

# Report

## on the

# Working of the Development • Directorate

For the Year ending 31st March 1926

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## REPORT ON THE WORKING OF THE DEVELOPMENT DIRECTORATE FOR THE YEAR ENDING 31st MARCH 1926

The second *ad interim* report of the Advisory Committee, dealing with the Back Bay Reclamation Scheme, with the report of the Sub-Committee, was published in January 1926. The reports were not unanimous in their findings or recommendations, but the figures given show that the financial prospects of the scheme are likely to be seriously prejudiced unless a much better output can be secured from the dredging plant than was obtained during the season 1924-25. A separate report was called for by Government from Sir Alexander Gibb, and this report was also published for general information in February 1926. The whole project is to be the subject of further enquiry and, meanwhile, since the issue of the report of the Advisory Committee, work is being confined, in accordance with the recommendation of the majority, to the filling and to the completion of certain storm-water drains.

2. The first instalment of the Industrial Housing Scheme was completed during the period under review, and work on suburban schemes remained practically in abeyance. There was a further considerable reduction of establishment during the year.

#### BACK BAY RECLAMATION

3. The diagram at the end of this report shows the progress of the sea wall on 31st March 1926. Out of a total length of 21,578 feet, 19,728 feet were completed in all respects, with the exception of the parapet, leaving a gap of 1,850 feet remaining to be done. There was no damage to any part of the work during the monsoon of 1925.

4. Kandivki Quarry.—Owing to the closing down of work on the sea wall and the majority of the storm-water drains, the output of stone was much less than in former years, and during the greater part of the year, the rolling stock was employed in running dry earth filling from the quarry, the quantity of which showed a considerable increase. The figures are as follows :—

		Stone		
Year.				Tons.
1921-22		•.		38,474
1922-23				235,839
1923-24	••		••	399,280
1924-25		• •		290,975
1925-26		* •		44,000
	Ear	th filling		
Previous years		••		62,728
1924-25		• •	••	182,282
1925-26	••	• •	• •	421,500

The manufacture of precast blocks for storm-water drains was stopped in April 1925 and only twenty blocks were made during the year. The w 7-1 quarry workshop was employed in making a large quantity of spares of various descriptions for the dredging section. About 11 miles of additional 5' 6" gauge siding were laid to keep up with the excavation for dry filling. All rolling stock, plant, machinery and buildings were maintained in an efficient state during the year.

5. Marine Lines Section.—No work was done on the sea wall in this section. The progress on storm-water drains Nos. 6 and 7 was as follows :—

<u>04</u>

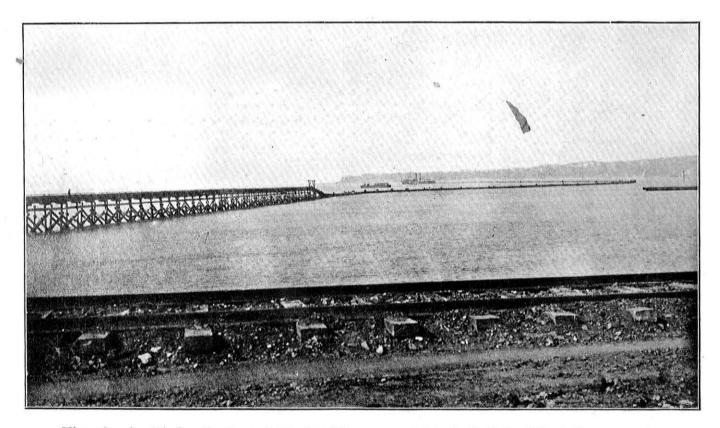
Storm-water drain No. 6-

			UIL.
Total excavation of trench		• •	79,676
Rubble filling	**		22,932
Cement concrete deposited	• •		31,910
Storm-water drain No. 7-			
Total excavation of trench	••	••	52,235
Rubble filling	• •	* *	11,000
Cement concrete deposited	14	••	53,225

A bank of moorum was tipped on the inside of the sea wall from zero to the cross bund at Churchgate Station, so as to render the rubble mound impervious and prevent the escape of dredged filling from block 1. Filling with building rubbish brought by lorries was commenced near Churchgate Station, and 16,02,207 cubic feet had been deposited at the close of the year.

6. Colaba Section.—The mass concrete wall was completed during the year, from R. D. 10,056 to 11,714, or a length of 1,658 lin. feet. The average rate of progress was 80 lin. feet per day, and 94,620 cubic feet of concrete was used in the work. A bank of moorum was tipped on the inside of the sea wall for the whole distance enclosing the military area, and the cross bund between this area and block 7 was rendered impervious in the same way. As regards storm-water drains in this section, Nos. 1A and 2 were completed in all respects during the year. Work on Nos. 3, 4 and 5 is in abeyance for the present. A considerable quantity of surfacing with dry earth was carried out at the extreme south of the military area.

7. Dredging Section—Dredging in the harbour.—Dredging operations in the harbour for the season 1924-25 ceased on the night of the 15th May 1925, when the plant was laid up for the monsoon, during which all the craft were overhauled. The dredger "Sir George Lloyd" was moored in position outside Oyster Rock for the new season's work on the 25th September 1925, after which the mooring of the "Colaba" and connecting up of the floating pipe line was taken in hand. This was completed on the 12th October 1925 and pumping operations were commenced, working double shift, on the 13th October, the material being discharged into the military area. On the 17th October, a high wind and sea were experienced, which caused considerable damage to the pipe line and necessitated a complete stoppage of operations until the necessary repairs had been effected, there being no spare lengths of floating pipe line available. The repairs were completed by 29th October, when pumping



View showing Timber Gantry and Floating Pipes connected to S. D. Kalu at Back Bay. 16-12-25

operations were recommenced. On the 12th November, it was decided to put the " Colaba " out of commission to enable certain stiffening of the hull to be carried out to obviate the excessive vibration, which had developed, whilst the vessel was pumping. The "Sir George Lloyd" was accordingly brought inside Oyster Rock to enable her to work without the "Colaba" and recommenced pumping in that position on the 18th November, continuing to do so until 6th March 1926. The stiffening of the "Colaba" having then been completed, the "Sir George Lloyd" was taken back to her original position outside Oyster Rock, the "Colaba" moored in her former berth, and the pipe line re-arranged and connected up. Pumping operations recommenced on 19th March and continued without further interruption until 13th May 1926, when work closed for the monsoon. Prior to the season 1925-26, a considerable amount of the finer material pumped into the military area had been lost by passing through the voids in the rubble mound forming the sea wall. During the season 1925-26, however, the conditions were entirely different, owing to the sealing of the sea wall and cross bund with moorum already referred to. The material was pumped into what was virtually a watertight compartment, in which the water level was maintained at a high level, the excess water being allowed to escape over a weir in such a way as to ensure the retention in the area of as much as possible of the fine material. It is believed that as a result the losses experienced in previous years will be largely eliminated. The performance of the plant, dredging in the harbour, from the commencement is shown below :---

Scason.	Number of pumping hours worked.	dredged as from so	of material ascertained undings.		filling as in Back Bay.
	nonte morked.	Per season.	Per pump- ing hour.	Per season.	Per pump- ing hour.
" Bir George Lloyd ".		Cub. yards.	Cub. yards.	Cub. yards,	Cub. yarda.
1923-24 1924-25 1925-26	1,479	859,858 1,261,986 1,828,303	1,020 856 959	528,000 680,438	~ .

