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MATERIALS TOWARDS

A

STATISTICAL ACCOUNT

OF THE *Rare section*

TOWN AND ISLAND OF BOMBAY

IN THREE VOLUMES.

VOLUME II.—Trade and Fortifications.

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Under Government Orders.

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BOMBAY:  
PRINTED AT THE GOVERNMENT CENTRAL PRESS,  
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# CONTENTS.

## BOMBAY TOWN AND ISLAND.

CHAPTER II.—TRADE.	PAGE
Section I.—Communications, 1702-1788 ... ..	1-16
Section II.—Supplies, 1676-1803 ... ..	17-77
Section III.—Prices, 1676-1781 ... ..	78-90
Section IV.—Trade ... ..	91-130
Section V.—Industries :	
1. <i>Weaving</i> ... ..	131-142
2. <i>Fishing</i> ... ..	142-164
3. <i>Salt-Making</i> ... ..	164-175
4. <i>Building Materials</i> ... ..	175-186
Section VI.—Ships, Docks, Light-houses ... ..	187-205
 CHAPTER III.—CAPITAL.	
Mint, 1671-1778 ... ..	206-231
Exchange, 1677-1783 ... ..	231-239
The Bank, 1717-1771 ... ..	240-249
Loans, 1731-1778 ... ..	249-51
Wages, 1696-1788 ... ..	251-255
Slaves, 1677-1780 ... ..	255-267
 CHAPTER IV.—FORTIFICATIONS AND BUILDINGS.	
Section I.—Fortifications ... ..	268-423
Section II.—Military Artificers ... ..	424-430
Section III.—Buildings ... ..	431-507
 APPENDIX :	
I.— <i>The Sidis in Bombay, 1672-1690</i> ... ..	509-514
II.— <i>Harbour, Docks, Ships, Light-houses</i> ... ..	515-533

# APPENDIX I.

## THE SIDIS IN BOMBAY.

PAGE 288 NOTE 2.

THE Sidi connection with Bombay lasted for about eighteen years from 1672 to 1690. The details of these relations from 1672 to 1685 are recorded by Orme (*Fragments*, 3-110). In October 1672, about twelve years after their appointment as Moghal admirals, the Sidis under Sidi Yákut entered Bombay harbour with the object of ravaging Shiváji's Kurlahs, that is the lands and villages of Panvel, Pen, and Alibág. As President Aungier refused to let them land in Bombay they withdrew to Janjira. They returned to Bombay on the 24th December where they were received with constrained civility and were allotted houses in the town of Mázgaon. Sidi Yákut proposed to the President that they should join against Shiváji. Aungier explained that a war with Shiváji meant the stoppage of all Bombay supplies. Sidi Yákut admitted this difficulty and in January 1673 retired to Surat. Though Sidi Yakut was friendly, his people, 'with insolence characteristic of Moors in the Moghal's service,' burnt several of the houses which had been allotted to them in Mázgaon. In May 1673 the Moghal and Sidi fleets anchored off Bombay and required permission to winter (May-October) on the island. This permission Aungier accorded, neither because he was pleased to have the Sidis as guests nor because he was unable to drive them off, but because to refuse the fleet shelter would be to enrage the Moghal Emperor and destroy English trade at Surat. For this reason Aungier allowed the four principal Moghal frigates to be hauled ashore under the shelter of Bombay Castle. He refused to allow any Sidi boats to be hauled ashore or to permit any of the crews to remain. On the return of the fair season (September 1673) the Sidis came to Bombay, took away the Moghal frigates, and pillaged the Ratnágiri coasts. They returned on the 18th of October without message or warning and laid waste Pen and Nágothna. Mr. Aungier remonstrated to the Sidi and the Governor of Surat. No argument availed and Mr. Aungier had to restrain his indignation from sinking the Sidi's ships when they insolently anchored under Bombay Castle. On the 24th April 1674 driven in by a gale the Sidi's fleet anchored in the harbour. They were ordered to leave and refused. From the sea-side they sent a number of rowboats up the Máhim creek, and, landing at Sion, drove the people out of their houses intending to stay till the monsoon was over. A frigate and part of the Bombay garrison forced them to leave. Their boats with 500 armed Sidis tried to land at Mázgaon but were beaten back by the cannon from the shore. It was agreed that 300 of the Sidi's men armed only with swords and under the watch of the Bombay garrison should be on shore at the same time. The Sidis conducted themselves with more respect than in their former sojournments. They sailed in the beginning of September and returned in February distressed with every want and soon after proceeded to Surat where they spent the monsoon. In 1675 Aurangzeb strengthened the Sidi fleet with two large ships, two frigates, and two thousand men. The fleet arrived in Bombay harbour in December 1675. Sidi Sambal who commanded both the Moghal, and the Sidi vessels came to Bombay early in April. He wished to pass the monsoon in Bombay. But the prudence of President Aungier procured him

Appendix I.  
THE SIDIS IN  
BOMBAY,  
1672-1690.

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THE SIDIS IN  
BOMBAY,  
1672-1690.

an invitation to Surat and he left with all his vessels on April 8th. In July all the Sidi's ships which had been left in Janjira under Sidi Kásim came to Bombay to spare the provisions of the Janjira garrison. Sidi Kásim was received with respect and took his abode at Mázgaon where the larger vessels rode and the smaller were hauled ashore. In the middle of August Sidi Kásim left to help in the defence of Janjira. At the end of April 1677 Sidi Sambal and Sidi Kásim came together to Bombay from Janjira. Sidi Kásim was given quarters near the fort, apparently in the original custom house near the present mint. Sambal, who was ordered to hand the command to Kásim, promised from day to day to go to Surat but loitered till the monsoon set in. As it was then impossible to put to sea he took up his residence, as usual, at Mázgaon. At the beginning of the next fair season (October 1677) Sambal and Kásim quarrelled regarding the terms of handing over the command. At last Kásim with 300 men marched from his quarters near the Castle and attacked Sambal and his 300 at Mázgaon. The reports of matchlocks and pistols apprised the Castle which detached the best of the garrison with the troop of horse who fell indiscriminately on both sides until they had quelled the riot. This was not effected till three horses of the troop and Sambal's own horse were killed. Many were wounded and some slain mostly by the sword. The Council obliged the two chiefs to send to the ships all their men except a few menials. A watch was also allowed over the vessels hauled on the shore. In consequence of the Council's mediation Sambal retired. Kásim raised his flag as admiral of the two fleets, and left Bombay in the beginning of November. They returned in late April (1678) having through the governor of Surat obtained leave to winter in Bombay. They hauled their smaller vessels ashore at Mázgaon and moored the larger ones as close to the shore as they could. Many of the men made their dwelling in the town and daily committed violence and injuries on the Genta inhabitants. Shiváji planned a scheme of crossing in boats from Pañvel and burning the Sidi's fleet. But during the monsoon enough boats were not available. He next asked leave of the Portuguese to pass to Mázgaon through Sálsette and Máhim. The Portuguese distrusted Shiváji and forty armed boats drawn up in the creek before Thána made the attempted passage impossible. Sidi Kásim unable to pay his men remained in Bombay harbour till near the close of the year. In August 1679 the fortifying of Kánheri by Shiváji and in January 1680 the fortifying of Kenery by the Sidi increased the rivalry and anxiety regarding Bombay harbour. In 1680 Sidi Kásim sent some boats captured from the Maráthás to be sold in Bombay. The Government, who were then in negotiation with Shiváji, forbade the sale. So the Sidi passed along the south of the harbour and rafaged Pen. On the 28th April 1680 Sidi Kásim sent some of his smaller ships to winter at Mázgaon. On the strength of a recent proclamation at Surat which had made Europeans liable to the same customs duties as Hindus the Sidis treated the people of Mázgaon as their subjects and brought captives from the Kurlahs to sell in the Mázgaon market. On the 4th of May some Sidis brought contraband goods into the market which led to a fight. Next day (May 5th) Sidi Kásim came into the harbour with the main body of his fleet. Without compliment or warning he anchored off the fort. Guns were fired on him and an agreement was concluded under which he was allowed to remain in Bombay harbour during the winter provided he did not plunder the Kurlahs. On the 1st of August Sidi Kásim prepared to signalise a successful attack on Kenery by fixing eighty Marátha heads on poles along the Mázgaon shore. This form of

rejoicing the Council interdicted. Sidi Kásim remained at Mázgaon till the 22nd December when he started to plunder down the coast. He returned in the end of April (1681) and sailed for Surat on the 3rd May leaving six galivats and 300 men at Mázgaon. During the breaks in the monsoon the Sidi boats from Underi attacked several Bombay boats crossing for supplies to the Nágothna creek. The Bombay Government appealed for redress to Surat and the Sidis remained quiet till October. Then Kásim returned with his fleet from Surat to Bombay harbour and setting aside his orders from Surat, detained a Bombay boat that carried his own pass. Sidi Kásim, says Orme, was all this while allowed to occupy the town of Mázgaon and to make every use of the port without control, because the concern of lading the Company's ships at Surat precluded any effectual opposition to his enormities which this forbearance increased.

On the 12th April 1682, after guarding Janjira from the Maráthás, Sidi Kásim came into Bombay harbour where the English Council at Surat, more afraid of the Moghal than of Sambháji, had ordered their admittance. During the snatches of fair weather in the rains the Sidis and Maráthás fought at Kánheri and at the mouth of the Nágothna creek. In a fight on the 5th October between Sidi Kásim and Sidi Misri, who had joined the Maráthás, Sidi Kásim won and brought back four prizes and Sidi Misri a prisoner. As Sidi Misri was mortally wounded the Bombay Council allowed him to be landed but refused permission to any one else. In November 1682, before a Moghal fleet expected from Surat could arrive, Sambháji ordered his admiral Daulat Khán to attack the Sidis in Bombay. The militia were drawn out to resist the Marátha attack when an ambassador arrived from Sambháji explaining that Aurangzeb's fleet had orders to take Bombay from the English and Bassein and Daman from the Portuguese. Sambháji proposed an alliance on condition the Bombay Government would refuse both the Sidi and the Moghal access to Bombay harbour. Meanwhile the Sidi knowing the arrival of the Moghals would prove the end of his harvest, plundered Pen and on the 28th November in spite of the Council's expostulation brought 200 prisoners to Mázgaon. On the same day (28th November) the Moghal fleet sailed into the harbour without the compliment of notice. They landed 3000 trained Moors at Mázgaon who bore themselves with such insolence that a stranger would have believed the whole island belonged to them. The English, who seemed to hold their Castle on sufferance, were obliged to watch its gates against treachery and surprise. After the cold weather plundering cruise in March 1683 the Sidi and Moghal fleets returned to Bombay and on the 20th March the Moghal fleet was recalled to Surat. The Sidis remained at Mázgaon more insolent than ever. In the Mázgaon market in May two unarmed soldiers of the Bombay garrison were cut down by two of the Sidi's Patháns. The Sidi sent the murderer privately to Surat. The Bombay Council took a strange form of expressing their annoyance. In July a crazy Councillor and a newly arrived ship captain heated with wine boarded the ship on which Sidi Kásim had his quarters. They used abusive language and the captain drew his sword. They were overpowered and sent back in their boat. No sooner was he on board than the captain fired a broadside into the Sidi fortunately doing little injury except in Surat where on learning the news the mob crowded the streets claiming vengeance on the English. The Sidi's fleet, who as usual had to wait for funds from Surat, did not leave Bombay till the end of October. On the 21st (November) the Moghal fleet arrived from Surat to overawe Bombay and Sambháji's fleet.

