...	,,	732	1,197	1,156	381	235	— 146
Stamps ...	,, ...	,,	1,961	1,122	1,861	1,449	1,203	— 246
Commissariat ...	,, ...	,,	8,588	7,420	2,562	1,844	424	— 1,420
Gazette Press ...	,, ...	,,	161	149	97	90	242	+ 152
Marine ...	,, ...	,,	729	880	806	93	192	+ 99
Revenue Survey...	,, ...	,,	297	208	25	...	13	+ 13
Agriculture ...	,, ...	,,	380	320	140	124	...	— 124
Government Central Museum ...	,, ...	,,	15	10	9	5	3	— 2
Under-Secy. to Government ...	,, ...	,,	235	504	85	40	31	— 9
Supt. of Prisons...	,, ...	,,	1	17	7	6	13	+ 7
Revenue Board ...	,, ...	,,	424	33	9	2	9	+ 7
Forests ...	,, ...	,,	1,196	10	3	2	1	— 1
Presidency College	,, ...	No.	28	15	2	2	...	...
School of Arts ...	,, ...	,,	3	1	1	1	...	1
Inspector of Cattle Diseases ...	,, ...	,,	9	100	...	...	...	...
Chemical Examiner	,, ...	,,	31	31	36	7	8	+ 1
Medical College...	,, ...	,,	73	31	41	14	...	— 14
Dy. Collectors ...	,, ...	,,	9	15	12	7	2	— 5
Astronomer ...	,, ...	,,	23	13	20	14	4	— 10
Presidency Pay Master ...	,, ...	,,	2	8	4	...	10	+ 10
Registration ...	,, ...	,,	7	4	1	...	...	...
Director of Public Instruction ...	,, ...	,,	9	139	4	4	1	— 3
Superintendent, Remount Depôt, Hussur.	,, ...	,,	...	600	214	211	1	— 210
Resident, Mysore, in Bangalore.	,, ...	,,	...	2	9	6	2	— 4
Quarter Master Genl ...	,, ...	,,	...	3	14	3	...	— 3
Registrar of High Court ...	,, ...	,,	...	1	4	2	2	...
Curator Govt. Garden, Ooty ...	,, ...	,,	...	...	40	...	...	...
Civil Engineering College ...	,, ...	,,	...	...	44	...	12	+ 12
Secretary to the Chief Commissioner of Croog, Bangalore ...	,, ...	,,	...	...	...	...	...	...
Revenue Settlement ..	,, ...	,,	...	...	...	...	...	...
Executive Engineer, Military Works ...	,, ...	,,	...	...	...	...	7	+ 7

STATEMENT OF STORES, &c., IMPORTED BY GOVERNMENT.—*Contd.*

Department.	Description.	Class.	1891-92.	1892-93.	1893-94.	Half year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or Decrease.
Controller, Military Accounts...	Packages ...	No.	...	...	...	...	1	+ 1
Agent for Government Consignments ...	,, ...	,,	...	...	...	...	76	+ 76
Government Botanical Gardens...	,, ...	,,	...	...	...	...	278	+ 278
Steam Dredge Wenlock ...	,, ...	,,	...	...	...	...	...	...
O. C., 9th Co., S. Dn. R.A., Fort St. George ...	,, ...	,,	...	...	...	...	1	+ 1
O. C., ½ Bn. 1st Cheshire Regt., Fort ...	,, ...	,,	...	...	...	...	3	+ 3
Officer in charge, Pensioners, Madras ...	,, ...	,,	...	...	...	...	1	+ 1
O. C., Q. O. Sap. and Miners, Bangalore ...	,, ...	,,	...	...	...	...	2	+ 2
O. C., S. Dn., R. A., Madras ...	,, ...	,,	...	...	...	...	1	+ 1

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

Department.	Description.	Class.	1891-92	1892-93	1893-94	Half year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or Decrease.
Accountant-General	Specie Silver.	Boxes.	411	45	95	95	16	— 79
	,, Copper.	,,	965	200	163	103	65	— 38
	,, Notes...	,,	6	13	8	3	3	...
	,, Packages	No.	4	1	1	1	1	...
Bank of Madras...	,, Silver...	Boxes.	34	...	...	...	...	...
,, ,, ...	,, Copper.	,,	...	62	84	84	45	— 39
Ordnance ...	Packages & Pieces.	No.	8,595	5,831	9,257	3,162	3,771	+ 609
Public Works Department ...	,, ...	,,	1,784	488	3,203	259	873	+ 614
Clothing ...	,, ...	,,	1,327	1,096	998	535	509	— 26
Police ...	,, ..	,,	889	974	955	647	644	— 3
Salt Revenue ...	,, ..	,,	591	785	724	472	739	+ 267
Medical ...	,, ...	,,	1,377	1,610	2,166	1,105	479	— 626
Telegraph ...	,, ...	,,	8,845	4,330	4,945	1,477	108	— 1,369
Stationery ...	,, ...	,,	693	780	623	261	217	— 44
Stamps ...	,, ...	,,	220	298	236	95	92	— 3
Commissariat ...	,, ...	,,	7,971	6,205	5,301	2,714	3,693	+ 979
Gazette Press ...	,, ...	,,	526	503	478	216	336	+ 120
Marine ...	,, ...	,,	390	366	37	27	79	+ 52
Revenue Board ...	,, ...	,,	77	37	87	39	49	+ 10
Revenue Settlement	,, ...	,,	51	84	53	37	19	— 18
Revenue Survey...	,, ..	,,	75	452	223	174	28	— 146
Superintendent of Prisons ...	,, ...	,,	69	196	103	36	47	+ 11
Registration ...	,, ...	,,	66	43	17	1	38	+ 37
Conservator of Forests ...	,, ...	,,	34	33	5	1	1	...
Quarter-Master General ...	,, ...	,,	...	4	...	...	...	...
Government Central Museum ...	,, ...	,,	10	22	13	10	...	— 10
Deputy Collectors.	,, ...	,,	2	9	...	...	...	...
Government Astronomer ...	,, ...	,,	...	18	13	6	8	+ 2
Agriculture ..	,, ...	,,	15	8	2	2	...	— 2
General Hospital..	,, ...	,,	...	...	...	...	...	...
State Railways ...	,, ...	,,	100	...	...	...	...	...

STATEMENT OF STORES, &c., EXPORTED BY GOVERNMENT *Continued.*

Department.	Description.	Class.	1891-92.	1892-93.	1893-94.	Half-year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or Decrease.	
Inspector of Cattle Diseases ...	,, ...	,,	3	1	...	...	...	...	
Chemical Examiner.	,, ...	,,	...	1	...	...	...	...	
Director of Public Instruction ...	,, ...	,,	10	6	13	13	1	—	12
Registrar of University ...	,, ...	,,	13	10	5	...	...	...	
Collectors ...	,, ...	,,	10	...	6	6	...	—	6
Curator of Government Garden, Ooty	,, ...	,,	11	...	12	2	...	—	2
Engineer, H. T. Board ...	,, ...	,,	...	...	2	...	...	...	
Crown Officer, High Court ..	,, ...	,,	14	18	5	5	...	—	5
School of Arts ...	,, ...	,,	...	...	...	...	...	...	
Secretary to Government, Public Department ...	,, ...	,,	2	...	...	...	...	...	
Registrar-General of Births, Deaths and Marriages ...	,, ...	,,	...	...	...	...	...	...	
Inam Commissioner	,, ...	,,	1	...	...	...	...	...	
Consulting Engineer to Government Railways.	,, ...	,,	20	...	...	...	...	...	
Civil Engineering College ...	,, ...	,,	...	1	...	...	...	...	
Superintendent, Census Operations.	,, ...	,,	...	4	1	1	...	—	1
Post Office ...	,, ..	,,	...	2	2	2	...	—	2
Sanitary Commissioner. ...	,, ...	,,	...	2	2	2	...	—	2
Registrar of High Court ...	,, ...	,,	...	...	...	...	12	+	12
Supt., District Jail Bellary ...	,, ...	,,	...	...	...	...	1	+	1
Asst. Engr. D.P.W. Govt. Brick field	,, ...	,,	...	...	...	...	52	+	52

To

THE SECRETARY,
Harbour Trust Board, Madras.

S. HUTCHENCE,
Traffic Manager,
Harbour Trust Board.

MADRAS HARBOUR WORKS.

Report of progress on the Madras Harbour Works for the quarter ending 30th September 1894.

1. Accompanying this report are the following plans and statements:—

No. 37 (*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 outside the Harbour are those of the last complete Marine Survey of 1889 and the contours inside the Harbour are from the latest Survey of 1893.

2. The positions of High Water Marks of the 30th September 1894, and those of the previous twelve months, both to the north of the revetment, and south of the Harbour, are shown for comparison.

No. 37 (*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 the Piers of the Harbour, with an Eastern Entrance of 520 feet.

No. 38 (*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. 38 (*d*) A Statement showing work done under different sub-heads and particulars of cement received and issued.

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

4. **North Pier-Head.**—Progress at the North Pier-Head was completely stopped during the quarter due to a continued rough sea until the 25th July as the blockwork which should have been removed in May, as already reported, could not be completed by Divers till the 24th September due to the exposed position and continual wash of the sea around the caisson, so that the capping and Light-house work could not be commenced earlier than the 29th September 1894. instead of in May last.

5. By the 29th September 24-30 ton blocks had been raised by divers, and the sea was calm, with the water clear enough for work upon the base around the caisson, in protecting the Rubble Base with concrete to prevent scour; it was therefore commenced at once, and very rapid progress was made to the close of the quarter; *viz.*, the Rubble Base protected with concrete to a length of 86 feet, and the caisson commenced to be raised 6 feet in height, bringing it up to its full height of 53 feet above the base, which has since been completed and in thirteen working days 107 feet of capping, 38 feet wide × 6 feet deep, and a light-house thereon of mass concrete, was built, completing the North Pier-Head.

6. **South Pier-Head.**—At the South Pier-Head, the general rough state of the sea, did not wholly stop all work, as at the North Arm, as when it was too rough for diving, the crane was used for dredging, and so most satisfactory progress was made, in the South Pier, preparations for the caisson are as advanced as they were, at the North Pier, in the corresponding quarter last year, with the advantage of having still water under the lee of the caisson, when set in March 1895, which was not the case at the North Pier, and which has been the cause of the delay in completing that arm to date.

7. Of the 92 days in the quarter, 49 days were taken up in dredging at intervals, when the state of the sea would permit it, 19 days were taken up in slinging 33 old blocks, and removing debris from the old Pier Work, and 10 days went in setting 96 new blocks, or four complete courses of the temporary work,

necessary to compress the foundations for the caisson, which made an advance of 21-6″ of built work, bringing up the total length of the South Pier to 3905¾ feet from shore.

8. There were therefore, only 29 days in the quarter when divers could work below water owing to a constantly disturbed state of the water, due to the sweel washing over the old submerged Pier-head.

9. I am happy to be able to report that since the close of the quarter an additional advance of built work, has been made of 10′- 8½″, *viz.*, the setting of the last two courses, or last blocks, making up the necessary 6 temporary courses for the caisson.

10. The erection of the Iron caisson for the South Pier-Head was commenced on the 15th September, and is now well in hand.

11. **Wave-breakers.**—The Wave-breaker Screen as reported last quarter was brought up to its full section as far as the permanent work, and during the quarter under review, 9 additional blocks were added, but no protection of this nature, could be given to the 6 temporary courses, as the Wave-breaker blocks, if deposited, would roll forward and block up the hollow, which it is necessary to have clear early in January next.

12. The temporary courses must therefore remain unprotected by a wave-breaker during the Monsoon, as they did at the North Pier, and if a storm should occur, some of the old Pier-Head blockwork will probably fall forward, and have to be raised.

13. I report this, as it might be taken that any movement in these temporary blocks, due to a storm, would be thought to be movement, or failure of the new and permanent work.

14. **Protective Works, North of the Harbour.**—The line of revetment throughout its length has not shown settlement during the quarter.

15. The Bay forming at the end of the revetment has considerably increased during the quarter, and the High Water Mark was, on the 30th September 1894, 140 ft. further inshore than it has hitherto been.

16. The Bay will probably increase next year until it reaches the line shown upon plan as the probable permanent High Water Mark, which was the record of the greatest erosion or Bay formed at a similar Bay, which formed at the end of the old line of revetment.

17. **Foreshore south of the Harbour.**—Upon the plan attached to this report, are shown the High Water Marks of the 30th September 1893 and 30th September 1894, and the advance of the foreshore in 12 months has been 120 feet near the South Arm, but the advance of the High Water Mark, during the quarter has been 150 feet, which, of course, is only temporary, and since the change of the Monsoon the High Water Mark has commenced rapidly to return shorewards.

18. **Sea bottom within the Harbour.**—The High Water Mark, inside the Harbour, during the quarter has remained in the same position about the centre of the Harbour, but at the North and South Arms of the Harbour, the usual changes have taken place due to wind and direction of the sea, resulting in an advance of 80 feet of foreshore at the South Pier, while along the North half of the Harbour, the High Water Mark has returned shorewards by 28 to 30 feet, showing generally no permanent advance of the High Water Mark inside the Harbour in 12 months.

19. **Summary of Progress.**—The following statement is the Summary of Progress made on the Harbour Works during the quarter under review.

MADRAS HARBOUR WORKS.

Progress Statement No. 38 *(d)*

Statement showing Progress during Quarter ending 30th September 1894, as shown on accompanying Tracings, Nos. 37 (a) and 37 (b).

No. of Item.	Particulars and Quantity of Work, &c.	Column.	South Pier. Sub-heads of Work.	A Rubble Base.	B Pier Head.	C Wavebreaker.	D Concrete Capping.	E Base Protection around caisson.	F Rubble Base.	G Pier Head.	H Wavebreaker.	I Concrete Capping.	J Base Protection.	North Pier. Railway Lines. K At Works.	L At Quarries.	M Sand Line.	N Beach Improvements.	O Pallavaram Quarries Outturn.	P Concrete Blockmaking.	Q Protective Works	R Total Expenditure.
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. ,, ...																				
5	Concrete Blocks—Set by Divers ... Number.									72				1,942				4,667			
6	Do. Deposited in Wavebreaker made for Superstructure ...									96				2,675							
7	Do.									9				550							
8	Do. in Pier Head raised by Divers. ,, ...															7		5,881			
9	Wrought Iron Cramp fixed in position ,, ...									33				2,347							
10	Total out-turn of Concrete ... Cubic yards.				24																
11	Advance or progress of completed superstructure ... Ry. feet.							244		16′-1½″											
12	Rubble Base protected with Concrete ,, ...									21-6											
13	Metre Gauge, 40 lbs. per yard laid new ,, ...																				
14	Do. do. relaid or renewed ,, ...																				
15	Do. do. taken up ,, ...																				
16	Broad Gauge, 50 lbs. per yard laid ,, ...																				
17	Do. do. relaid or renewed ,, ...																				
18	Do do. taken up ,, ...																				
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...			...	...	...	...	10,069	...	...	...	...	...	25,179	...	...	...	...	...	...	43,481
	Quantity due on Indents. Tons.																				
	Cwts.																				
	Qrs. lbs.																				
	Cwts. Qrs. lbs.																				
	Tons. Cwts. Qrs. lbs.																				

5590 Casks of Cement received on Works during Quarter ending 30th Sept. 1894 containing ... 998 Tons
285⅔ Do. do. issued for do. do. ... 51 ...
8,245½ Do. do. Balance in Store at end of do. do. ... 1472 ...

MADRAS, *10th November* 1894

A. LEE POGSON,
Engineer, Harbour Trust Board

20. **Expenditure.**—The Expenditure to the end of the quarter including Establishment, Tools and Plant, and Contingencies is Rs. 1,23,32,581 out of the total estimated cost of Rs. 1,23,83,386, leaving a balance of Rs. 50,805 to be spent for completion.

21. **Miscellaneous.**—The usual repairs and the upkeep of all Machinery Cranes, Railway Lines, &c., and all haulage of coal and other traffic was done by the Harbour Works Locomotives for the Traffic Department as usual.

MADRAS HARBOUR WORKS.

COMPARISON OF EXPENDITURE TO DATE WITH SANCTIONED ESTIMATE FOR THE QUARTER ENDING 30TH SEPTEMBER 1894.

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.		Remarks.
	Quantity.	Rate.	Per.	Cost.	Total.	Quantity.	Rate.	Expenditure. 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 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	...	...	5,892 0 11	...	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 0	...	24,377 9 0	...		24,377	9 0	
6 Do from boats ... ,,	2,06,896	2 0 5	,,	4,19,218		2,05,477	2 0 8	4,15,132 8 10	..	4,15,132 8 10	4,085 7 2		4,19,218	0 0	
7 Concrete blocks for building ... ... C. yds.	51,320	11 8 0	C. yd.	5,90,110		51,320	11 8 0	5,90,110 0 0	...	5,90,110 0 0	...		5,90,110	0 0	
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 Do. from 2,200 to 3,600 feet ... ,,	36,520	2 14 3	,,	1,05,569		36,520	2 14 3	1,05,569 0 0	...	1,05,569 0 0	...		1,05,569	0 0	
10 Do. at Pierhead ... ... ,,	12,185	9 8 11	,,	1,16,424		12,185	9 8 11	1,16,403 0 6	20 5 6	1,16,423 6 0	... 10 0		1,16,424	0 0	
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 Wavebreaker blocks ... ... ,,	288	9 5 7	,,	2,692		288	9 5 7	2,692 0 0	...	2,692 0 0	...		2,692	0 0	
13 Do. concrete blocks ... ... ,,	77,355	10 14 11	,,	8,45,591		69,863	12 1 8	8,40,134 6 2	5,324 6 10	8,45,458 13 0	... 15 4		8,45,459	12 4	
14 Depositing do. ... ... ,,	77,932	1 0 0	,,	77,928		70,457	1 1 8	77,898 2 10	20 5 6	77,918 8 4	9 7 8		77,922	0 0	
15 Concrete in protection to Rubble Base ... ,,	1,986	10 4 1	,,	20,358		1,986	10 4 0	20,358 0 0	...	20,358 0 0	...		20,358	0 0	
16 Cramps, Iron ... ... No.	331	9 10 1	Each	3,188		313	10 3 0	3,188 0 0	..	3,188 0 0	...		3,188	0 0	
17 Concrete capping ... ... C. yds.	16,352	11 3 10	C. yd.	1,83,798		573	...	22,875 12 6	11,356 12 7	34,232 9 1	1,556 15 0		35,789	8 1	
18 Cost of North Pier Caisson and setting in position and filling same as items 26, 27, 33 and 34 ... ... ,,	.....	...	,,	84,750		...	...	84,515 4 2	90 8 3	84,605 12 5	141 9 7		84,747	6 0	
Total for North Pier ...	.....	...	...	...	24,80,607	...	...	23,09,856 7 9	16,812 6 8	23,26,668 14 5	5,795 0 9		23,32,463	15 2	
South Pier.															
19 Ordinary rubble deposited from boats ... Tons.	1,75,078	2 9 0	Ton	4,49,052		1,73,659	2 9 4	4,44,126 1 4	...	4,44,126 1 4	4,925 14 8		4,49,052	0 0	
20 Large do. 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		43,341½	11 10 3	5,01,116 6 6	3,393 9 6	5,04,510 0 0	...		5,04,510	0 0	
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 Do. from 2,550 to 3,700 feet ... ,,	30,160	3 7 11	,,	1,05,461		30,160	3 7 11	1,05,461 0 0	...	1,05,461 0 0	...		1,05,461	0 0	
24 Do. at Pierhead ... ,,	12,350	11 0 10	,,	1,03,845		12,350	11 0 10	1,31,772 13 10	4,730 11 8	1,36,476 9 6	... 6 0		1,36,476	15 6	
						602	7 9 1	4,554 14 4	...	4,554 14 4	...		4,554	14 4	
						...	...	5,960 13 9	535 8 11	6,496 6 8	3 12 10		6,500	3 6	
29 ... do.			,,	5,24,6		42,013¾	11 11 9	4,70,997 6 0	22,087 13 4	4,93,085 3 4	...		4,93,085	3 4	
30 Concrete in protection to Rubble Base ...			,,	64,708		40,497	1 9 1	58,747 10 2	20 5 4	58,767 15 6	4,747 14 9		63,515	14 3	
31 Cramps, Iron ... ... No.	259	11 7 7	Each	16,420		1,108	13 7 7	14,932 9 1	...	14,932 9 1	...		14,932	9 1	
32 Concrete capping ... ... C. yds.	16,247	11 5 8	C. yd.	2,972		220	13 8 1	2,972 0 0	...	2,972 0 0	...		2,972	0 0	
33 Iron Caisson ... ... No.	1	...	,,	1,84,495		669	...	15,113 8 1	5 4 0	15,118 12 1	...		15,118	12 1	
34 Preparing Base for and setting Cylindrical Pierhead... ... ... ,,	.....	...	,,	18,000		...	...	18,000 0 0	...	18,000 0 0	...		18,000	0 0	
				28,665		...	...	5,671 14 11	18,132 0 8	23,803 15 7	1,793 8 11		25,597	8 6	
Total for South Pier ...	.....	...	...	...	21,00,826	...	...	18,02,414 12 3	48,878 5 5	18,51,293 1 8	11,471 9 2		18,62,764	10 10	
Extending the Rubble Revetment protecting the foreshore North of Harbour.															
35 Rubble Stone Revetment ... ... Tons	70,600	2 1 0	Ton	1,45,613	...	91,051	1 8 8	1,38,938 0 1	1,155 13 1	1,40,093 13 2	98 0 0		1,40,191	13 2	
36 Railway Lines	.....	...	...	9,849	...	...	...	11,665 7 10	...	11,665 7 10	...		11,665	7 10	
					1,55,462	...	...	1,50,603 7 11	1,155 13 1	1,51,759 5 0	98 0 0		1,51,857	5 0	
37 Tools and Plant	.....	...	...	...	6,11,656	...	...	6,10,709 7 5	832 2 5	6,11,541 9 10	...		6,11,541	9 10	
38 Contingencies	.....	...	...	...	2,17,415	...	...	2,11,713 12 9	7,188 8 0	2,18,902 4 9	1,375 15 4		2,20,278	4 1	
39 Establishment	.....	...	...	...	5,34,369	...	...	5,73,170 9 8	14,178 5 7	5,87,348 15 3	...		5,87,348	15 3	
40 Materials at site (Concrete blocks in yards)... C. yds.	.....	...	...	...	...	3,949½	14 6 5	77,885 7 1	—25,249 14 0	52,635 9 1	4,242 13 1		56,878	6 2	
41 Advances to Work-people	.....	...	...	...	...	...	...	49 15 2	—15 12 0	34 3 2	...		34	3 2	
Total of Estimate and value of work done ...					61,06,227			57,42,296 0 11	63,779 15 2	58,06,076 0 1	22,983 6 4		58,29,059	6 5	
Deduct Probable recoveries due to sales of Tools and Plant	.....	...	...	...	2,77,331			—27,806 14 0	—179 4 1	—27,986 2 1	...		—27,986	2 1	
Total ...	.....	...	...	...	58,28,896			57,14,489 2 11	63,600 11 1	57,78,089 14 0	22,983 6 4		58,01,073	4 4	
Total of revised Estimate sanctioned in Secretary of State's Despatch, plus expenditure before 31st December 1884	.....	...	...	...	1,23,83,386			1,22,68,980 1 9	63,600 11 1	1,23,32,580 12 10	22,983 6 4		1,23,55,564	3 2	
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 ...	.....	...	...	...	1,23,32,581										
Total Estimated Cost of Completing Work after Quarter ending 30th September 1894	...	...	...	...	50,805										

Expenditure up to 31st March 1894 from commencement of works ... Rs. 1,21,92,104-7-4
Do. during current official year from 1st April 1894 to 30th September 1894 ... ,, 1,40,476-5-6. Grant for 1894-95 Rs. 1,50,000.
Total outlay to 30th September 1894. ,, 1,23,32,580-12-10.

Madras,
11th November 1894.

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

A. LEE POGSON,
Engineer, Harbour Trust Board.

Reason 18[illegible] C. No. 9 [illegible] 12 18

For orders

It will be seen from
R.O 402 w.d 6 Feby 90 and
R.O 2903 w.d 18 Oct 92 that
the late Executive Engineer's
office at Oldcastle was
was made over to the
Military Works Dept. un-
conditionally because it
was not thought at the time
was not thought required by
the P.W. Dept. It was
subsequently found to be
too small for the needs of
the Military Works Dept.,
and they moved out of it.
They did not however,
retransfer the building
to the P.W. Dept. but rented
it to an auctioneer and
appropriated the proceeds.
They now wish to obtain
possession of another
Provincial building -
Otley Hall or Crewe Hall
on the ground apparently
that these buildings are
occupied at present by
Clerks in the Military
Department, who will
[illegible] abolition of that De[illegible]
[illegible] to the buildings

[illegible] of occupation
over reason of the buildings
in question by Military
Dept. Clerks was one
quarter for a month or two by
a Clerk who afterwards
moved into private quarters.

The buildings in question
provide the following
accommodation for Clerks.

Ottley Hall -	5 quarters
Crum Hall —	4 —
- Do - Bungalow -	2
Connemara Cottage -	3
Total	14

While the number of Clerks
taken up to Obtacamund
in all Depts (Exclusive
of the Military) is something
like 30 - at only, therefore,
is Existing accommodation
insufficient, but the Govt has
recognised this, and has
sanctioned the provision of
additional quarters (for
Native Clerks) on Stonehouse
Hill -

As the Executive Engineer's
Office building is two
longer required by the
Military Works Dept it
is my desire, therefore, to restore
to Provincial in the same
unconditional manner

in which it was made
over to that Dept - If it is
subsequently decided to
allow the Army Medical
Dept to occupy it - they
should pay rent in the
same way as Army Head
Quarter offices do for the
buildings on Mount
Stuart -

[signature]
8 Dec 94

Work
12/94
12

[signature]
17/12

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following paper :—

From the Chief Engineer, Madras Command, Military Works, to the Secretary to Government, Public Works Department, dated Ootacamund, 5th December 1894, No. 7244.

When the Military works at certain stations in Madras were made over to the Military Works Department, the office of the Executive Engineer, Nilgiri division, Public Works Department, Ootacamund, was handed over for use as an office for the Chief Engineer, Military Works, Madras Command.

2. In the course of time these premises were found to be too small for our requirements, and in 1892 the Government of India sanctioned the hiring of a house at Ootacamund for the office of the Chief Engineer, Military Works. The old Nilgiri Divisional office was let by this department to a private person whose lease expired in June last and the premises are now vacant.

3. I have suggested to the Director-General of Military Works that these buildings be handed back to the Madras Public Works Department, if that department is willing to take them over, on the grounds that they are too small for our requirements and that we have no executive establishment in Ootacamund to look after them. I am desired by the Director-General of Military Works to inquire whether the Madras Public Works Department desire to resume charge of the premises under reference, and whether any one of the houses at Ootacamund which belong to the Madras Government and which are understood to be occupied at present by clerks in the Military Department could be made over to the Military Works Department for use as the Chief Engineer's office either in exchange for the old Nilgiri Divisional office or at a low rent in consideration of the return of that office to the Public Works Department. I think that either Ottley Hall or Crewe Hall would answer our purpose as regards position and accommodation.

4. I have been informed by the Quarter Master General, Madras Army, that if the transfer of the office of the Principal Medical Officer, Her Majesty's Forces, Madras, to Ootacamund is sanctioned, the old Nilgiri Divisional office would afford sufficient accommodation for the Principal Medical Officer's office. If therefore the Public Works Department does not require the premises for its own use, they might be made available for the Principal Medical Officer on similar terms to those which have been sanctioned as regards the Army Head-quarters buildings.

Order—dated 18th December 1894, No. 3250 W., Public Works.

As the late Executive Engineer's office at Ootacamund is no longer required by the Military Works Department as an office for the Chief Engineer, Madras Command, Military Works, it should, His Excellency the Governor in Council considers, be restored to Provincial in the same unconditional manner in which it was made over to that department.

2. The clerks' quarters applied for are not available for transfer.

(True Extract.)

Under Secy. to Govt., P.W.D.

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

Exd. C. A. Munisawmy.
Spare Copies

E BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1894} Madras.

PUBLIC WORKS.

Dated December, 18th.

Read. *Encl.*

G.O., 18th Dec. 1894, No. 3250 W.

DECEMBER.

Late Executive Engineer's office at Ootacamund

Considering that the — now in the possession of the Military Works Department should be restored to the Public Works Department, and stating that the clerks' quarters applied for by that department are not available for transfer.

M. W. No. 3244

No. 7244

CHIEF ENGINEER'S OFFICE,
Madras COMMAND, MILITARY WORKS.

From
THE CHIEF ENGINEER,
Madras COMMAND,
MILITARY WORKS.