The figures for actual filling for the season 1925-26 are not yet available as, at the time of writing this report, it has not sufficiently dried out to enable measurements to be taken. It is expected, however, for the reasons indicated above, that the quantity of filling retained in the area will bear a much larger proportion to the quantity dredged from the harbour than was the case in former years.

8. Dredging in Back Bay.—The dredger "Kalu" commenced work in Back Bay on the 15th November 1925 working tide work in order to dredge a basin to give flotation at low water spring tides. This was completed by 27th January 1926, after which she was able to continue pumping without interruption, except for a few hours at each low water spring tide, when work had to be suspended owing to the floating pipe line grounding on the bottom of the Bay. The material met with has proved to be less suitable for this class of dredger than that in the harbour and the output is in consequence restricted. The material is, however, excellent for reclamation purposes. The pumping season in Back Bay ended on 29th April 1926 when the "Kalu" was removed to her monsoon berth in the harbour. The work done during the seasons 1924-25 and 1925-26 is as shown below :--

			-	umber of	Quantity of n as ascertained	naterial dredged from soundings.
				umping urs worked	Per season.	Per pumping hour.
<u> </u>	" Kalu	i <sup>34</sup> .			Cub. yards.	Cub. yards.
1924-25 1925-26	**	5 5 2 4	F F 4 A	111 918	15,640 872,925	141 406

#### SANITARY COMMITTEE

9. The report of the Sanitary Committee for the year ending 31st March 1926 is printed as Appendix A. It will be seen that, thanks to the attention given by the members of the Sanitary Committee, and the Directorate sanitary staff working under their instructions, the sanitary conditions at Colaba have not been adversely affected by the pumping operations. Judging by the figures given by the Committee of the incidence of malaria amongst the troops at Colaba, it would seem, indeed, that the reverse has been the case. The Committee acknowledge the valuable services rendered by Dr. K. B. Shroff, L.M. & S., D.P.H., D.T.M., J.P., during the three years he has acted as their Honorary Secretary, and have desired that the same be brought to the notice of Government. The names of the members of the Sanitary Committee during the year are given in Appendix B.

#### INDUSTRIAL HOUSING IN BOMBAY

10. During the financial year 1924-25 it was decided by Government that the scheme should, for the present, be restricted to the construction of 211 chawls: 121 at Worli, 32 at DeLisle Road, 42 at Naigaum and 16 at Sewri. Difficulties arose in connection with four of the chawls at Sewri as mentioned in paragraph 17 of last year's report. As there was no immediate prospect of the difficulties referred to being overcome, it was decided to omit these four chawls from the first instalment of the acheme, which was thus reduced to 207 chawls. During the period under review, these 207 chawls were completed in all respects, including watersupply, sewerage, storm-water drainage and lighting. At Worli, DeLisle Road and Naigaum the roads and open spaces have been lighted by electricity, but current is not at present available at Sewri. The earlier chawls fitted with concrete windows were altered and shuttered windows of the ordinary type provided.

11. Chawls for which tenants are available are handed over to the Special Officer in charge of the chawle, the remainder are retained under the control of the Engineering Department and are kept closed. The following notes deal with the management of the chawls for the year ending 31st March 1926. Eleven new chawls were handed over during the year under report in different centres as shown below :---

		Number of chawls		N	ampo	er of (		u reco 	eivad	duriı	ng th	e yea		5-26.  1926.	
Locality.		in ohargo on Sist March 1925.	April.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Des.	Jan.	Feb.	March.	Total.
Naigaum A	•••	10									••				19
Nalgaum B	••	10		•••							••	••	1	**	11
DeLisie Road	••	20			8							44.1	••	••	<u>82</u>
Worli		20						•••						2	22
8owri	••	2		۱	1				•••			1	1	1	7
Total		80		1	•		   • •			, . , .	•••	1	2	8	91

12. The number of rooms occupied month by month in the various localities were as follows :---

		Nomb	Number	Number of occupied rooms month by month.						
Benellity		of occ pird room	)U-	1925.						
	*	on 31 Marc 1920	h I	May.	Jung.	July.	August.			
Naigaum Å	**	 91	17 919	875	920	986	904			
Naigaum B		10	81 179	215	847	264	269			
Deldete Boad	••	1,0	1,772	1,842	1,990	1,045	1,927			
Worti	**	9	57 254	608	498	540	637			
Sewri	**	1	19 187	188	141	169	162			
	Total	2,1	80 3,261	8,468	\$,791	8,874	8,809			

			Number of cocupied rooms month by month-could.									
Loc	ality.			19:	25.	·····		1926,				
			Bept.	Oct.	Nov.	Dec.	Jan.	Feb.	March.			
Xaigaum A	**		828	683	607	664	724	811				
Naigaum B	••	••	\$73	286	207	170	277	305	837			
Delinis Road		•••	1,788	1,288	1,243	1,322	1,367	1,352	1,360			
Worli	••	* • 1	577	427	862	890	405	437	609			
<u>Bewri</u>	••	**	162	163	182	235	285	838	857			
	Toi	· · ·	8,628	2,847	8,681	2,881	8,055	3,238	8,896			

It will be seen from the statement above that except at Sewri there was a sudden fall in the number of occupied rooms from the end of September 1925. This was mainly due to the mill-strike. An appreciable increase is evident from the middle of January 1926, when the strike ended. Towards the end of the year, the demand was again normal. On the whole, the demand for rooms in the various centres is more satisfactory this year than in the previous one. This is probably due to the additional conveniences afforded to the tenants by the substitution of open wooden windows for the closed cement ones, and the supply of water throughout day and night.

13. One chawl in plot 'B' Naigaum was converted into 2 and 3 roomed tenements with separate water taps for the accommodation of better paid workmen. It is too early to predict with certainty as to the success or failure of the measure. But that the alteration has the approbation of the class for whom it is intended is evident from the number of occupied rooms in this chawl within this short period.

14. At Naigaum (plot A) 3 chawls have been closed down with a view to curtailing municipal expenditure and the tenants accommodated in other occupied chawls of the same plot.

#### · SHOPS IN THE CHAWLS

15. There is a good demand for shops at DeLisle Road. The ground floor of one chawl is now being converted into shops, and, judging by the number of applicants for them, the ground floor rooms of another chawl could also be converted with a certainty of their being occupied. The demand at Naigaum and Worli is poor. At the latter centre, the paucity of tenants is the cause, while at Naigaum it is anticipated that the shops will gradually be occupied as the number of tenants in block 'B', where all the shops are situated, increases. At present, there are only seven chawls occupied in this block out of a total number of 23. The demand for shops at Sewri will increase proportionately to the increase of tenants. At present all the shops in the occupied chawls at this centre are occupied and a few applications were received for shops in the vacant chawls, but these requests had to be refused as the chawls had not been thrown open for occupation. The applicants were therefore asked to apply again when tenants are available for the chawls.