## Appendix I.

THE SIDIS IN  
BOMBAY,  
1672-1690.

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THE SIDIS IN  
BOMBAY,  
1672-1690.

During the Bombay rebellion (December 1683 to December 1684) the strong government of Keigwin forbade the Sidi's galivats to continue at Mázgaon or to come there for any purpose than to get water. In consequence in the beginning of April 1684 they retired to Surat. During the next cold weather, up to November when they surrendered the fort and island to Sir Thomas Grantham, the rebels without yielding to them kept on fair terms with the Sidis who had lately returned from Surat. Keigwin had to watch against surprise from Sambháji as well as from the Sidi, for both of them would have given much to capture the island.

Between 1685 and 1688 no reference has been traced to the Sidis in Bombay. Early in 1689, on the rupture with the Moghals, which formed part of Sir John Child's ambitious scheme for increasing the power of the English, boats from Bombay captured several of the Sidi's vessels which were carrying provisions to the Moghal army at Danda Rájpuri. Of the result of this act of aggression the interloper Captain Hamilton has left the following probably not unbiassed account: When (1689) the news came to Sidi Yákut that his fleet with his provisions of corn and cloth were seized and carried to Bombay he sent a civil letter to our General to discharge his fleet protesting that as he had not meddled in the affairs between the General and the Suraters he would continue neuter unless he was forced to do otherwise. But our General gave him an insolent answer and the fleet was unladed at Bombay. Sidi Yákut sent again in fair terms to desire the delivery of his fleet, otherwise he would be obliged to come with his army and quarter on Bombay where his provisions were detained. He threatened that if his fleet was not set at liberty before the 11th February, which was near at hand, he would certainly be on Bombay by the 14th. As he still received uncivil answers he performed his promise to a tittle, for that very night he landed at a place called Souree (Sewri), about four miles distant from the main fort, with 20,000 men at his back. Our General's security had made him neglect providing for receiving such guests, trusting to the reputation of his forces who were greater then than ever they had been before or ever were since that time. And he had small ships enough, had they been stationed in proper places, that might certainly have hindered the Sidi landing and forced him home again. But all those necessary preparations were neglected and the Sidi landed at midnight. The redoubt where he landed fired a great gun to give the alarm and so deserted their post and the Sidi took possession of it. At one in the morning the Castle fired three guns to give the general alarm which brought such fear on those that lived securely in their houses without the Castle that the poor ladies both white and black ran half naked to the fort and only carried their children with them, but they were all obliged to wait without the wall till daylight relieved them. Next morning the Sidi marched to Mázgaon, a small fort of fourteen guns and about a random shot distant from the Castle. On the enemy's approach, that fort, though situated on a point of rocks where the sea defended three-quarters of it, was also deserted in such precipitancy that eight or ten chests of treasure which generally contain 1000 pounds each and four chests of new arms were left behind. The seamen that were sent in boats to bring them off, proffered to carry them along with them, but the Commanding Officer thought the seamen not fit to be trusted with money and arms and so the chests were left for a present to Sidi Yákut with fourteen cannon, two mortars, and some powder shot and shells. Why that treasure and those arms and ammunition were deposited in Mázgaon few could account for, and the reasons why they



were left to the enemy were as wonderful. It was plain that the old way of fishing in troubled waters was known at Bombay and the officer was never called to account for his oversight. Sidi Yákut finding no opposition sent a party of men towards Máhim to plunder the poor peasants and to take that fort which he thought might be deserted as the rest had been. Nor was he in the least out in his conjecture for the garrison had embarked in boats and come by sea to Bombay before they saw an enemy. The Sidi taking possession of Mázgaon hoisted his flag there and made it his head-quarters. The following day some of the enemy appeared on the Mázgaon hills which grieved our General's righteous soul to see infidels come so near him in an hostile manner. He called a minion of his own, one Captain Pean, who was no better soldier than himself, and ordered him to take two companies, each containing about seventy men and march to those hills and drive the enemy out of his sight. He also ordered to be Pean's lieutenant one Monro who had been a soldier at Tangier and received a wound in his heel that spoiled his running. Accordingly they marched in good order within shot of the enemy who shewed their heads above the surface of the hill, but did not offer to advance or expose their bodies. Several gentlemen volunteers took their arms and accompanied the little army. Lieutenant Monro advised the Captain to march up the hill in platoons to separate the enemy's forces. The Captain took it as an affront to be advised. He said to his lieutenant: When you have the command in your own hands you may use it as you think fit. As it is now entrusted to me I will use it according to my own mind. So he ordered his men to spread as much as they could and when they saw the enemy open in the plain to discharge all at once amongst them which he said would terrify them. Monro opposed Pean's scheme and told him of the danger he would bring himself and them into, if the enemy should attack them whilst their arms were reloading. Nothing could dissuade Pean from his project and so he commanded his men to fire as he directed. The Sidis being ten to one in numbers and better runners than our men, and also better acquainted with close fighting with sword and target, took hold of the opportunity and advanced with all their speed. This the Captain perceiving betook himself to his heels and was the foremost man to the Portuguese church where he took courage to look behind him to see what was become of his men. Poor Monro thinking to stop the enemy's career by a part of the wing that he commanded, found himself deserted by all but thirteen or fourteen stout fellows who were soon surrounded by the enemy and cut to pieces. Pean had not stopt at the Portuguese church had he not found a party of 100 men that lay there ready to support or receive him as his case should require. He was a fellow as well made for running as any I ever saw and was so much in the General's favour that he had not so much as a reprimand for his cowardice and misbehaviour. This relation I had from a gentleman volunteer who kept always near the Captain while he could keep pace with him. And now the Sidi being master of the whole island except the Castle and about half a mile to the southward of the Castle, he raised batteries on Dongri hill which overlooked the fort wall and disturbed the garrison very much. Then the Sidi put four great guns in the custom house commonly called the India House and raised a battery at the Moody's house within 200 paces of the Fort, and another in the Lady's house that the General had been so unkind to, so that it was dangerous to go out or in at the Castle gate till we got up an half moon before it. All men were then pressed into the Company's service, and I amongst the rest. We passed the months from April to September

Appendix I.  
 THE SIDIS IN  
 BOMBAY,  
 1672-1690.

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 THE SIDIS IN  
 BOMBAY,  
 1672 - 1690.

very ill, for provisions grew scarce by the addition of 3000 Shivájis that were employed as auxiliaries in the military service of the Company. When the winter months were over, at September we went to sea with our small ships to cruize on the Moghal's subjects and had pretty good success.

The ill success we had ashore with the enemy made our General sick. In December he despatched two factors to the Moghal's court with a Surat merchant called Mir Mezamie. In January General Child died which much facilitated the Ambassador's affairs at the Moghal court. While a new charter was preparing, the Sidis were ordered to forbear hostilities and as the English had the same orders, frequent visits passed between the Sidis and the Europeans. When the *phirmán* was ready and the required security given, Sidi Yákut left Bombay the 8th June 1690. But he left behind him a pestilence which in four months' time destroyed more men than the war had done and for joy made a malicious bonfire of his head-quarters, Mázgaon Fort.<sup>1</sup>

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<sup>1</sup> Hamilton's New Account of the East Indies (1744), I. 220 - 234.

## APPENDIX II.

### HARBOUR, DOCKS, SHIPS, AND LIGHT-HOUSES.

AFTER its transfer to the English the earliest available reference to Bombay Harbour is by the Dutch traveller Baldæus, who, in 1666, describes it as a fine large port where one can lie safe from all winds. The depth he gives as six fathoms at high water and four fathoms at low water.<sup>1</sup>

Appendix II.

HARBOUR,  
1666.

In 1668 in the first despatch after the transfer of the island to the Honourable Company, orders were issued for making a harbour with docks, and for stationing at Bombay an armed vessel of about 180 tons for the protection of the island and of its trade.<sup>2</sup>

1668.

In January 1673 the French traveller Dellon wrote: At the entrance of the port of Bombay lies a rock which stretching a mile deep into the sea makes this passage very dangerous. For this reason we sent for some pilots who took us safely on the 12th into that harbour which is one of the safest in the world provided you are well acquainted with the situation of the place to avoid the rocks.<sup>3</sup>

1673.

In 1750 Grose (*Voyage*, I. 29) writes: Bombay harbour is spacious enough to contain any number of ships. It has excellent anchoring ground. And by its circular position can afford them a land-locked shelter against any winds to which the mouth of it is exposed. It is also admirably situated for a centre of dominion and commerce, with respect to the Malabâr Coast, the Gulf of Persia, the Red Sea, and the whole trade of that side of the Great Indian Peninsula and northern parts adjoining to it, to the Government of which Presidency they are very properly subordinated.

1750.

Between 1766 and 1770 Forbes (*Oriental Memoirs*, I. 21-22) writes: The harbour is one of the finest in the world, accessible at all seasons and affording a safe anchorage during the tempestuous monsoons. The merchants carry on a trade with all principal sea ports and interior cities of the peninsula of India and extend their commerce to the Persian and Arabian Gulfs, the Coast of Africa, Malacca, China, and the eastern islands. Again, he says (*Or. Mem.* I. 151-152): Bombay harbour is large and secure from the storms and hurricanes which are very frequent and destructive at Surat bar and on the Malabâr Coast.

1766-1770.