To
The Secretary to the
Government of Madras.
Public Works Department.

Military Works Department.

Ootacamund Dated 5th Dec. 1894

Sir,

When the Military Works at certain stations in Madras were made over to the Military Works Department the office of the Executive Engineer Nilgiri Division, Public Works Department, Ootacamund, was handed over for use as an office for the Chief Engineer, Military Works, Madras Command.

2. In the course of time these premises were found to be too small for our requirements and in 1892 the Government of India sanctioned the hiring of a house at Ootacamund for the office of the Chief Engineer, Military Works. The old Nilgiri Divisional Office was let by this Department to a private person, whose lease expired in

in June last, and the premises are now vacant.

3. I have suggested to the Director General of Military Works that these buildings be handed back to the Madras Public Works Department, if that Department is willing to take them over, on the grounds that they are too small for our requirements, and that we have no Executive Establishment in Ootacammund to look after them.

I am desired by the Director General of Military Works to enquire whether the Madras Public Works Department desire to resume charge of the premises under reference, and whether any one of the houses at Ootacammund, which belong to the Madras Government and which are understood to be occupied at present by clerks in the Military Department, could be made over to the Military Works Department for use as the Chief Engineer's office, either in exchange for the old Nilgiri Divisional office, or at a low rent in consideration of the return of that office to the Public Works Department.

I think that either Otley Hall, or Crewe Hall would answer our purpose as regards position and accommodation.

4. I have been informed by the Quarter master General, Madras Army, that, if the transfer of the office of the Principal Medical Officer, Her Majesty's Forces, Madras, to Ootacammund, is sanctioned, the old Nilgiri Divisional office would afford sufficient accommodation for the Principal Medical Officer's office. If therefore the Public Works Department does not require the premises for its own use, they might be made available for the Principal Medical Officer on similar terms to those which have been sanctioned as regards the Army Head Quarters buildings.

I have the honor to be,
Sir
Your most obdt servant,
A H D Riach
Lieut R E
for Chief Engr Madras Command

[illegible]

P. M. CURRENT No. 9377

Recd. 8-12-94

18-10-92 No 2903 W
12-9-92 " 367 D
30-6-92 " 1899 W
4-5-92 " 1388-89 W
30-5-92 " 1627 W
5-3-92 " 726-27 W
7-11-91 " 2972 W
29-10-91 " 2885 W
17-3-91 " 767-8 W
6-2-90 " 402 W

C 2 No 9377

P. W. DEPARTMENT.

No 3250 W dt 18 Dec 94

READ the following:—

Letter from the Chief Engineer, Madras Command, Military Works No 7244 dated 5 December 1894.

FOR ORDERS.

It will be seen from G.O. No 402 W dated 6 February 1890 and G.O. No 2903 W dated 18 Oct. 1892 that the late Executive Engineer's office at Ootacamund was made over to the Military Works Department unconditionally because it was not at the time required by the P.W. Dept. It was subsequently found to be too small for the needs of the Military Works Dept, and they moved out of it. They did not however retransfer the building to the P.W. Dept, but rented it to an auctioneer and appropriated the proceeds.

2. They now wish to obtain possession of another Provincial building - Ottley Hall or Crewe Hall - on the ground apparently, that these buildings are occupied

43—500-6-8-94.

at present by the clerks in the Military Dept." who will, on the abolition of that Department vacate the buildings. The extent of occupation last season of the buildings in question by Military Dept. clerks was one quarter for a months or two by a clerk who afterwards moved into private quarters.

3. The buildings in question provide the following accommodation for clerks:—

Ottley Hall . . .	5 quarters
Crewe Hall . . .	4 "
—do— Bungalow	2 "
Connemara Cottage	3 "
Total	14 "

While the number of clerks taken up to Ootacamund in all Depts (exclusive of the Military) is something like 30. Not only, therefore, is existing accommodation insufficient, but the Government has recognised this, and has sanctioned the provision of additional quarters (for native clerks) on Stonehouse Hill.

4. As the Executive Engineer's office building is no longer required by the Military Works Dept it should in my opinion be restored to Provincial in the same unconditional manner in which it was made over to that Dept. If it is subsequently decided to allow the Army Medical Dept to occupy it, they should pay rent in the same way as Army Head Quarter offices do for the buildings on Mount Stuart.

Coord 13/12/94

Sd/ W

Hd 13/12
14/12

FOR ORDERS.

Proposal to transfer one of the Secretariat clerks' quarters at Ootacamund to the Military Works Dept

No 3250 W

approved
W
14 Dec

PUBLIC WORKS DEPARTMENT.

No 3250 W dy 18 Dec. 194

PROCEEDINGS OF THE MADRAS GOVERNMENT.

READ the following

Letter from the Chief Engineer, Madras Command, Military Works (H.E. No. 7244 dy 5/12/94)

SP

As the late Executive Engineer's office at Ootacamund is no longer required by the Military Works Dept as an office for the Chief Engineer, Madras Command, Military Works, it should, His Excellency the Governor in Council considers, be restored to Provincial in the same unconditional manner in which it was made over to that Dept.

2. The clerks' quarters

(40—1,000—26-11-94.)

applied for are not
available for transfer.

CLOSED
15/12/94

DESPATCHED
8-JAN.95

To,
The Military dept.
" Secy Cable
" Q.R.S.W. Accts.

C No 9377

Govt. of {1894. Madras.

PUBLIC WORKS.

Dated

Rcd. Encl.

G.O. 18/12 1894 No. 32504

Late Executive Engrs office at Palacamund.

Considering that the — now in the possession of the Mily: Works Dept, should be restored to the P. W. D, & stating that the clerk's quarters ap= = plied for by that dept: are not available for transfer —

INDEXED

T. C. 18/12

ADMINISTRATION REPORT

OF THE

TRUSTEES OF THE MADRAS HARBOUR FOR THE YEAR 1893-94.

MARINE DEPARTMENT.

From

THE CHAIRMAN,

HARBOUR TRUST BOARD,

MADRAS.

To

THE CHIEF SECRETARY TO GOVERNMENT,

Marine Department.

DATED } 27th April 1894.
DESPATCHED } 30th „ „
RECEIVED May „

SUBJECT.

Administration Report.

Submitting the———of the Harbour Trust Board for the year 1893-94.

LAWRENCE ASYLUM PRESS

ADMINISTRATION REPORT

OF THE

TRUSTEES OF THE MADRAS HARBOUR, FOR THE YEAR 1893-94.

The Trustees have the honour to submit their report on the Administration of the Madras Harbour Board, for the official year 1893-94.

2. The Board consisted during the period, of the following ten members :— Constitution of the Board.

Elected by the Chamber of Commerce.
1. Hon. Mr. J. A. Boyson.
2. Mr. C. E. P. Vans Agnew: resigned in March 1894 and was succeeded by Mr. S. R. Turnbull.
3. Mr. C. Slater.

Elected by the Trades Association ...
4. Mr. C. Seton.

Nominated by Government—

Officials ...
5. Hon. Mr. Ware Austin, I.C.S., Chairman, for whom The Hon. Mr. J. Sturrock, I.C.S., acted from May—August 1893.
6. Commander W. Powell, R.I.M.: proceeded out of India on sick leave, and was succeeded by Commander H. A. Street, R.I.M.
7. Mr. F. W. Asphitel, A. M. I. C. E.

Non-Officials ...
8. Mr. Cowasjee Eduljee Panday.
9. Mr. Mirza Mehdi Ispahani.
10. M.R.Ry. Subroyaloo Chetty Garu.

3. The Board held 26 regular fortnightly meetings, and one special meeting in February 1894, under Section 37 of Act II of 1886, to consider the Budget Estimate of receipts and charges, for the year 1894-95. These meetings were again the minimum prescribed under Section 17 (2) (*a*) of the Act. The average attendance has been 8·1, against 8·6 in 1890-91: 8·7 in 1891-92 and 7·7 in 1892-93. In calculating this attendance the chairman is not included, as he attends all meetings. Meetings held.

4. The opening balance in the Revenue Account on the 1st April 1893 was Rs. 11,65,852 against Rs. 11,45,648 in 1892-93; and Revenue Account opening balance.

Revenue Account closing balance.

the year closed with a balance of Rs. 11,68,742 against Rs. 11,65,852 in the previous year. Of the closing balance Rs. 8,16,548 were invested in Government 4% paper, of the par value of Rs. 8,20,000, worth at the current market value on the 31st March Rs. 8,50,000 in round figures. These securities are held by the Bank of Madras for safe custody; each pro-note being endorsed in favor of the "Chairman, Harbour Trust Board, Madras, or order." The Cash in the Bank amounted to Rs. 3,51,357: of which Rs. 3,22,913 were required on the 2nd April 1894: to meet payment of refund to Government of Rs, 1,00,000 Capital Advances, and interest at 4½ per cent. per annum.

Funds invested in Government 4 % paper.

Cash in Bank of Madras.

Revenue receipts

5. The following have been the Revenue receipts during the year, as compared with 1892-93.

	1892-93.	1893-94.
	Rs.	Rs.
Beach Imports: dues under Section 45 (*a*) I (i) (ii) (iii)	1,48,128	1,52,649
Pier do. do. do.	60,254	61,290
Beach Exports do. do.	22,818	29,811
Pier do. do. do.	41,635	44,184
Wharfage do. II	6,466	6,775
Cranage do. III	32,175	40,661
Storage do. IV	2,573	2,235
Demurrage do. V	...	...
Dues for entry of Vehicles under Section 45 (*c*) VI	10,457	13,288
Provisions:—Dues on under Section 45 (*a*) I (i)	597	564
Rent of Properties	1,249	1,137
Water: charge for—delivered at pier head	3,737	4,126
Penalties under Section 84	39	...
Sundries	1,117	4,307
Porterage under Section 45 (*a*) I (iv)	...	...
Beach	56,656	58,347
Pier	32,249	32,355
Miscellaneous	2,788	2,315
	4,22,938	4,54,074
Interest realized on Government. of India, 4 per cent. Pro. Notes ...	28,693	37,021
	4,51,631	4,91,095
Contribution from Port Funds	65,000	20,000
Rs. ...	5,16,631	5,11,095

Increase of Harbour Dues.

6. The increase in Harbour Dues, shown above, from Rs. 4,22,938 in 1892-93, to Rs. 4,54,074 is very satisfactory. This increase makes up for the decrease in the contribution from Port Funds, which has fallen from Rs. 65,000 to Rs. 20,000. In G. O. Marine, No. 394, dated 14th November 1893, Government directed that the sum of Rs. 71,847—being cash balance at credit of Madras Port Fund Account—should be paid to the Trust, but only Rs. 20,000 were received during the year.

Reduction in Contribution from Port Funds.

Increase of Harbour Dues Rs. 39,464.

7. The income, from Harbour Dues and invested funds, has in 1893-94, been Rs. 39,464 more than in 1892-93; and what is still more satisfactory, it is only less by Rs. 31,498 than the income of 1891-92, when Harbour Dues were unduly swelled by the very heavy imports of food grain, due to the scarcity then existing in the Districts.

Details of Receipts and charges.

8. The following statement shews in detail, the receipts and charges of the Revenue account from 1st April 1893 to 31st March 1894.

Opening balance—	Rs. A. P.	Rs. A. P.	Rs. A. P.
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	469 14 8		
3. Advance for Contingencies... ...	500 0 0	3,72,694 11 9	
			11,65,851 12 7
RECEIPTS.			
I. Contributions from Port Funds		.....	20,000 0 0
II. Beach Imports: dues under Section 45 (*a*) I (i) (ii) (iii) ...	1,52,649 0 1		
Pier do. do. do. ...	61,289 13 5		
Beach Exports do. do. ...	29,811 1 2		
Pier do. do. do. ...	44,184 1 9		
Wharfage do. II. ...	6,775 0 0		
Cranage do. III. ...	40,660 10 6		
Storage do. IV. ...	2,235 0 5		
Demurrage do. V. ...	... ...		
Dues for entry of Vehicles under Section 45 (*c*) VI	13,287 14 1		
Provisions:—Dues on under Section 45 (*a*) I (i)	564 1 0		
Rent of Properties	1,137 6 5		
Water: charge for—delivered at pier head	4,126 4 0		
Penalties under Section 84... ...	... ...		
Sundries	2,369 7 0	3,59,089 11 10	
III. Porterage under Section 45 (*a*) I (iv)			
Beach	58,346 11 6		
Pier	32,355 1 9		
Miscellaneous	2,345 4 1	93,047 1 4	4,52,136 13 2
IV. Interest realized on Government of India, 4 per cent. Promissory Notes.... ...		...	37,020 9 3
Law charges recovered from the Trustees of Patchayappah Mudaly's charities.... ...		...	1,937 9 0
Amount refunded from construction funds in repayment of advances made from time to time from Revenue Account from 1st April to 31st December 1893. ...		...	92,000 0 0
Total Rupees ...		...	17,68,946 12 0

Charges.

I. Interest (under Section 30) ...		2,18,477 13 7	
II. Repayment of Loan for Construction of Harbour under Sec. 31		1,00,000 0 0	3,18,477 13 7
III. Refunds		1,959 6 1	
IV. Establishment, Etc.—			
1. Chairman's salary	4,800 0 0		
2. Secretary's do.	10,900 4 9		
3. Correspondence Department ...	3,711 15 9		
4. Accounts Department	6,288 15 1		
5. Cash Department	4,494 0 6		
6. Traffic Department (Shore Staff) ...	25,776 12 3		
7. Preventive Service	12,186 14 8		
8. Do. Boatmen ...	1,149 7 10		
9. Exchange Compensation Allowance	... ...		
10. Contribution to Govt. for Pensions...	582 10 0		
11. Do. to Provident Fund ...	2,983 14 6		
12. Fees to Trustees	6,510 0 0		
		79,384 15 4	

V.	Contingencies—										
	(*a*) Subject to Regular Audit.—										
	Postage	...	...	...	RS.	92	A. 4	P. 4	RS.	A.	P.
	Receipt Stamps	...	...	...		203	14	0			
	Telegrams	...	...	...		16	11	0			
	Furniture	...	...	...		221	8	0			
	Fees for Audit	...	...	...		750	0	0			
	Law Charges	...	...	...		1,497	6	0			
	Stationery and Printing	...	...	...		2,254	5	0			
	Advertisement Charges	...	...	...		393	0	0			
	Uniform for Preventive Service, &c.	...				1,413	4	0			
									6,842	4	4
	(*b*) Admissible without Detailed Audit.—										
	Overtime Fees to Establishment	...				4,892	3	8			
	Do. Preventive Service and Boatmen	...				2,987	15	7			
	Miscellaneous	...	...	...		5,888	1	10			
									13,768	5	1
VI.	Petty Construction and Repairs—										
	New Works...	...	...	...		60	14	6			
	Repairs	...	...	...		9,330	7	9			
	Tools and Plant	...	...	...		711	3	6			
									10,102	9	9
											1,12,057 8 7
VII.	Porterage—										
	1. Coolies, Beach	...	...	...		39,177	5	1			
	2. Do. Pier	...	...	...		15,359	10	7			
	3. Do. Custom House	...		...		9,700	8	10			
	4. Madras Railway Company	...		...		609	1	11			
	5. South Indian Railway Company	...		...		90	12	5			
	6. Coasting Cargo	...	...	...		1,095	5	10			
	7. Boat Hire	...	...	...		6	0	0			
	8. Engine Charges	...	...	...		1,455	4	9			
	9. Steam Crane Charges	...		...		1,689	2	5			
	10. Refunds	...	...	...		696	9	2			
	11. Claims for Losses and Damage	...		...		526	11	2			
	12. Provident Fund	...	...	...		...	...	...			
	Deductions from Coolies' wages	...		...		550	2	2			
	Contributions by the Trust	...		...		903	14	2			
									71,860	8	6
VIII.	Contingencies —										
	(*a*) Subject to Regular Audit—										
	Postage	...	...	...		...	...	...			
	Receipt Stamps	...	...	...		2	2	0			
	Telegrams	...	...	...		...	...	...			
	Furniture	...	...	...		106	8	0			
	Tarpaulins	...	...	...		1,400	13	0			
	Law Charges	...	...	...		...	...	...			
	Stationery and Printing	...	...	...		616	10	1			
	Advertisement Charges	...	...	...		...	...	...			
	Lighting Pier and Yards	...	...	...		1,250	6	3			
									3,376	7	4
	(*b*) Admissible without Detailed Audit—										
	Miscellaneous	...	...	...		...	...	...	2,432	2	5
IX.	Advances to Construction Account										77,669 2 3
	Total Expenditure			...		...		...	...		92,000 0 0
	Balance on the 31st March 1894—										
	Government Securities (Par value 8,20,000)			...		...					
	Cash in the Bank of Madras	...		...		...			8,16,547	10	10
	General Cash in Office	...		...		3,51,356	14	1			
	Advance for Contingencies	...		...		337	10	8			
				...		500	0	0	3,52,194	8	9
											11,68,742 3 7
	Total Rupees	...		...		...			...		17,68,946 12 0

9. The following statement shews the detailed comparison of Receipts and Charges for the past year compared with 1892-93.

Comparison of Receipts and Charges with the previous year.

Items.	Actuals of 1892-93.	Actuals of 1893-94.	Plus or Minus.
	RS.	RS.	RS.
Opening Balances.	11,45,648	11,65,852	...
Receipts.			
I. Contributions from Port Funds	65,000	20,000	— 45,000
II. Beach Imports: dues under Section 45 (*a*) I (i) (ii) (iii)..	1,48,128	1,52,649	+ 4,521
Pier do. do. do....	60,254	61,290	+ 1,036
Beach Exports do. do....	22,818	29,811	+ 6,993
Pier do. do. do....	41,635	44,184	+ 2,549
Wharfage do. II ...	6,466	6,775	+ 309
Cranage do. III ...	32,175	40,661	+ 8,486
Storage do. IV ...	2,573	2,235	— 338
Demurrage do. V ...	...	...	...
Dues for entry of Vehicles under Section 45 (*c*) VI	10,457	13,288	+ 2,831
Provisions:—Dues on under Section 45 (*a*) I (i)	597	564	— 33
Rent of Properties	1,249	1,137	— 112
Water: charge for—delivered at pier head ...	3,737	4,126	+ 389
Penalties under Section 84	39	...	— 39
Sundries	1,117	4,307	+ 3,190
III. Porterage under Section 45 (*a*) I (iv)	...	...	...
Beach	56,656	58,347	+ 1,691
Pier	32,249	32,355	+ 106
Miscellaneous	2,788	2,345	— 443
IV. Interest realized on Govt. of India, 4 per cent Pro. Notes	28,693	37,021	+ 8,328
Total...	5,16,631	5,11,095	...
Total including the opening Balance ...	16,62,279	16,76,947	...
Charges.			
I. Interest (under Section 30)...	1,87,040	2,18,478	+ 31,438
II. Repayment of Loan for Construction of Harbour under Sec. 31.	1,00,000	1,00,000	...
III. Refunds	2,606	1,959	— 647
IV. *Establishment, Etc.*—			
1. Chairman's salary	4,800	4,800	...
2. Secretary's salary	9,350	10,900	+ 1,550
3. Correspondence Department	3,495	3,712	+ 217
4. Accounts Department	6,043	6,289	+ 246
5. Cash Department	4,089	4,494	+ 405
6. Traffic Department (Shore Staff) ...	25,578	25,777	+ 199
7. Preventive Service	12,547	12,187	— 360
8. Preventive Service Boatmen	1,186	1,150	— 36
9. Exchange Compensation Allowance ..	...	...	...
10. Contribution to Government for Pensions	624	583	— 41
11. Do. to Provident Fund... ...	2,886	2,984	+ 98
12. Fees to Trustees	6,360	6,510	+ 150
V. Contingencies.			
(*a*)—*Subject to Regular Audit.*—			
Postage	58	92	+ 34
Receipt Stamps	194	204	+ 10
Telegrams	...	17	+ 17
Furniture	531	222	— 309
Fees for Audit	750	750	...
Law Charges	1,113	1,497	+ 384
Stationery and Printing	2,478	2,254	— 224
Advertisement Charges	202	393	+ 191
Uniform for Preventive Service, &c. ...	1,405	1,413	+ 8
(*b*)—*Admissible without detailed Audit*—			
Overtime Fees to Establishment ...	4,213	4,892	+ 679
Do. Preventive Service and Boatmen	3,255	2,988	— 267
Miscellaneous	3,952	5,888	+ 1,936
VI. *Petty Construction and Repairs.*—			
New Works	10,854	61	— 10,793
Repairs	17,215	9,330	— 7,885
Tools and Plant	7,668	711	— 6,957
VII. *Porterage*—			
1. Coolies, Beach	} 58,890	39,177	} + 5,348
2. Do. Pier		15,360	
3. Do. Custom House		9,701	
4. Madras Railway Company	897	609	— 288
5. South Indian Railway Company ...	275	91	— 184
6. Coasting Cargo	1,010	1,095	+ 85
7. Boat Hire	3,840	6	— 3,834
8. Engine Charges	1,453	1,455	+ 1
9. Steam Crane Charges	2,722	1,689	— 1,033
10. Refunds	569	697	+ 128
11. Claims for Losses and Damage	791	527	— 264
12. *Provident Fund*	...	...	...
Deductions from Coolies' wages ...	} 1,012	550	} + 442
Contribution by the Trust		904	
VIII. Contingencies.			
(*a*) *Subject to Regular Audit.*—			
Postage	...	...	...
Receipt Stamps	12	2	— 10
Telegrams	...	...	...
Furniture	36	107	+ 71
Tarpaulins	152	1,401	+ 1,249
Law Charges	28	...	— 28
Stationery and Printing	412	617	+ 205
Advertisement Charges	...	...	...
Lighting Pier and Yards	2,020	1,250	— 770
(*b*) *Admissible without Detailed Audit.*—			
Miscellaneous...	1,816	2,432	+ 616
Total ...	4,96,427	5,08,205	...
Closing Balance ...	11,65,852	11,68,742	...
Total ...	16,62,279	16,76,947	...

Increase of Revenue in all items of importance.

10. From the above statement it will be seen that there has been an increase in all important items, which is moreover pretty equally distributed. The first item which shews a decrease is a small sum of Rs. 338 on account of storage, which is in itself satisfactory, as showing the prompt manner in which consignees are able to clear their goods. The item Rs. 112 less in rent of properties is due to part of the amount received at Cassimode, for rent of ground, having been included in wharfage, which appears the proper sub-head to receive credit, when ground rented is used for storage of cargo. The increase in the amount received for water delivered at the pier-head is satisfactory, for though the amount is small, it shows that the improved service given by the Board in 1891-92 continues to be appreciated, and is made use of. The increase in Sundries is due to the sale of Casaurina trees Rs. 2,369 by auction, to clear ground surrendered by the Board to Government, for the purpose of a sewage farm. This ground was made over to the Trust on its formation, having been paid for by Government out of Harbour Construction Funds expended prior to the wreck of the walls in 1881, and as charges incurred upon Harbour Construction up to then have not been debited to the Trust, the Board at once surrendered the land required by Government. Of the balance: Rs. 1,938, law charges paid, were recovered from the Trustees of Pachayappah Mudaliar's Charities.

Surrender of land to Government for Sewage Farm.

Expenditure Increased payment on account of interest upon Capital.

11. Referring to expenditure: the interest payable to Government shows again a large increase, the payment made being Rs. 2,18,478 against Rs. 1,87,040 the previous year: an increase of Rs. 31,438. This item will continue to increase till the maximum expenditure upon Harbour Construction is reached: when thereafter it will decrease by Rs. 4,500 annually. It is satisfactory to note that this large increase of expenditure under this head has been met entirely from improved revenue, the closing balance, notwithstanding the smaller contribution from Port Funds, being a little more than in the previous year, and than the opening balance.

Increase of Establishment Charges Rs. 671.

Personnel of Establishment uncharged.

12. The other items of expenditure which show increases are Secretary's salary, due to the Traffic Manager's salary having been charged to this item when acting for the Secretary while absent on privilege leave. The other items of establishment all show small increases as compared with the previous year, while a saving has been effected in the preventive service. The *personnel* of the staff is practically the same as before, and the net difference is an increase of only Rs. 671. This variation is due, as in the case of the Secretary's salary, to departmental arrangements caused by the return from furlough of the Traffic Manager, the absence of the Secretary for three months on privilege leave, and to the ordinary addition of sanctioned annual increments to the salaries of the Chief Accountant and Deputy Traffic Manager. Every item is within the amount sanctioned in the Schedule of Staff.

Sanctioned Establishment not exceeded.

Saving effected in expenditure.

13. Savings have been effected chiefly under the head Petty Construction and Repairs: this is apparent, not real, the Engineer's bills having again fallen considerably into arrears, no payment having yet been made from Revenue on account of a new Police Boatmen's Station erected to the North of the Deputy Commissioner's Office: this item Rs. 2,318 will have now to be provided for in the amended budget for 1894-95, as also will the new wing to the Secretary's Office, which should have been finished during the past year, but has not yet been commenced, though sanctioned by the Board on the 18th August 1893.

Arrears due on account of Petty Construction.

14. The saving in Boat hire Rs. 3,834 is due to the Board having discontinued landing Madras Railway stores. The saving in item crane charges, is also accounted for by the bills due to the Engineer's account being in arrears. The Engineer has been instructed to pay nothing whatever in future out of construction funds, for recovery from Revenue account; but to submit bills direct to the Secretary for payment of all items chargeable to Revenue as they fall due. This will enable a correct comparison to be made in future years, and will ensure the prompt settlement of all accounts.

Reduction in charges for boat hire.

15. The following statement compares the Budget Estimate for 1893-94 and the revised Estimate with actuals.

Budget Estimates with compared actual receipts and charges.

	Sanctioned Budget Estimate for 1893-94.	Sanctioned Revised Budget Estimate for 1893-94.	Actuals of 1893-94.	Plus or Minus.
	Rs.	Rs.	Rs.	Rs.
Opening Balance	11,19,624	11,65,852	11,65,852	
RECEIPTS.				
I. Contributions from Port Funds ...	65,000	71,847	20,000	− 51,847
II. Beach Imports: dues under Section 45 (*a*) I (i) (ii) (iii)	1,25,000	1,45,000	1,52,649	+ 7,649
Pier do. do. do. ...	60,000	60,000	61,290	+ 1,290
Beach Exports do. do. ...	20,000	25,000	29,811	+ 4,811
Pier do. do. do. ...	40,000	40,000	44,184	+ 4,184
Wharfage do. II ..	3,000	6,000	6,775	+ 775
Cranage do. III ...	35,000	35,000	40,661	+ 5,661
Storage do. IV ...	2,000	2,000	2,235	+ 235
Demurrage do. V ..	...	...	...	...
Dues for entry of Vehicles under Section 45 (*c*) VI	9,000	10,000	13,288	+ 3,288
Provisions:—Dues on under Section 45 (*a*) I (i	500	500	564	+ 64
Rent of Properties ...	1,000	1,000	1,137	+ 137
Water: charge for—delivered at pier head	1,000	3,500	4,126	+ 626
Penalties under Section 84	...	..	...	...
Sundries	500	5,000	4,307	− 693
III. Porterage under Section 45 (*a*) I (iv) .				
Beach	52,000	60,000	58,347	− 1,653
Pier	30,000	30,000	32,355	+ 2,355
Miscellaneous	4,000	2,000	2,345	+ 345
IV. Interest realized on Govt. of India 4 per cent. Pro. Notes	35,000	36,000	37,021	+ 1,021
Total Rs. ...	4,83,000	5,32,847	5,11,095	...
Rupees ...	16,02,624	16,98,699	16,76,947	...

Increase in nearly all items of receipt.