16. Markets in the chawls.—The ground floor of a chawl at Worli has been converted into a market as an experimental measure. The market will be opened as soon as the Municipality grants a license. It is believed that the scheme will meet with success, as there are a good number of applicants for stalls. As there are markets in the neighbourhood of Naigaum, DeLisle Road and Sewri, the need of this amenity is not felt at those centres, though if a market were opened at DeLisle Road, there would probably be no difficulties in letting the stalls. This question is at present under consideration. Later on, when the Naigaum chawls get a full complement of tenants, the provision of a market at this centre will meet with success. 17. Abscondency.—A statement showing the number of absconders and the amounts thereby lost to the Department per month in each of the centres during the year is given below :—

			Nu	unber G	f ab	soonden	s and th mont d	e af urji	nounts Ig the y	thereby ear.	iont	to the	Depart-	
Locality.			April.			Hay.		June.				July.		
			Num- ber.	Åmou	nt.	Num- ber.	Amou	ot.	Num- ber.	Å mou	nt.	Num- bor.	Amoun	at.
				Re.	8.		R4.	<b>.</b>		Re.	a.,		Re.	8.
Naigaum	A and B	\$ \$	85	2,582	8	68	2,525	4	28	897	12	24	981	12
DeLisis I	land		68	\$,368	6	47	1,905	é	60	2,058	0	60	2,275	8
Worll			12	286	12	12	877	0	5	98	4	8	181	4
fiewri	••	••	7	62	4	•	89	4	8	22	0	2	22	8
	т	o <b>tal</b>	178	6,894	12	126	4,646	12	91	8,060	0	89	8,411	0

		Nun	nber of a	n bec	men men	and the ame t during the	ounte ti 9 year—	rereby lost i conid.	to the D	lepart-	
Locality.			August.		80	ptomber.	0	October.		ember.	
			Nam- ber,	Amou	nţ.	Nums- ber.	Amount.	Num- ber,	Amount.	Num- bor,	Amount.
				Ra,	8,		Ra. a.		Rs. s.		Re. a.
Naigaum A and	B	••	45	1,009		98	1,161 0	115	1,995 8	92	1,900 0
Definie Road		••	98	8,102	10	866	7,424 0	280	6,922 0	72	2,810 4
Worti		•••	10	105	12	79	777 6	114	1,817 12	74	1,286 0
Bewri		••	1	82	12	8	<b>\$1 18</b>	5	61 8	2	81 19
	Total	••	155	4,251	10	526	9,384 0	514	10,796 12	\$40	5,528 0

•			Nu	mber of ab	nobaden Dio E	and the an it during th	nounte ( e year	thereby lost	to the	Depart-
Locality.			De	cember.	Jang	ary 1926.	Febr	Dary 1926.	Ma	rch 1925,
		_	Num- ber.	Amount,	Num- ber.	Amount.	Num- ber.	Åmount.	Num- ber.	Amount,
Naigaum	A and B	•••	64	Ba. a. 1.521 8	60	Ba. a. 1.887 0		Ra. s.		Rs. s.
DeLisie B	ond	۰.	84	3,215 4	118	5,411 8	112	975 12 5,751 4	42 43	929 4 1.560 4
Worl] Bezri	••	••	15	388 11	94 2	643 0	<b>1</b> 1	564 8	20	547 4
						¥ 0	- <b></b>	78 4	5	68 4
	Total	••	156	5,120 8	199	7,975 8	176	7,306 12	116	3,096 0

There was a marked increase in the number of absconders at Naigaum. DeLisle Road and Worli, during the months September to November. The increase in these three months is due to the "exodus" of mill hands during the strike. Some of the absconders have been traced and the rents due by them have been recovered. There was a considerable improvement in the state of affairs towards the end of the year. However, after the mill hands had settled down to work again, many of the tenants. who had remained in the chawls for the period of the strike, absconded in January and February, as soon as they discovered that they were expected to pay the rent for the period of the strike, a rumour having got about among the mill hands that they were to be let off payment for that period. With the introduction of the system of issuing prohibitory orders, it is anticipated that the number of absconders will be reduced. Trackers have also been appointed and every effort is made to keep the payments up to date. Suits for recovery of rent are not filed now, and, wherever possible, undesirable tenants are evicted without recourse to The number of ejectment cases will, therefore, be very few. The law. court-clerk will be placed in charge of the trackers, who will work under his guidance and instructions in tracing absconders and issuing prohibitory orders. Seventy-three prohibitory orders were issued between October 1925 and March 1926 and Rs. 1,056-1-0 were realised. At the time when the system of issuing prohibitory orders was started, great difficulty was experienced in tracing absconders. This was due to the meagre addresses recorded in the agreements. In many cases, it was found that incorrect addresses were given at the time of occupation of rooms. In order to get at the right parties within a short time, cards were distributed to all the mills adjacent to chawl areas with the request that they should be issued to mill hands requiring rooms. These cards contain the name ticket number and the Department of the mill, in which the applicant is working, and are a great help in obtaining correct business addresses.

18. A statement showing the current demand of rent and the percentage thereto of *total* recoveries month by month during the year under report is given below :----

Mon	th.		Demand,	Percentage of total recoveries to demand
	25.		Rs.	
April	••	 = =;	37,510	89
May			34,928	95
June	* *	± •	37,958	96
July	••	↓ ★ +	38,930	86
August	••		39,741	100
September	* *	* •	39,206	63
October	••	••	32,465	61
November		••	29,420	64
December		* •	28,641	58



Discharge at Back Bay. 16-12-25

Month.			Total assesment.	Percentage o recovery.
19	26.		Rs.	Per cent.
January			31,089	83
February	••		32,457	100
March	••		33,266	100

During the months of September 1925 to January 1926 coercive measures to enforce payments of rents were suspended against mill hands, and as the majority of the tenants at DeLisle Road, Worli and Naigaum are mill employees, the recoveries were comparatively poor.

19. The establishment charges amount to Rs. 51,650 giving a percentage of 12.4 on the rental demand of Rs. 4,15,600 on rooms actually in occupation.

20. The expenditure on sanitary stores amounted to Rs. 3,860 being: '9 per cent. of the rental demand specified in the preceding paragraph.

21. An amount of Rs. 76,383-3-9 was written off during the year as irrecoverable rents as detailed below :---

			Rs.	8.	p.
DeLisle	Road	 	43,827	9	3
Worli		 • •	32,169	6	6
Sewri	* *	 • •	386	4	0

These writes off were due to tenants' absconding and to their whereabouts not being traceable. As stated in paragraph 16, every effort is now being made to record the correct addresses of tenants, so that absconders may be followed up, and the rents due recovered.