About 1775 Parsons (*Travels in Asia and America*, 214-215) writes: Bombay was first called so by the Portuguese, literally in English, Good Bay, which it is in all respects, being so very capacious as to be capable of receiving any number of ships of any size or draft of water with room sufficient to moor clear of each other in safety.

1775.

<sup>1</sup> Baldæus' *Malabâr and Coromandel Coast*, Amsterdam, 1672, page 63.

<sup>2</sup> Bruce's *Annals*, II. 226.

<sup>3</sup> *Journal Bom. Br. Royal As. Soc.* Vol. XVII. Pt. II. 54. This mile-long rock is Colâba. Coming from the north Dellon's ship would be tempted to put into Back Bay and be wrecked on the reefs.

## Appendix II.

In 1786-87 Francklin (Pinkerton's Voyages, IX. 232) speaks of Bombay as a splendid harbour.

Docks,  
1668.

From their first connection with the island the wide range of its tides impressed the English with the suitableness of Bombay harbour as a place for Docks. In August and September 1668, despatches from the Court of Directors in London and from Governor Gerald Aungier in Bombay crossed each other, enforcing the advantages of a mole and dry dock for Bombay.<sup>1</sup>

1670.

In 1670, the Court of Directors ordered the making of docks and sent to Bombay Warwick Pett, one of the Pett family of famous ship-builders, to construct two vessels for the defence of the island and to instruct the natives in the art of ship-building. Nothing seems to have come of this first attempt.

1686.

In 1686 the distinguished sailor Sir John Wyborne, Deputy Governor of Bombay, suggested the building of a dry dock: All ships, he writes, in these seas when they know of a dock where they can lie securely will come to clean and repair. Had there been a dock the ship *Efalcon* had not left her bones here. We can only say it will be a necessary profitable work when done.

1689-90.

In their Bombay despatch for 1689-90 the Court of Directors ordered the Honourable Bartholomew Harris, Governor of Bombay (1690-1694), to complete a dry dock in Bombay, that it might become a safe retreat to English shipping. Large quantities of iron work were sent for building and repairing vessels. But in those the darkest of dark end-of-century days nothing was done.

1704-1707.

Between 1704 and 1707, under Sir Nicholas Waite, the 'wretched arrangements' hitherto deemed sufficient for repairing ships are said to have been somewhat improved.

1735.

In 1735, with the help of Mr. Dudley Master Attendant, and of Lavji Nasarvânji the famous Pârsi Shipbuilder or Wâdia from Surat, Government started a ship-building yard at Bombay.

1748.

Till 1748 the only dry dock was a mud basin in and out of which the tide flowed at will. This mud basin was probably pretty near the centre of the present Government Dockyard. On the 3rd January 1748, when the Honourable William Wake was Governor, the following resolution was recorded: Considering that a dry dock at this place capable of receiving a ship of 50 guns (that is of about 500 tons) would be extremely useful for cleaning or repairing ships belonging to the Honourable Company or to private traders, and thereby bring many advantages to the island, particularly in respect to trade and most branches of the revenue, the charge of which by computation would not exceed Rs. 5000, and which would be soon reimbursed by collecting a duty (not yet agreed upon) on all ships that make use of it. Of all which the Board being very sensible, and likewise well assured there are many private persons who would gladly take it on themselves for the advantage, it is agreed that the same be undertaken on the Honourable Company's account, borrowing money of the Bank for the amount for which a distinct head is to be kept on the General Books. Directed, therefore, that such

<sup>1</sup> In 1668 Bruce notices (Annals, II. 226): The first despatch after the transfer of Bombay to the Company contained orders for making a harbour with docks. In the same year 1668 (in another place, page 241), he adds: A mole and dry dock are wanted.

timber and planks as may be wanted for the gates of the dock be indented for to Tellicherry.

Apparently the site of the mud basin was chosen for the new dock. The work was pushed so briskly that on the 3rd of July 1750 this entry appears: The dry dock ordered to be set about at the Presidency being finished, the rates to be paid for all ships and vessels that go into it are now settled, namely Rs. 150 for the first spring and Rs. 100 for every spring they remain in afterwards.

On the 23rd January 1751, when the Honourable R. Bouchier was Governor, it was judged if the heads of the dry dock were carried a little further out, it would not only be more commodious, but by means of the tides carrying off the filth which at present settles in it, and as the same may be done for a small expense, it is agreed that it be set about and finished as speedily as possible. This 1750 dock is the Upper Old Bombay Dock, 209 feet long 47 feet broad and 15 feet deep. It forms the inmost or westmost section of the southern of the two lines of docks which lie parallel to each other, about north-east and south-west near the centre of the Government Dockyard.

This Dock proved so great a success that in 1754 the Superintendent of Marine suggested the building of a second dock outside of and in the same line as the 1750 dock. In 1756, while the work was in progress, Captain Pearce of the ship *Edgecote*, asked that the dam in front of the dock might be broken and his ship be allowed to pass in. On Captain Pearce agreeing to pay the expenses of pulling down the dam and any extraordinary expense Government might be put to for want thereof till the dock gates were fixed, his ship was allowed to enter. Captain Pearce's bill, which he afterwards tried to repudiate, was Rs. 681-1-69.<sup>1</sup>

In 1762, on the 10th and 11th June, Admiral Cornish wrote from Trincomalce urging the completion of the outer dock before the return of the squadron. The dock was of the utmost consequence. It was the only means of preserving the two capital ships of the squadron. On the 21st July 1762 the Honourable Charles Crommelin being Governor, the Board resolved: 'The outer dock has been carrying on as fast as the tides would admit of working upon ever since the Admiral recommended its being completed and not a moment's time will be lost in finishing it.' This dock, which seems to have been completed before the close of 1762, and still shows signs of somewhat rough and hurried workmanship, is the Middle Old Bombay dock, 183 feet long 51 broad and 20 deep. The cost of this dock is said to have been Rs. 12,000. Outside of this second dock and in the same line a third dock seems to have been almost at once started.

On the 23rd July 1765, when the Honourable Charles Crommelin was Governor, the following entry of rare cheerfulness occurs: 'Our treasury being now pretty strong and the third dry dock nearly completed, the same is ordered to be continued and finished as soon as possible.' This is the Lower Old Bombay Dock, 256 feet long 51 broad and 20 deep.

For the next forty years this line of three docks, one within the other, was the boast of Bombay and the wonder of travellers. Even the single original dock astonished Grose in 1750 and Ives in 1754. In 1763 before the third dock was finished, the German traveller Niebuhr wrote:

## Appendix II.

DOCKS,  
1750.

1751.

1764-1756.

1762.

1765.

1750-1812.

<sup>1</sup> Pub. Diary 32 of 1759, 197.

## Appendix II.

DOCKS,  
1750-1812.

'Among the large number of good arrangements made by the English in Bombay for trade and shipping the dock is much the most considerable and important. The work is partly rock-cut partly cut-stone. Two ships can be careened at a time and a third basin is preparing. The work though costly brings a considerable return. Strangers pay very dear for liberty to careen in these basins. When I was in Bombay I saw a ship of war belonging to the Imam of Sana which he had sent to Bombay solely on purpose to be refitted.' In August 1775 the Traveller Parsons wrote: 'At Bombay there is a dockyard large and well contrived with all kind of naval stores deposited in proper warehouses, together with great quantities of timber and planks for repairing and building ships and forges for making of anchors as well as every kind of smaller smith's work. Bombay boasts such a dry dock as perhaps is not to be seen in any part of Europe, either for size or convenient station. It has three divisions and three pairs of strong gates so as to be capable of receiving and repairing three ships of the line at one time as the outermost ship can warp out and another be admitted in her place every springtide without any interruption of the work doing to the second and innermost ships; or both the outermost and the second ship can go out and two others be received in their places without hindrance to the workmen employed on the third or innermost ship.' In 1776 Forbes mentions the three excellent docks: In 1786-87 Francklin (Pinkerton's Voyages, IX. 236) speaks of Bombay's splendid harbour and excellent docks in which His Majesty's ships were repaired refitted and equipped. And in the beginning of the present century the docks are described as 'scarcely equalled for size or convenience.' So popular were the docks that it had been found possible to raise the original modest Rs. 150 and Rs. 100 to Rs. 450 and Rs. 350 in the case of English and to Rs. 600 and Rs. 500 in the case of foreign ships. In 1812 Hall (Voyages and Travels, III. 192) found Bombay the only place with docks large enough for the *Illustrious*.

1782.

In June 1782 when the Honourable William Hornby was Governor, the Admiral asked that either new docks should be made or the old docks should be changed. The Board decided that the old docks could not be changed. They thought as the rise and fall of the tide was greater there than in the Dockyard, Butcher's Island was the best place for a dry dock. Plans and estimates were called for and submitted in November 1782.

1804-1806.

No further action seems to have been taken, till, in August 1804, at the request of His Majesty's Ministers the Court of Directors urged the Bombay Government to arrange for the construction of a 74-gun man-of-war. Colába and Butcher's Island were examined for sites for a dock suitable for the construction of a 74-gun ship. On the 27th March 1805 His Excellency Admiral Sir Edward Pellew decided that the only proper spot was in the dockyard parallel to the old dock. Tenders were issued on 1st May 1805. In June 1805 the Governor the Honourable Jonathan Duncan decided that the dock should be begun and a contract entered into with one Mulji Náranji for Rs. 1,20,811. In July this decision was reviewed with the result that instead of giving it to contract, the building of the dock was entrusted to Captain-Lieutenant Crozier of the Engineers, who, 'with the utmost regard to substantial strength and future national utility, was to make a point of honour of keeping within the estimate.' On the 30th September the Marine Board urged that the proposed dock should be extended further seaward to give room for another dock capable of

receiving a ship of the line of the largest class that could be expected in those seas. The Marine Board urged that if a second dock was not built the cost of keeping clear the passage into the first dock would be Rs. 1800 a year. They urged the extension from motives of economy as one dam would do for both. The cost of the additional dock would not be more than Rs. 40,000. This suggestion was adopted (4th October 1805), and the construction of a second dock was sanctioned. On the 5th April 1806 the Superintendent of Marine delivered a letter from Captain-Lieutenant Crozier saying the cost of both docks would be much more than the estimated Rs. 1,69,811. The cost of both docks would be Rs. 2,50,000 or Rs. 10,000 less if the upper dock was finished in the rough and not with cut-stone. It was also stated that water made its way into the dock under the north wall. This report was so unsatisfactory that in May 1806 Colonel Atkins was called from Malabár and Captain Cowper from Surat and a committee was appointed to examine the dock. The committee's opinion was most unfavourable. They considered the docks planned on a wrong principle and executed in an improper manner. In consequence of this opinion on the 4th of June Captain Cowper was placed in charge of the work. He reported that to complete the two docks would cost Rs. 2,79,457, and that the work already done at a cost of Rs. 90,000 was an obstacle and should be removed. During the rains the work remained at a stand. In September Captain Cowper was ordered to proceed with the Upper or Building Dock with durable construction. Captain Cowper was to perform the work 'upon honour' without proceeding further on the original design until the first and most urgent portion of the work, that is the Upper or Building Dock, was completed. On the 23rd September the Honourable Board reconsidered the question of the Lower or Repairing Dock. As opinions were divided, it was arranged that progress with the second dock should be stayed till the views of the Honourable Court of Directors were ascertained.

