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REPORT

OF THE

Indian Mercantile Marine Committee

1923-24

DELHI
GOVERNMENT CENTRAL PRESS
1924

NOTE.

The estimated cost of the Indian Mercantile Marine Committee, including the cost of printing the Report and the Evidence is as follows :—

	Rs.	A.	P.
Salary of Members and Staff ...	83,337	0	0
Travelling (including Daily allowance)	37,674	0	0
Printing	10,300	0	0
Contingencies	6,089	0	0
Total ...	1,37,400	0	0

Report of the Indian Mercantile Marine Committee.

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CHAPTER I.

Introductory.

Appointment, composition and terms of reference of the Committee.

In pursuance of a Resolution moved by Sir P. S. Sivaswami Iyer in the Indian Legislative Assembly and adopted by that body on the 12th January 1922, the Government of India on the 3rd February 1923 announced the appointment of this Committee to consider and report what measures can usefully be taken to further the objects advocated by that Resolution. The composition of the Committee is as follows :—

President.

Captain E. J. Headlam, C.M.G., D.S.O., A.-D.-C., R.I.M., Director, Royal Indian Marine.

Members.

The Honourable Sir Arthur H. Froom, Kt., J.P., Partner, Messrs. Mackinnon Mackenzie and Co., Ltd., Bombay.

The Honourable Mr. Lalubhai Samaldas, C.I.E.

Jadu Nath Roy, Esq., Bengal National Chamber of Commerce.

Sir John Biles, K.C.I.E., LL.D., D.Sc., Consulting Naval Architect to the India Office.

Diwan Bahadur Tiruvenkata Rangachariar, M.L.A.

Secretary.

Mr. J. H. Green.

The following are the terms of reference to the Committee :—

To consider what measures can usefully be taken :—

(1) for the liberal recruitment of Indians as Deck or Executive Officers and Engineers in the Royal Indian Marine;

(2) for the establishment of a Nautical College in Indian waters for the purpose of training Executive Officers and Engineers of ships;

(3) for ensuring the entertainment of Indian apprentices for training as such officers and engineers in the ships owned by shipping firms that enjoy any subsidy or other benefits from Government on any account and for the creation of an adequate number of State scholarships for providing instruction in the Nautical Colleges and Training ships in England pending the formation of a Nautical College in India;

(4) for the encouragement of shipbuilding and of the growth of an Indian Mercantile Marine by a system of bounties, subsidies and such other measures as have been adopted in Japan;

(5) for the acquisition of training ships by gift from the Imperial Government or otherwise; and

(6) for the construction of the necessary dockyards and engineering workshops in one or more ports.

Procedure and tour.

2. The Committee assembled at Delhi on the 12th February 1923 and proceeded immediately with the work of preparing their Questionnaire which was finally issued on the 3rd March 1923. The Questionnaire, which is reproduced in Appendix A to this Report, was forwarded to local Governments and also to various Associations and individuals, who were invited either directly by the Committee or through local Governments, to forward their replies in writing. At the same time the fullest publicity was given to the Questionnaire of which nearly 3,000 copies were sent all over the country and a general notification was also issued requesting any Associations or individuals not so invited to represent their views. After issuing their Questionnaire at Delhi, the Committee decided to disperse and to reassemble at Bombay on the 3rd April in the hope that the Bombay witnesses at least would have been in a position to submit their written statements before that date, enabling the Committee to proceed at all events with the oral examination of witnesses in the Bombay Presidency and Sind. However, when the Committee assembled at Bombay on the 3rd April, only 16 written replies from the whole of India had been received; while representations had been sent in from certain important public bodies asking to be given more time for the consideration and preparation of their replies. In these circumstances, the Committee decided to postpone the oral examination of witnesses and issued a press communiqué informing all concerned that the date for the submission of written replies to the Questionnaire had been extended up to the 1st September 1923. The Committee stayed in Bombay for 9 days and during that period usefully employed their time in paying a round of visits to certain dockyards and marine engineering workshops. The Dockyards visited were the Royal Indian Marine Dockyard, the Mazagon Dock belonging to the P. and O. and British India Steam Navigation Company, and the Workshops of Messrs. Alcock Ashdown and Company. The Committee also paid a visit to the Navigation School at Novha, Hog Island, maintained by Sir Mohamed Yusuf, Kt. The Committee held their last meeting at Bombay on the 12th April 1923 and then finally dispersed after deciding to meet again about the middle of the following November

for the purpose of prosecuting their enquiries further. At a meeting held at Simla on the 24th July the following tour programme was provisionally decided upon, subject to such changes as might be found necessary from time to time :—

November	19th	Reassemble at Bombay.
„ to December	20th to 6th	Halt at Bombay.
December	7th	Departure Bombay by sea.
„	9th	Arrival Karachi.
„	10th to 12th	Halt at Karachi.
„	13th	Departure Karachi.
„	17th	Arrival Calcutta.
„	18th to 31st	Halt at Calcutta.
January	1st	Departure Calcutta by sea.
„	4th	Arrival Rangoon.
„	5th to 10th	Halt at Rangoon.
„	11th	Departure Rangoon by sea.
„	14th	Arrival Madras.
„	15th to 21st	Halt at Madras.
„	21st	Disperse at Madras.
First week of February		Reassemble at Delhi to write the report.