22. Sanitation and vital statistics.—The total mortality during the year under report was 305 (Naigaum 129, DeLisle Road 113, Worli 60 and Sewri 3). The combined death rate for the four centres was 7.60 per thousand. The different centres show the following death rates :—

Naigaum			10.88 per thousand.
DeLisle Road	••		5.94
Worli		• •	11-00
Sewri		· •	1.22 **

Compared with the previous records, these figures are satisfactory. There were a few cases of small-pox, specially marked at DeLisle Road. The infection came from the city proper, as the majority of the cases occurred in chawl No. 11, DeLisle Road, where the Infant Welfare Society's Centre, which is visited by all sorts of people from the neighbouring localities, is situated. All the necessary precautions were taken to prevent the spread of the disease. Every effort is being made to keep chawls and their surroundings clean, but the task is made extremely difficult, owing to the objectionable and dirty habits of the lower classes. These difficulties will only disappear when the people are educated sufficiently to appreciate the advantage and comfort of living in clean and sanitary surroundings.

#### PROVISION FOR THE EXPANSION OF INDUSTRIES OUTSIDE BOMBAY

23. Suburban Scheme No. 1—Kurla-Kirol.—The proposal for letting part of this area for cattle stables made no progress during the year. The G. I. P. Railway have acquired about 26½ acres near Kurla Station for a car shed and sidings, and are in correspondence with the Department regarding the possibility of their taking over approximately one hundred acres in the Kurla-Kirol scheme for staff quarters.

24. Suburban Scheme No. 2—Trombay-North-East.—The question of the removal of the Dharavi tanneries to this area is still undecided. One of the roads in the sanctioned layout of the scheme was constructed during the year to provide access to the new explosives depôt at Mani built under the Military Lands Scheme, the Board of Control contributing 25 per cent. of the cost. The length of the Sion-Trombay Road from Borla to Trombay was handed back to the District Local Board for maintenance on 27th May 1925.

25. Suburban Scheme No. 15—Ambernath.—During the year an area of 12,698 square yards was sold to the G. I. P. Railway for extensions of the goods yard to meet the increasing traffic, and the Western India Match Factory took up an additional area of 20,922 square yards for further staff and workmen's quarters. No applications for sites for new factories were received.

26. Suburban Scheme No. 21—Ambernath Water-Supply.—The whole of the sanctioned works connected with this scheme were completed during the period under review, and filtered water has been supplied to the area since October 1925. The consumption in the area is increasing and has now reached 1,80,000 gallons daily. The question of providing a bulk supply of about 2,50,000 gallons per day to the Kalyan Municipality is under consideration in consultation with the Sanitary Engineer to Government.

27. Suburban Scheme No. 23—Ambernath Electric Supply.—The 250 K. W. set was brought into service during the year as a spare set and, in view of proposed extensions of the match factory, will be required periodically throughout each day to cope with the load. The only work remaining at the end of the year was the drying out of certain transformers and the official testing of the complete installation at Ambernath and Badlapur. The total number of units sold during the year amounted to 2,20,203 of which 1,89,336 were for power and 30,667 for lighting. The working costs for units sold amounted to Rs. 17,188 and the revenue obtained was Rs. 31,435.

#### SUBURBAN DEVELOPMENT

28. The slight improvement in the land market in the suburban area referred to in paragraph 25 of the last report was maintained during the year and there was a steady increase in the number of persons applying for advances under the State-aided building scheme. The advances actually made in the last two years were as follows :---

Year.		-	Number of persons who were granted advances.	Total amount of advances on land and building.	
				Rs.	
1924-25	<b>* *</b>		19	1,43,081	
1925-26	••		33	2,85,215	

29. Apart from the extensions of the water-supply and the prospect of an electric train service in the near future, the suburban area is now assured of a supply of electric power for lighting and other purposes. The license granted by Government to Messrs. Killick Nixon and Company and Messrs. Callender's Cable and Construction Company has recently been published and the work of providing the necessary cables in the compulsory area of Bandra is to be undertaken forthwith.

30. The denotification of land referred to in paragraph 28 of the last report continued during the year under review, and by the close of the period the total area released amounted to 8,340 acres.

#### TOWN PLANNING SCHEMES

31. Santa Cruz Town Planning Scheme No. 2.—The remaining roads in this scheme were completed during the year.

32. Santa Cruz Town Planning Scheme No. 4.—This scheme was started during the year and some of the roads were completed to provide access to new houses constructed in the scheme. There is a demand for the construction of further roads, which will be taken up on receipt of funds from the Notified Area Committee.

33. Vile Parle Town Planning Scheme No. 2.—This new scheme was also put in hand during the year and satisfactory progress was made. The estimated cost of roads and storm-water drains in the scheme amounts to Rs. 2,01,000.

34. Malad Town Planning Scheme No. 1.—This scheme was last year reported partly finished but in abeyance for want of money. Funds for the construction of the remaining roads were received towards the end of the year under review and the work will be completed during the current year.

35. The roads in the following schemes were completed during the year, and were handed over to the Notified Area Committees in November 1925 for future maintenance :---

Borivli Town Planning Scheme No. 1. Andheri Town Planning Scheme No. 2. Santa Cruz Town Planning Scheme No. 1. Vile Parle Town Planning Scheme No. 1.



### SUBURBAN SCHEMES

36. Suburban Scheme No. 3—Trombay North-West.—The layout of the Chembur sector of this scheme has been slightly modified to suit the requirements of the St. Anthony's Homes Co-operative Society, to whom developed plots aggregating 70,643 square yards have been allotted. The Society will be put in possession as scon as the necessary roads, which have been sanctioned, have been completed. There was no further development in this scheme during the year.

37. Suburban Scheme No. 6—Danda.—Owing to the extra amount paid for land as a result of references in the Thana Court, the prices of plots in this scheme have been increased from Rs. 10 to Rs. 12 per square yard for plots facing the sea, and from Rs. 7-8-0 to Rs. 8-8-0 per square yard for interior plots. At the end of the year, a total of 18,281 square yards of a value of Rs. 1,34,680 had been disposed of. Work on the extension of Turner Road was commenced during the year, and on its completion it is expected that the remaining plots in the scheme will readily be sold. The cost of the extension is Rs. 25,000, towards which Suburban Scheme No. 6 will contribute Rs. 10,000, the balance being met by the Catholic Housing Society.

38. Suburban Scheme No. 7-Khar Model Suburb.-The demand for plots in this scheme continues brisk. The market site in sector A has now been handed over to the Bandra Municipality, who will erect on it an up-to-date municipal market, which will be a great convenience to owners in the scheme. The total area disposed of at the end of the year was 1,70,170 square yards of a value of Rs. 9,88,380 in sectors A and B, and 8,360 square yards valued at Rs. 54,810 in sectors C and D. The construction of 80 bungalows has been completed and 20 were in course of construction at the end of the year. Many of these bungalows are of attractive design. As nearly all the plots in sector B have been sold, and, to meet the continued demand for plots in sector C, the construction of two roads in this sector has been sanctioned and the work will shortly be put in hand. A portion of the permanent water-supply of sector B was completed during the year under review and the work will be finished during the current year. It has been arranged to lease a small plot in sector B to Messrs. Killick Nixon and Company and Messrs. Callender's Cable and Construction Company for the purpose of a transformer station and, although not within the compulsory area under the license, it is hoped that electric lighting will be available throughout the scheme before very long. Meanwhile, a scheme for temporary lighting is under consideration in consultation with the Bandra Municipality.