Captain Cowper began work under circumstances of special difficulty. His first step was to enclose the whole of Captain Crozier's masonry with a coffer-dam, to the summit of which at high water spring-tides the sea nearly approached. Before he could lay a stone in execution of his own plan Captain Cowper had to remove every particle of Captain Crozier's masonry. The two leading features of Captain Cowper's plan were the general use of vaulted arches and buttresses in constructing the piers, and the system of rabbetting every stone in the exterior and interior surface of the dock. By this rabbetting all chinks and cracks were avoided, and the dock walls were as impervious as if hewn out of the living rock.

In January 1807 Captain Cowper had cleared all Captain Crozier's 'obstacles' and began the new work. He had four great difficulties to face: the want of trained workmen; interruption from springs, which required constant attention at all hours to repress and ultimately to confine; the extensive bed of rock stretching from the upper dock to the mouth of the outer dock so solid and hard that it had to be removed by mining; when his cutting reached below the level of the old docks, water oozed through the old walls and a considerable part fell. Captain Cowper made his new walls support the tottering fabric of the old dock, which otherwise must have given way.

On the 28th November 1807 the Upper or Building section of the new dock was reported ready for the reception of the keel of the 74. The

## Appendix II.

DOCKS,  
1804-1806.

1807.

Appendix II.  
DOCKS,  
1807.

President Dock Committee would have ordered the keel to be immediately laid. But the builder Jamsedji Bamanji being anxious to choose a fortunate day for that purpose and the astrologers having fixed on Friday next, Mr. Money assented to Jamsedji's proposal. The Honourable Board preferred the old English lucky day to the astrologer's lucky day. The *Bombay Courier* of 26th December announced that the new dock was forward enough to admit the laying of the keel of the new 74, and that the ceremony of the Silver Nail had been fixed for New Year's Day. The *Courier* of 2nd January 1808 has this paragraph: 'While this paper is going to press, a Royal Salute is firing as a signal that the Silver Nail has been driven in and united the stem and keel of the new 74. May,' adds the loyal editor, 'the ever-during Indian teak, under the auspices of our gallant tars, rival the glories of the British oak.' A note in the Annual Register for 1808 shows that the name of the new 74 was *Minden*; that her Silver Nail was driven by the Governor; and that in the Governor's honour the dock was called Duncan's Dock. On the west end of the dock on a blackened slab, about eight feet below the pier level, these words are carved: This dock was executed during the Government of the Honourable Jonathan Duncan Esquire by Captain William Cowper of Engineers, 1807.

The Upper Duncan Dock is 286 feet long 63 broad and 23 deep. The sides are of fine cut stone. The bottom is partly masonry partly rock.

1810.

The answer of the Honourable Board of Directors to the reference regarding the outer or repairing new dock has not been traced. What its purport was is beyond doubt. At all cost the outer or repairing dock must be pressed on. On the 20th July 1810 the Dock Committee addressed the Government stating that as the 'magnificent and important work' of the new docks was completed, they laid before the Honourable Board the peculiar and eminent merits of Captain Cowper, who planned and executed the great undertaking. All who visited the Presidency considered the new docks an unrivalled monument of professional skill and public utility. The committee pleaded for a special reward to Captain Cowper. The Honourable Board referred the question of special reward to the Honourable Court of Directors. The Lower Duncan Dock is 246 feet long 63.6 broad and 23 deep. That is the total length of the two docks is 532 feet. In 1811 before all the dock fittings were completed a further sum of Rs. 20,000 had to be spent. The total cost of the Upper and Lower Duncan Docks was therefore:

	Rs.
Spent by Captain Crozier without return ... ..	90,000
Captain Cowper's detailed estimate ... ..	2,54,052
Add for fittings and finishings ... ..	20,000
Total ...	3,64,052

1810 - 1849.

Since 1810, according to Maclean's Guide to Bombay (page 239), two additions have been made to the Upper Duncan Dock, 30 feet in 1845 and 40 more in 1849. According to the *Monthly Miscellany* (page 209) both the Bombay and Duncan Docks were extended under the superintendence of Captain Sir Robert Oliver in 1845. There is some confusion in these statements. The records show that in 1841 the Bombay Government proposed to widen the entrance to the Lower or Stern Duncan Dock to 62 feet, and make culverts and sluices and cut a groove in the dock walls for a half depth caisson to keep fourteen feet of water in the Upper Duncan Dock. The estimated cost of these improvements was: widening Rs. 60,355, caisson Rs. 13,000, total Rs. 73,355. The Court of Directors



approved these proposals. Afterwards in 1843-44 it was arranged to widen the Upper Duncan Dock and fit both upper and lower docks with full depth caissons. The revised estimate was : widening Rs. 33,698, full depth caisson Rs. 43,600, total Rs. 76,698. These changes were approved and the work was pressed on. On the 3rd July 1847, the improvements were complete and the Peninsular and Oriental Company's steam vessel *Braganza* was hauled in for urgent repairs. The gates and ports-locks worked very satisfactorily and were highly creditable to Captain Estridge. The cost proved Rs. 27,344 more than the estimate, that is a total charge of Rs. 1,04,042 for the improvements. This raises the grand total outlay on the Upper and Lower Duncan Docks as they now stand to Rs. 4,68,094. The Honourable Court of Directors were gratified with the manner in which the repairs had been carried out. They considered the result highly creditable to the professional talent and assiduity of Captain Estridge.

Besides the five dry docks in the Government Dockyard there are three dry docks at Mázgaon. Of the three Mázgaon Docks, Mr. Uloth, Superintendent, Peninsular and Oriental Company, and Mr. Turner, Agent to the British Indian Company, have kindly supplied the following details: The three Mázgaon Docks are the P. and O. small dock, the British India Company's dock, and the P. and O. Ritchie dock. Of the three the P. and O. small dock is the oldest. It seems to be the same as the Mud Dock at Mázgaon which a committee appointed to fix a new site for the Powder Works describe (16th January 1767) as to the south of the best site for the Powder Mills and which is referred to in a Consultation of the 30th January 1776 as ground for a marine yard at Mázgaon Dock.<sup>1</sup> Hamilton (Gazetteer, page 562) about 1810 mentions at Mázgaon a good dock for small vessels. In 1827 in a correspondence regarding proposals for enlarging and improving the Mázgaon Dockyard, reference is made to the basins near the dockyard. In 1859 when it had been in a ruinous state for many years, this dock was handed to the P. and O. Company, in whose possession and use it has since remained.

The next in age is the British India Dock, 395 feet long 45 broad and 23 deep, and supposed to have cost about Rs. 5,00,000. This dock is on the site of the British outwork, which in 1682 was seized by Yákt Khán the Sidi of Janjira, and held by him for nearly a year. The dock was built about 1845 by Aga Muhamnad Rahim Shirázi, a rich Persian merchant. The P. and O. Company became tenants of this dock in 1846, and discontinued its use in 1870. Since 1870 this dock has been leased by the British India Company from its owner Sultán Nawáz Jang, a Haidarabad nobleman.

The third Mázgaon Dock was built by the P. and O. Company between 1859 and 1867. It is named the Ritchie Dock in honour of Mr. John Ritchie, the Superintendent of the Company, when the dock was completed. The first vessel placed in the Ritchie dock was the P. and O. Company's steamer *Rangoon*, gross tonnage 1776, drawing 15 feet. The original length of the dock was 390 feet. It has been twice lengthened, the second time in 1890, up to 434 feet. The largest of the Company's fleet *Oceana*, 6362 tons gross, has since been docked.

After the Ritchie dock, between 1869 and 1872, the Hoꝝ Island Hydraulic Lift was completed at a cost of about Rs. 3,00,000. This lift

## Appendix II.

Docks,  
1810-1840.

1859-1867.

1869-1872.

<sup>1</sup> Pub. Diary 48 of 1767, 48. Pub. Diary 69 of 1776, 35.

## Appendix II.

was available for vessels up to 5000 tons, and had 24 feet of water on the block at spring-tides. This lift proved a failure partly on account of its distance from Bombay, partly because of the risk of strain to the vessel lifted. After being under the management of the P. and O. Company for several years it ceased to be used and is now broken up.

SHIPS,  
1623.

In 1623, when Davies with the Dutch attacked Bombay they found two new frigates not yet from the stocks nor fully ended.<sup>1</sup>

1635.

About twelve years later (1635), under a convention between the Portuguese and English, pinnaces were built for the English at Bassein.<sup>2</sup>

1668.

In 1668, the first despatch after the transfer of the island to the Company, contained the provision that an armed vessel of 180 tons should be stationed in Bombay to guard the island.<sup>3</sup>

In the same year three small armed vessels were built and Warwick Pett was sent to Bombay to teach ship-building.<sup>4</sup>

BOMBAY MARINE,  
1750.

About 1750 Grose gives the following details of the Bombay Marine: The Bombay marine is chiefly directed against Angria. The English had galleys built in England of the most beautiful models that can be imagined carrying about 18 or 20 guns, provided with oars of special service in a calm. Also a few grabs, vessels of much the same burden, built in the country on the model of Angria's grabs with prows which seem best suited for carrying chase guns. The scheme of Angria's gunnery was chiefly to get into the wake of their enemy and rake him fore and aft. A kind of quartermaster conducts the vessel till he brings the masts of his chase into one, at which instant he gives the word for firing and commonly does the greatest execution in the rigging after which they have the easier market of the vessel thus disabled. Otherwise Angria's grabs are too slightly built to lay alongside of any ship of the least weight of metal. Their great stress lies on those prow guns which they manage to special advantage in a calm having armed boats to tow them astern of the vessel they attack which for want of wind cannot avoid them.