Charges.	Sanctioned Budget Estimate for 1893-94.	Sanctioned Revised Budget Estimate for 1893-94.	Actuals of 1893 94.	Plus or Minus.
	Rs.	Rs.	Rs.	Rs.
I. Interest (under Section 30)... ..	2,18,460	2,18,478	2,18,478	...
II. Repayment of Loan for Construction of Harbour under Sec. 31	1,00,000	1,00,000	1,00,000	...
III. Refunds	2,000	2,000	1,959	– 41
IV. *Establishment, Etc.*—				
1. Chairman's salary	4,800	4,800	4,800	
2. Secretary's salary	9,600	10,900	10,900	
3. Correspondence Department ...	3,780	3,780	3,712	– 68
4. Accounts Department	6,360	6 290	6,289	– 1
5. Cash Department	4,434	4,500	4,494	– 6
6. Traffic Department (Shore Staff) ...	27,694	26,700	25 777	– 923
7. Preventive Service	12,780	12,300	12.187	– 113
8. Preventive Service Boatmen ..	1,224	1,180	1,150	– 30
9. Exchange Compensation Allowance.	...	1,800	...	– 1,800
10. Contribution to Government for Pensions	900	590	583	– 7
11. Do. to Provident Fund...	3,000	3,200	2,984	– 216
12. Fees to Trustees	7,000	7,000	6,510	– 490
V. CONTINGENCIES.				
(a)—*Subject to Regular Audit.*—				
Decrease in expenditure. Postage	100	100	92	– 8
Receipt Stamps	200	200	204	+ 4
Telegrams	50	50	17	– 33
Furniture	500	500	222	– 278
Fees for Audit	750	750	750	...
Law Charges	2,000	2,000	1,497	– 503
Stationery and Printing	3,000	3,000	2,254	– 746
Advertisement Charges	500	500	393	– 107
Uniform for Preventive Service, &c.	1,500	1,500	1,413	– 87
(b)—*Admissible without detailed Audit.*—				
Overtime Fees to Establishment ...	4,000	4,500	4,892	+ 392
Do. Preventive Service and Boatmen ...	3,500	3,500	2,988	– 512
Miscellaneous	4 000	6,000	5,888	– 112
VI. *Petty Construction and Repairs.*—				
New Works	50,000	20,000	61	– 19,939
Repairs	10,000	10,000	9,330	– 670
Tools and Plant	5,000	20,000	711	– 19,289
VII. *Porterage.*—				
1. Coolies, Beach	35 000	40,000	39,177	– 823
2. Do. Pier	13,000	13,000	15,360	+ 2,360
3. Do. Custom House ...	10,000	10,000	9,701	– 299
4. Madras Railway Company ..	800	800	609	– 191
5. South Indian Railway Company ...	500	400	91	– 309
6. Coasting Cargo	1,000	1,000	1,095	+ 95
7. Boat Hire	...	...	6	+ 6
8. Engine Charges	2,000	2,000	1,455	– 545
9. Steam Crane Charges	2,400	2,400	1,689	– 711
10. Refunds	500	1,000	697	– 303
11. Claims for Losses and Damage...	1,500	1,000	527	– 473
12. *Provident Fund*				
Deductions from Coolies' wages.	1,200	750	550	– 200
Contributions by the Trust ...		1,250	904	– 346
VIII. CONTINGENCIES.				
(a) *Subject to Regular Audit.*—				
Postage	...	...	...	...
Receipt Stamps	10	20	2	– 18
Telegrams	...	...	...	...
Furniture	50	150	107	– 43
Tarpaulins	1,000	2,000	1,401	– 599
Law Charges...	90	50	...	– 50
Stationery and Printing	350	500	617	+ 117
Advertisement Charges	...	...	...	...
Lighting Pier and Yards	1,500	2,000	1,250	– 750
(b) *Admissible without Detail Audit.*—				
Miscellaneous	1,800	2,830	2,432	– 398
Total Expenditure...	5,59,832	5,57,268	5,08,205	...
Closing Balance...	10,42,792	11,41,431	11,68,742	...
Total Rs...	16.02,624	16,98,699	16,76,947	...

Estimates provided for deficit.

16. The estimates framed in February 1893 anticipated receipts Rs. 4,83,000 and expenditure Rs. 5,59,832 a deficit of Rs. 76,832.

17. The revised estimates including an enhanced contribution from Port Funds of Rs. 71,847, as directed in G. O. Marine, No. 394, dated 14th November 1893, provided for receipts Rs. 5,32,847 : and charges Rs. 5,57,268 a deficit of Rs. 24,421.

Receipts have exceeded Budget Estimates.

18. The actual receipts have exceeded the revised estimate in all items except three. Contribution from Port Funds is less by nearly Rs. 52,000, sundries are Rs. 693 and beach porterage Rs. 1,653 less than anticipated. Every other item shows a healthy and satisfactory increase.

Receipts in excess of expenditure.

19. The expenditure, as compared with the sanctioned revised estimate, shows a saving in nearly all items as detailed above ; the principal items are under the head Petty Construction and Repairs. For new works Rs. 20,000 were provided, which have not been spent as anticipated : as the Board's Engineer has been unable, owing to construction requiring all his attention, to give any to proposed improvements payable from Revenue Account. The net result is an excess of receipts over expenditure of Rs. 2,890 instead of a deficit as anticipated : and this although the contribution from Port Funds is as noted above, over half a lakh less than was expected.

Steam cranes provided for in Budget not required.

Construction of proposed improved sheds not sanctioned.

20. Repairs though executed where absolutely necessary, have not all been paid for : the Engineer's bills being in arrears, the sum of Rs. 20,000 provided for tools and plant to supply more steam cranes for the iron screw pile pier has not been expended, as this provision was made in anticipation of sanction being given to the Board constructing new sheds, with modern improvements for the reception and delivery of foreign goods, as advocated by the Chamber of Commerce ; but as this was objected to by the Sea Customs authorities, supported by the Board of Revenue, and disallowed by Government, it was useless to provide improved facilities at the pier head for handling cargo, as those already in existence are more than sufficient to deliver goods into the present Custom House faster than they can be unloaded from the trucks and stored therein.

21. The extra payments to pier coolies is balanced by the extra amount received under this head. Stationery and printing in the Porterage Department have cost Rs. 117 more than was anticipated ; but this is owing to improved forms having been more freely brought into use as found desirable : and against this excess there is a saving in the same item of Rs. 746 chargeable to contingencies.

Traffic (Porterage) Department.

22. In connection with the working of the Porterage Department, the following statement shows the receipts and charges of the Coolies Provident Fund from which it will be seen that Rs. 550 were

Coolies Provident Fund.

deducted from coolies' wages and Rs. 536 paid to them on account of births, marriages and deaths. The contribution made by the Trust from Porterage receipts amounted to Rs. 904, of which Rs. 192 have been paid to widows and orphans of coolies, who have died from the effects of wounds, and to coolies permanently invalided, while Rs. 333 has been expended in subsistence allowance of annas four per diem to coolies injured and temporarily incapacitated from work. These pensions have been granted from time to time prior to the year under review; no serious accident has occurred during 1893-94 to any cooly employed under the Traffic Department. It is satisfactory to note that a nucleus has been formed for a Fund to meet pensions, which may hereafter accrue, Rs. 524 having been invested in Rs. 500 4% Government Pro. Note. The account closes with a cash balance to credit of Rs. 332 against Rs. 434 in hand at the beginning of the year.

	Rs.	A.	P.	Rs.	A.	P.
OPENING BALANCE—Coolies Provident Fund	...	...	...	433	8	9
Receipts.						
Deductions from Coolies wages	550	2	2			
Contribution by the Trust	903	14	2			
Amount of undisbursed allowance credited under Chairman's Order, No. 2605 a, dated 9th January 1893	28	14	5			
Interest on Government of India 4 per cent. Pro. note ...	0	6	3	1,483	5	0
Total Rs...	...	...	...	1,916	13	9
Charges.						
Pensions to widows of Coolies who died from effects of accidents...	52	11	9			
Do. Coolies permanently invalided	139	3	4			
Allowance to wounded Coolies while under treatment in the hospital at 4 annas per diem	333	0	7			
Allowance for 44 Marriages amongst the families of Coolies...	300	0	0			
Do. 55 Births do. do. ...	102	0	0			
Do. 51 Deaths do. do. ...	134	0	0			
Closing Balance.				1,060	15	8
Government Securities par value Rs. 500				523	12	0
Cash in the Bank of Madras				332	2	1
Total Rs. ...				1,916	13	9

Satisfactory Departmental Reports.

23. Referring to Departmental reports, printed herewith, a very satisfactory state of affairs is disclosed in connection with the working and capabilities of the Port.

Deputy Conservator—Increase in Tonnage and number of vessels.

24. The tonnage, as reported by the Deputy Port Conservator, has increased 98,968 tons net register, and by 21 vessels; there has, however, been a falling off in native craft and Government vessels: so that the improvement in mercantile steam tonnage is 30 vessels and 110,269 tons. Of the eight steamers which did not enter the Harbour, two brought timber and six Kerosene oil in cases, which under Port regulations must be discharged outside.

Increase in Port Dues collected Rs. 18,786.

25. This increase in tonnage is accompanied by a corresponding and satisfactory increase in Port Dues; the total collections were Rs. 1,47,958 against Rs. 1,29,172 the previous year.

Cyclone:—Vessels could have ridden at anchor inside Harbour with safety.

26. There were only two days when shipping operations could not be carried on inside the Harbour; *viz.*, upon the 5th and 6th November 1893, on which date a cyclone visited the Port unannounced by any previous warning. It is satisfactory to note that the Deputy Conservator records that the sea inside the Harbour was comparatively smooth, that boats and catamarans could make their way about inside it without difficulty, and that the S. S. "Camorta," the only vessel in Harbour at the time, might have remained inside with safety. The damage done to floating craft was trivial; a few cargo lighters broke adrift and came ashore, owing to defective mooring chains. All those properly moored rode out the storm in safety.

Survey of Harbour.

27. A survey of the Harbour has been completed by the Deputy Conservator, and another by the Engineer. The former reports that at certain places the Harbour has shoaled; this the Board's Engineer denies; and contends that the bottom has returned to its normal depth before the old walls were wrecked in 1881, as recorded in the Survey of 1879. The Trustees will carefully watch this matter: but do not anticipate any very serious inconvenience from this reported silting, as the practical usefulness of the Harbour has not been affected in any way, and the shoaling reported by the Deputy Conservator is not of a nature to interfere for a long time to come, if at all, with the berthing of vessels.

Accretion of sand along the South arm.

28. Outside the South arm the sand continues to accumulate, and is slowly advancing seaward, but this is an advantage and support to the South wall: as is also the sand which has accumulated along it inside of the Harbour, which, while it does not to any appreciable extent, so far, incommode vessels entering and moored inside, undoubtedly also supports the South arm. Should this accretion of sand at any time increase to such an extent as to become a source of permanent and inconvenient shoaling, there would be no difficulty, and probably little expense, in dredging it and removing it to the north of the North arm. The erosion of sand South of the Harbour, which takes place during the N. E. Monsoon, has left Highwater mark 100 to 150 feet inshore of the line of accretion reached during the S. W. Monsoon of 1893.

Temporary Pier erected for landing horses.

29. A temporary pier was erected by the Deputy Port Conservator and Harbour Masters, from the South arm of the Harbour in December 1893, and two consignments of horses from Australia were safely walked on shore. The owners thereby not only saved boat hire: but what is of much more importance, no horse was injured in any way. No charge was levied for this service, a few hundred rupees expenses were incurred, but this was considered a useful expenditure, upon an experiment which has demonstrated the practicability of making use of low level jetties inside the Harbour. A Departmental Committee presided over by the Deputy Conservator has since been held, to report to the Board upon the best form of such jetty, as a permanent structure inside the Harbour. The Engineer's plans and estimates are awaited, and when these have been considered by the Trustees, they will, if approved, be referred to Government.

Successful experiment.

Construction of Permanent low level jetty under consideration.

Traffic Manager's report.

30. The Traffic Manager brings some interesting points to notice in his report: which, as affecting revenue and the working of that Department, are very satisfactory.

Important increase in dues, consequent upon the Trust having undertaken the Departmental Porterage of Foreign Cargo.

31. In para. 3 of his report is given a statement of Dues received during the past six years. The large and important increase in revenue secured by the porterage of cargo having been undertaken by the Board, is noticeable at a glance: and it must be remembered that funds so obtained have been upon cargo porteraged at a reduced scale of rates, revised by the Chamber of Commerce and accepted by the Board. These charges, at higher rates, were previously paid to contractors by merchants, in addition to payments made to them by the Board, which alone averaged, over Rs. 20,000 per annum. The trade of the Port has, therefore, not only secured these reductions and been provided with a better service, but a large saving amounting in the past four years to Rs. 87,000 has also been effected, which sum has gone to swell the available cash invested in Government Securities. This saving is calculated upon the actual payments of a three years contract; but in addition to this it must be remembered that all tenders received when it expired were at enhanced rates; the saving effected is therefore not less up to date than fully Rs. 1,00,000 besides which a considerable cash profit has been secured; particulars are given by the Traffic Manager in paras. 17 and 18 of his report. The total as stated by the Traffic Manager being no less than Rs. 1,78,910 from all sources, or Rs. 45,000 annually: but taking the enhanced rates which would have had to be paid had any of the tenders received been accepted, the saving to the Mercantile public may be stated at Rs. 50,000 per annum, which is available for Trust requirements.

Saving to the Trade of the Port Rs. 50,000 annually.

Improvements made by the Board.

32. The Traffic Manager gives in para. 22 of his report some interesting particulars of the improvements made by the Trust, and he by no means exaggerates the state of affairs in 1886 in his remark that the Pier, its appurtenances and machinery were in a very bad state of repair, and the foreshore along the Beach inside the Harbour in a state of chaos. The Pier has since been supplied with

new beams, decking and tiebars throughout. The machinery has been thoroughly repaired, and has had many additions made to it; comparative order reigns upon the Beach: and facilities have been given by the construction of raised metalled hards, with Railway communication, sheds and other conveniences, without which the present trade could not be handled promptly and economically as is now done.

33. The division made by the Traffic Manager of the Harbour Dues into two classes is of interest, and correctly shows the effect of the policy pursued by the Board. Dues for the use of the Harbour and facilities afforded by it, are sufficient to meet repayment of Capital advances and interest thereon: while the dues levied for work actually done in connection with the reception handling storage or wharfage and delivery of cargo are sufficient to meet all other expenses of the Trust.

Harbour Dues sufficient to meet Capital Expenditure. (a)

Dues for handling cargo sufficient for Establishment and other Expenses. (b)

Statement of Receipts and Expenditure for the years 1892-93 *and* 1893-94.

	1892-93.	1893-94.	Remarks.
	Rs.	Rs.	
Opening Balance	11,45,648	11,65,852	
Receipts.			
Contribution from Port Funds	65,000	20,000	Rs. 57,000 since received.
Imports: dues under Sec. 45 (a) I (i) (ii) (iii) ...	2,08,382	2,13,939	
Exports do do do	64,453	73,995	
			Rs. 3,07,934 (a)
Wharfage and Storage dues under Sec. 45 II and IV.	9,039	9,010	
Cranage: dues under Section III	32,175	40,661	
Demurrage do V	...	...	
Penalties Section 84	39	...	
Miscellaneous	17,156	23,422	
Porterage under Section 45 (a) I (iv)	91,694	93,047	
Interest on Balance invested in Govt. Securities ...	28,693	37,021	
			Rs. 2,03,161 (b)
Total Receipts ...	5,16,631	5,11,095	
Total Rs. ...	16,62,279	16,76,947	
Expenditure.			
Interest on Loans from Secretary of State	1,87,040	2,18,478	
Repayment to Government of Loans from Secretary of State	1,00,000	1,00,000	
	2,87,040	3,18,478	Rs. 3,18,478 (a)
Refunds	2,606	1,960	
Salaries to Chairman and Secretary	14,150	15,700	
Establishment	52,937	53,609	
Exchange compensation allowance	...	...	
Contribution for Pensions	624	583	
Fees to Trustees	6,360	6,510	
Overtime fees	7,468	7,880	
Other charges	13,570	15,714	
Porterage	75,935	77,669	
	1,73,650	1,79,625	
Petty Construction and Repairs { Works	10,854	61	
Repairs	17,215	9,330	
Tools and Plant	7,668	711	
			Rs. 1,89,727 (b)
	35,737	10,102	
Total Expenditure ...	4,96,427	5,08,205	
Closing Balance ...	11,65,852	11,68,742	
Total Rs. ...	16,62,279	16,76,947	

Forecast of Receipts and Charges.

34. This matter was very clearly placed before Government in the forecast of receipts and expenditure, which accompanied the Budget Estimates for 1894-95, in which it was shown that after repayment of Capital advances, Port and Harbour Dues may be entirely abolished; and that dues collected for services rendered in the actual handling of cargo will be all that will be required for the upkeep of the Harbour, and for ordinary expenses of establishment, which moreover should the present successful administration of the Trust be continued, will be arrived at, at comparatively, a very early date. The forecast shows that this date will be 1933-34; but the Board's Estimates have always been most cautiously framed, and the actuals will probably prove much more favourable than the estimated figures of the forecast: as indeed is already the case up to the end of the official year under review.

Port and Harbour Dues may be abolished in 1933-34.

35. The actuals compare with the forecast as follows up to the end of 1893-94.

Receipts.

	Balance of Port Funds.	Income from Harbour Dues, &c.	Interest on Invested Funds.	Total.
Forecast	71,800	4,25,000	36,000	5,32,800
Actuals	20,000	4,54,074	37,021	5,11,095
+ or −	−51,800	+29,074	,02 1	−21,705

Actuals up to end of 1893-94 more favourable than estimated forecast.

Expenditure.

	Capital Debt.	Interest payable on debt.	Repayment of advances in reduction of Capital debt.	Ordinary expenditure Revenue Account.	Petty Construction and Repairs.	Total expenditure.
Forecast	51,75,000	2,18,500	1,00,000	1,89,000	30,000	5,37,500
Actuals	51,74,242	2 18,478	1,00,000	1,79,624	10,103	5,08,205
+ or −	− 758	− 22	...	− 9,376	− 19,897	− 29,295

It is to be observed from the above statement that the receipts were Rs. 21,705 less than estimated; but this is entirely due to the smaller contribution from Port Funds, only Rs. 20,000 having been received against an estimate based upon G. O. of Rs. 71,800.

The actual revenue received was, including interest, Rs. 30,095 more, and the balance of Port Funds has since been paid to the Trust, but will be included in the accounts of 1894-95. Again the expenditure is less by Rs. 29,295 so that the financial position is Rs. 59,390 better upon ordinary revenue receipts and disbursements: of which, however, Rs. 20,000 is due to non-execution of Petty Construction new works, estimated for but not executed.

Financial position Rs. 59,390 better than forecast to end of 1893-94.

36. The following statement shows the position of the Trust's Provident Fund.

Opening Balance.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Govt. Securities (Par value Rs. 58,000) ...	59,955	2	4						
Cash in the Bank of Madras ...	6,049	4	10						
				66,004	7	2			
Receipts.									
Revenue Departments Collections ...	2,852	2	11						
Do. Trust Contributions ...	2,854	0	7						
Harbour Works Collections ...	4,784	11	9						
Do. Trust Contributions ...	4,784	11	9						
Harbour Masters' Collections ...	921	7	5						
Do. Trust Contributions ...	921	7	5						
Miscellaneous ...	9	10	3						
Instalment of refund of Loan granted to Mr. Edwards ...	140	0	0						
				17,268	4	1			
Interest realised on Govt. Pro. Notes. ...	...	...	...	2,396	0	3			
							85,668	11	6
Charges.									
Paid to employés who have left the Trust Service. Subscriptions and Trust Contributions Revenue Departments ...	1,927	13	3						
Do. do. Harbour Works..	2,538	0	10						
Do. do. Harbour Masters	40	1	8						
Paid to employes their own Subscription only: Revenue Departments.	103	1	1						
Do. do. Harbour Works...	...	...	...						
Do. do. Harbour Masters..	...	...	...						
				4,609	0	10			
Premia on Policies of Life Assurance ...	...	...	...	1,179	9	4			
Total Expenditure...	...	...	...	5,788	10	2			
Closing Balance.									
Govt. Securities Par value Rs. 68,000 ...	70,405	2	4						
Cash in the Bank of Madras ...	9,474	15	0	79,880	1	4	85,668	11	6

37. This Fund opened with a credit balance of Rs. 66,004: Receipts from all sources were Rs. 19,664; disbursements Rs. 5,789: and the closing balance is Rs. 79,880, or Rs. 13,876 more than twelve months previously.

Provident Fund.

Capital Account.

38. *Capital Account.*—The total advances received from Government for Harbour Construction up to the 1st April 1893 amounted—less repayments—to the sum of ... Rs. 50,04,242
Advances during 1893-94 were 2,70,000

Total... 52,74,242
Repaid 1st April 1893 1,00,000

Balance due to Government 31st March 1894 Rs. 51,74,242.

Balance due 31st March 1894 ... ... Rs 51,74,242

39. Since the formation of the Trust refunds of capital advanced and payments of interest @ 4½ % per annum upon outstanding balances have been as follows :—

	Refund.	Interest.
1887...	1,00,000 ...	... 74,600 13 9
1888...	1,00,000 ...	... 1,00,244 15 9
1889...	1,00,000 ...	... 1,17,244 2 11
1890...	1,00,000 ...	... 1,43,541 13 11
1891...	1,00,000 ...	... 1,73,887 15 7
1892...	1,00,000 ...	... 1,87,039 7 10
1893...	1,00,000 ...	... 2,18,477 13 7
Total Rs....	7,00,000	Rs... 10,20,037 3 4

Total refunds paid Rs. 7,00,000

Total Amount Interest paid Rs. 10,20,037.

40. The Engineer's progress report gives details of work upon Harbour reconstruction during the twelve months ending 31st March 1894.

Progress during the year upon Harbour Construction.

The North pier caisson was placed in position on the 10th idem : and the Engineer reports that this arm, including the capping and the apron protection to the rubble base up to and around the pier head, will be completed by July next : and that judging from the time occupied at the North arm in work which has similarly to be done at the south pier head, the Harbour according to sanctioned design, will be finished by July 1895.

Harbour will be completed in July 1895.

41. The Board's Staff has worked exceedingly well.

Establishment.

The Harbour Works foremen and divers have had considerable difficulties to contend with. The Divers under their foreman, in preparing the base for the Caisson at the North Pier-head ; the Mechanical foreman in constructing the Caisson ; and the General foreman directly under the Engineer, in overlooking all, setting and filling the Caisson when finished.

Acting arrangements.

The acting arrangements necessitated by absence of the Traffic Manager on furlough : and upon his return during the absence of the Secretary on privilege leave, worked without a hitch of any kind. Mr. Cassin acting as Deputy Traffic Manager, Mr. Lloyd as Acting Traffic Manager, and Mr. Hutchence as Acting Secretary did much credit to themselves, by the manner in which they discharged the duties temporarily entrusted to them.

Satisfactory and efficient state of all Departments under the Secretary :

The accounts are well up to date, as also are all returns.

The thoroughly efficient Departmental organisation, and absence of all arrears, reflects great credit upon the Chief Accountant, the Traffic Manager, and the Board's Secretary.

The quiet and efficient working of all Departments under the Secretary has given the Trustees complete satisfaction.

and under the Deputy Conservator.

The Board also notes with pleasure the satisfactory manner in which the Harbour Masters have continued to perform their responsible duties.

W. AUSTIN,
Chairman.

C. PINSENT,
Secretary.

HARBOUR TRUST BOARD OFFICE,
MADRAS,
27*th April* 1894.

To the Hon'ble J. F. PRICE, C.S.I., I.C.S.,
Chief Secretary to Government.

MADRAS HARBOUR WORKS.

PROGRESS REPORT FOR 1893-94.

The progress made towards the re-construction of the Madras Harbour, during the official year 1893-94 has been confined to the construction of the massive Pier Heads, for completing the Harbour, with an Eastern Entrance of 520 feet in width with a minimum depth of 39 feet of water at De Havilland's mean sea level.

2. The North Pier Head construction having advanced more rapidly than that of the South Pier, which more rapid progress is due to the improved all-round titan crane at the North Arm, all attention was turned to preparing the Pier Head superstructure to be ready by the close of the year, to receive the iron Caisson, designed to terminate, each of the Pier Heads; and the amount of work done in permanent and temporary work was far in advance of the progress made last year, while the nature of the work throughout the year was more difficult and trying, since the works were commenced.

3. Much dredging and the removal of fallen blocks from the old pier head had to be done, and the setting of seven temporary courses of blockwork to compress the foundations for the Caisson, (and from which additional length of temporary pier the overthrown blocks could only be reached) had to be again raised and the Caisson set upon the same base, which was successfully accomplished on the 10th March 1894, which completes the North Pier bringing the total length up to 3,816′ 9″ from shore or the first block set in 1876 or 17 years in construction, of which 7 years has been re-construction.

4. There only remains two months' work after the May Monsoon in completing the capping and rubble base protection so that the North Arm of the Harbour will be completed in July 1894.

5. Good progress was also made at the South Pier Head, and exactly the same work remains to be repeated in the coming year as has been done at the North Arm so that the completion of the South Arm can now be fixed, from the experience at the North Arm as June or July 1895, when the Madras Harbour will be completed to the sanctioned design in its entirety.

6. A plan of the Harbour accompanies this report, showing in neutral tint the progress of the Works up to the commencement of the year and in red the work done during the year ending 31st March 1894.

7. **North Pier Head Superstructure.**—As already explained, the work at the North Pier head had to be in part permanent, and temporary, while the raising of the temporary courses although necessary and the secret of the accurate setting of the Caisson in exactly the designed position, proved more troublesome to be removed than was the forward permanent work to build. The total length of

pier built and removed was 140 feet or 384 blocks handled by Divers against a length of 61′ 9″ or 264 blocks in the previous year, in addition to the building, floating and setting, of the North Pier Head Caisson, which alone was a most difficult task in an open roadstead.

8. The space between the cylindrical Caisson and the sloping face of the bonded blockwork was at the close of the year being filled in with concrete to unite the Caisson to the Pier Head superstructure, and for this purpose the sides, of the blockwork were closed in by temporarily building up, from the rubble base, a vertical wall of wave-breaker blocks, which formed the necessary mould into which concrete "en masse" was being deposited.

9. **Wave-breaker.**—At the North Pier Head 70 Wave-breaker blocks were dropped into position bringing the wave-breaker screen up to the full width of 40 feet from the sea face of the Superstructure.

10. **Apron or Protection to the Rubble Base.**—The North Pier rubble base was paved or consolidated with Portland cement concrete towards the Pier Head, for a length of 185 feet. The completion of this protection around the end of the Pier Head and Caisson is all that remains to be done under water to complete the North Pier.

11. **South Pier Head Superstructure.**—The progress made at the South Pier during the year was 32′-3″ which necessitated 143 blocks being set by divers, and although this progress was considerably in excess of that made in the previous year, it was one-fourth of that made at the North Arm; due to the unsuitable titan crane available at this Arm, which will be replaced in the coming year by the transfer of the North Pier improved titan when rapid progress can be recorded and with which the setting of the South Pier Caisson and the completion of the South Arm may be definitely stated as July 1895.

12. The total length of the South Pier inclusive of the Pier Head, as far as completed on the 31st March 1894, was 3,878¾ feet from the commencement of the concrete blockwork on shore, and exclusive of the setting and removal of the necessary temporary courses for the Caisson, there only remains one permanent course of 5′ 4½″ of permanent blockwork to be added to complete the superstructure of the South Pier.

13. **Wave-breaker.**—The wave-breaker screen was extended to as far as the Superstructure had advanced, and for this protection 41 wave-breaker blocks were dropped into position.

14. **Supply of Portland Cement.**—No Portland Cement was received from England during the year, but an indent was forwarded to the India Office in February 1894 for a further supply of 1,000 tons.

15. The balance in Store on 31st March 1893 was 1,577 tons 10 cwt. 1 qr. 13 lbs. and the issues to the 31st March 1894 were 548 tons 19 cwt. 2 qrs. 15 lb. or 3,075 Casks, leaving a balance on hand at the close of the year of 1,028 tons. 10 cwt. 2 qr. 26 lb. which will be in most part issued by July 1894 for the North Pier capping, Caisson, &c.; so that, the supply under indent will be required for work at the South Pier at the close of 1894.

16. **Pallavaram Quarries.**—The outturn of stone from the Pallavaram quarries during the year, was 8,352 tons of large rubble stone, which was deposited in the Protective Works north of the Harbour; and a supply of 4,727½ tons of chips was received for the concrete in the Caisson, and paving the rubble base and under the Superstructure of the Pier Heads.

17. **Protective Works North of the Harbour.**—The revetment to the North of the Harbour marked A to C on plan grew weak at several points during the year through the flattening of the slopes; and to prevent a breach at such points, additional large rubble was deposited, when necessary, and the total quantity so deposited was 8,352 tons, which brought the line of revetment, up to a uniform strength.

18. The bay forming at the extreme end of the revetment is, as expected, growing and the High Water mark of the 31st March 1893 and 1894 as shown in the accompanying plan, shows a permanent decrease of foreshore by about 100 feet.

19. **Foreshore South of the Harbour.**—Upon the plan attached to this report are shown the High Water marks of the 31st March 1893 and 31st March 1894—Near the South arm of the Harbour the High Water Mark has advanced 40 to 50 feet in the past 12 months, but it is still in—shore or short of the furtherest High Water Mark registered in 1893 by about 150 to 180 feet.

20. At about three quarters of a mile south of the Harbour the High Water Mark of 31st March 1893 is identical with that of 1894, but from this point southwards there is a decided erosion of about 50 feet up to two miles down the coast, where the Harbour can have no accreting or eroding action.