39. Suburban Scheme No. 8—Chapel Road.—The roads in this scheme were handed over to the Bandra Municipality for maintenance on the 12th January 1926. The filling in of the tank in the scheme has been sanctioned at a cost of Rs. 16,728 and four more plots of a total area of 2,306 square yards have been laid out in its vicinity, of which one has already been sold. The scheme showed a surplus on 31st March 1925, which will be increased by the proceeds of the remaining plots, when sold. So far thirty bungalows have been completed in this estate and it is expected that all plots will be built upon in three years' time. The tank, when filled in, will be laid out as a recreation ground.

40. Suburban Scheme No., 18—Kirol-North.—The approach road to this scheme was widened to 40 feet during the year. There was no real demand for plots in the scheme during the year, although there were casual enquiries. Only one plot measuring 560 square yards of a value of Rs. 3,080 was sold during the year. Government have intimated their willingness to return to their owners the lands acquired in the western sector of this scheme on their refunding the total compensation paid plus interest at 6 per cent. from the date of payment. So far one former owner has offered to take back his land on these terms.

#### WATER SUPPLY IN SALSETTE

41. Suburban Scheme No. 19.—The existing schemes of water-supply to Andheri, Santa Cruz, Juhu and Trombay were maintained in good order. There was a steady increase in the quantity consumed in each of these schemes during the year, and the demand is certain to continue to rise with the development of these areas. An extension, at a cost of Rs. 10,214, was completed for the supply of water to Marol village between Andheri and Kurla.

42. Water-Supply to Khar.—During the year a modified scheme for supply of water to this suburb was sanctioned, and, as stated in paragraph 37 of this report, the pipes were laid along some of the more important roads in sector B. It is expected that the work in this sector will be completed by September 1926. The supply is obtained from the surplus in the Santa: Cruz main which has been extended for the purpose.

43. Bandrd and Kurla Water-Supplies.—Arrangements were made during the year with the Municipalities of Bandra and Kurla, under which those bodies will take their supply in bulk from the 22 million gallons per day allotted by the Bombay Municipality to the Development Department for distribution in Salsette. The charge made to these Municipalities is 7 annas per 1,000 gallons, as against 12 annas and 8 annas respectively, which they formerly paid to the Bombay Municipality.

44. Vile Parle Water-Supply.—A scheme, estimated to cost Rs. 1,27,584 for supplying water to all the Vile Parle Town Planning Schemes, was put in hand and is expected to be completed by the end of the current year.

45. Ghatkopar Water-Supply.— Owing to the increase of pressure in the Vehar main, due to the connection of the latter with the new Tansa mains, it has been found possible to supply Ghatkopar by extending the existing Trombay water-supply system along the Chembur-Ghatkopar Road. The cost is estimated at Rs. 75,000 and the work has been sanctioned by Government. This will effect a considerable saving, when compared with the former estimate for supplying water to Ghatkopar, Rs. 1,74,259, referred to in paragraph 49 of last year's report.

#### DRAINAGE SCHEMES IN SALSETTE

46. Suburban Scheme No. 13—South Salsette Drainage.—The drainage scheme for Bandra has not yet materialised. It is probable that the scheme will be transferred to the Sanitary Engineer to Government as, owing to retrenchments, the Development Directorate no longer has the staff in the suburban area to undertake the project. The scheme for the drainage of Kurla, referred to in paragraph 51 of last year's report, is still under consideration by the Kurla Municipality. At the request of the Notified Area Committee, Andheri, a detailed drainage scheme for dealing with sullage and storm-water at Andheri was prepared during the year. The estimated cost amounts to Rs. 42,000, and it is expected that the work will be undertaken during the current year on behalf of the Notified Area Committee.

#### RAILWAY SCHEMES

47. Suburban Scheme No. 17-Salsette-Trombay Railway.—The three bogie coaches referred to in paragraph 52 of the last report were delivered during the year. Owing, however, to unexpected delay in the completion of the overbridge at Kurls by the G. I. P. Railway, it has not been possible to start an experimental tramway service. The overbridge is expected to be finished by the end of July and, as a result of negotiations with the G. I. P. Railway, it is probable that during the current year that Administration will take over the line and rolling stock, and work a tramway service on behalf of Government.

48. Suburban Scheme No. 22-Kurla-Trombay Railway.—As a result of the negotiations referred to in paragraph 53 of last year's report, the G. I. P. Railway offered to take over this line, recouping to Government the expenditure, with interest, incurred up to 31st March 1925, and to complete the extension to Mandala—Government to pay interest at 6 per cent. on the whole expenditure, including that on the extension, for ten years, after which Government would incur no further liability. As an alternative, it was proposed that Government should pay, in one sum, the present value of the ten annual interest payments. The latter alternative was accepted by Government, and the formal sanction of the Railway Board to the proposed transfer is awaited.

### ORGANISATION OF THE SUPPLY OF BUILDING MATERIALS

49. Owing to the curtailment of works, the quantity of material supplied during the year was comparatively small. The amounts of shingle and sand supplied were 61,686 and 1,32,239 cubic feet, respectively, whilst 4,221 tons of cement and 10,56,000 bricks were issued to works. Only 110 tons of steel bars were utilised, and, on the completion of the housing programme, the balance in stock was sold.

#### TRANSPORTATION

50. The quantity of building material transported by steam lorries was 14,000 tons. All lorries were either sold, or transferred to the Back Bay Reclamation Scheme during the year. Eight steam road-rollers were found surplus at the commencement of the year. Of these, four were sold during the year, and negotiations for the sale of the remaining four were proceeding at the close of the period.

#### DISPOSAL OF SURPLUS PLANT

51. Good progress was made during the year with the sale of all surplus plant and it is anticipated that the balance remaining on hand will shortly be disposed of. Favourable prices have been obtained for all the plant from public bodies and private concerns.

#### BOMBAY SUBURBAN SURVEY

52. The field work closed down by the middle of May 1925 and th. services of seven surveyors were dispensed with. No traverse survey was undertaken during this year.

53. Detailed survey on scale 40 feet to 1 inch.—The 40 foot scale survey of Borivli Town Planning Scheme No. II was commenced in the first week of April and completed in the first week of May. The total area surveyed in detail amounted to  $152\frac{1}{2}$  acres. The services of the three surveyors were dispensed with from 3rd May 1925 on completion of the work.