Of these armed boats called *galivats* the Company maintains also a competent number for the service of their marine, being not only of use to oppose them to the enemy but for pursuit or expeditions in shoal water. For further strengthening of the naval force in those parts the Company occasionally stations at Bombay some larger built ships from Europe, which for their superior weight of metal and greater difficulty of boarding, especially in deep water, with anything of a commanding gale, have nothing to fear from those slight vessels, though in a calm they might gall and plague them sufficiently. All these vessels that formed the military marine of Bombay were chiefly manned with English or European deserters from other nations and according to the exigency reinforced with detachments of soldiers from the land forces to serve in the nature of marines.

These vessels were to guard the navigation of those seas and convoy the trade. They were also employed on such collateral services as protecting the interest of the Company or vindicating its honour where requisite within the bounds of that Presidency's jurisdiction as in the Red Sea, the Gulf of Persia, and the Bar of Surat. Towards defraying

<sup>1</sup> Birdwood's Old India Office Records, 215.    <sup>2</sup> Bruce's Annals, I. 334.

<sup>3</sup> Bruce's Annals, II. 226.

<sup>4</sup> Bruce's Annals, II. 244.

the charges of this marine, the Company required of all the trading vessels, those of the other European nations excepted, to take the passes of the Bombay Government, for which they paid so small a consideration that I never heard the least murmuring; the merchants being duly sensible not only of the benefit their trade received from the English protection, but that this contribution was far short of the cost of it.<sup>1</sup>

The first Bombay boat builders were the Pársi family of Lanji or Wádia from Surat. Except in so far as it was modified by English influence Bombay ship-building was the same as Surat ship-building. Of Surat ship-building Grose writes: At Surat they excelled in ship-building. If their models were as fine as English models they would be the best ships in the world for duration. They build to 1000 tons and upwards. But their naval architecture has something clumsy unfinished and inartistic. Surat ships last much longer than European ships, even a century, because they are so solidly built, the planks in their bottoms and sides being let into one another in the nature of rabbit work. The knees are natural shape not warped or forced by fire. Teak as good as oak, and bottoms rubbed with wood-oil, keep planks from decay. They do not launch their ships, but dig canals from the water to the stocks or what they call cradles.

Surat is not the only place by many in India where ships are built but none as yet are comparable to them. The masting generally used in the country ships are poboon masts chiefly from the Malabár coast. But for the cordage what is worth anything must come from Europe. Their coir ropes, made of the fibres of cocoanut husks, are, for either running or standing rigging, more harsh and untractable than what is produced from hemp. I have seen very serviceable and large coir cables which in opposition to the European ones last much longer in saltwater, fresh being apt to rot them. Their anchors are mostly European, our iron being much better and better worked. As to sails they are very well supplied by the country manufacture of cotton into a sail cloth called *dangri* which though not so strong or lasting as canvas, Holland's duck, or vitry, is while in use more pliant and less apt to split than they are. For pitch they have the gum of a tree which is called dammar not at all inferior to the other.<sup>2</sup>

Their navigators are very indifferent artists. Formerly they used to get Europeans to command their ships. Lately they make a shift to do without them having trained up to it some of the natives who may just serve in those parts where they seldom put to sea but in the fair season, and where consequently they rarely meet with storms to try their skill. Their common sailors are rather better in their class though wanting in the vigour expertness and patience of fatigue of Europeans. Sometimes they come to England where they are miserable objects of charity.<sup>3</sup>

About the same time, 1750, Grose thus describes Angria's Fleet: His fleet consisted of grabs and galivats vessels peculiar to that coast. Grabs are of two classes, two-masters up to 150 tons and three-masters about 300 tons burthen. They are broad in proportion to their length and draw little water. They narrow from the middle forward where instead of bows they have the prow of a Mediterranean galley covered with

## Appendix II.

SURAT SHIPS,  
1750.NATIVE SEAMEN,  
1750.ANGRIA'S FLEET,  
1750.<sup>1</sup> Grose's Voyage, I. 42-43.<sup>2</sup> Grose's Voyage, I. 107-109.<sup>3</sup> Grose's Voyage, I. 109-110.

Appendix II.  
 —  
 ANGRIA'S FLEET,  
 1750.

a strong deck level with the main deck of the vessel and separated from it by a bulk-head. As the grab pitches violently when sailing against a head sea the prow sides are open so that the water passes easily off. On the main deck under the fore-castle are mounted two pieces of cannon of nine or twelve pounders pointing forward through port-holes cut in the bulk-head and firing over the prow. The cannon on the broadside are from six to nine pounders. Galivats are large rowboats built like grabs but smaller, seldom over seventy tons. They have two masts a slight mizzen-mast and a strong mainmast bearing a large triangular sail. Forty or fifty stout oars can send them at a rate of four miles an hour. Some large galivats have fixed decks on which they mount from six to eight pieces of cannon from two to four pounders. Galivats are generally covered with spar decks made of split bamboos carrying only petteraroes fixed on swivels in the gunnel of the vessel.

When he meant to attack large and strong vessels Angria gathered a fleet of eight or ten grabs and forty to fifty galivats crowded with men and laid in wait in some port or bay. When a large vessel came in sight the boats slipped their cables and put to sea. If there was a breeze they overtook the chase for they were fast sailers. If it was calm the galivats worked their oars and towed out the grabs. When within gunshot of the chase they gathered behind her and the grabs waiting till the three masts of the vessel were in line fired their prow guns. If the chase was dismasted they came nearer and battered her on all sides till she struck. If the defence was sturdy a number of galivats with two or three hundred men in each surrounded the ship and boarded her on all sides sword in hand.<sup>1</sup>

SHIPS,  
 1766-1770.

Of Bombay ships between 1766 and 1770 Forbes (Or. Mem. I. 151-154) writes: Near the harbour were three excellent docks and a spacious marine yard amply supplied with naval stores of every description. Here they build vessels of all sizes, from a ship of the line to the smallest grabs and galivats employed in the Company's service. The timber used is chiefly teak, the most valuable of the oriental forest woods and more durable than the oak. The master-builders and shipwrights of the Parsi tribe are very skilful and exact imitators of the best models from Europe.<sup>2</sup>

<sup>1</sup> Grose's Voyage, II. 213 - 214.

<sup>2</sup> Regarding the trade of Bombay (1766-1770) Forbes (Or. Mem. I. 153-154) adds: Bombay was then one of the first marts in India and employed a great number of vessels in its extensive commerce. Basra, Maskat, Ormuz, and other ports in the Persian gulf furnished its merchants with pearls, raw silk, Carmania wool, dates, dried fruits, rosewater, attar of roses, and several other productions. Arabia supplied them with coffee, gold, drugs, and honey. A number of ships annually freighted with cotton and bullion to China returned laden with tea, sugar, porcelain, wrought silks, nankeens, and a variety of useful and ornamental articles. From Java, Malacca, Sumatra, and the eastern islands they brought spices, ambergris, perfumes, arrack, and sugar. The cargoes from Madagascar, the Comorro Isles, Mozambique, and other ports on the eastern coast of Africa consisted chiefly of ivory slaves and drugs; while the different parts of India produced cotton, silk, muslin, pearls, diamonds and every precious gem, together with ivory, sandalwood, pepper, cassia, cinnamon, and other luxuries. This valuable commerce was carried on by vessels belonging to the European and native merchants settled at Bombay totally independent and unconnected with the trade of the East India Company. The exports consisted of English woollen cloths of every description, with copper iron lead and other European staples purchased at the Company's sales by the native merchants both at Bombay and from the continent. A great deal of cotton imported in boats from Surat, Broach, Ahmedabad, and Jambusar, was shipped in large vessels at Bombay for Madras, Bengal, and China. The Portuguese from Goa

About 1775 the traveller Parsons left these notes regarding Bombay ships: Near the dock is a convenient place to grave several ships at once which is done as well and with as great expedition as in any dock in England. Ships built at Bombay are not only as strong, but as handsome, and as well furnished as ships built in any part of Europe. The timber and plank of which they are built so far exceeds any in Europe for durability that it is usual for ships to last fifty or sixty years. As a proof of this I am informed that the ship called the *Bombay grab*, of 24 guns (the second in size belonging to the Company's marine), has been built more than sixty years and is now a good and strong ship. This timber and plank are peculiar to India only. The best on this side of India grows to the north of Bombay. What grows to the south, on the coast of Malabar, is however very good and great quantities of it are brought to Bombay. It is called *tiek* and will last in a hot climate longer than any wood whatever. The Company's marine on the Bombay establishment are more than twenty in number; the largest of which is the *Revenge* mounting 28 guns, 20 of which are 12-pounders. The second is the *Bombay grab*. The remainder are from 16 to 8 guns, and as there are several little piratical states both on the north as well as on the south coast of Bombay, the coasting trade could not be carried on in safety without being convoyed by such vessels belonging to the Company. It is usual to see 60 or 80 coasting vessels sail between Surat and Bombay convoyed by one or two of these vessels<sup>1</sup>

Appendix II.  
SHIPS,  
1775.

As regards the time of year when ships put to sea Parsons notices: Ships belonging to the natives of this part of India (from the Gulf of Cambay to Cape Comorin) do not venture to sea in the south-west monsoon. They have a method or rule, which the Hindus pretend is known only to their Bráhmans, to discover when the monsoon is over. When that period arrives, the chief of the Bráhmans attended with others of his tribe and multitudes of other people go in religious pomp from the pagoda to the sea shore, where, after the performance of a religious ceremony, he throws into the sea with all his force a gilded cocoanut. Great rejoicings are then made and they have liberty to go to sea with their ships and every other kind of vessel. This they never will venture to do until the cocoanut is thrown which happens either the latter end of October or at least before the 10th of November in every year. This ceremony is not peculiar to Bombay; it is used at every town and port along the sea coast.<sup>2</sup>

FAIR SEASON,  
1775.

In 1786-87 Francklin says: They build all sorts of vessels. The workers are very ingenious and dexterous not yielding to our best shipwrights in England.<sup>3</sup>

SHIPS,  
1786-87.

In 1788 Rennell (Memoir on Map of India, 180-181) speaks of the unpardonable negligence of delaying to build teak ships of war for the Indian seas. Ships of war under third rates constructed in India with moderate repairs last for ages. A ship of European construction can

1788.

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Daman and Europe carried on a trifling trade with Bombay. But the French Dutch and Danish ships seldom touched there. The American intercourse with India was then in its infancy.

<sup>1</sup> Parsons' Travels in Asia and America (1808), 214 - 215.