21. **Sea bottom within the Harbour.**—An accurate Marine Survey of the sea bottom within the Harbour was made between July and September 1893 and no silting, or change in the depth of the Harbour can be detected. Close to the South Pier, some sand has found its way through irregularities in the old blockwork and this sand has, from time to time, been drifted and thrown up, advancing the High Water Line, thereby providing more foreshore for storage purposes, which is an advantage than otherwise, but since the entrance has been narrowed due to re-construction, and state of the sea quieter inside the Harbour, the High Water Line only varies according to the monsoon and state of the weather, which changes the slope of the beach.

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

23. **Expenditure.**—The total outlay on the Works during the past year, including the Expenditure on the Protective Works, North of the Harbonr has been Rupees 2,28,030 made up as follows:—

Outlay on Works	... Rs.	2,11,464
Do. on Establishment ...	... „	30,954
Do. on Tools and Plant ...	... „	11,157
	„	2,53,575
Net debits to Suspense Heads ...	... „	25,545
Net outlay in the year	... „	2,28,030

The total expenditure up to the end of the official year was Rs. 1,21,92,104 against the total estimated cost of Rs. 1,23,83,366.

24. **Miscellaneous.**—The general repairs and additional roofing to the Deputy Traffic Manager's Bungalow at Cassimode and thorough repairs to the property of the Trust, known as Carlton House, occupied by the Board's Secretary at Royapooram, was carried out previous to the setting in of the monsoon.

25. A Marine Police Boat Station Stables for the Deputy Commissioner of Police was erected, completed, and handed over at the close of 1893.

26. The balance of the sanctioned fifteen Pier trucks for the Traffic Department, was completed, and handed over to the Department in working order.

27. The usual repairs and the up-keep of all machinery, cranes, railway lines, &c., and all haulage done by the Harbour Works Locomotives for the Traffic Department, was continued, and no accidents of any nature occurred during the year.

28. The realignment of the Beach Line for the Tramway Company was well in hand and as soon as the Plate-layer gangs and other labour can be taken off the caisson work the ground proposed to be given up to the Tramway Company will be made over.

A. LEE POGSON,
Engineer, Harbour Trust Board.

MADRAS, HARBOUR WORKS OFFICE,
20th April, 1894.

MADRAS HARBOUR WORKS.

STATEMENT SHOWING PROGRESS DURING OFFICIAL YEAR 1893-94 AS SHOWN ON ACCOMPANYING TRACINGS.

No. of Item.	NOTE.—The figures in **red** denote for comparison progress and quantity of work done in official year 1892-93.	Sub-Heads of work.	NORTH PIER.			SOUTH PIER.		Railway Lines.	Pallavaram quarries out-turn.	Protective Works.	Total Expenditure.	REMARKS.
			Pier Head at 40 feet below Sea level.	Wavebreaker.	Base Protection.	Pier Head at 40 feet below sea level.	Wave-breaker.					
	Particulars and Quantity of Work, &c.	*Column.*	A	B	C	D	E	F	G	H	I	J
1	Total quantity Rubble stone received on Work ...		...	...	...	...	...	...	7078¾ / 8,352	7078¾ / 8,352	...	...
2	„ Blasted chips „ ...		264 — ...	...	...	121	...	...	1851¼ / 4,727½	...	...	...
3	Concrete Blocks set and removed by Divers No.		48 Permanent ... / 336 Temporary	...	...	143	...	...	...	...	...	...
			384 Total blocks in work in addition to setting of North Pier Caisson ...									
4	„ deposited in Wave-breaker ... „		...	201 / 70	...		35 / 41	...	...	...	...	...
5	Wrought-iron cramps fixed in position ... „		26 / 12	...	...	12 / 6	...	...	...	...	...	...
6	Total out-turn of concrete ... ... C. yds.		2,330	...	124⅙ / 131⅑	...	...	...	...	...	...	...
7	Advance or Progress of completed superstructure Rg. ft.		61—9 / 64-9 Permanent advance including Caisson. / 75-3 Temporary—do and removal	...	...	28—7½ / 32·3	...	...	...	...	...	...
8	Rubble Base protected with concrete		140-0 Total length ...	...	309 / 185	...	...	...	...	...	...	...
9	Titan and mixed gauge Railway Lines, &c. ...		...	...	...	...	...	4,840	...	...	...	...
10	Expenditure under sub-heads of work approximately.		1,12,954	1,360	1,053	38,449	1,516	5,089	15,476	3,191	1,79,088	...

Portland Cement.

Balance from last year	Tons	1,577	10	1 13
Received from England during year	„	Nil.		
Used for North Pier Head Works.	„	548	19	2 15
Balance on 31st March 1894	„	1,028	10	2 26

A. LEE POGSON,
Engineer, Harbour Trust Board.

MADRAS HARBOUR WORKS,
26th April 1894.

MADRAS HARBOUR WORKS.

COMPARISON OF EXPENDITURE TO DATE WITH SANCTIONED ESTIMATE FOR THE YEAR ENDING 31ST MARCH 1894.

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
	Quantity.	Rate.	Per.	Cost.	Total.	Quantity.	Rate.	Expenditure. Total up to end of last Year.	During the Year.	Up to date.						
1	2	3	4	5	6	7	8	9	10	11	12			13			14
Expenditure up to 31st December 1884.		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 3 5	9 13 6	5,892 0 11	0 0 0			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 0	... ...	24,377 9 0	... ...			24,377	9	0	
6 Do from boats ... ,,	2,06,896	2 0 5	,,	4,19,218		2,08,362	2 1 5	4,30,966 8 3	319 5 0	4,31,285 13 3	4,085 7 2			4,35,371	4	5	
7 Concrete blocks for building ... ... C. yds.	51,320	11 8 0	C. yd.	5,90,110		49,040	11 14 8	5,74,254 5 10	10,122 7 1	5,84,376 12 11	... ...			5,84,376	12	11	
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 Do. from 2,200 to 3,600 feet ... ,,	36,520	2 14 3	,,	1,05,569		36,447	3 1 3	1,08,813 14 8	3,243 0 0	1,12,056 14 8	... ...			1,12,056	14	8	
10 Do. at Pierhead ... ... ,,	12,185	9 8 11	,,	1,16,424		10,008	13 2 5	79,615 4 10	51,962 1 3	1,31,577 6 1	61 3 0			1,31,638	9	1	
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 Wavebreaker blocks ... ... ,,	288	9 5 7	,,	2,692		288	9 5 7	2,692 0 0	... ...	2,692 0 0	... ...			2,692	0	0	
13 Do. concrete blocks ... ... ,,	77,355	10 14 11	,,	8,45,591		68,265	11 7 3	7,63,593 3 2	18,153 12 0	7,81,746 15 2	... ...			7,81,746	15	2	
14 Depositing do. ... ... ,,	77,932	1 0 0	,,	77,928		68,859	1 0 7	68,626 10 0	2,611 6 7	71,238 0 7	61 6 2			71,299	6	9	
15 Concrete in protection to Rubble Base ... ,,	1,986	10 4 1	,,	20,358		1,229	16 14 9	19,669 14 11	1,123 2 1	20,793 1 0	... ...			20,793	1	0	
16 Cramps, Iron ... ... No.	331	9 10 1	Each	3,188		313	7 11 10	2,419 5 8	2 10 6	2,422 0 2	... ...			2,422	0	2	
17 Concrete capping ... ... C. yds.	16,352	11 3 10	C. yd.	1,83,798		573	20 9 2	11,393 14 7	258 12 7	11,652 11 2	135 6 8			11,788	1	10	
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	65,036 2 0	85, 809 5 6	7,752 15 1			93,562	4	7	
Total for North Pier ...	.....	... ...	...	...	24,80,607			21,13,798 10 2	1,52,833 11 1	22,66,631 5 3	12,096 6 1			22,78,727	11	4	
South Pier.																
19 Ordinary rubble deposited from boats ... Tons.	1,75,078	2 9 0	Ton	4,49,052		1,70,774	2 9 10	4,41,668 9 6	... ...	4,41,668 9 0	4,925 14 8			4,46,594	7	8	
20 Large do. 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		42,584	11 7 2	4,57,120 7 11	30,343 12 10	4,87,464 4 9	... ...			4,87,464	4	9	
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 Do. from 2,550 to 3,700 feet ... ,,	30,160	3 7 11	,,	1,05,461		30,160	3 9 8	1,05,461 9 4	3,243 0 0	1,08,704 9 4	... ...			1,08,704	9	4	
24 Do. at Pierhead ... ... ,,	12,350	11 1 3	,,	1,36,845		9,867	15 6 0	1,07,796 0 7	41,808 2 5	1,49,604 3 0	2,126 3 10			1,51,730	6	10	
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 Do. in Cylindrical Pierhead ... ,,	2,355	15 0 0	,,	35,325		...	... ...	... ...	5,960 13 9	5,960 13 9	... ...			5,960	13	9	
27 Do. 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		39,492	11 4 8	4,35,252 11 7	10,717 3 6	4,45,969 15 1	... ...			4,45,969	15	1	
29 Depositing do. do. ... ... ,,	47,714	1 5 8	,,	64,708		39,975	1 7 1	55,053 15 4	2,657 3 2	57,711 2 6	51 14 6			57,7 3	1	0	
30 Concrete in protection to Rubble Base ... ,,	1,700	9 10 6	,,	16,420		1,108	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		220	10 10 7	2,302 2 4	43 6 2	2,345 8 6	... ...			2,345	8	6	
32 Concrete capping ... ... C. yds.	16,247	11 5 8	C. yd.	1,84,495		669	21 7 0	14,146 0 4	155 11 5	14,301 11 9	... ...			14,301	11	9	
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	94,981 2 6	17 77,956 5 5	7,104 1 0			17,85,060	6	5	
Extending the Rubble Revetment protecting the foreshore North of Harbour.																
35 Rubble Stone Revetment ... ... Tons	70,600	2 1 0	Ton	1,45,613		90,169	1 8 8	1,20,947 2 0	17,963 7 7	1,38,910 9 7	99 8 0			1,39,010	1	7	
36 Railway Lines	.....	... ...	...	9,849	1,55,462	..	... ...	10,914 10 10	750 12 0	11,665 7 10	... .			11,665	7	10	
								1,31,861 12 10	18,714 4 7	1,50,576 1 5	99 8 0			1,50,675	9	5	
37 Tools and Plant	.....	... ...	...	...	6,11,656			6,42,370 5 8	15,132 13 10	6,57,503 3 6	958 5 11			6,58,461	9	5	
38 Contingencies	.....	... ...	...	...	2,17,415			1,80,385 7 10	19,532 8 9	1,99,918 0 7	288 2 10			2,00,206	3	5	
39 Establishment	.....	... ...	...	...	5,34,369			5,32,647 7 11	30,954 5 2	5,63,601 13 1	... ...			5,63,601	13	1	
40 Materials at site (concrete blocks in yards)... C. yds.	.....	... ...	...	...	...	6,548	14 6 5	1,58,736 14 7	— 68,668 3 0	90,068 11 7	4,242 13 1			94,311	8	8	
								6,016 15 9	— 5,938 9 7	78 6 2	... ...			78	6	2	
41 Advances to work-people	.....	... ...	...	...	...												
Total of Estimate and value of work done ...					61,06,227			54,54,675 1 1	2,57,550 14 10	57,12,225 15 11	24,789 4 11			57,37,015	4	10	
Deduct Probable recoveries due to sales of Tools and Plant	.....	... ...	...	...	2,77,331			—70,636 11 5	— 3,975 12 0	—74,612 7 5	... ...			—74,612	7	5	
Total ...	.....	... ...	...	...	*58,28,896*			*53,84,038 5 8*	*2,53,575 2 10*	*56,37,613 8 6*	*24,789 4 11*			*56, 2,402*	*13*	*5*	
Total of revised Estimate sanctioned in Secretary of State Despatch, plus expenditure before 31st December 1884	.....	... ...	...	...	1,23,83,386			1,19,38,529 4 6	2,53,575 2 10	1,21,92,104 7 4	24,789 4 11			1,22,16,893	12	3	
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 ...	.....	... ...	...	...	1,21,92,104												
Total Estimated Cost of Completing Work after Year ending 31st March 1894	... ..	... ...	...	...	1,91,282												

Expenditure up to 31st March 1893 from commencement of works ... Rs. 1,19,38,529-4-6
Do. during current official year from 1st April 1893 to 31st March 1894 ... ,, 2,53,575-2-10 Grant for 1893-94 Rs. 2,70,000
Total outlay to 31st March 1894. ... Rs. 1,21,92,104-7-4

MADRAS,
26th April 1894.

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

A. LEE POGSON,
Engineer, Harbour Trust Board.

ADMINISTRATION REPORT

OF THE

DEPUTY CONSERVATOR OF THE PORT OF MADRAS,

For the Year 1893-94.

The number and tonnage of vessels entering and leaving the Port of Madras during the year is shown in the following statement, and shows an increase over the preceding year, both in numbers and tonnage, the tonnage also being greater than in any former year.

VESSELS ENTERED.

	1892-93.		1893-94.	
	No.	Tonnage.	No.	Tonnage.
Steam Ships, Mercantile	629	1,110,987	659	1,221,256
Sailing ,, ,, ...	8	9,570	8*	12,238
,, Native Craft	74	6,724	67	7,483
Men-of-war Government Ships and Transports...	20	28,952	18	14,224
	731	1,156,233	752†	1,255,201
		Increase	21	98,968

VESSELS LEFT.

	No.	Tonnage.
Steam Ships, Mercantile	658	1,217,479
Sailing ,, ,, ...	8	12,238
,, Native Craft	62	6,457
Men-of-war, &c.	19	14,563
	747	1,250,737

Of the above vessels 276 were foreign-going and 385 coasting ; 8 steam vessels did not enter the Harbour.

The Revenue amounted to Rs. 1,47,958 against Rs. 1,29,172 for 1892-93, and was obtained from the following sources :—

Port Funds	Rs.	1,13,385
Salvage	,,	315
Divers' services	,,	487
Hire of Port Raft	,,	695
Boat licenses	,,	628
Shipping Office fees and fines	,,	1,014
Office fees for Overtime	,,	2,177
	Rs.	1,18,701
Pilotage and Boat Charges connected	,,	29,257
Total Rs...		1,47,958

* NOTE.—6 Sailing Vessels of 8,437 called for orders only.

† Including { 32 German. 25 Austro-Hungarian. 23 French. 1 American. 2 Norwegian.

Total Foreign ... 83

Artificial Harbour.—Shipping operations have been carried on during the whole of the year with the exception of two days, the 5th and 6th of November 1893, on which dates a cyclone of moderate force, and of which no warning had been received, visited the coast.

The sea on this occasion inside the Harbour was comparatively smooth, catamarans and boats making their way about without much difficulty, only one vessel was in the Harbour at the time, the S.S. "Camorta," which proceeded to sea, but could have remained inside the Harbour with safety, a few of the cargo-lighters were driven on the beach.

An examination of the bottom of the Harbour was made in September by order of the Harbour Trust Board, and the depths on the south side of the Harbour were found to be somewhat less than in 1889.

Accretion of sand still continues outside the south arm.

A good number of vessels loaded with coal now arrive at the Port, and as they take some time to discharge, they occupy berths for a long time, and in this way tend to reduce the number of the available berths for vessels in other trades, but hitherto the Harbour has been equal to the requirements, on two occasions only during the year have vessels had to wait for accommodation, native vessels continue to avail themselves of the advantages of the Harbour.

The smoothness of the water inside the Harbour is almost all that can be desired during the greater portion of the year.

Weather.—The weather has been fine throughout the year, with the exception of three days in November, when a heavy sea prevailed during the cyclone. The warning signals were hoisted twice during the year, on the 11th October, and 3rd—6th November.

Accidents and Casualties.—26 lighters were driven ashore and more or less damaged, one being sunk, and 14 Masulah boats were damaged on the 6th of November by the sea, the lighters being driven ashore most probably by not having sufficient scope of chain out.

One lighter was sunk on the 12th October by a sling of bars of railway iron making a hole in the bottom. Two ships dragged their anchors, (stockless ones) two vessels' cables parted and one wire sternfast also parted, one vessel, the S.S. "Elax" touched the ground when being swung into the oil moorings, and one vessel was brought into Harbour with her shaft broken.

One man was fatally injured by a sling of cargo falling on him in a lighter alongside the S.S "Clan Maclean" and died in Hospital shortly after being admitted.

A fire occurred on the 27th July in one of the heaps of coal north of the iron pier, but was got under, the Port fire-engine assisting to subdue it.

Moorings.—All the moorings have been examined and put in order, new pieces of chain having been put into the moorings of Nos. 1 and 2 buoys. The moorings for the oil vessels have been re-laid, four vessels have used them during the year.

The northern entrance buoy was shifted out on account of the extension of the northern arm beyond its former position.

Boats.—The Steam Launch indented for on Kiddapore Government Dockyard has not yet been delivered, and the Harbour Masters have had to get through the N. E. Monsoon as in former years. All the boats on the Port and Pilotage establishment are in good order.

Port Raft.—This method of landing heavy weights is still much used, the raft having been in requisition 47 times, 25 logs were purchased in lieu of others condemned as unserviceable.

Cargo boats.—The number of lighters on the register is 67, 11 less than last year, Masulah boats have decreased by 3 to 106; the number of water boats has increased to 8 and jolly boats to 25.

A large number of vessels now take water at the Port, a better supply at the Iron Pier head should be provided.

Time Signal.—There were only 8 failures during the year, which is a great improvement on former years.

Life-saving apparatus.—Quarterly practice has been carried on during the year.

Temporary Pier.—A temporary pier was erected on the south side of the Harbour from the southern arm out of the material used for the Port raft, &c., and on two occasions horses were walked ashore, the owners of the horses expressed themselves much pleased with the method, as compared with landing them in Masulah boats. The first attempt to land by means of a floating stage was a failure, the Pontoon supporting the centre of the stage not being sufficiently steady.

Though the season of the year was not the most favourable for vessels being taken to a pier at the south side, they lay very steady on each occasion.

Leave.—Commander H. B. Simpson returned from leave on the 26th August and took over charge from Mr. H. D. Baddeley who had acted as Deputy Conservator since the departure of Commander C. W. Hewett on 28th June.

Sunday Work.—The Deputy Conservator's Office was opened on 31 Sundays during the year.

Offices.—The Office of the Deputy Conservator was moved on the 7th March to the old High Court Buildings which makes a more convenient Office than the former one.

Harbour Masters.—A Boatswain has been added to the Harbour Master's staff to assist the senior Harbour Master in the superintendence of the buoys and moorings.

1,464 vessels have been taken out and in the Harbour by the Harbour Masters and the Harbour Syrang.

The S.S. "Elax" touched the ground when swinging to the oil moorings while in charge of Mr. Evans.

The accommodation for the Harbour Masters' boatmen under the Harbour Masters' Office has proved a great convenience, no complaints having been made

against any of the boatmen for nearly two years of being absent when required or anything else, and is evidently owing to the fact that they have ample accommodation for taking their meals and other comforts in their new quarters. The services of Mr. Evans and the Boatswain were lent to the Board of Revenue to assist in navigating the Pearl-fishery vessels.

Port Driver.—The Port Diver is still in much request, scarcely a vessel with general cargo enters the Harbour without requiring his services a few hours after mooring, his services have also been called for at the outports during the year, *viz.*, Porto Novo and Coconada.

Shipping Office.—The number of native seamen engaged at the Port shows a considerable increase on last year's figures.

		No.
European seamen engaged ...	... 11	12
,, ,, discharged	... 1	
,, ,, sent to Jail	... 1	
,, ,, sent to Hospital	... 1	
Native seamen engaged ...	... 199	974
,, ,, discharged ...	... 775	
,, ,, sent to Jail ...	... 1	
,, ,, sent to Hospital...	... 1	
Distressed seamen sent Home	... 5	

The fees and fines collected amounted to Rs. 1,014.

The periodical returns have been forwarded to the Board of Trade and Government of Madras.

H. B. SIMPSON,
Commander R. I. M.,
Deputy Port Conservator, Madras.

PORT OFFICE, MADRAS,
12th April 1894.

To

THE SECRETARY,

HARBOUR TRUST BOARD,

Madras.

SIR,

I have the honor to submit the following report on the working of the Board's Traffic Department during the year 1893-94.

2. The revenue collected during the year amounted to Rs. 4,52,137, which is Rs. 69,137 in excess of the budget estimate for the year, and Rs. 29,137 in excess of revised estimate. The details of receipts are as follows:—

	Estimated.			Actuals.		
	RS.	A.	P.	RS.	A.	P.
Imports ...	...2,05,000	0	0	2,13,938	13	6
Exports ...	... 65,000	0	0	73,995	2	11
Cranage ...	... 35,000	0	0	40,660	10	6
Porterage ...	... 92,000	0	0	93,047	1	4
Dues under Sec. 45 C...	10,000	0	0	13,287	14	1
Wharfage	6,000	0	0	6,775	0	0
Storage	2,000	0	0	2,235	0	5
Demurrage	...		...	...		...
Water Collections ...	3,500	0	0	4,126	4	0
Rent on H. S. Properties	1,000	0	0	1,137	6	5
Fines under Section 84	...		...	...		...
Miscellaneous... ...	3,500	0	0	2,933	8	0
Total Rupees...	4,23,000	0	0	4,52,136	13	2

3. The estimated and actual receipts during the past six years have been as follows:—

Years.	Estimate Revised.			Actuals.			Remarks.
	RS.	A.	P.	RS.	A.	P.	
1893-94 ...	4,23,000	0	0	4,52,137	0	0	
1892-93 ...	3,83,000	0	0	4,22,938	0	0	
1891-92 ...	4,48,500	0	0	4,96,749	0	0	
1890-91 ...	*2,99,000	0	0	4,81,916	0	0	* Porterage receipts not estimated.
1889-90 ...	*3,06,200	0	0	3,26,747	0	0	Porterage work not done by the Board.
1888-89 ...	*2,73,350	0	0	2,66,967	0	0	

The revenue collected compares favorably with other years being Rs. 29,189 in excess of last year, and after allowing for revenue collected on a million bags of rice imported in excess of average requirements during the severe scarcity in 1891-92; and on railway materials imported in very large quantities

for constructing State railway lines in 1890-91; the amount of dues collected on the ordinary import and export trade of the port, is greater than during any year except during 1884-85, when the rates levied were more than 50 per cent. higher than at present.

4 The following statement shows in detail the sources of revenue from which the foregoing amounts have been realized, and for easy comparison with previous years, the sum collected as cranage during 1892-93, and 1893-94, has been apportioned to the two items where it was formerly shown, *viz*; imports and exports.

Receipts.	Years.					
	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
(a) Harbour Dues, Imports ..	1,72,480 14 7	2,07,098 14 7	2,41,441 0 6	2,85,070 13 4	2,26,678 5 3	2,39,871 8 0
(b) Do. Exports ..	78,568 1 7	1,00,945 7 6	92,289 10 10	80,716 1 10	78,331 12 0	88,723 2 11
(c) Wharfage ..	8,574 5 1	10,225 0 4	12,469 13 4	7,971 3 7	6,466 5 4	6,775 0 0
(d) Storage ..	2,773 4 6	2,836 0 0	3,444 0 0	2,523 0 0	2,752 13 11	2,235 0 5
(e) Rent of Trust Properties ..	3,246 0 3	2,945 11 1	2,186 2 5	1,773 12 1	1,248 12 0	1,137 6 5
(f) Water Collections ..	..	..	..	3,091 4 0	3,736 12 0	4,126 4 0
(g) Porterage ..	..	..	1,22,533 0 0	1,08,322 14 6	1,02,150 11 8	93,047 1 4
(h) Dues under Section 45 C. VI ..	..	..	..	..	..	13,287 14 1
(i) Demurrage ..	..	..	..	..	..	..
(j) Miscellaneous ..	1,324 3 2	2,965 10 8	7,561 13 0	6,870 4 0	1,752 15 8	2,933 8 0
Total..	2,66,966 15 2	3,26,746 11 11	4,81,915 8 1	4,96,749 5 4	4,22,938 7 10	4,52,136 13 2

(*a*) *Imports.*—The increase under this head of Rs. 13,194 is due to large increase in the imported quantity of coal, kerosine oil, timber, and machinery; with moderate increases in most of the ordinary articles of commerce. The increase of revenue levied on these articles, has been to some extent counterbalanced by a falling off in the quantity of food grains imported; as nearly 12,000 *tons* less of these were imported during 1893-94, than during the previous year, and 70,000 *tons* less than during 1891-92. This falling off is satisfactory, and tends to show that the prolonged period of drought and scarcity has passed, and that the Port may expect an improvement in the export trade.

(*b*) *Exports.*—The increase of Rs. 10,391 under the head of Exports is satisfactory, having accrued on the two principal items of export of this Port, *viz.*, cotton and groundnut. In all other goods, the fluctuations of increase and decrease, have about balanced each other. It will be observed that the export of tanned hides has decreased by about 50 per cent. during the year as compared with 1891-92 and 1892-93, when the ryots, owing to want of water and pasture, were compelled to kill numbers of their cattle for their skins.

(*c*) } *Wharfage and Storage.*—These items need little comment. As
(*d*) } facilities for removal are afforded by the Board, merchants will remove goods sooner, and so avoid payment of these dues, except in the case of coal and timber, which can be stored on Trust premises more conveniently; and under the schedule of wharfage rates, at less expense than elsewhere in Madras.

(*e*) *Rent of Trust properties.*—Very little ground is now available for wharfage of timber, consequently the rents are gradually decreasing, as most of the timber imported, is now landed within the Harbour.

(*f*) *Water collections.*—This is realized on drinking water supplied to the shipping, and the amount is gradually increasing. The sum is small, but is of importance, having accrued to the Board by the judicious expenditure of two hundred rupees for a water pipe; to carry the water out to the Pier head; a few years ago.

(*g*) *Porterage.*—
(*h*) *Dues under Sec.* 45 (*c*) *VI.*— } The apparent decrease under this head is caused by the separation of the item (*h*) which was formerly dealt with as an item of porterage receipts. In the aggregate there is an increase of Rs. 4,184 during the year.

(*i*) *Demurrage.*—Amounts levied under this head during the year have been brought to account as Storage. This has I believe been attended to for the present year, and a new heading opened in the Cash book.

(*j*) *Miscellaneous.*—The principle item of receipt under this head was the sum realized by the sale of Casurina wood growing on land at Tondiarpettah. The Board had to relinquish the land, and place it at the disposal of Government.

5. The total tonnage landed at, or shipped from, this port during the past 7 years is as under:—

Years.	Pier.			Beach.			Grand Total.
	Import.	Export.	Total.	Import.	Export.	Total.	
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1887-88... ...	86,258	54,562	140,820	124,721	51,445	176,166	316,986
1888-89... ...	85,133	47,262	132,395	116,464	41,741	158,205	290,600
1889-90... ...	88,419	66,208	154,627	158,240	46,317	204,557	359,184
1890-91... ..	100,154	58,855	159,009	188,383	44,580	232,963	391,972
1891-92... ...	97,987	56,046	154,033	249,414	32,893	282,307	436,340
1892-93... ...	80,339	55,514	135,853	197,504	30,424	227,928	363,781
1893-94... ...	81,719	58,912	140,631	203,532	39,748	243,280	383,911

6. *Coal and South Beach Railway Sidings.*—The realignment of the Beach Railway, consequent on the laying of the Electric tramways line of rails, along the Beach road, has necessitated considerable alteration in the Board's Traffic lines, and has reduced the length of the mixed gauge siding, at which South Indian Railway Company's vehicles can be loaded with coal to be despatched over the lines of that Company.

7. *Coal Coke and Patent Fuel.*—There has been a steady increase in the import of coal during the past seven years, as shown below :—

Year.	Coal.	Coke.	Patent Fuel.	Total.
	Tons.	Tons.	Tons.	Tons.
1887-88 ...	10,000	608	4,884	15,942
1888-89 ...	21,645	997	6,443	29,085
1889-90 ...	23,970	645	9,753	34,368
1890-91 ...	41,888	1,389	5,613	48,890
1891-92 ...	47,010	2,017	...	49,027
1892-93 ...	63,600	1,322	2,953	67,875
1893-94 ...	80,568	1,734	...	82,302

The demand for coal is increasing yearly, and as some fifty large power steam-boilers are imported annually, should continue to increase. The arrangements for discharging and landing coal are however not satisfactory. Jetties, at which coal can be loaded, direct from ships hold into railway wagons, are much needed for this important item of import. Arrangements for providing such jetties are now under consideration; and any money expended for this purpose, will bring in a good return, in the shape of increased revenues; as well as save importers much expense and loss by wastage.

The coal yard was extended in 1891, but it has again been found necessary to extend the area available for wharfage of coal. To provide this extra accommodation, the Board's Iron yard has been utilized for the purpose; and a large area, immediately to the north of the Iron Screw Pile Pier has been levelled, and is now being metalled, so as to form a new Iron yard, for the storage and delivery of iron.