54. Detail survey on scale 330 feet to 1 inch.—The 330 foot scale survey of Manori and Gorai villages was commenced in the month of April and completed before the middle of May 1925. The total area surveyed in detail amounted to 5,908 acres or 9.2 square miles. On completion of this work, the last batch of four surveyors was disbanded.

55. Fair mapping and printing of sheets.—The fair drawing of 46 maps on 330 foot scale (which have not been published) has been done and the fair drawn maps were typed. Blue prints are supplied to the public at Rs. 2 each in the absence of orders regarding publication. One hundred and seventy-five sheets on the 40 foot scale were fair drawn during this year. On completion of the drawing work, the services of six draftsmen were retrenched on 1st November 1925.

56. Maintenance of 330' and 40' maps.—One surveyor has been retained for maintenance of 330' and 40' scale survey. Similarly, the services of one draftsman are retained for carrying out correction of maps in office, the idea being to get all maps corrected and brought up-to-date once in three years.

#### ADVISORY COMMITTEE

57. The usual meetings of the Advisory Committee were largely in abeyance during the year, as the Committee was fully occupied in dealing with the special reference from Government regarding the activities of the Department. A list of members serving during the year is given as Appendix C.

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General view showing Area reclaimed. Arrangement of pipes with 3-way piece. 16-12-25

#### ORGANIZATION OF THE DIRECTORATE

19

58. The organization of the Directorate is shown in Appendix D. During the year the Bombay Housing and the Suburban Circles were amalgamated under one Superintending Engineer, Housing and Suburban Circle. Of divisions, the Materials Division, Mechanical Division and Bombay Housing Sanitary Division have been abolished, whilst in Salsette the Andheri and Suburban Sanitary Division has been merged in the Kurla-Trombay Division, and one Executive Engineer now looks after all Salsette and Ambernath works. It is expected that by the ensuing cold weather there will be a further large reduction in establishment. The appointment of the Superintending Engineer, Housing and Suburban Circle, will be abolished in October 1926.

> H. A. L. HEPPER, Director of Development.

#### APPENDIX A

#### Report of the work done by the Sanitary Committee, Development Department, from 1st April 1925 to 31st March 1926

During the year eleven meetings of the Committee were held at the Back Bay House and the reclamation works were inspected on each occasion with the Chief Engineer, Mr. H. A. Elgee, M.I.C.E., and the Sanitary and Medical Officer, Captain B. S. Chalam.

2. Lieut.-Colonel W. M. Houston, M.B., Ch.B., D.P.H., D.T.M., I.M.S., was appointed to act as the Chairman of the Committee *vice* Lieut.-Colonel F. P. Mackie, O.B.E., M.D., M.Sc., F.R.C.P., F.R.C.S., I.M.S, who had proceeded on leave under Government Resolution No. S. D. 766 of 19th May 1925.

3. Dr. Sorab C. Hormusjee, M.D., D.P.H., was appointed a member of the Committee in place of Lieut.-Colonel R. M. Carter, C.B., F.R.C.S., I.M.S., resigned, under Government Resolution No. S.D. 1240 of 17th August 1925.

4. Under Government Resolution No. S. C. 699 of 6th May 1925, the services of Captain B. S. Chalam "the Sanitary Officer for the antimosquito operations and the general sanitation of the reclamation areas in the Back Bay Reclamation Scheme of the Development Department" were extended for a further period of two years with effect from 23rd May 1925.

5. Government, under their Resolution No. S. D. 791 of 22nd May 1925, resolved that "the non-official members of the Sanitary Committee appointed in Government Resolution No. S. A. 62 of 16th January 1923 to advise Government as to the sanitary precautions to be taken from time to time until the reclamation works are completed should be paid fees at the rates of Rs. 30 per full Committee and Rs. 15 per Sub-Committee meeting". The Executive Health Officer, Dr. J. E. Sandilands, a non-official member, declined to receive the fees on the ground ' that he was carrying on duties within the scope of his office as Executive Health Officer.'

6. The Deputy Secretary to Government invited the opinion of the Committee "whether it was possible for Captain Chalam, Sanitary Officer, to attend to cases of ordinary illness and accidents on the dredgers in addition to the duties at present assigned to him" and the Committee saw no objection to this additional work provided it was found not to interfere with his present duties.

7. Dredging operations were discontinued about the middle of May 1925 and resumed again in the middle of October 1925.

8. Captain B. S. Chalam was allowed to read a paper on the reclamation works in Colaba and to exhibit specimens of his work at the Indian Science Congress in January 1926.

9. In November 1925, Captain Chalam drew the attention of the Committee "to the huge salt lake that was formed between the sea wall

and the present land margin on account of the former having been blinded by putting murum to prevent the escape of silt and to the possible creation of dangerous breeding places." He suggested three measures. The Committee at once made an inspection and resolved that " there was a serious potential danger owing to the new conditions created on the reclaimed land and requested the Chief Engineer to devise some means on the lines of the discussion in the Committee to mitigate the nuisance" and further resolved that " the existing conditions might not be immediately dangerous but may become so in the hot weather in April and May". The Chief Engineer was also requested to remove all the mangrove bushes from the area as early as possible. The mangrove plants were subsequently removed and the whole area was well flooded. Breeding was effectively dealt with by the liberal use of larvacide and constant agitation by brooms.

At its subsequent meeting the Committee after inspection passed the following resolution :---

"Inspection showed that the pumping is being diverted and the mangrove area is being gradually covered with silt from the south. Since the last meeting a length of 450 feet has been covered. Since the Committee's last inspection on 11th November 1925, Captain Chalam reports that a considerable amount of breeding of anopheles was noticed on the 13th and 16th November1925, but there does not appear to be any at present owing to the measures adopted."

10. At its January meeting, the Committee recommended to Government to appoint Dr. J. S. Nerurkar, B.Sc., L.M.&.S., D.P.H., Deputy Executive Health Officer, Bombay Municipality, in charge of antimalarial operations as a member of the Sanitary Committee.

11. The following observations are worth noting :----

(a) Ratio of malarial admissions per 1,000 of strength amongst the British garrison residents in Colaba.

Before anti-malarial operations were commenced in Colaba.			After anti-mala were comm	rial operati enced in Co	ons Jaba.	
1908	••		340.3	1923		152-53
1909	• •		288.2	1924	• •	238 27
1910	••	• •	120.7	1925	• •	165.05
1911	••		112.4			
1912	**	**	146-8			
1913	••		107 - 7			
1921		• •	972-46			
<b>1922</b>	- •		387-14			

(b) During the months of July to September (the regular monsoon) temporary breeding places were noticed and effectively dealt with. Most of the permanent breeding places left after the dredging operations were filled in.

(c) The experience of two seasons of dredging operations has shown that no insuperable difficulties have been experienced in coping with the conditions created by dredging. (d) Questionnaire cards presented every week to the inhabitants of Upper Colaba who are in the close proximity to the reclamation area revealed that there were very few mosquitoes complained of and this is a fairly reliable index to the mosquitoes side of the reclamation scheme.