<sup>2</sup> Parsons' Travels in Asia and America (1808), 2, 3. Compare Grose (Voyage, I. 34), 1750: The black merchants have a superstition, not to send their vessels to sea until after a festival on the breaking up of the rains when they throw into the sea a consecrated, gilt, and ornamented cocoanut.

<sup>3</sup> Pinkerton's Voyages, IX. 236.

Appendix II.

remain there but a few years. The ships built at Bombay are the best both in point of workmanship and materials of any that are constructed in India. Although fourth rates only are mentioned there is no doubt but third rates may be constructed.

BOMBAY SHIPS,  
1736-1857.

The following statement, prepared from details collected by Captain W. Barker, Indian Navy, late Superintendent of Marine, Bombay, shows that 267 ships vessels and boats varying from 23 to 2298 tons were built in Bombay between the opening of the Dockyard in 1735-36 and the year 1857. Of the 267 there were thirty of more than 1000 and of these four of more than 2000 tons. The first steamer built in Bombay was in 1829, the *Hugh Lindsay* of 411 tons, and the first boat made of iron was the steam vessel *Planet* in 1840. The details are :

Bombay Ships, 1736-1789.

No.	Year.	Name.	Class.	Tons.	Guns.	Material.	Remarks.
1	1736...	Drake	Schooner	...	...	...	
2	"	Success	Grab	...	...	...	
3	1737...	Prince Augustus	Ship	...	...	...	
4	1738...	Resource	Grab	...	...	...	
5	1739...	Bombay	Do.	...	...	...	
6	1740 ..	Success	Galley	...	...	...	
7	1741...	Defence	Ketch	...	...	...	
8	1747...	Shaw Pedro.	Grab	...	...	...	
9	1749 ..	Nesbit	Ship	...	...	...	
10	1750...	Bombay	Frigate	...	...	...	
11	"	Mary	Ship	...	...	...	
12	1751 ..	Indian Queen	Do.	...	...	...	
13	1763 ..	Penny	Do.	...	...	...	
14	1764...	Revenge	Do.	...	16	...	
15	"	Ingle	Snow	...	...	...	
16	"	Euphrates	Do.	...	...	...	
17	"	Success	Galley	...	...	...	
18	1764...	Restoration	Ship	...	...	...	
19	"	Wallace	Do.	...	...	...	
20	1767...	Governor	Yacht	...	...	...	
21	1768...	Princess Augusta	Grab	...	12	...	
22	"	Princess Royal	Do.	...	12	...	
23	"	Hunter	Ship	...	...	...	
24	1769...	Griffith	Do.	...	...	...	
25	"	Alexander	Ship	...	...	...	
26	1770...	Sky	Cutter	...	...	...	
27	"	Swallow	Ketch	...	...	...	
28	"	Phoenix	Do.	...	...	...	
29	"	Syren	Do.	...	...	...	
30	"	Wolfe	Do.	...	...	...	
31	1772...	Britannia	Ship	...	...	...	
32	"	Louisa	Do.	...	...	...	
33	1774 ..	Royal Charlotte	Do.	...	...	...	
34	"	Nancy	Do.	...	...	...	
35	1775...	Byramgore	Do.	...	...	...	
36	"	Lelisy	Snow	...	...	...	
37	1776...	Industry	Schooner	140	...	...	
38	"	Nerbudda	Do.	...	...	...	
39	1777...	Swallow	Packet	200	...	...	
40	"	Brazil	Snow	...	...	...	
41	1778...	Amphitrite	Do.	...	...	...	
42	"	Bencoolen	Do.	...	...	...	
43	"	Panther	Schooner	181	14	...	
44	"	Britannia	Ship	747	...	...	
45	"	Sea Horse	Pilot Vessel	188	...	...	
46	"	Mermaid	Do.	...	...	...	
47	1780...	Hermanis	Ship	...	...	...	
48	"	Detence	Luggage Boat	189	...	...	
49	"	Intrepid	Schooner	...	16	...	
50	"	Hornby	Ship	...	...	...	
51	1786...	Milford	Do.	655	...	...	
52	1787...	Cornwallis	Snow	...	...	...	
53	"	Johanna	Do.	...	...	...	
54	"	Jay	Do.	70	...	...	
55	"	Shaw Ardesheer	Ship	868	...	...	
56	1788 ..	Cyrene	Do.	...	...	...	
57	1789...	Yazbux	Do.	...	...	...	Lost in the French War
58	"	Shaw Mancher	Do.	...	...	...	Lost in the China Sea.
59	"	King George	Do.	...	...	...	Burnt in the China Sea

## Bombay Ships, 1789-1814.

## Appendix II.

BOMBAY SHIPS,  
1736-1857.

No	Year.	Name.	Class.	Tons.	Guns.	Mate rial.	Remarks.
60	1789	Bonaean	Ship	...	...	...	Lost in the Calcutta River
61	"	Hannah	Do.	...	...	...	Lost in the China Sea.
62	1790	Lowjee Family	Do.	926	...	...	
63	1792	Sarah	Do.	935	...	...	Lost in the French War
64	"	Boru	Do.	...	...	...	Sold in 1808.
65	1793	Strombolo	Ketch	69	13	...	
66	"	Bombay	Frigate	634	42	...	Afterwards H. M. Ship Ceylon.
67	"	Antelope	Brig	199	12	...	
68	"	Fly	Do.	176	...	...	
69	"	Upton Castle	Do.	673	...	...	Burnt at Saugor, 16th Feb 1817.
70	1794	Hooghly	Pilot Vessel	150	...	...	
71	"	Abercromby	Do.	147	...	...	
72	1795	Albert	Brig	85	12	...	Lost in the year 1798.
73	1797	Asia	Ship	739	...	...	Sold.
74	1798	Comet	Brig	115	16	...	
75	"	Philip Dundas	Pilot Vessel	187	...	...	
76	"	Scalsby Castle	Ship	1216	...	...	
77	1799	Teignmouth	Do.	251	18	...	Condemned in Rangoon War.
78	"	Lord Mornington	Do.	439	24	...	Sold at Public Auction.
79	"	Kakusroo	Do.	1045	...	...	Sold into H. M. Service and called the Camel, 1804
80	"	Seringapatam	Do.	336	...	...	
81	1800	Cornwallis	Do.	1563	...	...	Sold into H. M. Service in 1804 and called Ackbar.
82	"	William	Do.	393	...	...	
83	1801	Yacht for Govern- ment.	Yacht	82	...	...	
84	"	Ternate	Brig	256	16	...	Sold at Public Auction.
85	"	Supply	Water Boat	67	...	...	
86	"	David Scott	...	749	...	...	Sold in England.
87	1802	Tazbux	...	747	...	...	
88	1803	Pack horse	Luggage Boat	161	...	...	
89	"	Alexander	Ship	746	...	...	
90	"	Charlotte	Do.	672	...	...	
91	"	James Sibbald	Do.	646	...	...	Sold in England and called Doris.
92	"	Cambrian	Do.	705	...	...	
93	"	Estimble	Do.	441	...	...	Sold to an Arab.
94	1804	Adl Ramer	Luggage Boat	102	...	...	
95	1805	Prince of Wales	Ship	148	14	...	Sold at Public Auction.
96	"	Pist	Frigate	872	56	...	
97	1806	Mercury	Ship	185	14	...	Condemned in Rangoon War.
98	"	Nautilus	Brig	185	14	...	
99	"	Sciph	Schooner	78	6	...	
100	1807	Benares	Ship	230	16	...	
101	"	Salsette	Frigate	885	36	...	
102	"	Bombay	Ship	1128	...	...	
103	1808	Thomas Grenville	Do.	889	...	...	Indiaman, now (1824) in Free Trade.
104	1809	Charles Grant	Do.	1216	...	...	Indiaman, China Ship.
105	"	Aurora	Do.	217	16	...	
106	"	Vestal	Brig	159	14	...	Condemned in Rangoon War.
107	"	Ariel	Do.	160	...	...	
108	1810	Psyche	Do.	180	12	...	Sold at Public Auction to an Arab.
109	"	Thetis	Do.	185	12	...	Condemned from Service
110	"	Minden	Ship	1681	74	...	
111	"	Balcarras	Do.	1406	...	...	
112	1811	Minerva	Do.	985	...	...	
113	"	Aberromble	Do.	1283	...	...	
114	"	Hannah	Do.	457	...	...	Sold in England.
115	1812	Ann	...	785	...	...	
116	"	Herefordshire	...	1279	...	...	Built for H. C. Service.
117	1813	Buffaloe	Luggage Boat	59	...	...	
118	"	Nerbudda	Prow	...	...	...	
119	"	Tapy	Do.	...	...	...	
120	"	Ernad	Timber Ship	559	...	...	Sold at Public Auction.
121	"	Cornwallis	...	1767	74	...	
122	"	Eliza	Pilot Vessel	189	...	...	
123	"	Cecilia	Do.	191	...	...	
124	1814	Thames	Luggage Boat	102	...	...	
125	"	Victor	Sloop	384	18	...	
126	"	Caroline	Ship	575	...	...	
127	"	Flora	Pilot Vessel	196	...	...	

Appendix II.

Bombay Ships, 1814-1836.

BOMBAY SHIPS,  
1736-1857.