8. *Kerosene Oil.*—This oil appears to be coming into general use for lighting purposes, as the quantities imported are increasing year by year. In 1887-88 only 86,489 cases of this oil were imported as against 342,671 cases and 5,455 tons in bulk, equal in all to 526,771 cases—during the year under report: 1893-94.

9. *Screw File Pier.*—This structure has been maintained in good working order; is well supplied with steam and hand cranes, trucks, &c., required for traffic purposes, and has been able to cope with the daily requirements of the port; except on occasions when two or more large home line steamers, with their powerful steam or hydraulic cargo appliances are discharging together. At such times the pier is crowded and considerable delay occurs. Goods are hoisted till 9 P.M., still it often happens, that valuable cargo has to remain in open boats through the night, till the next day.

10. The hand cranes on the pier could be replaced and supplemented by steam-power, but at present this would be of no use, as the difficulty lies in the

Customs House, where it is impossible to unload goods from pier trucks, as rapidly as cargo can be; even with present appliances hoisted on to the pier.

11. The following statement shows the amount of revenue collected, on goods passed over the pier during the past seven years :—

Years.	Imports.			Exports.			Total.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
1887-88 ...	86,256	8	9	54,561	8	1	1,40,818	0	10
1888-89 ...	85,132	14	2	47,261	11	3	1,32,394	9	5
1889-90 ...	88,418	12	9	66,207	15	0	1,54,626	11	9
1890-91 ...	1,00,154	7	6	58,854	10	3	1,59,009	1	9
1891-92 ...	97,987	10	0	56,046	6	6	1,54,034	0	6
1892-93 ..	78,550	2	1	55,514	2	7	1,34,064	4	8
1893-94 ...	87,222	7	11	58,912	1	9	1,46,134	9	8

12. *Overtime-work.*—During the year under report the work done on Sundays, holidays, and after 6 P.M., was as follows :—

Days.	Tonnage of goods landed and shipped.	No. of packages delivered to consignees.
Sundays ...	28,132	7,153
Holidays ...	22,618	55,957
Nights ...	9,246	...
Total...	59,996	63,110

In addition to the above 112 horses and 944 packages of fodder, &c., were landed on the south arm of the Harbour.

13. *Porterage work.*—This work has gone on very satisfactorily during the year, and there have been no complaints. The goods landed each day have been daily conveyed to and deposited in the places set apart for their reception, and have been sorted and delivered to consignees as required.

14. No serious accident has happened to any coolie or other employé of the Board during the year. A number of the coolies have received slight injuries, but all have been duly treated in hospital and have returned to work.

15. The claims for losses and damage occurring to goods handled by the Porterage Department again show a reduction, as the amount paid on such claims has amounted to Rs 526-11-2 only as against Rs. 3,500 paid during 1890-91, the year in which the porterage work was first undertaken by the Board. The system of supervision, check and examination of packages adopted in the Board's Traffic

Department is very complete; but such favorable results can hardly be expected every year, as the loss of a single package by the breaking of a sling, defective slinging, or theft, might cause the expenditure of a large sum under this head. During the year under report no crane chain broke. One chain sling only, broke during the year, but as the goods were recovered without damage, no loss was incurred. Considering that over 200,000 tons of cargo of all shapes, sizes and weights have been hoisted and lowered by the Board's cranes during this period, the result is most satisfactory and will compare favorably with work done elsewhere.

16. The apparent decrease of revenue under this head, *viz.*, Rs. 9,103-10-4, is due to the sum of Rs. 13,287-14-1 levied as "*Dues for entry of vehicles*" under Section 45 (*c*) VI having been transferred from Porterage receipts and entered under a separate head of receipts. Including this item for comparison with previous years the result is an increase of Rs. 4,184-3-9 during the year under report.

17. The receipts, expenditure, and saving effected by porterage operations during 1893-94, have been as follows:—

Cash receipts during the year	Rs.	1,06,335	
Pier Cooly Contractor's bill on 140,631 tons at annas 2-4 per ton, the late contract rate.	,,	20,509	1,26,844
Expenditure during the year	,,	77,669	
Less charges for lighting Trust premises	,,	1,250	
		76,419	
Porterage establishment now included in Traffic Department staff	,,	7,105	83,524
Saving effected	Rs.		43,320

18. The porterage work has now been done by the Board's Traffic Department for the past four years; and I would now submit the aggregate results of this portion of the Traffic Department work, on the finances of the Trust during this period, *viz*:—

Total cash receipts from 1st March 1890, to 31st March 1894	Rs.	4,40,861	
Pier cooly contract bills, on Pier imports and export formerly paid from revenue	,,	86,604	5,27,465
Total expenditure from 1st March 1890, to 31st March 1894			3,48,555
Total saving effected	Rs.		1,78,910

19. This large saving; the result of the Board utilizing the services of its officers and servants of the Traffic Department; in the interests of the *public*; instead of in the interests of *contractors*; must be considered very satisfactory indeed, a small addition to the staff has been necessary during the four years, but as the wages of this additional staff has been included in the expenditure shown above the amount, Rs. 1,83,468, has been a clear gain to the Board's revenue.

20. This large gain has been effected without any additional burden of charges on importers and exporters; which must be considered most satisfactory; as every rupee so saved becomes an asset of the Trust and is available for payment of charges connected with the improvement of the Port.

21. *Explosives.*—During the year 1893-94 the total number of packages of dynamite, blasting gelatine, detonators and gunpowder landed has been 16,808 in addition to guncotton, powder, and ammunition, landed by Government. Every care is taken in the landing and handling of these dangerous goods and so far no accident of any kind has occurred. These goods are invariably landed or shipped; under the personal direction of the Deputy Traffic Manager, or myself.

22. When Madras Act II of 1886 the Madras Harbour Trust Act came into operation, the Madras Harbour Dues Act VI of 1882 was repealed and the Harbour with its belongings handed over to the Trust. At this time the screw pile pier with its machinery and appurtenances was in a very bad state of repair, and the foreshore along the Beach within the Harbour in a state of chaos. Up to, and for a short time after this date, but little was done by the Establishment paid from revenues, beyond assessing and levying the Harbour dues, consequently, only a small staff of officers and servants were needed. The cost of this Establishment, however, with cost of upkeep, repairs, &c, was a direct charge against Harbour Dues receipts, as no work had then been undertaken, by which funds, apart from Harbour dues, could be collected to meet these charges.

23. During 1887, and following years, the Board commenced the work of renovating the few existing facilities, and affording new facilities for assisting merchants in the landing, shipping, storing and despatch of goods. The inner end of the Pier was removed to make room for the erection of 4 large goods sheds, the whole of the superstructure and tie rods of the Pier was renewed; 2 steam cranes and a full supply of Pier trucks purchased; commodious hards constructed and railway lines laid down, connecting the Board's premises with the Madras and South Indian Railway systems. During the same period the Board's Traffic Department assumed a more direct control over landing, and shipping operations, which necessitated the employment of a larger Establishment; and although up to the end of the year 1890; very little additional revenue was received in return for the large outlay expended by the Board, the way was prepared for the Board to take over the porterage operations; which was done on the 1st March 1890: since which date there has been a decided improvement in the financial position of the Board.

24. Revenue appears to be levied in return for two distinct considerations afforded by the Trust, viz.,—*First* an inclosed area of smooth water in which goods can be shipped or landed in safety, at all seasons of the year, advantageous alike to ship owner, and merchant.—*Second* for actual labour supplied, and facilities afforded in the hoisting, lowering, handling, storing, delivery and despatch of goods on shore; while in the hands of the Board's servants.

25. In return for the first consideration, Harbour dues are levied from the merchant, and Port dues from the ship owner; as follows:—

	1893-94.
Harbour Dues	...Rs. 2,87,934
Port Funds:—balance available for Harbour ...	,, 77,607
Total	Rs. 3,65,541

This sum is sufficient to cover the liabilities incurred in the construction of the Harbour, *viz.*, interest on capital debt, and repayment of loan.

26. In return for the second consideration; dues are levied under the various heads as follows:—

	1893-94.
Wharfage, Storage and rent ...	... Rs. 10,147
Cranage	... ,, 40,661
Dues for use of lines and engines ...	... ,, 13,287
Water supplied to shipping ...	... ,, 4,126
Sundries	... ,, 2,933
Porterage charges	... ,, 93,047
	1,64,201
To which may be added interest on invested capital.	37,021
Total	Rs. 2,01,222

As the entire charges during 1893-94; (excluding repayment of loan and interest on capital debt; provided for by the levy of Harbour and Port dues as above,) amounted to Rupees 1,89,727: the sums collected for labour supplied, and facilities afforded by the Board; with interest realized, is more than sufficient to cover the charges incurred on account of Fees to Trustees, salaries and fees of all officers and servants; wages to labourers; and ordinary new works, upkeep and repairs.

27. In view of the above, it will be seen that the establishment now maintained for the levy of dues, and for the proper control and conduct of the multifarious duties connected with the handling of the large quantities of goods landed and shipped, is not excessive, but on the contrary, the strength of the whole staff is taxed to the utmost to carry on the work properly.

28. *Establishment.*—During the year under report there has been several deaths among the subordinate staff of the Traffic Department, but none that calls for special remark.

29. I regret however that I have to report a large number of resignations from the service of the Board, in the Traffic Department. In all, 17 men have resigned during the year. Out of a total of 20 officers, forming the Preventive Service, five officers have resigned, and of four yard foremen, two have resigned,—six clerks, and four other men also resigned.

30. These men, with one exception, were either young men, or men in the prime of life, and who might reasonably have been expected to render many years of good work in the service of the Board. The resignation; especially of Preventive Officers and Foremen; is to be regretted as these men require long and careful training before they are really efficient, and able to render good service. Of the 17 men who resigned, only four have, so far as I know, obtained employment, and of these three resigned to be employed under the Collector of Sea Customs, and the Deputy Conservator of the Port, and the fourth man is re-employed by the Board, and now draws less pay than formerly.

31. On my return from furlough in July 1893, and also on assuming charge of the Traffic Department in November, I was pleased to find that Mr. Lloyd, the Acting Traffic Manager, and Mr. Cassin, the Acting Deputy Traffic Manager, had kept the whole of the working of the Department in good order, and that everything had gone on very satisfactorily during my absence. Preventive Officer Mr. Graves, who acted as Senior Preventive Officer, in charge of the storage and delivery of goods in the Customs yards, during the period Mr. Cassin acted as Deputy Traffic Manager, rendered good service. The remainder of the staff have also worked hard, and rendered satisfaction during the year under report.

32. Appended are eight statments showing the quantities of goods landed at or shipped from this Port during the past six years, *viz*:—

Appendix I. Goods imported from Foreign Ports.
II. Stores imported by the Madras Railway Company.
III. Stores imported by the South Indian Railway Company.
IV. Goods imported form Coast Ports.
V. Stores exported to Foreign Ports.
VI. Goods exported to Coast Ports.
VII. Stores, &c., imported by Government.
VIII. Stores, &c., exported by Government.

I have the honor to be,
Sir,
Your Obedient Servant,
S. HUTCHENCE,
Traffic Manager.

HARBOUR TRUST,
TRAFFIC MANAGER'S OFFICE,
MADRAS, 19*th April* 1894.

I. STATEMENT OF GOODS IMPORTED FROM FOREIGN PORTS.

—	Packages.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94	Increase or decrease as compared with last year.
Apparel and Effects ...	Packages...	1,368	1,217	851	1,347	1,068	1,017	— 51
Alum	Barrels ...	496	504	1,233	326	686	910	+ 224
Asphalte, Tar, & Pitch.	Casks ...	2,797	3,133	3,623	4,439	2,329	2,638	+ 309
Acids	Cases ...	1,484	775	1,362	1,854	1,408	1,560	+ 152
Arms and Guns ...	,, ...	516	235	126	442	221	250	+ 29
Arrack	Casks ..	832	773	346	884	833	1,031	+ 198
Blankets... ...	Bales ...	25	36	58	119	168	28	— 148
Beef and Pork ...	Cases ...	2	...	...	36	...	...	...
Bricks ...	100 ...	420	1,497	222	1,021	551	1,550	+ 999
Beer	Cases ...	6,697	5,664	6,606	6,123	8,710	7,013	— 1,697
	Barrels ...	2,160	935	110	1,140	1,707	1,401	— 306
	Hogsheads	4,424	3,649	8,217	6,808	8,210	4,310	— 3,900
Boiler	No. ...	33	19	32	51	32	48	+ 16
Corks	Bundles ...	191	133	88	88	72	50	— 22
Canvas	Bales ...	140	77	244	121	193	615	+ 422
Candles	Cases ...	14,278	20,539	18,515	16,637	31,017	27,463	— 3,554
Colours	,, ...	1,980	1,056	2,698	3,838	3,286	2,998	— 288
Confectionery Provisions and Oilmanstores	,, ...	17,042	14,214	17,896	23,395	22,129	20,829	— 1,300
Crockery & Glassware.	Crates & Casks.	2,942	3,018	4,099	4,538	3,817	5,300	+ 1,483
Chalk ...	Barrels ...	377	95	178	370	140	134	— 6
Cement ...	Casks ...	17,203	8,868	7,049	14,522	7,369	8,904	+ 1,535
Cast Iron Pipes and Tubes ...	Tons ...	683	1,009	950	335	1,436	989	— 447
Camphor ...	Tubs ...	2,675	1,560	1,556	4,739	4,349	5,765	+ 1,416
Coal, Coke and fuel ...	Tons ...	13,773	11,992	16,688	...	...	...	...
Coal	,, ..	...	...	..	33,686	49,508	58,179	+ 8,671
Coke	,, ...	...	...	...	578	778	1,018	+ 240
Fuel ...	,, ...	...	...	...	...	2,953	...	— 2,953
Crackers... ...	Cases ..	879	975	1,134	470	840	327	— 513
Copper Plates and Tiles	No. ...	498	5,012	1,594	4,802	521	7,260	+ 6,739
Corrugated Iron ...	Packages...	51	449	2,913	805	2,512	2,638	+ 176
Dynamite ...	Cases ...	4,998	6,450	9,230	13,040	8,035	10,598	+ 2,563
Earthenware ...	Crates ...	2,104	794	1,913	2,318	1,886	2,168	+ 282
Fire Clay ...	Casks ...	234	147	23	2,768	272	312	+ 40
Flour	Bags and Barrels.	483	675	367	1,317	821	1,251	+ 430
Flannel ...	Bales ...	74	23	58	54	30	64	+ 34
Gunpowder ...	Packages...	476	962	1,746	6,667	5,987	5,883	— 104
Harmonium ...	Cases ...	4	11	9	30	27	24	— 3
Hardware ...	Cases & Casks..	4,247	2,924	3,954	8,234	6,783	8,189	+ 1,406
Hops ...	Packages	269	115	129	129	64	297	+ 233
Iron ...	Tons ...	17,771	12,762	18,138	13,737	17,929	18,627	+ 698
Iron Safes ...	No. ...	577	343	241	296	150	167	+ 17
Kerosine Oil	Cases ...	248,024	248,505	345,000	397,862	251,320	342,671	+ 91,351
	Tons ...	..	...	...	...	3,361	5,455	+ 2,094
Lime Water ...	,, ...	108	31	45	...	...	...	...
Malt ...	Bags ...	565	609	354	445	407	22	— 385
Millinery and Haberdashery ...	Cases ...	1,640	1,393	1,356	1,609	1,566	1,370	— 196
Matches	,, ...	11,739	4,928	7,916	10,665	9,125	8,927	— 198
Machinery ...	Tons ...	1,752	1,799	1,600	3,099	3,241	4,817	+ 1,576
Nails	Kegs ...	19,256	4,409	13,287	13,744	10,547	14,022	+ 3,475
Oil and Turpentine ...	Drums ...	6,984	8,863	6,942	7,225	15,500	4,581	— 10,919
Piece Goods ... Piece Goods	Cases&Bales	105,495	97,383	82,649	85,079	51,551	57,676	+ 6,125
Twist.						18,664	24,071	+ 6,407
Paper ...	Bales ...	3,236	3,988	4,646	6,546	5,518	6,038	+ 520

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

—	Packages.	1888-89.	1889-90.	1890-91.	1891-92	1892-93.	1893-94	Increase or decrease as compared with last year.
Piano ...	No. ...	102	135	123	153	99	112	+ 13
Printing Types ...	Cases ...	330	348	263	492	727	346	— 381
Pig Lead ...	No. ...	1,895	2,647	1,420	2,198	1,098	2,612	+ 1,514
Paint	Kegs ...	7,837	7,945	7,457	7,758	10,257	5,770	— 4,487
Rattan ...	Bundles ...	949	6,527	883	3,823	5,669	2,362	— 3,307
Soaps ...	Cases ...	2,075	2,191	1,996	1,650	970	2,172	+ 1,202
Salt	„ ...	488	620	225	383	329	153	— 176
Steel	Cases & Casks	921	3,577	874	864	3,343	794	— 2,549
Steel Bundles and Bars ...	No. ...	...	...	5,746	11,261	10,401	10,768	+ 367
Steel Hoop ...	Bundles ...	...	...	12,566	5,567	1,597	4,930	+ 3,333
Shovels ...	„ ...	173	13	747	275	499	29	— 470
Sodawater Bottles ...	Crates ...	846	997	840	1,395	1,768	1,570	— 198
Sulphur ...	Casks ...	825	831	633	752	435	1,128	+ 693
Shot ...	Kegs ...	220	348	240	177	56	248	+ 192
Sundries ...	Packages ...	32,262	39,934	48,364	48,408	33,606	56,235	+ 22,629
Specie ...	No. ...	1,330	1,541	1,115	1,229	888	768	— 120
Sugar	Bags ...	...	...	2,259	2,152	1,196	4,198	+ 3,002
Slates and Pencils ...	Cases ...	1,389	645	1,101	1,242	848	1,333	+ 485
Spelter ...	Cakes ...	13,343	3,255	11,342	836	8,786	22,921	+ 14,135
Saw ...	Cases ...	34	7	68	70	48	79	+ 31
Twine and Rope ...	Bales & Coils	71	221	183	438	455	458	+ 3
Tin Plates ...	Boxes ...	4,194	3,771	4,994	5,608	4,649	6,669	+ 2,020
Wine and Spirits	Cases ...	45,173	46,479	40,857	37,877	44,739	36,048	— 8,691
	Casks ...	2,094	3,240	2,739	863	658	514	— 144
	Puncheons ...	256	392	149	369	733	1,058	+ 325
Window Glasses ...	Cases ...	1,987	5,158	8,297	5,972	12,000	10,425	— 1,575
White and Red Lead	Kegs ...	859	969	495	681	951	737	— 214
Yellow Metal ...	Cases ...	907	2,722	4,309	3,076	3,361	2,784	— 577
Zinc Sheets ...	Packages ...	1,221	1,174	595	2,749	1,690	1,761	+ 71
Horses ...	No. ...	837	696	611	816	959	835	— 124
Ponies ...	„ ...	3	6	17	70	112	131	+ 19
Cows ...	„ ...	5	5	...	59	15	7	— 8
Dogs ...	„ ...	14	13	10	13	14	3	— 11
Elephants ...	„ ...	...	1	25	10	7	6	— 1
Two-wheeled Carriage ..	.. ...	...	...	...	...	8	9	+ 1

II. STATEMENT OF STORES IMPORTED BY THE MADRAS RAILWAY COMPANY.

—	Packages.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	Increase or decrease as compared with last year.
Stores	Packages ...	34,697	81,723	51,879	32,105	72,434	47,040	— 25,394
	Tons ...	...	171	467	3,605	499	156	— 343
Fuel ...	„ ...	5,587	9,753	4,673	...	...	...	...
Coke ...	„ ...	997	645	839	1,437	544	716	+ 172
Coal ...	„ ...	52	2,702	4,301	27	300	237	— 63
Timber ...	„ ...	1,622	1,483	3,800	2,477	2,083	1,448	— 634
Fire Brick ...	100 ...	141	140	165	115	330	...	— 330

III. STATEMENT OF STORES IMPORTED BY THE SOUTH INDIAN RAILWAY COMPANY.

—	Packages.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	Increase or decrease as compared with last year.
Stores	Packages ...	109,131	694,812	618,937	68,282	22,171	28,640	+ 6,469
	Tons ...	856	...	...	...	...	992	+ 992
Coke ...	„ ...	...	...	...	14	...	...	...
Coal ...	„ ...	5,276	6,582	5,980	...	...	...	...
Timber ...	„ ...	10	...	...	..	...	...	...
Boiler ...	No. ...	...	10	55	4	12	10	— 2

IV. STATEMENT OF GOODS IMPORTED FROM COAST PORTS.

—	Packages.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	Increase or decrease as compared with last year.
Apparel and Effects	Packages ...	378	414	634	451	343	527	+ 184
Alum ..	Barrels ...	51	56	...	10	187	7	— 180
Acids ...	Cases ...	149	11	99	89	125	269	+ 144
Animals ...	No. ...	...	...	210	...	10	...	— 10
Arms and Guns ...	Cases ...	15	49	10	45	12	13	+ 1
Boilers ...	No. ...	3	1	7	2	...	...	...
Bricks and Tiles ...	100 ...	120	1,239	1,630	1,396	57	837	+ 780
Coffee ...	Bags ...	715	461	349	379	595	575	— 20
Candles ...	Cases ...	1,871	682	...	...	...	11	+ 11
Colours ...	„ ...	1,667	1,067	1,541	1,225	1,531	1,591	+ 60
Crockery and Glassware ...	„ ...	782	413	305	322	466	426	— 40
Coal ...	Tons ...	2,351	186	14,884	13,249	13,792	22,152	+ 8,360
Coke ..	„ ...	...	...	...	...	...	..	...
Carpets ...	Bales ...	112	178	187	77	94	99	+ 5
Camphor and Benjamin ..	Tubs ...	1,483	1,585	4,640	682	1,306	432	— 874
Copra ...	Bags ...	191	124	...	32	...	122	+ 122
Crackers ...	Cases ...	10	...	..	...	...	...	..
Copper ..	„ ...	1,350	11,053	1,071	...	1,667	936	557 — 379
Do. ...	Tiles & Ingots...	...	...	5,703	4,415	3,191	3,554	+ 363
Cutch and Lac ...	Packages ...	...	600	...	3	415	2,023	+ 1,608
Cocoanuts ...	No. ..	900	30	23	392	2,941	407	— 2,534
Earthenware ...	Crates ...	169	...	...	2,626	6,315	950	— 5,365
Do. ...	Pipes ...	2,080	892	...	...	...	...	...
Firewood ...	Tons ...	1,212	...	...	...	...	...	...
Flour ...	Bags & Barrels.	2,819	4,352	4,177	7,248	11,682	12,270	+ 588
Gunnies ...	Bales ...	7,993	11,863	10,786	7,930	9,661	9,755	+ 94
Gram and Peas, &c.	Bags ...	125,942	191,357	225,739	271,682	380,145	395,249	+ 15,104
Garlic ...	„ ...	1,899	7,077	8,523	2,945	1,215	6,007	+ 4,792
Hardware ...	Cases ...	542	469	605	641	1,197	1,507	+ 310
Horns ...	Bundles ...	702	1,043	681	880	980	511	— 469
Hides ...	Bales ...	4,449	7,400	6,936	6,127	9,539	6,013	— 3,526
Iron ...	Tons ...	277	457	400	231	293	155	— 138
Iron Safes ...	No. ...	65	47	19	31	38	34	— 4
Kerosine Oil ..	Cases ...	...	..	...	...	...	500	+ 500
Leaves ..	Bundles ...	5,116	5,796	5,574	6,508	3,742	5,113	— 1,371
Liquor ...	Cases ...	...	...	...	...	...	2,193	+ 2,193
Machinery ...	Tons ...	171	109	251	158	79	49	— 30
Millinery and Haberdashery ...	Cases ...	254	268	189	208	245	144	— 101
Oil and Turpentine.	Drums ...	2,794	2,540	2,846	8,340	6,369	5,941	— 428
Paddy ...	Bags ...	...	...	...	...	75,980	23,737	— 52,243
Piece-goods ...	Cases and Bales	7,306	6,237	3,028	3,802	4,756	3,499	— 1,257
Paper ...	Bales ...	3,820	5,003	3,985	3,128	4,898	5,420	+ 522
Paint ...	Kegs ...	212	1,098	99	224	693	247	— 446
Piano ...	No. ...	6	7	5	15	12	5	— 7
Rice ...	Bags ...	26,769	69,446	223,751	1,147,048	205,176	110,181	— 94,995
Rose Water ...	Cases ...	1,409	1,867	715	1,434	1,815	1,357	— 458
Seeds ..	Bags ...	13,066	13,212	12,044	30,406	25,747	13,916	— 11,831
Skins ...	Bales ...	5,729	5,727	5,387	6,199	50,502	6,807	+ 1,755
Silk ...	„ ...	837	883	825	1,051	699	290	— 409
Sandalwood ..	Bundles ...	145	297	63	143	121	42	— 79
Sugar ...	Bags ...	6,900	2,816	2,134	1,381	866	1,333	+ 467
Specie ...	No. ...	201	184	37	202	190	193	+ 3
Sundries ...	Packages ...	43,462	38,472	40,653	47,533	47,137	48,614	+ 1,477
Soap ...	Cases ...	105	179	263	445	40	147	+ 107
Sulphur ...	Casks ...	48	173	...	471	544	506	— 38
Spice ...	Packages ...	...	...	3,674	359	740	640	— 100
Soda water Bottles...	Crates ...	...	...	...	...	...	241	+ 241
Twine and Rope ...	Bales and Coils	1,164	541	942	839	775	1,063	+ 288
Tin Plates ...	Boxes ...	1,118	1,322	708	1,807	912	858	— 54
Twist ...	Bales ...	4,064	3,434	1,338	1,126	1,147	1,206	+ 59
Turmeric ...	Bags ...	5,790	8,421	10,751	7,224	4,977	5,433	+ 456
Timber ...	Tons ...	17,277	17,889	16,850	15,137	10,595	15,264	+ 4,669
Tea ...	Cases ...	1,421	3,883	4,785	1,321	3,411	37	— 3,374
Tamarind ...	Bundles ...	...	...	...	...	...	140	+ 140
Yellow Metal ...	Cases ...	155	342	809	6	542	1,078	+ 536
Horses... ...	No. ...	...	...	...	1	15	8	— 7
Two-wheeled Carriages.	No. ...	...	...	...	...	4	5	+ 1
Four-wheeled Carriages.	No. ...	..	...	...	...	3	19	+ 7

V. STATEMENT OF GOODS EXPORTED TO FOREIGN PORTS.

—	Packages.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	Increase or decrease as compared with last year.
Beer and Ale ...	Cases	13	30	...	18	2	13	+ 11
	Casks	...	2	...	60	7	...	— 7
	Hogsheads ...	1	1	...	3	...	...	...
Cinchona Bark ...	Bales	2,185	1,299	1,346	471	529	411	— 118
Chillies	Bags & Bundles.	2,225	3,262	1,362	2,760	9	816	+ 807
Cigars	Cases	1,239	1,423	942	1,249	556	643	+ 87
Coffee	Bags	23,456	15,515	22,708	23,764	34,613	17,737	— 16,876
Cotton	Bales	55,173	101,837	77,922	48,202	26,140	56,768	+ 30,528
Cotton Twist ...	,, ...	3,960	5,956	8,271	4,229	5,266	1,946	— 3,320
Coriander and Omum Seeds ...	Bags	9,281	11,610	1,385	8,218	1,814	7,377	+ 5,563
Carpets	Bales	645	725	524	418	288	391	+ 103
Coal	Tons	182	115	...	905	313	599	+ 286
Deer Horns ...	Packages ...	874	1,366	1,311	1,574	1,549	767	— 782
Explosive ...	Cases	14	25	...	21	1	...	— 1
Firewood ...	Tons	23	...	...	...	...	...	...
Four-wheeled Carriages ...	No.	30	3	2	8	2	3	+ 1
Ground Nuts ...	Bags	95,642	206,096	190,320	93,132	26,209	138,211	+ 112,002
Gram, Peas, &c....	,, ...	937	1,454	...	519	161	1,662	+ 1,501
Horns, Cow and Buffalo ...	Tons	199	66	84	62	29	1,026	+ 997
Hides, Tanned ...	Bales & Bundles.	17,858	17,532	16,460	21,848	21,812	11,149	— 10,663
Indigo	Cases & Chests.	22,762	27,618	24,453	14,622	29,933	25,008	— 925
Iron	Tons	29	23	...	2	11	17	+ 6
Jaggery	Bags	23,520	111,032	34,135	28,985	56,672	52,668	— 4,004
Myrabolams ...	Bags	195	452	2,576	235	91	563	+ 472
Miscellaneous ...	Packages ...	23,607	17,990	16,335	37,808	28,547	36,531	+ 7,984
Onions	Bags & Baskets	7,979	9,078	12,022	21,964	5,617	17,517	+ 11,900
Oil	Casks	331	587	50	434	56	208	+ 152
Piece-goods ...	Bales and Cases.	3,372	3,419	5,843	6,205	4,857	7,305	+ 2,448
Potatoes	Bags & Baskets.	3,837	2,703	2,284	2,437	282	1,716	+ 1,434
Poonac	Bags	13,116	15,187	26,134	33,880	16,127	31,311	+ 15,184
Piano	No.	10	8	3	41	10	15	+ 5
Paddy ...	Bags	...	...	...	...	5	22	+ 17
Rice	,, ...	17,589	65,475	2,059	1,138	3,229	16,915	+ 13,686
Redwood	Tons	1,382	2,052	1,809	699	1,654	733	— 921
Seeds, Gingelly and Castor ...	Bags	20,137	80,411	19,021	1,313	12,654	14,777	+ 2,123
Skins, Sheep and Goat, Tanned...	Bales	32,498	30,399	31,209	32,194	34,063	31,535	— 2,528
Sandalwood ...	Bundles ...	672	637	1,728	1,534	330	699	+ 369
Spirits and Wine	Cases	135	331	...	332	41	67	+ 26
	Casks	5	87	...	977	65	40	— 25
	Puncheons ...	...	18	...	...	...	...	...
Sugar	Bags	1,112	7,296	...	599	161	1,197	+ 1,036
Specie	Boxes	153	33	55	94	48	29	— 19
Tamarind ...	Bundles ...	8,277	2,549	1,156	6,445	5,331	3,076	— 2,255
Turmeric... ...	Bags	1,898	1,526	...	2,159	941	1,562	+ 621
Tea	Cases	4,275	3,822	2,384	2,265	1,769	1,649	— 120
Two-wheeled Carriages ...	No.	...	...	3	1	...	3	+ 3
Wool	Bales	970	1,043	1,196	1,021	1,470	1,532	+ 62
Yellow Metal ...	Tons	3	5	...	107	100	417	+ 317