(e) Spleen and parasite rate of children in the Colaba camp under 10 years was as under :--

Spleen rate	2.6	Number examin-	75	Palpable	2
Parasite rate	2.6	ed. Number examin- ed.	75	Persons showing parasites.	2

(f) The malarial incidence amongst the troops in Bombay area including Deolali was lower than the average for India both this year and last year.

12. The anti-malarial staff consisted of 1 Medical and Sanitary Officer, one Malarial Inspector and coolies from 12 to 18 in number as circumstances demanded.

The Sanitary staff consisted of two Sanitary Inspectors and thirty sweepers.

The medical staff consisted of two Sub-Assistant Surgeons, two compounders and four dispensary servants.

-			Per annum.
			Rs.
y Officer			9,000
ance		* *	4,440
		_	13,440
Dispensar	ies, Sub-	Assistant	
ounders' sa 1)	alaries	• *	6,476
}	••	• •	5,186
alarial alle	ocation		
		Rs.	
••	* *	=	
••	••	14,530	
n			29,350
	allocation-		
		Rs.	
		9,410	
••	• •	-	
••	••	8,720	
••	••	-	18,130
••	••	-	18,130 72,582
	y Officer ance Dispensar ounders' a h halarial all  n—	y Officer ance Dispensaries, Sub- ounders' salaries h } halarial allocation  n	y Officer ance Dispensaries, Sub-Assistant ounders' salaries a alarial allocation Rs.  Rs.  n

13. The most dangerous areas as emphasised by Colonel S. R. Christophers, I.M.S., viz., that between the railway embankment and the land margin and also the extensive mangrove swamp area have now been nearly filled up. As the necessity of dealing with breeding places and even likely breeding places in this extensive area independently of whether larvæ have been demonstrated by searchers will not now exist to such an extent, it is anticipated that the cost of anti-malarial operations for the current year will be considerably less.

14. Captain Chalam's report on the medical and sanitary transactions for the year ended 31st December 1925 is enclosed herein.

15. The Committee cordially acknowledge the valuable services rendered by Dr. K. B. Shroff, L.M.& S., D.P.H., D.T.M., J.P., as Honorary Secretary, since its inception three years ago and desire that they be brought to the notice of Government.

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#### BACK BAY RECLAMATION SCHEME

#### Annual report of medical and sanitary transactions for the year ending December 1925

The medical and sanitary arrangements of four cooly camps belonging to the reclamation were in my charge during the year under report. One of the camps was situated behind Charni Road station, while the other three were situated, one near Wodehouse Bridge, one near Colaba station and the other at Back Bay House.

The average total strength of labour in these camps was approximately 1,800.

Hospital accommodation.—An outdoor dispensary is attached to each of the reclamation camps. One sub-assistant surgeon is in sub-charge of two dispensaries. Indoor hospital accommodation is not provided, and serious cases requiring prolonged treatment or major operations, are sent to any of the local civil hospitals.

The total number of cases sent to a civil hospital from Colaba Section during the year was 12 and from Marine Lines Section, 8. One bed, however, is kept equipped in these dispensaries to receive any serious case and keep it till such time as arrangements can be made to send it to a civil hospital.

Total out-p	atients at (	Colaba Secti	on dispense	ries	2,728
Total out-patients at Marine Lines Section dispen-					
saries	• •		••	• • •	3,074
Minor surgi	ical operation	ons	• •	• •	212

Vaccination is insisted upon and during the year under report about 1,500 people were vaccinated.

Prevailing diseases.—A very large majority of the cases attending the dispensaries consists of minor injuries which is to be expected from the nature of the work they are engaged in. Otherwise there was no special prevailing disease.

Epidemics.—There was no epidemic of any disease in any of the camps during the period under report.

Deaths.-The total number of deaths in the camps during the year under report was 16.

. .

Accidents	• •	••		3
Pneumonia	••	* •	••	6
Bright's disease	••		••	1
T. B. Lungs	••	••	••	3
Premature birth	• •	• •	•••	1
V. D. H.	••		•••	1
Pleurisy	••			
•		••		1

 $\mathbf{25}$ 

Sanitation.—One day every week is set apart in each camp, when every room is emptied, bedding, boxes, etc., are brought out and a disinfectant is sprayed all over.

Rat destruction is carried out throughout the year by setting traps in the camps and thus a good number of rats is accounted for.

Bazaars in the camps are under strict supervision and all eatables such as sweets, cakes, etc., are required to be kept in glass cases.

Dust bins with well fitting lids are put up on raised cement platforms in sufficient numbers for each row of chawls to prevent accumulation of subbish in and about the rooms.

All latrines are of the flushing type and separate latrines are provided for men and women. Separate bathing places are provided for men and women.

Enough provision is made for sanitary requirement.

(Signed) B. S. CHALAM,

Captain,

Medical and Sanitary Officer,

Back Bay Reclamation Scheme.

#### APPENDIX B

Members of the Sanitary Committee, Development Directorate for 1925-26

Lieut.-Colonel F. P. Mackie, O.B.E., M.D., M.Sc., F.R.C.P., F.R.C.S., I.M.S., Director, Haffkine Institute, Chairman (on leave).

Lieut.-Colonel W. M. Houston, M.B., B.Ch., D.P.H., D.T.M., I.M.S., Port Health Officer, Acting Chairman.

- (2) Major J. Morrison, I.M.S., Acting Director, Haffkine Institute.
- (3) Dr. J. E. Sandilands, M.C., M.D., D.P.H., Executive Health Officer.
- (4) Captain E. F. W. Mackenzie, O.B.E., M.C., R.A.M.C.
- (5) Khan Bahadur Dr. N. H. Choksy, C.I.E., M.D.
- (6) Dr. H. M. Masina, L.M. & S., F.R.C.S.
- (7) Lieut.-Colonel R. Row, O.B.E., M.D.
- (8) Dr. P. A. Dalal, L.M. & S., D.T.M. & H.
- (9) Dr. Sorab C. Hormusjee, M.D., D.P.H.

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- (10) Dr. K. B. Shroff, L.M. & S., D.P.H., D.T.M.
- (11) Dr. J. S. Nerurker, B.Sc., L.M. & S., D.P.H. (Cantab.), Deputy Executive Health Officer, Bombay Municipality, in charge of the Municipal anti-malarial operations.