No.	Year.	Name.	Class.	Tons.	Guns.	Material.	Remarks.
128	1814...	Guide	Pilot Vessel...	189	...	...	
129	"	Sophia	Do.	189	...	...	
130	1815...	Torch	Light Vessel.	174	...	...	Converted into Harbour Master's Depot at Cal- cutta.
131	"	Wellesley	Ship ...	1745	74	...	
132	"	Zebra	Sloop...	385	14	...	
133	"	Brigantine	Do.	839	10	...	
134	"	Sphinx	Do.	239	13	...	
135	1816 ..	Supply	Water Boat ..	...	...	...	
136	"	Planet	Light Vessel.	174	...	...	Sold in 1838 and called the Bright Planet.
137	"	Camel	Sloop	229	10	...	
138	"	Amphitrite	Frigate	1064	38	...	
139	"	Buckinghamshire	Ship ...	1349	...	...	
140	1817...	Henry Meriton	Pilot Vessel .	190	...	...	Sold at Calcutta in 1838 and called William.
141	"	Melville	Ship ...	1737	74	...	
142	"	Trincomalie	Frigate	1065	38	...	
143	1818...	Malabar	Ship ..	1065	74	...	
144	"	Seringapatam	Frigate	1152	38	...	
145	1819...	Jane	Pilot Vessel...	170	...	...	
146	"	Shaw Allum	Frigate	1111	...	...	
147	1820...	Vigilant	Armed Boat	72	...	...	
148	1821...	Hastings	Ship of War,	566	24	...	
149	"	Bombay	Gun Boat ..	...	...	...	
150	1821...	Ganges	Ship ...	2289	74	...	
151	1822...	Palmyrus	Sloop of War	192	...	...	
152	"	Madagascar	Frigate	1184	46	...	
153	"	Nausary	Brig ...	163	...	...	
154	1824...	Elphinstone	Sloop of War,	387	18	...	
155	"	Ara	Ship ...	2289	86	...	
156	"	Cal-donia	Do.	742	...	...	
157	"	Clairmont	Do.	328	...	...	Lost in the China Sea, 1838.
158	1825...	Amherst	Sloop of War.	...	18	...	
159	"	Seahorse	Pilot Vessel	188	...	...	
160	"	Mermaid	Do.	188	...	...	
161	1828 ..	Clive	Sloop of War	420	18	...	
162	"	Liverpool	Ship ..	...	74	...	Presented by the Mnem to King Wilham IV.
163	"	Mount Stewart Elphinstone.	Do.	611	...	...	
164	1827...	Coote	.....	420	18	...	
165	1828 ..	Panna	Patamar ..	43	...	...	
166	"	Bhima	Do.	55	...	...	
167	"	Euphrates	Brig of War.	255	10	...	
168	"	Bombay	Ship	2285	84	...	
169	"	Hormuzji Bomonji	Do.	757	...	...	Lost in China Sea.
170	"	Sir Charles Mal- colm.	Do.	866	...	...	
171	1829...	Tigress	Brig of War.	258	10	...	
172	"	Hugh Lindsay	Steamer	411	...	...	The first Steamer built at Bombay.
173	"	Royal Tiger	Schooner	126	4	...	
174	"	Andromeda	Frigate	1166	46	...	
175	1831...	Calcutta	Ship	2238	84	...	
176	1832...	Shannon	Schooner	87	4	...	
177	"	Earl of Clare	Ship	904	...	...	
178	1833...	Ruparel	Water Boat...	...	...	...	
179	"	Do.	Warp Boat	...	...	...	
180	"	Sultana	.....	812	...	...	
181	"	Jamsetji Jeejibhoj.	Ship ...	555	...	...	Lost at Quilon in 1836-37. For a Baravia Merchant.
182	"	Two Sisters...	Brig ...	277	...	...	
183	1834...	Taje	Schooner	205	...	...	
184	1835...	Nerbudda	Cutter...	49	2	...	
185	"	Margaret	Do.	61	2	...	
186	"	Maldava	Do.	23	...	...	
187	"	Caldavo	Do.	27	...	...	
188	"	Moftney	.....	...	...	...	For river Indus.
189	"	Taptea	Pilot Vessel.	179	...	...	
190	"	Nausary	Brig ...	179	...	...	
191	"	Lady Grant	Do.	239	...	...	
192	"	Sir Herbert Comp- eton.	Ship ...	346	...	...	For the Opium Trade.
193	"	Bombay	Schooner	62	...	...	
194	1836...	Ardaseer	Clipper	422	...	...	
195	"	John Fleming	.....	514	...	...	



## Bombay Ships, 1836-1857.

## Appendix II.

BOMBAY SHIPS,  
1736-1857.

No.	Year.	Name.	Class.	Tons.	Guns.	Materials.	Remarks.
196	1836..	Megna .....	Pilot Vessel..	301	...	...	
197	"	Sauror .....	Do. ....	300	...	...	
198	"	Krishna .....	Do. ....	240	...	...	
199	1837 ..	Rajaathan .....	...	600	...	...	
200	1838..	Cavery .....	Pilot Vessel..	200	...	...	
201	"	Colleroon .....	Do. ....	200	...	...	
202	1839..	Mary Gordon .....	...	350	...	...	
203	1840 Jan.	Victoria .....	Steam Vessel.	714	...	Wood.	
204	" Feb.	Planet .....	Do. ....	335	...	Iron.	
205	" May	Satche .....	Do. ....	335	...	...	
206	" Sept.	Medusa .....	Indus Steamer	432	...	...	
207	" Dec.	Aradne .....	Do. ....	432	...	...	
208	1841 Jan.	Auckland .....	Steam Vessel.	946	...	Wood.	
209	1842 Feb.	Semuramis .....	Do. ....	1081	...	...	
210	"	Coal Boat No. 1 ..	.....	...	...	...	
211	"	Do. 2 ..	.....	...	...	...	
212	"	Do. 3 ..	.....	...	...	...	
213	"	Do. 4 ..	.....	...	...	...	
214	" March.	Colabah .....	Light Vessel.	159	...	...	
215	" Dec.	Coal Boat No. 1 for P. & O. Co.	.....	61	...	...	
216	1843 March	Do. No. 2 ..	.....	61	...	...	
217	" Aug.	Mud Boat .....	.....	200	...	...	
218	" Sept.	Flat Do. No. 2 ..	.....	...	...	Iron.	
219	" Do.	Coal Do. No. 5 ..	.....	61	...	Wood.	
220	1844 March	Do. Do. No. 6 ..	.....	61	...	...	
221	" April to Dec.	Bridge boats for Scinde.	.....	...	...	...	
222	" Sept.	Napier .....	Indus Steamer	445	...	Iron.	
223	" Nov.	Couqueror .....	Do. ....	249	...	...	
224	" Dec.	Meanees .....	Do. ....	208	...	...	
225	1845 Jan.	Sutledge .....	.....	...	...	...	
226	" Oct.	Bees .....	.....	...	...	...	
227	" Do.	Ravee .....	.....	...	...	...	
228	" Nov.	Gapler .....	Buoy Vessel.	...	...	Wood.	
229	1846 Mar.	Coal Boat No. 1 ..	.....	...	...	...	
230	" Oct.	Water Do. No. 1..	.....	...	...	...	
231	" Nov.	Coal Do. No. 2 ..	.....	...	...	...	
232	1847 Jan.	Steamer to receive Hugh Lindsay's engine.	.....	500	...	...	
233	" Dec.	Coal Boat No. 3 ..	.....	...	...	...	
234	1848 May	Ferooz .....	Steam Vessel.	1440	...	Iron.	
235	" Sept.	Pilot Boat No. 6 ..	.....	...	...	Wood.	
236	1849 Mar.	Coal Do. No. 4 ..	.....	...	...	...	
237	" Oct.	Berence .....	.....	648	...	...	
238	" Dec.	Pilot Boat ..	.....	...	...	...	
239	1850 Feb.	Nerbudda .....	Schooner ..	...	...	...	
240	" April	Ferry Boats ..	.....	...	...	...	
241	" Dec.	Coal Boat No. 5 ..	.....	...	...	...	
242	1851 Jan.	Indus .....	Indus Steamer.	622	...	Iron.	
243	" Feb.	Jhelum .....	Do. ....	499	...	...	
244	" April.	Falkland .....	Do. ....	1159	...	...	
245	" May	Zenobia .....	Steam Vessel.	1001	...	Wood.	
246	" June.	Chenab .....	Indus Steamer	690	...	Iron.	
247	1852 Jan.	Coal Boat No. 7 ..	.....	...	...	Wood.	
248	" Feb.	Customs Pilot Do. No. 4.	.....	...	...	...	
249	" April.	Schooner .....	.....	...	...	...	
250	" May	Lady Falkland ..	Steam Vessel.	155	...	...	
251	" Oct.	Pilot Boat No. 1 ..	.....	...	...	...	
252	" Dec.	Flat Do. ....	Curseti ..	205	...	...	
253	1853 Nov.	Falkland .....	Sloop .....	494	...	...	
254	" Do.	Light Vessel ..	.....	40	...	...	
255	" Dec.	Augustus .....	Schooner ..	114	...	...	
256	1854 Jan.	Flat Ethursey ..	.....	274	...	...	
257	"	Pilot Boat .....	.....	...	...	...	
258	" Mar.	Assaye .....	Steam Vessel.	1300	...	Wood.	
259	" Nov.	Punjab .....	Do. ....	1300	...	...	
260	1855 June	Georgiana .....	.....	90	...	...	
261	" Oct.	Emily .....	Pilot Schooner.	90	...	...	
262	" Nov.	Goolanar .....	.....	215	...	...	
263	"	Governor's Barge ..	.....	51	...	...	
264	"	Admiral's Barge ..	.....	26	...	...	
265	1856 May	Charlotte .....	Pilot Schooner	167	...	...	
266	1857 Jan.	Pilot Schooner No. 4	.....	...	...	...	
267	"	Cargo Boat .....	.....	...	...	...	

Appendix II.  
SHIPPING DETAILS,  
1806-1823.

The following statement compiled in 1824 by Mr. Charles Keys, Master Attendant, Bombay, shows the number of arrivals and departures of ships and vessels for a period of eighteen years from 1st January 1806 to 31st December 1823 :

*Bombay Shipping, 1806-1823.*

Year.	His Majesty's Ships and Vessels.			British Merchant Ships and Vessels.			Foreign Ships and Vessels of War.			Foreign Trading Ships and Vessels.			Grand Total,		
	Arrived.	Departed.	Total.	Arrived.	Departed.	Total.	Arrived.	Departed.	Total.	Arrived.	Departed.	Total.	Arrived.	Departed.	Total.
1806...	30	34	64	111	121	232	5	2	7	35	28	63	181	185	366
1807...	23	23	46	116	117	233	3	3	6	31	31	62	173	174	347
1808	36	36	72	113	111	224	2	2	4	17	9	26	169	168	336
1809...	21	21	42	123	120	243	4	3	7	10	16	26	189	190	379
1810...	10	11	21	105	99	204	2	2	4	15	10	25	132	122	254
1811...	22	17	39	99	102	201	1	1	2	36	22	58	158	142	300
1812...	10	13	23	124	116	240	...	...	...	20	24	44	154	163	317
1813...	10	12	22	111	115	226	...	...	...	14	13	27	135	140	275
1814	9	8	17	105	101	206	1	...	1	5	4	9	120	113	233
1815	9	11	20	91	93	183	1	2	3	11	9	20	112	114	226
1816	9	14	23	98	93	191	2	...	2	11	8	19	120	115	235
1817	8	10	18	115	119	234	1	4	5	23	18	41	147	161	298
1818...	9	10	19	148	138	286	1	1	2	40	41	81	198	190	388
1819	11	9	20	134	117	251	...	2	2	25	23	48	170	151	321
1820...	7	10	17	187	183	370	1	2	3	22	20	42	217	215	432
1821...	5	5	10	170	166	336	3	3	6	14	11	25	192	185	377
1822...	10	7	17	122	123	245	4	4	8	22	28	50	159	157	316
1823	4	7	11	113	106	219	2	2	4	22	23	45	141	138	279
Total.	243	258	501	2185	2139	4324	53	38	66	373	338	706	2834	2763	5597

MÁZGAON MARK  
HOUSE,  
1758.