VI. STATEMENT OF GOODS EXPORTED TO COAST PORTS.

—	Packages.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.	Increase or decrease as compared with last year.
Beer and Ale ...	Cases ...	249	456	289	352	294	305	+ 11
	Casks ...	16	110	159	159	94	91	— 3
	Hogsheads ...	161	10	47	7	41	161	+ 120
Boiler ...	No. ...	...	...	...	...	...	1	...
Cinchona Bark ...	Bales .	178	186	...	395	84	80	— 4
Chillies	Bags & Bundles	2,908	5,535	4,592	2,064	2,907	9,207	+ 6,300
Cigars	Cases ...	1,488	1,298	1,345	1,418	1,136	789	— 347
Coffee	Bags ..	506	574	605	507	1,449	541	— 908
Cotton	Bales ...	1,972	4,761	8,521	5,721	4,245	7,080	+ 2,835
Cotton Twist ...	,, ...	3,816	3,075	5,103	4,698	6,138	3,220	— 2,918
Coriander and Omum Seeds	Bags ...	2,728	7,071	4,783	2,970	7,002	6,894	— 108
Cement ..	Casks ...	..	...	...	...	8,908	132	— 8,776
Carpets	Bales ...	34	26	45	68	51	41	— 10
Coal	Tons ...	...	94	976	275	450	157	— 293
Deer Horns ..	Packages ...	85	7	84	108	151	52	— 99
Explosive ...	Cases ...	201	303	55	2,668	1,331	1 067	— 264
Eggs	Pots ...	2,717	3,882	2,801	1,165	1,125	1,198	+ 73
Firewood... ..	Tons ...	28	8	...	2	...	...	...
Four-wheeled Carriage	No. ...	26	9	34	21	31	27	— 4
Groundnuts ...	Bags ...	30,757	20,996	61,463	27,790	17,839	16,116	— 1,723
Gram, Peas, &c. ...	,, ...	15,204	8,987	3,568	521	1,226	233	— 993
Horns, Cow and Buffalo	Tons ...	198	336	30	310	307	166	— 141
Hides ...	Bales & Bundles	407	495	506	379	526	535	+ 9
Indigo	Cases & Chests..	405	829	412	165	816	1,162	+ 346
Iron	Tons ...	989	743	850	2,244	2,611	755	— 1,856
Jaggery	Bags ...	376	296	...	258	1,448	336	— 1,112
Kerosine Oil ...	Cases ...	1,516	4,680	3,463	10,327	659	1,117	+ 458
Myrabolams ...	Bags ...	322	139	535	1,054	291	1,112	+ 821
Miscellaneous ...	Packages ...	12,419	20,868	36,308	50,510	69,584	61,706	— 6,878
Onions	Bags & Baskets	9,705	11,516	21,141	22,442	53,406	47,062	— 6,344
Oil	Casks ...	790	1,844	1,281	807	637	346	— 291
Piece-goods ...	Bales & Cases	3,429	3,613	6,259	5,615	8,651	6,368	— 2,283
Potatoes	Bags & Baskets	24,229	21,992	26,470	23,637	24,388	30,592	+ 6,204
Poonac	Bags ...	2,210	1,469	4,752	4,770	22,131	9,853	— 12,328
Piano	No. ...	5	42	24	23	16	17	+ 1
Paddy	Bags ..	27,149	4,019	11,426	...	8,806	8,400	— 406
Rice	,, ...	6,790	8,198	8,098	5,448	31,893	11,083	— 20,810
Redwood	Tons ...	62	194	...	119	693	4	— 689
Seeds, Gingelly and Castor	Bags ...	19,374	28,756	57,157	16,803	2,787	36,799	+ 34,012
Skins, Sheep & Goat, Tanned ...	Bales	510	758	1,271	721	1,046	871	— 175
Sandalwood ...	Bundles ..	224	342	1,856	153	256	2,786	+ 2,530
Spirits ..	Cases	2,143	2,098	3,049	2,982	3,783	3,045	— 738
	Casks	150	162	250	727	716	992	+ 276
	Puncheons ...	2	16	54	13	189	214	+ 25
Sugar	Bags	460	2,307	2,093	773	1,419	473	— 946
Specie	Boxes	278	164	154	236	510	47	— 463
Tamarind ...	Bundles ...	2,010	3,598	17,197	3,624	8,253	5,090	— 3,163
Turmeric... ...	Bags	8,972	463	4,719	19,258	17,883	38,147	+ 20,264
Tea	Cases	55	544	298	341	62	50	— 12
Two-wheeled Carriage	No.	14	8	27	15	16	12	— 4
Wool	Bales	37	567	475	769	603	463	— 140
Yellow Metal ...	Tons	88	25	47	53	67	256	+ 189

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

Department.	Description.	Class.	1888-89.	1889-90	1890-91.	1891-92.	1892-93.	1893-94.	Increase or decrease as compared with last year.	
Accountant-General.	Specie Silver.	Boxes	1,789	1,109	1,176	403	582	533	—	49
	,, Copper.	,,	335	1,320	3,475	5,100	710	780	+	70
	Silver&Copper	,,	174	...	...	...	...	...	...	
	Notes ...	,,	19	21	8	32	19	30	+	11
	Packages ...	No.	...	1	...	27	1	...	—	1
State Railway...	Packages&Pieces	,,	593	...	3	...	...	...	...	
	Rails ...	,,	...	...	...	...	...	...	...	
	Sleepers ...	,,	...	...	...	...	...	...	...	
	Bridge Works	Tons	...	...	...	...	...	...	...	
Public Works Department	Boilers ...	No.	2	...	...	2	...	...	...	
	Coal ...	Tons	106	44	60	50	20	...	—	20
	Iron ...	,,	220	442	250	271	9	19	+	10
	Stores ...	Pkgs.	1,691	1,127	2,049	15,148	6,494	10,812	+	4,318
Ordnance ...	Coal ...	Tons	86	1,968	939	...	...	1,450	+	1,450
	Ammunition..	Boxes	1,303	51	...	2,148	...	109	+	109
	Stores ...	Pkgs.	15,838	22,268	22,898	13,017	28,566	21,057	—	7,509
Madras Harbour Works	Cement ...	Casks	35,764	40,241	30,375	1,869	...	...	...	
	Stores ...	Pkgs.	321	1,009	895	3,869	...	...	...	
	Coal ...	Tons.	...	496	586	...	...	...	...	
Clothing ...	Packages ...	No.	1,773	2,831	1,527	1,983	2,324	2,176	—	148
Police ...	,, ...	,,	248	135	335	122	167	196	+	29
Salt Revenue ...	,, ...	,,	75	115	190	272	291	109	—	182
Post Office ...	,, ...	,,	980	1,858	1,739	1,119	858	742	—	116
Medical ...	,, ...	,,	1,384	1,616	1,250	1,779	1,007	1,920	+	913
Telegraphs ...	,, ...	,,	6,899	16,414	19,211	34,768	24,126	9,129	—	14,997
Stationery ...	,, ...	,,	1,088	743	611	732	1,197	1,156	—	41
Stamps ...	,, ...	,,	1,435	1,499	1,647	1,961	1,122	1,861	+	739
Commissariat ...	,, ...	,,	1,811	1,779	4,384	8,588	7,420	2,562	—	4,858
Gazette Press ...	,, ...	,,	52	32	2,414	161	149	97	—	52
Marine ...	,, ...	,,	32	182	511	729	880	806	—	72
Supt., Railway Mail Service ...	,, ...	,,	52	31	...	...	...	...	...	
Revenue Survey...	,, ...	,,	252	52	32	297	208	25	—	183
Agriculture ...	,, ...	,,	1	6	292	380	320	140	—	180
Government Central Museum ...	,, ...	,,	6	4	10	15	10	9	—	1
Under-Secy. to Government ...	,, ...	,,	87	84	94	235	504	85	—	419
Supt. of Prisons...	,, ...	,,	3	9	...	1	17	7	—	10
Revenue Board ...	,, ...	,,	65	36	139	424	33	9	—	24
Forests ...	,, ...	,,	31,811	175	1,318	1,196	10	3	—	7
Bank of Madras	Specie Silver.	Boxes	...	3	...	...	...	...	..	
	,, Copper	,,	...	56	...	...	...	...	...	
Presidency College	Packages ...	No.	...	13	40	28	15	2	—	13
School of Arts ...	,, ...	,,	2	2	...	3	1	1	...	
Sanitary Commissioner ...	,, ...	,,	1	...	...	...	...	1	+	1
Inspector of Cattle Diseases ...	,, ...	,,	116	10	...	9	100	...	—	100
Chemical Examiner	,, ...	,,	25	15	32	31	31	36	+	5
Medical College...	,, ...	,,	50	2	64	73	31	41	+	10
Dy. Collectors ...	,, ...	,,	...	...	14	9	15	12	—	3
Camp Equipage ...	,, ...	,,	...	...	1	...	..	...	...	
Astronomer ...	,, ...	,,	11	6	6	23	13	20	+	7
Presidency Pay Master ...	,, ...	,,	8	6	13	2	8	4	—	4
Registration ...	,, ...	,,	24	2	3	7	4	1	—	3
Director of Public Instruction ...	,, ...	,,	...	9	5	9	139	4	—	135
Superintendent, Remount Depôt, Hussur.	,, ...	,,	...	...	...	...	600	214	—	386
Resident, Mysore, in Bangalore.	,, ...	,,	...	...	...	...	2	9	+	7
Secretary for Berar Hyderabad.	,, ...	,,	...	...	...	...	7	18	+	11
H.E.Lord Wenlock Government House, Madras.	,,	,,	...	...	...	...	2	...	—	2
Judge, Civil City Court, Madras.	,,	,,	...	...	...	...	1	...	—	1
Quarter Master Genl.	,,	,,	...	...	...	...	3	14	+	11
Registrar of High Court ..	,,	,,	...	...	...	...	1	4	+	3
Curator Govt. Garden, Ooty	,,	,,	...	...	...	...	...	40	+	40
Civil Engineering College..	,,	,,	...	...	...	...	...	44	+	44

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

Department.	Description.	Class.	1888-89	1889-90	1890-91	1891-92	1892-93	1893-94	Increase or decrease as compared with last year.	
Accountant-General	Specie Silver.	Boxes.	118	174	20	411	45	95	+	51
	,, Copper.	,,	136	216	330	965	200	162	—	37
	,, Notes...	,,	5	4	10	6	13	8	—	5
	,, Packages	No.	1	1	6	4	1	1	...	
Bank of Madras...	,, Silver...	Boxes.	...	10	...	34	...	...	...	
,, ,, ...	,, Copper.	,,	...	37	...	...	62	84	+	22
Ordnance ...	Packages &Pieces.	No.	5,765	25,038	6,564	8,595	5,831	9,257	+	3,426
Public Works Department ...	,, ...	,,	4,420	18,358	429	1,784	488	3,203	+	2,715
Clothing ...	,, ...	,,	916	1,018	1,254	1,327	1,096	998	—	98
Police ...	,, ...	,,	749	849	727	889	974	955	—	19
Salt Revenue ...	,, ...	,,	330	493	306	591	785	724	—	61
Medical ...	,, ...	,,	1,049	1,868	1,552	1,377	1,610	2,166	+	556
Telegraph ...	,, ...	,,	355	1,125	9,462	8,845	4,330	4,945	+	615
Stationery ...	,, ...	,,	777	398	799	693	780	623	—	257
Stamps ...	,, ...	,,	165	171	195	220	298	236	—	62
Commissariat ...	,, ...	,,	5,128	5,179	7,761	7,971	6,205	5,301	—	904
Gazette Press ...	,, ...	,,	445	567	476	526	503	478	—	25
Marine ...	,, ...	,,	419	307	268	390	366	37	—	329
Revenue Board ...	,, ...	,,	26	52	79	77	37	87	+	50
Revenue Settlement	,, ...	,,	157	55	87	51	84	53	—	31
Revenue Survey...	,, ...	,,	31	77	74	75	452	223	—	229
Superintendent of Prisons ...	,, ...	,,	151	91	71	69	196	103	—	93
Registration ...	,, ...	,,	80	61	61	66	43	17	—	26
Conservator of Forests ...	,, ...	,,	28	49	31	34	33	5	—	28
Quarter-Master General ...	,, ...	,,	...	...	...	...	4	...	—	4
Government Central Museum ...	,, ...	,,	7	6	9	10	22	13	—	9
Deputy Collectors	,, ...	,,	20	...	...	2	9	...	—	9
Camp Equipage ...	,, ...	,,	...	...	...	...	...	...	...	
Government Astronomer ...	,, ...	,,	5	2	...	...	18	13	—	5
Agriculture ...	,, ...	,,	...	...	5	15	8	2	—	6
General Hospital..	,, ...	,,	...	...	...	...	...	...	...	
State Railways ...	,, ...	,,	293	...	...	100	...	...	...	
Inspector of Cattle Diseases ...	,, ...	,,	11	11	3	3	1	...	—	1
Chemical Examiner.	,, ...	,,	...	1	3	...	1	...	—	1
Director of Public Instruction ...	,, ...	,,	9	2	16	10	6	13	+	7
Registrar of University ...	,, ...	,,	14	16	16	13	10	5	—	5
Collectors ...	,, ...	,,	...	...	...	10	...	6	+	6
Curator of Government Garden, Ooty	,, ...	,,	...	2	12	11	...	12	+	12
Engineer, H. T. Board ...	,, ...	,,	...	1	...	...	...	2	+	2
Crown Officer, High Court ..	,, ...	,,	1	8	13	14	18	5	—	13
School of Arts ...	,, ...	,,	1	...	...	...	...	...	..	
Secretary to Government, Public Department ...	,, ...	,,	4	1	...	2	...	...	...	
Registrar-General of Births, Deaths and Marriages ...	,, ...	,,	...	...	...	...	..	...	...	
Inam Commissioner	,, ...	,,	...	1	...	1	...	...	...	
Consulting Engineer to Government Railways.	,, ...	,,	...	4	36	20	...	...	...	
Civil Engineering College ...	,, ...	,,	...	...	...	...	1	...	—	1
Superintendent, Census Operations.	,, ...	,,	...	...	...	...	4	1	—	3
Post Office ...	,, ...	,,	...	...	...	...	2	2	...	
Sanitary Commissioner. ...	,, ...	,,	...	...	...	...	2	2	...	

To

THE SECRETARY,
Harbour Trust Board, Madras.

S. HUTCHENCE,
Traffic Manager,
Harbour Trust Board.

PLAN OF MADRAS HARBOUR

1894

Soundings reduced to Low Water Ordinary Spring Tides

Scale 500 feet = 1 inch



2 Fathoms

9

8

7

6

5

4

3

2

NORTH PIER

SOUTH PIER

5'29-0"

March 1894

March 1893

March 1894

March 1893

H.W. 30th Septr. 1893

H.W. 31st March 1894

L.W. 31st March 1893

Commenced December 1876

High Water 31st March 1892

H.W. 31st March 1894

High Water 31st March 1893

Commenced November 1877

Coal Hard

New Commencement of the Harbour Works

Guard Line

Post Office Stables

Intercepting Sewer

Black Ground

Intercepting Sewer

Memorial Stone

Oliver's Battery

Carlton House

Bridewell Homes

H.W. Office

Custom House

High Court

Telegraph office

SOUTH INDIAN RAILWAY

Light House

BLACK TOWN

Lithographed at the Lawrence Asylum Press, Madras 1894.

A. de Rozun

M.I.M.E, A.M.I.C.E.

ENGINEER

HARBOUR TRUST BOARD.

Madras Harbour Works

Plan showing extension of Revetment at Casimodu.

Scale, 500 feet 1 inch

100 0 500 1000 1500 2000 FEET

H.W. 31st March 1893

H.W. 31st March 1894

High Water 31st March 1893

H.W. 31st March 1892

TONDIAR

PETT CUPPAM

GOWS

Hutchinces Howse

Carlton House

Bidens Home

Boat shed

NORTH PIER

Harbour Office

Railway Cl

H.W. 31st March 1892

H.W. 31st March 1893

H.W. 31st March 1894

High Water 30th September 1893

Probable line of H.W. with Revetment

Vegetable Garden

Huts

Latrines

Well

Scale 200 Feet = 1 Inch

C A S I M O D U

High Water 31st March 1892

High Water 31st March 1893

High Water 30th March 1894

High Water 30th September 1890

Road

Kulmondabum Road

A. Lee Boyson

M.I.M.E, A.M.I.C.E.W.G

Engineer

Harbour Trust Board

ed at the Lawrence Asylum Press Madras 1894

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

READ—the following paper:—

From E. TURNER, Esq., I.C.S., Chairman, Harbour Trust Board, Madras, to the Chief Secretary to Government, dated 23rd November 1894, No. 3018.

I have the honour to submit, for the information of Government, the usual report upon the progress made in the reconstruction of the Madras Harbour during the quarter ending 30th September 1894, together with the various tracings and statements referred to by the Board's Engineer, also the Traffic Manager's returns of imports and exports for the quarter and statement of cash receipts, to which is appended a comparison between the receipts for the two half-years ending respectively 30th September 1893 and 1894.

2. *Imports* from foreign ports record an increase in coal; kerosine-oil has also increased in quantity both in case oil and tons in bulk; but iron has decreased by 6,988 tons or more than one-half. Piece-goods show a substantial increase, twist a reduction; other items call for no comment except the large decrease in the import of general railway stores.

3. *Exports* to foreign ports are on the whole well maintained; coffee seeds of various sorts, rice, tanned skins and hides all show material advances, but groundnut-kernels and jaggery are less than in the corresponding half of 1893–94.

4. *Coasting Trade.*—A large increase has been recorded in the *export* of groundnuts and seeds. It is also to be noted that the shipment of salt has been resumed. *Imports* call for no special comment except that gram, peas and paddy show large reductions, while coal, flour, rice and sundries have increased.

5. *Cash Receipts* from all sources have aggregated Rs. 3,16,228 against Rs. 2,86,924, an increase of Rs. 29,304; but this excess is due to an increased contribution from Port funds of Rs. 37,607; otherwise there is a reduction in receipts of Rs. 8,303.

6. *Expenditure*, excluding temporary advances for harbour construction, has increased from Rs. 4,15,485 to Rs. 4,33,483, a difference of Rs. 17,998, due to interest Rs. 4,434, repairs Rs. 6,245, tools and plant Rs. 2,767, arrears of the Engineer's bills paid really appertaining to 1893–94, refunds Rs. 1,737, arrears of compensation allowance Rs. 2,703, and Rs. 1,123, increase in the Traffic Department shore staff, due to the return of the Traffic Manager from furlough—total Rs. 19,009. Other items show small *plus* and *minus* variations which are so noted, but call for no special comment.

7. *Harbour Works.*—The Engineer's report fixes the date for the setting of the caisson at the south pier head as March 1895, and anticipates that there will be the advantage at that pier head of smooth water under the lee of the caisson at the north pier and that therefore the delay which occurred at the end of the north arm will not recur at the south. Two other important points are alluded to—the accretion of sand to the south of the harbour, and its erosion to the north. The advance of sand at the south during the quarter July—September was no less than 150 feet, but as remarked this is only temporary, and on the change to the north-east monsoon taking place, the sea commences to rapidly encroach; the important point to be noted, however, is that behind this fluctuating series of accretion and erosion is established a permanent advance which appears to be more rapid than was expected. The engineer records that, compared with the same date in 1893, the advance of the foreshore near the south arm has been 120 feet during the twelve months. At the north,

beyond the extended protective revetment, the erosion reached 140 feet further inshore than had previously been recorded. Mr. Pogson anticipates that the bay thus formed at the end of the new revetment will probably increase until it reaches the line shown upon the plan as the probable permanent high-water mark, which is the record of the greatest erosion or bay similarly formed at the north end of the old revetment which terminated at Cassimode. The Trustees, however, feel by no means certain that this will be the case, for it must be remembered that the bay formed at the north end of the old revetment can hardly be considered to have reached its greatest limit; for to protect the land to the north of the old revetment the new extension was constructed at a large expense, which would not have been necessary had the record of erosion formed by the bay at that spot reached a permanent high-water mark. Steps have been taken to acquire the threatened land north of the extended protective revetment under the provisions of the Land Acquisition Act I of 1894. The northerly current caused by the south-west monsoon has ceased and with it the erosion recorded. The combined actions of the surf, the southerly current now prevalent, with the wind northerly, are rapidly filling with sand the bay formed by the south-west monsoon erosion. No further depletion of the land can take place until the south-west monsoon of 1895 has again eroded the accretion which is now forming, and meantime the land lately attacked by the sea will be acquired. If Mr. Pogson is right in supposing that a permanent high-water mark will be reached next year, very little further expense on this account will be incurred; but should further encroachment take place, the land will be taken over under the provisions of the Land Acquisition Act, as the engineer does not advise extending the protective revetment any further north.

8. The shipping accommodated in the harbour during the quarter under review aggregated a tonnage of 273,680 net register, represented by 156 vessels, and 8 vessels of 1,972 register tons anchored outside the harbour within port limits.

—

Enclosures.

Statement of Receipts and Charges from 1st April to 30th September 1894, Madras Harbour Trust.

	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Opening balance—									
Government securities (par value Rs. 8,20,000)		...		8,16,547	10	10			
1. Cash in the Bank of Madras ...	3,51,356	14	1						
2. General cash in office ...	337	10	8						
3. Advance for contingencies ...	500	0	0						
				3,52,194	8	9			
							11,68,742	3	7
Receipts.									
I. Contributions from Port funds ...		...			...		57,607	5	6
II. Beach imports: dues under section 45 (*a*) I (i), (ii), (iii)	79,156	14	3						
Pier do. do. do. ...	29,950	7	11						
Beach exports do. do. ...	16,675	13	6						
Pier do. do. do. ...	27,264	8	3						
Wharfage do. do. II	3,020	0	0						
Cranage do. do. III	22,017	1	11						
Storage do. do. IV	734	15	11						
Demurrage do. do. V	246	8	6						
Dues for entry of vehicles under section 45 (*c*) VI	6,988	0	6						
Provisions: dues on, under section 45 (*a*) I (i)	331	2	6						
Rent of properties	340	2	11						
Water: charge for, delivered at pier head	2,605	4	0						
Penalties under section 84		...							
Sundries	0	0	4						
				1,89,331	0	6			

Receipts—cont.

	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
III. Porterage under section 45 (*a*) I (iv)—									
Beach	33,910	4	7						
Pier	15,206	12	3						
Miscellaneous	105	15	4						
				49,223	0	2			
							2,38,554	0	8
IV. Interest on Government of India 4 per cent. promissory notes ...		...			...				
							20,066	10	6
Total ...		...			...		14,84,970	4	3
Charges.									
I. Interest (under section 30) ...		...		2,22,912	8	1			
II. Repayment of loan for construction of harbour under section 31 ...		...		1,00,000	0	0			
							3,22,912	8	1
III. Refunds		...		492	15	8			
IV. Establishment, &c.—									
1. Chairman's salary	2,400	0	0						
2. Secretary's do.	4,800	0	0						
3. Correspondence department ...	1,822	5	1						
4. Accounts department ...	3,280	0	0						
5. Cash department	2,298	12	0						
6. Traffic department (shore staff).	13,832	3	2						
7. Preventive service	6,106	1	2						
8. Do. boatmen ...	593	8	6						
9. Exchange compensation allowance	2,703	4	3						
10. Contribution to Government for pensions	418	11	10						
11. Contribution to Provident fund.	35	7	0						
12. Fees to Trustees	3,210	0	0						
				41,500	5	0			
V. Contingencies—									
(*a*) Subject to regular audit—									
Postage	41	2	0						
Receipt stamps	106	14	0						
Telegrams	27	6	0						
Furniture	106	12	0						
Fees for audit	...								
Law charges	31	5	0						
Stationery and printing ...	1,257	2	11						
Advertisement charges ...	230	0	0						
Uniform for Preventive service, &c.	1,365	4	0						
				3,165	13	11			
(*b*) Admissible without detailed audit—									
Overtime fees to establishment.	2,428	10	9						
Do. to Preventive service and boatmen	1,710	9	4						
Miscellaneous	1,573	8	6						
				5,712	12	7			
VI. Petty construction and repairs—									
New works	6,245	2	1						
Repairs	7,035	12	11						
Tools and plant	887	3	5						
				14,168	2	5			
							65,040	1	7
VII. Porterage—									
1. Coolies, beach	22,129	4	6						
2. Do. pier	8,205	2	5						
3. Do. custom-house	4,435	12	7						
4. Coasting cargo	756	1	6						
5. Boat hire	...								
6. Engine charges	1,069	4	7						
7. Steam crane charges	1,415	5	0						

Charges—cont.	RS. A. P.	RS. A. P.	RS. A. P.
8. Refunds	1,961 15 1		
9. Claims for losses and damage ...	405 14 5		
10. Provident fund deductions from coolies' wages	568 8 2		
11. Provident fund contributions by the Trust	568 8 2		
		41,515 12 5	
(*a*) Contingencies subject to regular audit—			
Postage	...		
Receipt stamps	2 0 0		
Telegrams	...		
Furniture	...		
Tarpaulins	946 4 4		
Law charges	...		
Stationery and printing ...	307 11 2		
Advertisement charges ...	...		
Lighting pier and yards ...	955 3 2		
		2,211 2 8	
(*b*) Contingencies admissible without detailed audit—			
Miscellaneous	...	1,804 0 3	
			45,530 15 0
VIII. Advances to construction account.	...	...	11,000 0 4
Total Expenditure ...	...	...	4,44,483 9 0
Closing balance on the 30th September 1894—			
Government securities (par value Rs. 9,80,000)	...	9,82,336 6 10	
Cash in the Bank of Madras ...	56,862 6 5		
General cash in office	787 14 0		
Advance for contingencies	500 0 0		
		58,150 4 5	
			10,40,486 11 3
Total ...			14,84,970 4 3

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

COMPARATIVE statement of receipts and charges of the Madras Harbour Trust under Act II of 1886 for half-years ending 30th September 1893 and 1894.