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## APPENDIX C

## Members of the Advisory Committees for the City of Bombay and the Bombay Suburban Division for 1925-26

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#### BOMBAY CITY

1.	Sir Lawless Hepper, Kt., J.P., Direct	or of Development (Chairman).
	Name of member.	Constituency.
2.	Dr. Nadirshaw H. E. Sukhia, L.M. & S., L.V.Sc. (Spl.), F.R.S.I. (London).	Municipal Corporation for the City of Bombay.
3.	Fazal Ibrahim Rahimtoola, Esq., B.A.	Municipal Corporation for the City of Bombay.
4.	R. H. A. Delves, Esq., F.S.I.	Chairman, City of Bombay Improvement Trust.
5.	Major G. C. Richardson	Chamber of Commerce, Bombay.
6.	Jehangir Bomanji Petit, Esq	Millowners' Association, Bombay.
7.	Manu Subedar, Esq.	Indian Merchants' Chamber.
8.	L. U. Mongini, Esq.	Bombay Presidency Trades' Association.
9.	W. H. Neilson, Esq., O.B.E.	Bombay Port Trust.
10.	Sitaram Keshav Bole, Esq., M.L.C.	Working Classes in Bombay.
11.	Joseph Baptista, Esq., L.C.E. (Bom.), B.A., LL.B. (Cant.), Barat-Law, M.L.A.	Working Classes in Bombay.
	BOMBAY SUBURBAN REVE	NUE DIVISION
12.		Bandra Municipality.
13,	D. D. Rodrigues, Esq.	Kurla Municipality.
[4.	C. J. Hansoti, Esq.	Ghatkopar-Kirol Munici-
15.	Janmejay Chhabildas, Esq., M.A. (Camb.).	Notified Area Committees.

## APPENDIX D

## DEVELOPMENT DIRECTORATE

#### Designation.

#### Name.

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1.	Director of Development	Sir Lawless Hepper, Kt., J.P.
2.	Secretary to Government, Development Department; Commissioner, Bombay Subur- ban Division, and Settlement Commissioner and Director of Land Records, Bombay Subur- ban Division.	R. D. Bell, C.I.E., I.C.S., J.P.
3.	Deputy Secretary to Government, Development Department; Secretary to the Development Directorate and Assistant Commissioner, Bombay Suburban Division.	H. St. C. Smith, J.P.
4.	Assistant Secretary to Government, Development Department.	R. B. Vachha, M.A., J.P.
	Reclamation Br	anch
5.	Chief Engineer, Reclamation Branch.	H. A. Elgee, M.I.C.E., J.P.
6.	tion Branch, Marine Lines Section.	B.A.I., A.M.I.C.E. (also supervising the Quarry Section).
7.	Deputy Chief Engineer, Reclama- tion Branch, Colaba Section.	P. Billinton (on leave).
8.	Deputy Chief Engineer, Dredging Section.	C. R. Brims.
9.		W. H. Thomas, A.C.G.I., A.M.I.C.E. (holds executive charge of Marine Lines and Colaba sections).
10,	Executive Engineer, Reclamation Branch.	W. F. Anderson, A.M.I.C.E.
	Marine Surveyor	G. D. Kundaji, M.R.San.I. (Lond.), A.M.I.E.S. (Glas.).
12.	Assistant Engineer	S. M. Abdullah, A.M.I.E. (Ind.), M.R.San.I. (Lond.).
13.	Do	A. N. Seal, B.Sc. (Lond.).
14.	Do. (Dredging Section).	

Do. (Dredging Section). F. M. Surveyor, B.Sc. (Glas.).

## Housing and Suburban Circle

	Designation.			Name.
15.	Dredging Master			W. S. Speirs.
16.	Sanitary and Medi Bay Reclamation			B. S. Chalam.
17.	Superintending En and Suburban Cir		Housing	T. Harvey, M.Sc., M.I.C.E., J.P.
18.	Executive Engine Suburban Sanitar	er, And y Divis	heri and ion.	T. A. Pereira (vide entry No. 22).
19.	). Electrical and Mechanical Engineer			A. Lennox Stanton, M.I.M.E., M.I.E.E., M.Am.S.M.E., M.I.E. (India).
20.	Executive Engine and Materials Di	er, M vision.	echanical	W. K. Caldwell.
21.	Executive Engin Housing Division	ieer, <sub>/</sub>	Bombay	A. Hamid, F.Sc.
22.	Executive Eng Trombay Divisio	ineer, n.	Kurla-	T. A. Pereira (vide entry No. 18).
23,	Executive Engi Housing Sanitary	neer, 7 Divisio	Bombay	Rao Saheb P. S. Krishnasami Ayyar (on leave).
	Assistant Engineer	• •	• •	K. L. Mahindru, A.M.I.E. (India).
25.	Do.	••	• •	Rao Saheb K. C. Advani, L.C.E., A.M.I.E. (works also as Personal Assistant to the Superintending Engineer, Housing and Suburban Circle).
26.	Do.		• •	M. A. Dhoria, B.A., B.E.
27.	Do.	• •	••	
28.	Do.	• •	••	S. S. Rajadhyaksha, B.A., B.E. (on leave).
29.	Do.	••	••	Nand Kishor Agrawal
30.	. Do.	• •	••	(on leave). R. S. Borker (on leave).

## Suburban Survey

3],	Superintendent, Bombay Suburban Survey.	S. M. Bharucha, B.A. (in addi- tion to his own duties <i>vide</i> entry No. 36).
		entry Mo. 50).

#### Land Acquisition, Bombay

Designation.

#### Name.

- 32. Land Acquisition Officer for the G. C. Rowe, F.S.I., F.I.A., City of Bombay. J.P.
- Personal Assistant to the Land S. D. Nariman, B.A. Acquisition Officer for the City of Bombay.

#### Land Manager, Development Directorate

- Land Manager, Development Directorate.
  R. D. Bell, C.I.E., I.C.S., J.P. (in addition to his duties vide entry No. 2).
- 35. Personal Assistant to the Land K. R. Doctor, F.S.I., L.C.E., Manager, Development Direc- A.M.I.E. torate.

#### Salsette Development

- Collector, Bombay Suburban Dis- S. M. Bharucha, B.A. trict, and Salsette Development Officer.
- 37. Personal Assistant to the Salsette D. G. Sowani, B.Sc., B.E., J.P. Development Officer.
- Deputy Collector and Assistant P. J. Ghandi, B.A. Development Officer, Bandra and Ambernath.
- 39. Assistant Development Officer, K. B. Purohit, B.A. Kurla and Trombay Areas.
- 40. Special Assistant to the Collector, E. De B. Jewell. Bombay Suburban District.

#### Audit and Finance

- 41. Financial Adviser to Government J. B. Taylor, I.C.S.
- 42. Deputy Financial Adviser to S. M. L. Bean. Government and Audit and Accounts Officer, Bombay Development Scheme.
- 43. Assistant Audit and Accounts R. Hogan (on deputation). Officer, Bombay Development Scheme.

#### Directorate Chawls

44. Special Officer, Development Direc- R. Hogan. torate Chawls.

## Military Lands Scheme

#### · · Name. Designation. 45. Secretary, Board of Control and Colonel R. St. J. Gillespie, C.I.E., O.B.E., J.P. Chief Engineer. ., I. C. Dare, B.A., F.R.S.A., 46. Executive Engineer . . F.S.I., A.M.I.E., M.I.S.E. .. Vacant. 47. Assistant Engineer 48. B. M. Flores, B.A., B.E. Do. 8-18 49. Financial Adviser to the Board of S. M. L. Bean (vide entry Control, Military Lands Scheme. No. 42).