Besides the light-house on Colába Point and certain of the Colába tombs which were used as land marks for ships entering and leaving the harbour, a house on Mázgaon hill known as the Mark House was in the early eighteenth century kept whitewashed to serve as a mark for vessels sailing up and down the harbour. To this old Mázgaon Mark House a Bombay letter to the Court, dated the 7th November 1758, has the following reference: The old Mark House on Mázgaon hill was plundered of all the timber and plank by the late supposed proprietors<sup>1</sup> who damaged great part of the walls to get at the timber, and thereby brought the house to a very ruinous condition. This ruined house Mr. Thomas Byfeld proposed in a Consultation, the 23rd of May 1758, to fit up at his own expense for an habitation to live in provided we would permit him to alter the building in such manner as he might think proper and grant him a lease of it and the hill on which it stands for 99 years. To this we agreed on his engaging to whitewash the front of the house annually as usual to continue a mark to the shipping coming in or going out of this harbour. We therefore issued an order to the vereadores and *mhátárs* to survey the hill and report what yearly rent Mr. Byfeld ought to pay for it and in agreement with their report we charged Mr. Byfeld Rs. 23 a year.<sup>1</sup> In 1761 (April 4th) Government further intimate: The renter of the Mark House at Mázgaon has been acquainted that it shall always be in our power to destroy it conformable to your Honours' commands.<sup>2</sup>

<sup>1</sup> Pub. Dep. Letters to the Court Vol. 5 of 1758, 180-181. Pub. Diary 31 of 1758, 287.

<sup>2</sup> Pub. Dep. Letters to the Court Vol. 8 of 1761, 63<sup>r</sup>.

In addition to the Colába light-house which also served as a signal house, in 1766 a signal house was established on Malabár Point. In their letter of 25th November 1766, paragraph 65, Government write to the Court: It being represented to us that a signal house erected at the point of Malabár Hill, in the same manner and under the same regulations as that at Old Woman's island, would be of great utility, particularly in time of war, we have ordered one to be erected there. The expense will not exceed Rs. 2095-2-50.<sup>1</sup>

With a view to improve the light of the Colába light-house, on the 30th June 1797, the Court of Directors write: Being of opinion that some improvement might be made in the light-house at Bombay we obtained permission for Captain Tasker, our late master attendant at your Presidency, to inspect the plans of the lights exhibited on the light-houses in this country. Captain Tasker having stated to us that upon inspection of the reflectors used at various light-houses on the coast of this kingdom under the immediate orders of the Trinity Board, in order to form an opinion of their use and application for the light-house at Bombay, he does not hesitate to pronounce them far the best in principle he ever saw and extremely well calculated for the Bombay light-house. We have therefore ordered a frame with a complete set of reflectors and lamps to be shipped on the *Belvedere*. At the suggestion of Captain Tasker we now desire that the lanterns at present in the light-house be so altered that the reflectors occupy the space from north-north-west by west and south to east-south-east or twenty points, and that the space from east-south-east to north-north-west occupying these points be glazed. We send numbers in the packet of instructions for fixing the iron work for the lamps and reflectors, also instructions for trimming the lamps, and a few copies of the rules ordered to be observed at the light-houses under the management of the corporation of the Trinity House. We likewise send in the same packet instructions framed under our orders which we desire may be particularly attended to. The reflectors being very apt to become dim from the smoke of the lamps we direct the transparent cocoanut oil only be burnt in the light-house at Bombay, as the jingely and other oils in general use are very productive of lampblack and consequently very unfit for this use.<sup>2</sup>

In reply to the above on the 23rd April 1798 Government write: The superintendent of the marine has been furnished with a copy of these orders for his information and guidance in respect to the improvement of the light-house as directed.<sup>3</sup>

Next year on the 29th January Government further write: On receipt of the reflectors forwarded by your Honourable Court on board the *Belvedere* for the use of the light-house, the superintendent of marine was called upon in conjunction with the civil architect to examine how far it was advisable to apply them to the lamps at present in use. It appearing in their report to us that the lantern was not sufficiently large to render this practicable, we have ordered a new one to be built on the present light-house on a more extensive scale for this purpose. An estimate was framed by the civil architect amounting to Rs. 6653-3-51, and the whole of the work in its thus improved state was

## Appendix II.

MALABÁR POINT  
SIGNAL HOUSE,  
1766.

COLÁBA  
LIGHT HOUSE,  
1797.

1798.

1799.

<sup>1</sup> Pub. Dep. Letters to the Court Vol. 13 of 1766, 208.

<sup>2</sup> Pub. Dep. Court's Letters Vol. 14 of 1796 - 1799, 139 - 141.

<sup>3</sup> Pub. Dep. Letters to the Court Vol. 32 of 1797 - 1799, 211.

## Appendix II.

COLÁBA  
LIGHT HOUSE,  
1799.

expected to be completed by the 10th February 1799, during which interval blue lights burning at night every hour have been substituted for the benefit of ships in the offing. A late report, however, by the civil architect, of which we have the honour to enclose a copy, apprised us that further materials are still required from Europe and particularly glasses and copper frames which are stated not to be procurable here. The lightning conductor noticed in the civil architect's letter was ordered at the recommendation of the superintendent of marine. The constructing and placing of this seems also to be attended with difficulty; wherefore if your Honourable Court should be pleased to think it necessary we request to be similarly furnished with one of the dimensions required.<sup>1</sup>

1800.

In reply to the above on the 28th August 1800 the Court write to Bombay: The conductor has been sent by the way of Bengal. The copper frame not having been got ready in time to be sent by a ship of last season will be forwarded on one of the first ships of the next season. We sent by the ships *Castle Eden* and *Phoenix* a small number of glasses and wicks for the new light-house under an idea that such a supply might be necessary. But as we cannot ascertain what number may be required annually we desire that you will in future include in your marine indent such articles as may hereafter be wanted for the use of the light-house.<sup>2</sup>

WRECKS,  
1826-1872.

The following details compiled from the Wreck Chart of the Bombay Harbour show that during the forty-six years ending 1872, fifty wrecks occurred in and at the entrance to the Bombay Harbour. Of the fifty wrecks eleven were off Alibág, nine round Kenery Island, nine on the Prongs Reefs, eighteen in the Harbour, one off Breach Candy, one off Vesava, and one off Manori. It is remarkable that since the establishment of the Kenery and Prongs Light-houses no wreck has occurred. The following statement gives the details:

*Bombay Wrecks, 1826-1864.*

No.	Date of Casualty.			Name of Vessel.	Place of Wreck.	Remarks.
1	1826	Nov. ...	10	Pilot Boat No. 4 ...	S. W. Prongs,	
2	1830	Aug. ...	24	Sumbery ...	Between Thal and Kenery.	Arab Colours.
3	1836	July ...	14	Two Brothers ...	½ mile, S. Malabár Point,	
4-14	1837	June ...	17	.....	Harbour ...	Great gale. Eleven ships lost.
15	1840	May ...	8	Competent ...	Back Bay.	
16	1840	June ...	17	Lord Wilham Bentinck ...	S. W. Prongs...	Many lives lost.
17	1840	June ...	18	Lord Castlereagh...	Do.	Do.
18	1844	July ...	22	Royal Admiral ...	S. E. Prongs.	
19	1852	June ...	18	Christian ...	Kenery Island	Lives lost.
20-21	1854	Nov. ...	1	.....	Harbour ...	Great gale. Two ships and many lives lost.
22-23	1856	June ...	12	Juddel Barry and Julia...	Kenery Island	Lives lost.
24	1857	June ...	29	Bank of England ...	Off Alibág.	
25	1858	July ...	20	Alice ...	Kenery Island	Lives lost.
26	1859	July ...	23	Natalie ...	Back Bay.	Do.
27	1861	July ...	20	Louisiana ...	Off Alibág.	
28-30	1861	July ...	23	Three Pilot Boats	Thal Beach.	
31	1862	May ...	18	Beechworth ...	Harbour.	
32	1862	June ...	17	James Pilkington ...	Off Vesáva.	
33	1863	June ...	18	Nadirshah ...	Off Manori.	
34	1864	July ...	13	Marie Catherine ...	Off Alibág ...	French Colours.

<sup>1</sup> Pub. Dep. Letters to the Court Vol. 32 of 1797-1799, 320-321.

<sup>2</sup> Pub. Dep. Court's Letters Vol. 15 of 1800-1803, 37-38.

Bombay Wrecks, 1865-1872—continued.

Appendix II.  
WRECKS,  
1826-1872.

No.	Date of Casualty.			Name of Vessel.	Place of Wreck.	Remarks
35	1865	Jan.	7	Sydenham ... ..	S. W. Prongs.	
36	1865	March	12	Glen Sannox ... ..	Do.	
37	1866	Feb.	2	Steamer Jeddo ... ..	Chaul Kadu Reef.	
38	1866	June	20	Diamond ... ..	Off Breach Candy.	
39	1866	June	21	Stafford ... ..	S. E. Prongs.	
40	1866	July	13	Chapman ... ..	Off Alibág.	
41	1866	July	13	Vickerie ... ..	Alibág.	
43	1866	July	23	Zenobia ... ..	Chaul Kadu Reef.	
43	1866	Aug.	1	Die Vernon ... ..	Off Alibág.	
44	1866	Aug.	1	Themis ... ..	S. E. of Chaul Kadu Reef.	
45	1867	June	29	Bombay ... ..	On Karanja Shoal.	
46	1867	July	13	Tersah ... ..	South of Underi	Eight lives lost.
47	1867	Aug.	7	Merchant Prince ... ..	S. W. end of Chaul Kadu Reef.	
49	1867	Aug.	18	Arabistan ... ..	S. W. Prongs.	
49	1869	June	4	Bucentaur ... ..	Do	
50	1872	July	6	England ... ..	Off Alibág.	

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