Items.	Actuals from 1st April to 30th Sept. 1893.	Actuals from 1st April to 30th Sept. 1894.	Plus or minus.
REVENUE ACCOUNT.			
Opening balance	RS. 11,65,852	RS. 11,68,742	RS. + 2,890
Receipts.			
I. Contributions from Port funds	20,000	57,607	+ 37,607
II. Beach imports: dues under sec. 45 (*a*) I (i),(ii),(iii)	85,044	79,157	— 5,887
Pier do. do. do. ...	30,969	29,950	— 1,019
Beach exports do. do. ...	16,057	16,676	+ 619
Pier do. do. do. ...	24,880	27,265	+ 2,385
Wharfage do. II ...	3,750	3,020	— 730
Cranage do. III ...	22,318	22,017	— 301
Storage do. IV ...	1,495	735	— 760
Demurrage do. V ...	...	247	+ 247
Dues for entry of vehicles under sec. 45 (*c*) VI.	6,648	6,988	+ 340
Provisions: dues on, under sec. 45 (*a*) I (i) ...	306	331	+ 25
Rent of properties	620	340	— 280
Water: charge for, delivered at pier head ...	2,249	2,605	+ 356
Penalties under section 84	...	...	...
Sundries	2,370	...	— 2,370

Comparative statement of receipts and charges of the Madras Harbour Trust, &c.—*cont.*

Items.	Actuals from 1st April to 30th Sept. 1893.	Actuals from 1st April to 30th Sept. 1894.	Plus or minus.
III. Porterage under section 45 (*a*) I (iv)—	RS.	RS.	RS.
Beach	35,931	33,910	— 2,021
Pier	16,998	15,207	— 1,791
Miscellaneous	1,274	106	— 1,168
IV. Interest realised on Government of India 4 per cent. promissory notes	16,015	20,067	+ 4,052
Total ...	2,86,924	3,16,228	...
Total including the opening balance ...	14,52,776	14,84,970	...
Charges.			
I. Interest (under section 30)	2,18,478	2,22,912	+ 4,434
II. Repayment of loan for construction of harbour under section 31	1,00,000	1,00,000	...
III. Refunds	1,356	493	— 863
IV. Establishment, &c.—			
1. Chairman's salary	2,400	2,400	...
2. Secretary's do.	5,066	4,800	— 266
3. Correspondence department	1,836	1,822	— 14
4. Accounts department	3,078	3,280	+ 202
5. Cash department	2,207	2,299	+ 92
6. Traffic department (shore staff) ...	12,709	13,832	+ 1,123
7. Preventive service	6,023	6,106	+ 83
8. Do. boatmen	588	594	+ 6
9. Exchange compensation allowance ...	...	2,703	+ 2,703
10. Contribution to Government for pensions.	177	419	+ 242
11. Do. to Provident fund ...	38	35	— 3
12. Fees to Trustees	3,120	3,210	+ 90
V. Contingencies—			
(*a*) Subject to regular audit—			
Postage	36	41	+ 5
Receipt stamps	112	107	— 5
Telegrams	7	27	+ 20
Furniture	...	107	+ 107
Fees for audit	...	...	...
Law charges	1,198	31	— 1,167
Stationery and printing	1,090	1,257	+ 167
Advertisement charges	393	230	— 163
Uniform for Preventive service, &c. ...	1,319	1,365	+ 46
(*b*) Admissible without detailed audit—			
Overtime fees to establishment ...	1,953	2,429	+ 476
Do to Preventive service and boatmen	1,466	1,711	+ 245
Miscellaneous	3,179	1,574	— 1,605
VI. Petty construction and repairs—			
New works	...	6,245	+ 6,245
Repairs	4,269	7,036	+ 2,767
Tools and plant	545	887	+ 342
VII. Porterage—			
1. Coolies, beach	23,337	22,129	— 1,208
2. Do. pier	8,098	8,205	+ 107
3. Do. custom-house	5,144	4,436	— 708
4. Coasting cargo	603	756	+ 153
5. Boat hire	...	...	...
6. Engine charges	785	1,069	+ 284
7. Steam crane charges	975	1,415	+ 440
8. Refunds	225	1,962	+ 1,737
9. Claims for losses and damage	123	406	+ 283
10. Provident Fund deductions from coolies' wages	...	569	+ 569

Comparative statement of receipts and charges of the Madras Harbour Trust, &c.—*cont.*

Items.	Actuals from 1st April to 30th Sept. 1893.	Actuals from 1st April to 30th Sept. 1894.	Plus or minus.
	RS.	RS.	RS.
11. Provident Fund contributions by the Trust.	486	569	+ 83
(*a*) Contingencies subject to regular audit—			
Postage	...	...	...
Receipt stamps	7	2	— 5
Telegrams	...	...	...
Furniture	...	...	...
Tarpaulins	707	946	+ 239
Law charges	...	...	...
Stationery and printing	389	308	— 81
Advertisement charges	...	...	...
Lighting pier and yards	832	955	+ 123
(*b*) Contingencies admissible without detailed audit—			
Miscellaneous	1,131	1,804	+ 673
VIII. Advances to Construction Account	41,000	11,000	— 30,000
Total ...	4,56,485	4,44,483	...
Closing Balance ...	9,96,291	10,40,187	...
Total ...	14,52,776	14,84,970	...

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

I.—STATEMENT of goods imported from Foreign Ports.

—	Packages.	1891–92.	1892–93.	1893–94.	Half-year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or decrease.
Apparel and effects.	Packages ..	1,347	1,068	1,017	258	255	— 3
Alum	Barrels ..	326	686	910	852	250	— 602
Asphalte, tar and pitch	Casks ..	4,439	2,329	2,638	1,619	1,148	— 471
Acids	Cases ..	1,854	1,408	1,560	1,185	1,048	— 137
Arms and guns ..	,, ..	442	221	250	162	50	— 112
Arrack	Casks ..	884	833	1,031	546	479	— 67
Blankets ..	Bales ..	119	168	28	9	14	+ 5
Beef and pork ..	Cases ..	36	..	..	..	..	..
Bricks	100 ..	1,021	551	1,550	1,550	703	— 847
Beer	Cases ..	6,123	8,710	7,013	3,544	2,642	— 902
	Barrels ..	1,140	1,707	1,401	487	860	+ 373
	Hogsheads ..	6,808	8,210	4,310	2,309	2,657	+ 348
Boiler	No. ..	51	32	48	27	13	— 14
Corks	Bundles ..	88	72	50	16	17	+ 1
Canvas	Bales ..	121	193	615	455	32	— 423
Candles	Cases ..	16,637	31,017	27,463	13,681	13,089	— 592
Colours	,, ..	3,838	3,286	2,998	1,658	919	— 739
Confectionery, provisions and oilman stores ..	,, ..	23,395	22,129	20,829	9,653	6,489	— 3,164
Crockery and glassware.	Crates and casks ..	4,538	3,817	5,300	2,828	1,051	— 1,777
Chalk ..	Barrels ..	370	140	134	10	50	+ 40
	Tons ..	..	..	..	..	30	+ 30
Cement	Casks ..	14,522	7,369	8,904	4,069	3,662	— 407
Cast-iron pipes and tubes	Tons ..	335	1,436	989	712	384	— 328
Camphor ..	Tubs ..	4,739	4,349	5,765	2,987	2,341	— 646
Coal	Tons ..	33,686	49,508	58,179	42,486	43,613	+ 1,127
Coke	,, ..	578	778	1,018	540	407	— 133
Fuel	,, ..	..	2,953	..	..	..	..
Crackers	Cases ..	470	840	327	..	948	+ 948
Copper-plates and tiles	No. ..	4,802	521	7,260	2,708	2,244	— 464
Corrugated iron ..	Packages ..	805	2,512	2,688	299	..	— 299
Dynamite ..	Cases ..	13,040	8,035	10,598	3,344	3,378	+ 34

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

—	Packages.	1891–92.	1892–93.	1893–94.	Half-year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or decrease.
Earthenware ..	Crates ..	2,318	1,886	2,168	917	546	— 371
Fire clay ..	Casks ..	2,768	272	312	60	32	— 28
Flour	Bags ..	1,317	821	1,251	583	861	+ 278
Flannel	Bales ..	54	30	64	25	5	— 20
Gunpowder ..	Packages ..	6,667	5,987	5,883	3,105	1,476	— 1,629
Harmonium ..	Cases ..	30	27	24	19	5	— 14
Hardware ..	,, and casks ..	8,234	6,783	8,189	4,322	6,237	+ 1,915
Hops	Packages ..	129	64	297	31	128	+ 97
Iron	Tons ..	13,737	17,929	18,627	11,544	4,556	— 6,988
Iron safes ..	No. ..	296	150	167	52	29	— 23
Kerosine-oil ..	Cases ..	397,862	251,320	342,671	164,116	166,395	+ 2,279
	Tons ..	..	3,361	5,455	1,518	3,471	+ 1,953
Malt	Bags ..	445	407	22	13	6	— 7
Millinery and haberdashery ..	Cases ..	1,609	1,566	1,370	570	1,036	+ 466
Matches ..	,, ..	10,665	9,125	8,927	4,304	3,222	— 1,082
Machinery ..	Tons ..	3,099	3,241	4,817	1,506	1,906	+ 400
Nails	Kegs ..	13,744	10,547	14,022	7,648	3,249	— 4,399
Oil and turpentine.	Drums ..	7,225	15,500	4,581	1,652	2,176	+ 524
Piece-goods.	Cases and bales.	85,079	51,551	57,676	30,002	32,782	+ 2,780
Piece-goods twist ..		6,546	18,664	24,071	12,072	10,979	— 1,093
Paper	Bales ..	153	5,518	6,038	3,769	2,300	— 1,469
Piano	No. ..	492	99	112	57	29	— 28
Printing types ..	Cases ..	2,198	727	346	166	53	— 113
Pig lead ..	No. ..	7,758	1,098	2,612	1,989	167	— 1,822
Paint	Kegs ..	3,823	10,257	5,770	3,384	3,419	+ 35
Rattan	Bundles ..	1,650	5,669	2,362	627	1,137	+ 510
Soaps	Cases ..	383	970	2,172	1,332	402	— 930
Salt	,, ..	864	329	153	48	138	+ 90
Steel	,, and casks ..	11,261	3,343	794	568	166	— 402
Steel bundles and bars	No. ..	5,567	10,401	10,768	6,228	4,792	— 1,436
Steel hoop ..	Bundles ..	275	1,597	4,930	4,874	1,057	— 3,817
Shovels ..	,, ..	1,395	499	29	2	30	+ 28
Sodawater bottles ..	Crates ..	752	1,768	1,570	846	1,030	+ 184
Sulphur	Casks ..	177	435	1,128	225	10	— 215
Shot	Kegs ..	48,408	56	248	87	108	+ 21
Sundries ..	Packages ..	1,229	33,606	56,235	28,608	24,513	— 4,095
Specie	No. ..	2,152	888	768	364	252	— 112
Sugar	Bags ..	1,242	1,196	4,198	2,616	..	— 2,616
Slates and pencils.	Cases ..	836	848	1,333	733	981	+ 248
Spelter	Cakes ..	70	8,786	22,921	6,376	2,628	— 3,748
Saw	Cases ..		48	79	48	6	— 42
Twine and rope ..	Bales and coils ..	438	455	458	400	66	— 334
Tin plates ..	Boxes ..	5,608	4,649	6,669	3,640	1,914	— 1,726
Tramway material.	Packages ..	..	..	..	..	5,152	+ 5,152
Wine and spirits.	Cases ..	37,877	44,739	36,048	18,235	13,001	— 5,234
	Casks ..	863	658	514	232	497	+ 265
	Puncheons ..	369	733	1,058	417	15	— 402
Window glasses ..	Cases ..	5,972	12,000	10,425	9,156	2,043	— 7,113
White and red lead.	Kegs ..	681	951	737	283	120	— 163
Yellow metal ..	Cases ..	3,076	3,361	2,784	1,819	1,352	— 467
Zinc sheets ..	Packages ..	2,749	1,690	1,761	558	627	+ 69
Horses	No. ..	816	959	835	313	133	— 180
Ponies	,, ..	70	112	131	127	53	— 74
Cows	,, ..	59	15	7	3	1	— 2
Dogs	,, ..	13	14	3	..	33	+ 33
Elephants ..	,, ..	10	7	6	6	4	— 2
Two-wheeled carriage	..	..	8	9	2	1	— 1

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

—	Packages.	1891–92.	1892–93.	1893–94.	Half-year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or decrease.
Stores ..	Packages ..	82,105	72,434	47,340	40,342	5,110	— 35,232
	Tons ..	3,605	499	156	6	..	— 6
Fuel	,, ..	..	..	..	..	..	..
Coke	,, ..	1,437	544	716	628	703	+ 75
Coal	,, ..	27	300	237	..	2,948	+ 2,948
Timber ..	,, ..	2,477	2,083	1,448	..	853	+ 853
Fire bricks ..	100 ..	115	330	..	..	75	+ 75

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

—	Packages.	1891–92.	1892–93.	1893–94.	Half-year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or decrease.
Stores ..	Packages ..	68,282	22,171	28,640	6,539	12,138	+ 5,599
	Tons ..	..	..	992	22	..	— 22
Coke	,, ..	14	..	..	..	..	..
Coal	,, ..	..	..	..	..	..	..
Timber	,, ..	..	..	..	..	..	..
Boiler	No. ..	4	12	10	10	..	— 10
Fire bricks ..	100 ..	..	..	..	..	160	+ 160

IV.—Statement of goods imported from Coast Ports.

—	Packages.	1891–92.	1892–93.	1893–94.	Half-year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or decrease.
Apparel and effects.	Packages ..	451	343	527	196	312	+ 116
Alum	Barrels ..	10	187	7	7	124	+ 117
Acids	Cases ..	89	125	269	202	200	— 2
Animals	No. ..	..	10	..	..	9	+ 9
Arms and guns ..	Cases ..	45	12	13	4	6	+ 2
Boilers	No. ..	2	..	..	..	..	..
Bricks and tiles ..	100 ..	1,396	57	837	517	328	— 189
Coffee	Bags ..	379	595	575	480	336	— 144
Candles	Cases ..	..	..	11	2	1	— 1
Colours	,, ..	1,225	1,531	1,591	1,315	674	— 641
Crockery and glass-ware	,, ..	322	466	426	202	513	+ 311
Coal	Tons ..	13,249	13,792	22,152	8,355	10,714	+ 2,359
Coke	,, ..	..	..	..	..	..	..
Carpets	Bales ..	77	94	99	46	47	+ 1
Camphor and benjamin	Tubs ..	682	1,306	432	344	425	+ 84
Copra	Bags ..	32	..	122	..	67	+ 67
Crackers ..	Cases ..	..	..	..	..	..	..
Copper	,, ..	1,667	936	557	558	10	— 548
Do. ..	Tiles and ingots ..	96	421	2,180	1,411	2,903	+ 1,492
Cutch and lac ..	Packages ..	4,415	3,191	3,554	2,093	2,440	+ 347
Cocoanuts ..	No. ..	3	415	2,023	2,023	..	— 2,023
Earthenware ..	Crates ..	392	2,941	407	390	110	— 280
Do. ..	Pipes ..	2,626	6,315	950	936	156	— 780
Firewood ..	Tons ..	..	..	..	..	..	..
Flour	Bags and barrels ..	7,248	11,682	12,270	5,969	7,579	+ 1,610
Gunnies ..	Bales ..	7,930	9,661	9,755	5,306	5,275	— 31
Gram and peas, &c.	Bags ..	271,682	380,145	395,249	202,075	142,698	— 59,377
Garlic	,, ..	2,945	1,215	6,007	4,027	5,508	+ 1,481
Hardware ..	Cases ..	641	1,197	1,507	744	1,610	+ 866
Horns	Bundles ..	880	980	511	209	516	+ 307
Hides	Bales ..	6,127	9,539	6,013	2,664	3,368	+ 704
Iron	Tons ..	231	293	155	67	120	+ 53
Iron-safes ..	No. ..	31	38	34	14	12	— 2
Kerosine-oil ..	Cases ..	..	..	500	500	..	— 500
Leaves	Bundles ..	6,508	3,742	5,113	3,919	1,611	— 2,308
Liquor	Cases ..	..	..	2,193	1,185	901	— 284
Machinery ..	Tons ..	158	79	49	16	191	+ 175
Millinery and haberdashery ..	Cases ..	208	245	144	65	166	+ 101
Oil and turpentine.	Drums ..	8,340	6,369	5,941	3,464	3,156	— 308
Paddy	Bags ..	..	75,980	23,737	14,061	4,863	— 9,198
Piece-goods ..	Cases and bales ..	3,802	4,756	3,499	2,117	2,638	+ 521
Paper	Bales ..	3,128	4,898	5,420	3,858	3,782	— 76
Paint	Kegs ..	224	693	247	128	100	— 22
Piano	No. ..	15	12	5	2	4	+ 2
Rice	Bags ..	1,147,048	205,176	110,181	48,559	56,070	+ 7,511
Rose-water ..	Cases ..	1,434	1,815	1,357	652	982	+ 330
Seeds	Bags ..	30,406	25,747	13,916	8,959	7,819	— 1,140
Skins	Bales ..	6,199	50,502	6,807	3,174	3,527	+ 353
Silk	,, ..	1,051	699	290	211	265	+ 54
Sandalwood ..	Bundles ..	143	121	42	32	169	+ 137

IV.—Statement of goods imported from Coast Ports—*cont.*

—	Packages.	1891–92.	1892–93.	1893–94.	Half-year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or decrease.
Sugar	Bags ..	1,381	866	1,333	675	299	— 376
Specie	No. ..	202	190	193	26	9	— 17
Sundries ..	Packages ..	47,533	47,137	48,614	16,671	28,993	+ 12,322
Soap	Cases ..	445	40	147	30	508	+ 478
Sulphur ..	Casks ..	471	544	506	249	295	+ 46
Spice	Packages ..	359	740	640	340	569	+ 229
Sodawater bottles ..	Crates ..	..	..	241	4	886	+ 882
Twine and rope ..	Bales and coils ..	839	775	1,063	909	463	— 446
Tin plates ..	Boxes ..	1,807	912	858	462	620	+ 158
Twist	Bales ..	1,126	1,147	1,206	673	502	— 171
Turmeric ..	Bags ..	7,224	4,977	5,433	2,821	3,359	+ 538
Timber	Tons ..	15,137	10,595	15,264	6,921	7,153	+ 232
Tea	Cases ..	1,321	3,411	37	37	57	+ 20
Tamarind ..	Bundles ..	..	..	140	72	84	+ 12
Yellow metal ..	Cases ..	6	542	1,078	1,074	74	— 1,000
Horses	No. ..	1	15	8	..	..	..
Two-wheeled carriages ..	,, ..	..	4	5	2	2	..
Four-wheeled carriages ..	,, ..	..	3	19	5	1	— 4

V.—Statement of goods exported to Foreign Ports.

—	Packages.	1891–92.	1892–93.	1893–94.	Half-year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or decrease.
Bone meal ..	..	..	..	..	..	3,701	+ 3,701
Beer and ale ..	Cases ..	18	2	13	12	..	— 12
	Casks ..	60	7	..	..	..	..
	Hogsheads ..	3	..	..	..	..	..
Cinchona bark ..	Bales ..	471	529	411	300	114	— 186
Chillies	Bags and bundles ..	2,760	9	816	145	528	+ 383
Cigars	Cases ..	1,249	556	643	201	357	+ 156
Coffee	Bags ..	23,764	34,613	17,737	3,517	9,128	+ 5,611
Cotton	Bales ..	48,202	26,140	56,768	35,641	34,763	— 878
Do. twist ..	,, ..	4,229	5,266	1,946	542	1,358	+ 816
Coriander and omum seeds ..	Bags ..	8,218	1,814	7,377	2,901	6,726	+ 3,825
Carpets	Bales ..	418	288	391	156	85	— 71
Coal	Tons ..	905	313	599	185	152	— 33
Deer horns ..	Packages ..	1,574	1,549	767	385	682	+ 297
Explosive ..	Cases ..	21	1	..	..	1	+ 1
Firewood ..	Tons ..	..	..	..	..	..	..
Four-wheeled carriages ..	No. ..	8	2	3	2	..	— 2
Ground-nuts ..	Bags ..	93,132	26,209	138,211	1,14,060	1,06,680	— 7,380
Gram, peas, &c. ..	,, ..	519	161	1,662	1,604	207	— 1,397
Horns, cow and buffalo ..	Tons ..	62	29	1,026	13	61	+ 48
Hides, tanned ..	Bales and bundles ..	21,848	21,812	11,149	5,310	8,650	+ 3,340
Hardware ..	Cases and casks ..	..	..	..	..	232	+ 232
Indigo	Cases and chests ..	14,622	29,933	25,008	7,037	7,013	— 24
Iron	Tons ..	2	11	17	13	2	— 11
Jaggery	Bags ..	28,985	56,672	52,668	48,968	17,809	— 31,159
Myrabolams ..	,, ..	235	91	563	563	1	— 562
Miscellaneous ..	Packages ..	37,808	28,547	36,531	10,732	8,833	— 1,899
Onions	Bags and baskets ..	21,964	5,617	17,517	8,133	2,761	— 5,372
Oil	Casks ..	434	56	208	193	72	— 121
Provisions ..	Packages ..	..	..	..	..	1,772	+ 1,772
Piece-goods ..	Bales and cases ..	6,205	4,857	7,305	2,789	4,569	+ 1,786
Potatoes ..	Bags and baskets ..	2,437	282	1,716	824	1,061	+ 237
Poonac	Bags ..	33,880	16,127	31,311	16,641	25,154	+ 8,513

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

—	Packages.	1891-92.	1892-93.	1893-94.	Half-year ending 30th Sept. 1893.	Half year ending 30th Sept. 1894.	Increase or decrease.
Piano	No. ..	41	10	15	4	3	— 1
Paddy	Bags ..	..	5	22	22	..	— 22
Rice	,, ..	1,138	3,229	16,915	6,102	28,376	+ 22,274
Redwood ..	Tons ..	699	1,654	733	423	665	+ 242
Seeds, gingelly and castor	Bags ..	1,313	12,654	14,777	9,361	40,176	+ 30,815
Skins, sheep and goat, tanned ..	Bales						
Sandalwood ..	Bundles ..	32,194	34,063	31,535	13,809	19,309	+ 5,500
Spirits and wine.	Cases ..	1,534	330	699	459	243	— 216
	Casks ..	332	41	67	19	14	— 5
	Puncheons ..	977	65	40	39	9	— 30
Sugar	Bags ..	..	..	..	..	..	..
Specie	Boxes ..	599	161	1,197	445	1,250	+ 805
Tamarind ..	Bundles ..	94	48	29	13	53	+ 40
Turmeric ..	Bags ..	6,445	5,331	3,076	710	2,547	+ 1,837
Tea	Cases ..	2,159	941	1,562	765	2,650	+ 1,885
Two-wheeled carriages ..		2,265	1,769	1,649	1,060	1,294	+ 234
Wool	No.	1	..	3	..	3	+ 3
Yellow metal ..	Bales ..	1,021	1,470	1,532	769	657	— 112
Horses	Tons ..	107	100	417	117	6½	— 110½
Ponies	..	..	..	..	..	24	+ 24
Elephant ..	..	..	..	..	..	9	+ 9
Lion	..	..	..	..	..	2	+ 2
Tiger	..	..	..	..	..	1	+ 1
Leopards ..	..	..	..	..	..	1	+ 1
Bear	..	..	..	..	..	6	+ 6
Sheep	..	..	..	..	..	1	+ 1
	..	..	..	..	..	24	+ 24

VI.—Statement of goods exported to Coast Ports.

—	Packages.	1891-92.	1892-93.	1893-94.	Half-year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or decrease.
Beer and ale ..	Cases						
	Casks ..	352	294	305	156	213	+ 57
	Hogsheads ..	159	94	91	27	28	+ 1
Boiler	No.	7	41	161	128	65	— 63
Cinchona bark ..	Bales ..	..	..	1	..	..	— 1
Chillies ..	Bags and bundles ..	395	84	80	1	..	..
Cigars ..	Cases ..	2,064	2,907	9,207	4,818	1,835	— 2,983
Coffee ..	Bags ..	1,418	1,136	789	311	293	— 18
Cotton ..	Bales ..	507	1,449	541	305	152	— 153
Do. twist ..	,, ..	5,721	4,245	7,080	5,844	2,957	— 2,887
Coriander and omum seeds ..		4,698	6,138	3,220	1,540	1,428	— 112
Cement	Bags						
Carpets	Casks ..	2,970	7,002	6,894	3,180	1,368	— 1,812
Coal	Bales ..	..	8,908	132	54	18	— 36
Deer horns ..	Tons ..	68	51	41	23	14	— 9
Explosive ..	Packages ..	275	450	157	82	220	+ 138
Eggs	Cases ..	108	151	52	49	..	— 49
Firewood ..	Pots ..	2,668	1,331	1,067	20	20	..
Four-wheeled carriage	Tons ..	1,165	1,125	1,198	414	412	— 2
Ground-nuts ..		2	..	..	..	..	..
Gram, peas, &c. ..	No.						
Horns, cow and buffalo ..	Bags ..	21	31	27	14	11	— 3
Hides	,, ..	27,790	17,839	16,116	8,226	40,203	+ 31,977
	Tons ..	521	1,226	233	204	44	— 160
Hardware ..	Bales and bundles ..	310	307	166	85	404	+ 319
	Cases and casks ..	379	526	535	331	119	— 212
	..	..	..	..	..	146	+ 146

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

—	Packages.	1891-92.	1892-93.	1893-94.	Half-year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or decrease.
Indigo	Cases and chests ..	165	816	1,162	708	77	— 631
Iron	Tons ..	2,244	2,611	755	322	352	+ 30
Jaggery	Bags ..	258	1,448	336	120	251	+ 131
Kerosine oil ..	Cases ..	10,327	659	1,117	580	5,746	+ 5,166
Myrabolams ..	Bags ..	1,054	291	1,112	1,087	31	— 1,056
Miscellaneous ..	Packages ..	50,510	69,584	61,706	39,334	9,806	— 29,528
Onions ..	Bags and baskets ..	22,442	53,406	47,062	21,281	20,716	— 565
Oil	Casks ..	807	637	346	222	459	+ 237
Piece-goods ..	Bales & cases.	5,615	8,651	6,368	3,067	4,140	+ 1,073
Potatoes ..	Bags and baskets ..	23,637	24,388	30,592	11,556	10,738	— 818
Poonac	Bags ..	4,770	22,181	9,853	8,128	350	— 7,778
Piano	No. ..	23	16	17	6	1	— 5
Paddy	Bags ..	..	8,806	8,400	5,100	3,423	— 1,677
Provisions ..	Packages ..	..	..	..	..	1,082	+ 1,082
Rice	Bags ..	5,448	31,893	11,083	6,645	3,872	— 2,773
Redwood ..	Tons ..	119	693	4	2	8	+ 6
Seeds, gingelly and castor	Bags ..	16,803	2,787	36,799	15,952	38,087	+ 22,135
Skins, sheep and goat, tanned ..	Bales ..	721	1,046	871	529	203	— 326
Sandalwood ..	Bundles ..	153	256	2,786	523	156	— 367
Spirits and wines.	Cases ..	2,982	3,783	3,045	1,412	1,276	— 136
	Casks ..	727	716	992	596	258	— 338
	Puncheons ..	13	189	214	159	..	— 159
Sugar	Bags ..	773	1,419	473	316	476	+ 160
Specie	Boxes ..	236	510	47	25	48	+ 23
Salt	Bags ..	..	8,253	5,090	3,006	3,997	+ 3,997
Tamarind ..	Bundles ..	3,624	17,883	38,147	20,503	1,621	— 1,385
Turmeric ..	Bags ..	19,258	62	50	24	29,105	+ 8,602
Tea	Cases ..	341	16	12	6	40	+ 16
Two-wheeled carriage	No. ..	15	603	463	267	11	+ 5
Wool	Bales ..	769	67	256	256	109	— 158
Yellow metal ..	Tons ..	53				19	— 237

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

Department.	Description.	Class.	1891-92.	1892-93.	1893-94.	Half-year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or decrease.
Accountant-General.	Specie, silver	Boxes.	403	582	533	174	277	+ 103
	,, copper	,,	5,100	710	780	560	100	— 460
	Silver and copper ..	,,	.. 32	.. 19	.. 30	..	..	..
	Notes ..	,,	27	1	..	..	..	..
	Packages ..	No.	2	.. 20	..	..	..	..
Public Works Department.	Boilers ..	No.	50	9	19	..	..	..
	Coal ..	Tons.	271	6,494	10,812	1,856	827	— 1,029
	Iron ..	,,	15,148	..	1,450	..	145	+ 145
	Stores .	Pkgs.	..	..	109	..	5,913	+ 5,913
Ordnance ..	Coal ..	Tons.	2,148	28,566	21,057	16,504	10,668	— 5,836
	Ammunition.	Boxes.	13,017	..	..	..	5,600	+ 5,600
	Stores ..	Pkgs.	1,869	..	..	..	40	+ 40
Madras Harbour Works.	Cement ..	Casks.	3,869	..	..	..	..	..
	Stores ..	Pkgs.	..	..	..	..	426	— 327
	Coal ..	Tons.	.. 1,983	2,324	2,176	753	123	— 1
Clothing ..	Packages ..	No.	122	167	196	124	71	+ 25
Police	,, ..	,,	272	291	109	46	1,635	+ 1,285
Salt Revenue ..	,, ..	,,	1,119	858	742	350	175	— 812
Post office ..	,, ..	,,	1,779	1,007	1,920	987		
Medical	,, ..	,,						

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

Department.	Description.	Class.	1891-92.	1892-93.	1893-94.	Half-year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or decrease.
Telegraph	Packages	No.	34,768	24,126	9,129	5,161	2,193	— 2,968
Stationery	,,	,,	732	1,197	1,156	381	235	— 146
Stamps	,,	,,	1,961	1,122	1,861	1,449	1,203	— 246
Commissariat	,,	,,	8,588	7,420	2,562	1,844	424	— 1,420
Gazette Press	,,	,,	161	149	97	90	242	+ 152
Marine	,,	,,	729	880	806	93	192	+ 99
Revenue Survey	,,	,,	297	208	25	..	13	+ 13
Agriculture	,,	,,	380	320	140	124	..	— 124
Government Central Museum	,,	,,	15	10	9	5	3	— 2
Under Secretary to Government	,,	,,	235	504	85	40	31	— 9
Superintendent of Prisons	,,	,,	1	17	7	6	13	+ 7
Revenue Board	,,	,,	424	33	9	2	9	+ 7
Forests	,,	,,	1,196	10	3	2	1	— 1
Presidency College	,,	,,	28	15	2	2	2	..
School of Arts	,,	,,	3	1	1	1	..	— 1
Inspector of Cattle Diseases	,,	,,	9	100	..	..	..	..
Chemical Examiner	,,	,,	31	31	36	7	8	+ 1
Medical College	,,	,,	73	31	41	14	..	— 14
Deputy Collectors	,,	,,	9	15	12	7	2	— 5
Astronomer	,,	,,	23	13	20	14	4	— 10
Presidency Paymaster	,,	,,	2	8	4	..	10	+ 10
Registration	,,	,,	7	4	1	..	..	..
Director of Public Instruction	,,	,,	9	139	4	4	1	— 3
Superintendent, Remount Depôt, Hosúr	,,	,,	..	600	214	211	1	— 210
Resident, Mysore, in Bangalore	,,	,,	..	2	9	6	2	— 4
Quarter Master General	,,	,,	..	3	14	3	..	— 3
Registrar of High Court	,,	,,	..	1	4	2	2	..
Curator, Government Garden, Ootacamund	,,	,,	..	..	40	..	..	..
Civil Engineering College	,,	,,	..	..	44	..	12	+ 12
Secretary to the Chief Commissioner of Coorg, Bangalore	,,	,,	..	..	..	..	..	..
Revenue Settlement	,,	,,	..	..	..	..	..	..
Executive Engineer, Military Works	,,	,,	..	..	..	..	..	..
Controller, Military Accounts	,,	,,	..	..	..	..	7	+ 7
Agent for Government Consignments	,,	,,	..	..	..	..	1	+ 1
Government Botanical Gardens	,,	,,	..	..	..	..	76	+ 76
Steam Dredge Wenlock	,,	,,	..	..	..	..	278	+ 278
Officer Commanding 9th Company, Southern division, Royal Artillery, Fort St. George	,,	,,	..	..	..	..	..	..
Officer Commanding ½ Battalion, 1st Cheshire Regiment, Fort.	,,	,,	..	..	..	..	1	+ 1
Officer in charge, Pensioners, Madras	,,	,,	..	..	..	..	3	+ 3
Officer Commanding Queen's Own Sappers and Miners, Bangalore	,,	,,	..	..	..	..	1	+ 1
Officer Commanding Southern division, Royal Artillery, Madras.	,,	,,	..	..	..	..	2	+ 2
	,,	,,	..	..	..	..	1	+ 1

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

Department.	Description.	Class.	1891-92.	1892-93.	1893-94.	Half-year ending 30th Sept. 1893.	Half-year ending 30th Sept. 1894.	Increase or decrease.
Accountant-General	Specie, silver.	Boxes.	411	45	95	95	16	— 79
	,, copper.	,,	965	200	163	103	65	— 38
	,, notes.	,,	6	13	8	3	3	..
	,, packages.	No.	4	1	1	1	1	..
Bank of Madras	,, silver.	Boxes.	34	..	..	..	..	..
	,, copper.	,,	..	62	84	84	45	— 39
Ordnance	Packages and pieces.	No.	8,595	5,831	9,257	3,162	3,771	+ 609
Public Works Department.	,,	,,	1,784	488	3,203	259	873	+ 614
Clothing	,,	,,	1,327	1,096	998	535	509	— 26
Police	,,	,,	889	974	955	647	644	— 3
Salt Revenue	,,	,,	591	785	724	472	739	+ 267
Medical	,,	,,	1,377	1,610	2,166	1,105	479	— 626
Telegraph	,,	,,	8,845	4,330	4,945	1,477	108	— 1,369
Stationery	,,	,,	693	780	623	261	217	— 44
Stamps	,,	,,	220	208	236	95	92	— 3
Commissariat	,,	,,	7,971	6,205	5,301	2,714	3,693	+ 979
Gazette Press	,,	,,	526	503	478	216	336	+ 120
Marine	,,	,,	390	366	37	27	79	+ 52
Revenue Board	,,	,,	77	37	87	39	49	+ 10
Do. Settlement	,,	,,	51	84	53	37	19	— 18
Do. Survey	,,	,,	75	452	223	174	28	— 146
Superintendent of Prisons	,,	,,	69	196	103	36	47	+ 11
Registration	,,	,,	66	43	17	1	38	+ 37
Conservator of Forests	,,	,,	34	33	5	1	1	..
Quarter Master General	,,	,,	..	4	..	..	..	..
Government Central Museum	,,	,,	10	22	13	10	..	— 10
Deputy Collectors	,,	,,	2	9	..	..	..	..
Government Astronomer	,,	,,	..	18	13	6	8	+ 2
Agriculture	,,	,,	15	8	2	2	..	— 2
General Hospital	,,	,,	..	..	..	..	..	..
State Railways	,,	,,	100	..	..	..	..	..
Inspector of Cattle Diseases	,,	,,	3	1	..	..	..	..
Chemical Examiner	,,	,,	..	1	..	..	..	..
Director of Public Instruction	,,	,,	10	6	13	13	1	— 12
Registrar of University	,,	,,	13	10	5	..	..	..
Collectors	,,	,,	10	..	6	6	..	— 6
Curator of Government Garden, Ootacamund	,,	,,	11	..	12	2	..	— 2
Engineer, Harbour Trust Board	,,	,,	..	..	2	..	..	..
Crown Officer, High Court.	,,	,,	14	18	5	5	..	— 5
School of Arts	,,	,,	..	..	..	..	..	..
Secretary to Government, Public Department	,,	,,	2	..	..	..	..	..
Registrar-General of Births, Deaths and Marriages	,,	,,	..	..	..	..	..	..
Inam Commissioner	,,	,,	1	..	..	..	..	..
Consulting Engineer to Government Railways	,,	,,	20	..	..	..	..	..
Civil Engineering College.	,,	,,	..	1	..	..	..	..
Superintendent, Census Operations	,,	,,	..	4	1	1	..	— 1
Post office	,,	,,	..	2	2	2	..	— 2
Sanitary Commissioner	,,	,,	..	2	2	2	..	— 2
Registrar of High Court	,,	,,	..	..	..	..	12	+ 12
Superintendent, District Jail, Bellary	,,	,,	..	..	..	..	1	+ 1
Assistant Engineer, Public Works Department, Government Brickfield.	,,	,,	..	..	..	..	52	+ 52

(Signed) S. HUTCHENCE,
Traffic Manager, Harbour Trust Board.

To the Secretary, Harbour Trust Board, Madras.

MADRAS HARBOUR WORKS.

Report of progress on the Madras Harbour Works for the quarter ending 30th September 1894.

1. Accompanying this report are the following plans and statements:—

No. 37 (*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 outside the harbour are those of the last complete marine survey of 1889, and the contours inside the harbour are from the latest survey of 1893.

2. The positions of high water marks of the 30th September 1894, and those of the previous twelve months, both to the north of the revetment and south of the harbour, are shown for comparison.

No. 37 (*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 the piers of the harbour, with an eastern entrance of 520 feet.

No. 38 (*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. 38 (*d*).—A statement showing work done under different sub-heads and particulars of cement received and issued.

3. The various heads of work, &c., throughout the Harbour Works are reported as follows.

4. *North Pier-Head.*—Progress at the north pier-head was completely stopped during the quarter, due to a continued rough sea until the 25th July, as the blockwork which should have been removed in May, as already reported, could not be completed by divers till the 24th September due to the exposed position and continual wash of the sea around the caisson, so that the capping and lighthouse work could not be commenced earlier than the 29th September 1894, instead of in May last.

5. By the 29th September 24-30 ton blocks had been raised by divers, and the sea was calm, with the water clear enough for work upon the base around the caisson, in protecting the rubble base with concrete to prevent scour; it was therefore commenced at once, and very rapid progress was made to the close of the quarter, *viz.*: the rubble base protected with concrete to a length of 86 feet, and the caisson commenced to be raised 6 feet in height, bringing it up to its full height of 53 feet above the base, which has since been completed, and in thirteen working days 107 feet of capping, 38 feet wide × 6 feet deep, and a lighthouse thereon of mass concrete was built, completing the north pier-head.

6. *South Pier-Head.*—At the south pier-head, the general rough state of the sea did not wholly stop all work as at the north arm, as when it was too rough for diving, the crane was used for dredging, and so most satisfactory progress was made, in the south pier; preparations for the caisson are as advanced as they were, at the north pier, in the corresponding quarter last year, with the advantage of having still water under the lee of the caisson, when set in March 1895, which was not the case at the north pier, and which has been the cause of the delay in completing that arm to date.

7. Of the 92 days in the quarter, 49 days were taken up in dredging at intervals, when the state of the sea would permit it, 19 days were taken up in slinging 33 old blocks and removing debris from the old pier work, and 10 days went in setting 96 new blocks, or four complete courses of the temporary work, necessary to compress the foundations for the caisson, which made an advance of 21-6″ of built work, bringing up the total length of the south pier to 3,905¾ feet from shore.

8. There were therefore, only 29 days in the quarter when divers could work below water owing to a constantly disturbed state of the water, due to the sweel washing over the old submerged pier-head.

9. I am happy to be able to report that, since the close of the quarter, an additional advance of built work has been made of 10′ 8½″, viz., the setting of the last two courses, or last blocks, making up the necessary six temporary courses for the caisson.

10. The erection of the iron caisson for the south pier-head was commenced on the 15th September, and is now well in hand.

11. *Wave-breakers.*—The wave-breaker screen as reported last quarter was brought up to its full section as far as the permanent work, and during the quarter under review, nine additional blocks were added, but no protection of this nature could be given to the six temporary courses, as the wave-breaker blocks, if deposited, would roll forward and block up the hollow, which it is necessary to have clear early in January next.

12. The temporary courses must therefore remain unprotected by a wave-breaker during the monsoon, as they did at the north pier, and if a storm should occur, some of the old pier-head blockwork will probably fall forward, and have to be raised.

13. I report this, as it might be taken that any movement in these temporary blocks, due to a storm, would be thought to be movement, or failure of the new and permanent work.

14. *Protective works north of the Harbour.*—The line of revetment throughout its length has not shown settlement during the quarter.

15. The bay forming at the end of the revetment has considerably increased during the quarter, and the high water mark was, on the 30th September 1894, 140 feet further inshore than it has hitherto been.

16. The bay will probably increase next year until it reaches the line shown upon plan as the probable permanent high water mark, which was the record of the greatest erosion or bay formed at a similar bay, which formed at the end of the old line of revetment.

17. *Foreshore south of the Harbour.*—Upon the plan attached to this report, are shown the high water marks of the 30th September 1893 and 30th September 1894, and the advance of the foreshore in 12 months has been 120 feet near the south arm, but the advance of the high water mark during the quarter has been 150 feet, which, of course, is only temporary, and since the change of the monsoon the high water mark has commenced rapidly to return shorewards.

18. *Sea bottom within the Harbour.*—The high water mark, inside the harbour, during the quarter has remained in the same position about the centre of the harbour, but at the north and south arms of the harbour, the usual changes have taken place due to wind and direction of the sea, resulting in an advance of 80 feet of foreshore at the south pier, while along the north half of the harbour, the high water mark has returned shorewards by 28 to 30 feet, showing generally no permanent advance of the high water mark inside the harbour in 12 months.

19. *Summary of Progress.*—The following statement is the summary of progress made on harbour works during the quarter under review:—

Progress Statement No. 38 (d).

MADRAS HARBOUR WORKS.

STATEMENT showing progress during quarter ending 30th September 1894, as shown on accompanying tracings Nos. 37 (*a*) and 37 (*b*).

No. of item.	Particulars and quantity of work, &c.	Sub-heads of work. Column.	North Pier. Rubble base. A	North Pier. Pier head. B	North Pier. Wave-breaker. C	North Pier. Concrete capping. D	North Pier. Base protection around caisson. E	South Pier. Rubble base. F	South Pier. Pier head. G	South Pier. Wave-breaker. H	South Pier. Concrete capping. I	South Pier. Base protection. J	Railway Lines. At works. K	Railway Lines. At quarries. L	Railway Lines. Sand line. M	Railway Lines. Beach improvements. N	Railway Lines. Pallávaram quarries outturn. O	Railway Lines. Concrete block-making. P	Protective works. Q	Total expenditure. 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. ..	,,	..	..	..	..	..	..	72	..	..	..	..	.	..	..	4,667	..	..	..
5	Concrete blocks—set by divers ..	No.	..	..	..	..	..	..	96	..	..	..	..	..	..	..	..	..	..	..
6	Do. deposited in wave-breaker ..	,,	..	..	..	..	..	..	9	..	..	..	..	..	..	..	..	..	..	..
7	Do. made for superstructure ..	,,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
8	Do. in pier head raised by divers	,,	..	24	..	..	..	..	33	..	..	..	..	..	..	..	..	..	..	..
9	Wrought iron cramp fixed in position..	,,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10	Total outturn of concrete	C. yds.	..	..	..	..	244	..	..	..	..	..	..	..	..	..	..	..	..	..
11	Advance or progress of completed superstructure	Ry. ft.	..	..	..	..	..	..	16′ 1⅓″ 21-6	..	..	..	..	..	..	..	..	..	..	..
12	Rubble base protected with concrete.	,,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
13	Metre gauge, 40 lb. per yard, laid new.	,,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
14	Do. do. relaid or renewed.	,,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
15	Do. do. taken up.	,,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
16	Broad gauge, 50 lb. per yard, laid ..	,,	..	..	..	..	..	..	..	..	..	..	1,942	..	..	..	..	..	..	..
17	Do. do. relaid or renewed.	,,	..	..	..	..	..	..	..	..	..	..	2,675	..	..	..	..	..	..	..
18	Do. do. taken up ..	,,	..	..	..	..	..	..	..	..	..	..	550	..	..	..	..	..	..	..
19	Titan gauge, 75 lb. 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	Rs.	..	10,069				..	25,179	..	5	..	2,347	..	..	..	5,881	..	..	43,481

NOTE.—The figures in block type denote for comparison progress and quantity of work done in quarter ending 30th September 1893.

	TONS.	CWTS.	QRS.	LB.
5,590 casks of cement received on works during quarter ending 30th Sept. 1894 containing	998	4	1	4
285½ do. issued for do. do. do.	51	0	2	1
8,245½ do. balance in store at end of do. do. do.	1,472	9	3	12

Quantity due on indents .. dated 16th July 1894 .. TONS. 1,500 CWTS. .. QRS. .. LBS. ..

MADRAS,
10th November 1894.

(Signed) A. LEE POGSON,
Engineer, Harbour Trust Board.

20. *Expenditure.*—The expenditure to the end of the quarter including establishment, tools and plant and contingencies is Rs. 1,23,32,581 out of the total estimated cost of Rs. 1,23,83,386, leaving a balance of Rs. 50,805 to be spent for completion.

21. *Miscellaneous.*—The usual repairs and the upkeep of all machinery cranes, railway lines, &c., and all haulage of coal and other traffic was done by the Harbour Works Locomotives for the Traffic Department as usual.

COMPARISON of expenditure to date with sanctioned estimate for the quarter ending 30th September 1894.

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.
	Quantity.	Rate.	Per.	Cost.	Total.	Quantity.	Rate.	Expenditure. 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
Expenditure up to 31st Dec. 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 0 11	..	5,892 0 11	..	5,892 0 11
					5,892							
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 0	..	24,377 9 0	..	24,377 9 0
6. Ordinary rubble deposited from boats .. .. ,,	206,896	2 0 5	,,	4,19,218		205,477	2 0 8	4,15,132 8 10	..	4,15,132 8 10	4,085 7 2	4,19,218 0 0
7. Concrete blocks for building .. .. C. yds.	51,320	11 8 0	C.yd.	5,90,110		51,320	11 8 0	5,90,110 0 0	..	5,90,110 0 0	..	5,90,110 0 0
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 2,200 to 3,600 feet .. ,,	36,520	2 14 3	,,	1,05,569		36,520	2 14 3	1,05,569 0 0	..	1,05,569 0 0	..	1,05,569 0 0
10. Setting blocks at pier head ,,	12,185	9 8 11	,,	1,16,424		12,185	9 8 11	1,16,403 0 6	20 5 6	1,16,423 6 0	0 10 0	1,16,424 0 0
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. Wavebreaker blocks .. ,,	288	9 5 7	,,	2,692		288	9 5 7	2,692 0 0	..	2,692 0 0	..	2,692 0 0
13. Wavebreaker concrete blocks .. .. ,,	77,355	10 14 11	,,	8,45,591		69,863	12 1 8	8,40,134 6 2	5,324 6 10	8,45,458 13 0	0 15 4	8,45,459 12 4
14. Depositing concrete blocks ,,	77,932	1 0 0	,,	77,928		70,457	1 1 8	77,898 2 10	20 5 6	77,918 8 4	9 7 8	77,928 0 0
15. Concrete in protection to rubble base .. .. ,,	1,986	10 4 1	,,	20,358		1,986	10 4 0	20,358 0 0	..	20,358 0 0	..	20,358 0 0
16. Cramps, iron .. .. No.	331	9 10 1	Each.	3,188		313	10 3 0	3,188 0 0	..	3,188 0 0	..	3,188 0 0
17. Concrete capping . C. yds.	16,352	11 3 10	C.yd.	1,83,798		573	..	22,875 12 6	11,356 12 7	34,232 9 1	1,556 15 0	35,789 8 1
18. Cost of north pier caisson and setting in position and filling same as items 26, 27, 33 and 34 .. ,,	..	..	,,	84,750		..	..	84,515 4 2	90 8 3	84,605 12 5	141 9 7	84,747 6 0
Total for North Pier ..	..	..	..	..	24,80,607	..	..	23,09,856 7 9	16,812 6 8	23,26,668 14 5	5,795 0 9	23,32,463 15 2
South Pier.												
19. Ordinary rubble deposited from boats .. Tons.	175,078	2 9 0	Ton.	4,49,052		173,659	2 9 4	4,44,126 1 4	..	4,44,126 1 4	4,925 14 8	4,49,052 0 0
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		43,341⅜	11 10 3	5,01,116 6 6	3,393 9 6	5,04,510 0 0	..	5,04,510 0 0
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 0 0	..	1,05,461 0 0	..	1,05,461 0 0
24. Setting blocks at pier head .. .. ,,	12,350	11 1 3	,,	1,36,845		12,350	11 0 10	1,31,772 13 10	4,730 11 8	1,36,476 9 6	0 6 0	1,36,476 15 6
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 pier head .. .. ,	2,355	15 0 0	,,	35,325		..	..	5,960 13 9	535 8 11	6,496 6 8	3 12 10	6,500 3 6
27. Concrete in filling in between coursed blockwork and caisson .. ,,	184	15 0 0	,,	2,760		..	..	..	..	..	..	..
28. Wavebreaker concrete blocks .. .. ,,	47,231	11 1 6	,,	5,24,070		42,013⅜	11 11 9	4,70,997 6 0	22,087 13 4	4,93,085 3 4	..	4,93,085 3 4
29. Depositing concrete blocks .. .. ,,	47,714	1 5 8	,,	64,708		40,497	1 9 1	58,747 10 2	20 5 4	58,767 15 6	4,747 14 9	63,515 14 3
30. Concrete in protection to rubble base .. ,,	1,700	9 10 6	,,	16,420		1,108	13 7 7	14,932 9 1	..	14,932 9 1	..	14,932 9 1
31. Cramps, iron .. No.	259	11 7 7	Each.	2,972		220	13 8 1	2,972 0 0	..	2,972 0 0	..	2,972 0 0
32. Concrete capping .. C. yds.	16,247	11 5 8	C.yd.	1,84,495		669	.	15,113 8 1	5 4 0	15,118 12 1	..	15,118 12 1
33. Iron caisson .. .. No.	1	..	,,	18,000		..	..	18,000 0 0	..	18,000 0 0	..	18,000 0 0
34. Preparing base for and setting cylindrical pier head .. .. ,,	..	..	,,	28,665		..	..	5,671 14 11	18,132 0 8	23,803 15 7	1,793 8 11	25,597 8 6
Total for South Pier ..	..	..	..	..	21,00,826	..	..	18,02,414 12 3	48,878 5 5	18,51,293 1 8	11,471 9 2	18,62,764 10 10
Extending the Rubble Revetment protecting the Foreshore north of Harbour.												
35. Rubble stone revetment. Tons.	70,600	2 1 0	Ton.	1,45,613		91,051	1 8 8	1,38,938 0 1	1,155 13 1	1,40,093 13 2	98 0 0	1,40,191 13 2
36. Railway lines	..	..	..	9,849		..	..	11,665 7 10	..	11,665 7 10	..	11,665 7 10
					1,55,462	..	..	1,50,603 7 11	1,155 13 1	1,51,759 5 0	98 0 0	1,51,857 5 0
								6,10,709 7 5	832 2 5	6,11,541 9 10	..	6,11,541 9 10
37. Tools and plant	..	..	..	..	6,11,656	..	..	2,11,713 12 9	7,188 8 0	2,18,902 4 9	1,375 15 4	2,20,278 4 1
38. Contingencies	..	..	..	..	2,17,415	..	..	5,73,170 9 8	14,178 5 7	5,87,348 15 3	..	5,87,348 15 3
39. Establishment	..	..	..	..	5,34,369	..	..					
40. Materials at site (concrete blocks in yards). C. yds.	..	..	..	..	..	3,949½	14 6 5	77,885 7 1	− 25,249 14 0	52,635 9 1	4,242 13 1	56,878 6 2
41. Advances to work-people ..	..	..	..	..	..	..	..	49 15 2	— 15 12 0	34 3 2	..	34 3 2
Total of estimate and value of work done	..	..	..	..	61,06,227	..	..	57,42,296 0 11	63,779 15 2	58,06,076 0 1	22,983 6 4	58,29,059 6 5
Deduct probable recoveries due to sales of tools and plant	..	..	..	..	2,77,331	..	..	— 27,806 14 0	— 179 4 1	— 27,986 2 1	..	— 27,986 2 1
Total ..	..	..	..	..	58,28,896	..	..	57,14,489 2 11	63,600 11 1	57,78,089 14 0	22,983 6 4	58,01,073 4 4

Comparison of expenditure to date with sanctioned estimate for the quarter ending 30th September 1894—*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.
	Quantity.	Rate.	Per.	Cost.	Total.	Quantity.	Rate.	Expenditure. 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.
Total of revised estimate sanctioned in Secretary of State's despatch *plus* expenditure before 31st Dec. 1884	..	..	..	..	1,23,83,386	..	..	1,22,68,980 1 9	63,600 11 1	1,23,32,580 12 10	22,983 6 4	1,23,55,564 3 2
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	..	..	..	..	1,23,32,581	..	..	..	..	..	..	..
Total estimated cost of completing work after year ending 31st Sept. 1894	..	..	..	..	50,805	..	..	..	..	..	..	..

		RS.	A.	P.	
Expenditure up to 31st March 1894 from commencement of works ..	..	1,21,92,104	7	4	
Do. during current official year from 1st April 1894 to 30th September 1894 ..	..	1,40,476	5	6	Grant for 1894–95, Rs. 1,50,000.
Total outlay to 30th September 1894 ..		1,23,32,580	12	10	

MADRAS,
11th November 1894.

(Signed) A. LEE POGSON,
Engineer, Harbour Trust Board.

18TH DECEMBER 1894, No. 3248 W., PUBLIC WORKS. 21

No. 2442, Marine.

Transferred to the Public Works Department.

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

8th December 1894.

ORDER—dated 18th December 1894, No. 3248 W., Public Works.

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

[Here enter No. 3249 W., dated 18th December 1894.]

(True Extract.)

(Signed) J. PENNYCUICK, Colonel, R.E.,
Secretary to Govt., P.W.D.

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

ENDORSEMENT—dated 18th December 1894, No. 3249 W., Public Works.

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

(By Order.)

Colonel, R.E.,
Secretary to Govt., P.W.D.

Exd. C. A. Muniswamy.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of {1894} Madras.

PUBLIC WORKS.

Dated December, 18th.

Recd.

Encl.

G.O., 18th Dec. 1894, Nos. 3248, 3249 W.

DECEMBER.

Madras Harbour Works

Forwarding copy of Proceedings embodying the progress report of the — for the quarter ending 30th September 1894, together with plans showing the progress of the work.

PUBLIC WORKS DEPARTMENT.

LETTER—to

THE RIGHT HONORABLE THE SECRETARY OF STATE FOR INDIA.

RIGHT HONORABLE SIR,

In continuation of our despatch No. $\frac{8}{2362}$ W., dated 19th September 1894, we have the honour to forward the progress report of the Madras Harbour Works for the quarter ending 30th September 1894.

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

We have the honour to be,

Right Honorable Sir,

Your most obedient, humble servants,

(Signed) WENLOCK.
(„) H. W. BLISS.
(„) J. GROSE.

FORT ST. GEORGE,
18th December 1894.

Exd. C. A. Munisawmy.

GOVT. OF MADRAS.

PUBLIC WORKS DEPARTMENT.

(Copy.)

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

No. $\frac{11}{3248}$ W., dated 18th Dec. 1894.

FORWARDING the progress report of the Madras Harbour Works for the quarter ending 30th September 1894 together with plans showing the position and quantity of work done during the quarter.

[G/9]
1,000 - 25-10-94.

P. L. 9413

19.9.94 No 2362-63 W.

Current No. 1019

Mar DEPARTMENT.

From

Mr Chairman
H. T. B.
Madras

No. 3018
Dated 23rd nov 94
Received 4th Dec
Reg 4th ...
Enclosures ~~2 S.C~~ ~~2 Maps~~ (2 Plans in duplt)
+ 2 Encls

SUBJECT.

Madras Harbour.
Subms. report upon progress made in the reconstruction of the ——— for the quarter ending 30th Sept. 1894; also returns of imports & exports; with comparative statements of cash Receipts & Expenditure for the half year April — September:

Transferred

End. 2442 d/8-12-'94
Transferred to the
Public Works Department
Sd Buckhouse
Chief ~~Asst~~ Secretary.
F.B.B.
6/12

602 | 7 | 9

B.P.W.
Civil works

Public Works Department.

No. 3248 W dt 18th December 1894

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following

Endorsement in the Marine department on letter from the Chairman, Harbour Trust Board, No. 3018 a/23rd November 1894 (M.E. No. 2442 a/8th Dec. 1894)

210

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

W 12 Dec

The Chairman,
Harbour Trust Board
" Marine Deptt.

DESPATCHED
21 DEC. 94

602 7 9

(M.E. No. 3249 W dy 18 Dec. 94)

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

DESPATCHED
21 DEC. 94

(M.E. No.)

To

The Right Honorable

(40—1,000—26-11-94.)

To

The Right Honorable
the Secretary of State
for India

Right Honorable Sir,

In continuation
of our despatch no. 8
2362 D
of 19 September 1894, we
have the honor to forward
the progress report of the
Madras Harbour Works
for the quarter ending 30th
September 1894.

The report is ac-
-companied by two plans
showing the position and
quantity of work done
during the quarter.

Yours

Progress Report of the Madras Harbour Works for the quarter ending 30th September 1894.

W
12 Dec

602 7 9

9413

1894 1019

MARINE DEPARTMENT.

FROM

THE CHAIRMAN,

HARBOUR TRUST BOARD,

MADRAS.

CHIEF SECRETARY
-4 DEC 18
GOVERNMENT OF MADRAS

To

THE CHIEF SECRETARY TO GOVERNMENT,

Marine Department.

DATED 23*rd November* 1894.

DESPATCHED 3rd December "

Recd 10-12-94

RECEIVED 4th
Rep 4th

ENCLOSURES :—Tracings referred to in the Engineer's report.
2 S.C + 2 Cards. 3 plans (2 plans in duplicate)

No. 3018

SUBJECT.

MADRAS HARBOUR.

Submitting report upon progress made in the reconstruction of the————for the quarter ending 30th September 1894; also returns of Imports and Exports; with comparative statements of cash Receipts and Expenditure for the half-year April—September.

LAWRENCE ASYLUM PRESS, MADRAS.