This tour programme was strictly adhered to. Owing to his appointment as a member of the Indian Bar Committee, Diwan Bahadur T. Rangachariar was unable to sit with the Committee at Karachi or Madras and the Hon'ble Mr. Lalubhai Samaldas was prevented, owing to the exigencies of business, from accompanying the Committee to Rangoon.

The Evidence

3. When we reassembled at Bombay on the 19th November, we found that in response to our invitation, we had received a great volume of written evidence from all shades of opinion connected with the shipping and shipbuilding industry in India. Written statements were received from 128 witnesses and out of these 72 were orally examined. Lists of these witnesses are attached.* We wish to express our indebtedness to all who, at the expense of time and labour, furnished us with written statements of their views and to those who also gave oral evidence before us. Our thanks are due to the managers and officials of the various dockyards and marine engineering workshops visited by us for their ready courtesy in showing us round their establishments. We also wish to express our thanks to those local Governments and Government officials

*Appendix B.

Acknowledgments.

who made arrangements for our office accommodation at the ports which we visited.

Visits to dockyards and engineering workshops.

4. Calcutta being the chief centre of interest from the shipbuilding point of view, we took the opportunity during our stay there of visiting the following dockyards and engineering workshops :

1. The Hooghly Docking and Engineering Company's workshops at Sulkea.
2. The B. I. S. N. Company's Dockyard at Sulkea.
3. Messrs. Burn and Company's workshops at Howrah.
4. Messrs. John King and Company's workshops at Howrah.
5. The River Steam Navigation Company's workshops at Garden Reach.
6. Dockyard at Garden Reach belonging to the India General Steam Navigation and Railway Company, Ltd.

At Rangoon we had the advantage of being shown round the port by the Port Commissioners and of visiting the workshops of the Irrawady Flotilla Company at Dalle.

Visit of Sir John Biles to Japan.

5. When the Committee met at Bombay on the 4th April 1923, we had decided that it would be of great advantage to us if we could make ourselves personally acquainted with the system of bounties, subsidies and such other measures as have been adopted in Japan for the encouragement of shipbuilding and the growth of a Japanese Mercantile Marine. A reference was accordingly made to the Government of India putting forward the following alternative suggestions :—

(*a*) that the whole Committee should be allowed to visit Japan some time in August ;

(*b*) that failing (*a*) Sir John Biles should be permitted to visit Japan *en route* to India to rejoin the Committee in November.

The Government of India were unable to agree to the whole Committee visiting Japan but obtained the sanction of the Secretary of State to alternative (*b*). Sir John Biles arrived at Yokohama on the 23rd September 1923 to find that the principal cities which he had to visit had practically been wiped out by the most appalling earthquake ever known in human history. Naturally this stupendous disaster, which affected the whole Japanese nation, greatly hampered Sir John Biles' work in Japan

but in spite of the difficulties he had to contend with, he has been able to make available to the Committee an amount of information which has been of great value to us. His account of his visit to Japan is attached as an Appendix* to this Report. We should like to take this opportunity of expressing our indebtedness to those gentlemen, whom he has mentioned in his Report as having rendered him valuable assistance, and to request that our thanks may be conveyed to them by the Government of India through the British Embassy in Tokio.

*Appendix C.

6. Leaving Madras on the 21st January 1924, we met again at Delhi on the 5th February for the purpose of considering our recommendations.

7. We wish to place on record our high appreciation of the services of the Secretary of this Committee. Our labours have been greatly lightened by the zeal and ability displayed by Mr. J. H. Green and by the keen interest in the work he has shown throughout. He prepared most valuable notes and obtained much important information on the subjects which came under the terms of our reference. His readiness and ability to anticipate our requirements have been most marked. He has been of the greatest assistance to us in the preparation of our Report, and we were most fortunate in having his services placed at our disposal by Government.

Services of the Secretary.

CHAPTER II.

Training of Indian Executive Officers and Engineers for the Mercantile Marine.

EXECUTIVE OFFICERS.

8. We cannot do better than reproduce here the following extract from the English Public Schools' Year Book with which we thoroughly agree :—

> "In considering the Merchant Service as a career for boys it must at once be stated that the scholastic and technical requirements of the profession are such as to render imperative preliminary training if a youth aspires to command. The enormous growth in the size of modern steamers, the great advance made in marine science generally, the application of modern invention to all that appertains to life afloat, which has, to some extent, displaced manual labour, call for a wide range of knowledge which can only be assimilated when a boy is at an early age and has opportunities of studying denied to one going direct to sea."

We propose to deal first with the question of the training of the executive or deck officers and subsequently with the training of engineers. In our opinion no scheme for the ultimate formation of an Indian Mercantile Marine would be complete unless it also provides both for the training and future employment of the officers. In Great Britain the officers of the Mercantile Marine are drawn chiefly from the middle classes. We are of opinion that it is necessary that a somewhat similar method of recruitment should also hold good in India if a thoroughly efficient sea service is to be created. There is already living along the shores of India a large sea-faring community, who furnish the lascar crews of all the coasting steamers and most of the ocean going steamers trading with India and we have been told by R. I. M. Officers, Port Officers and Agents of Shipping Companies that they make thoroughly efficient and reliable sailors. We see no reason why the sons of these men should not be encouraged to aspire to become officers in the Mercantile Marine, provided they possess the necessary education, especially as we understand that some of them are already sufficiently educated to enter the legal, medical and other learned professions. There are no facilities in India at present, such as exist in Great Britain, enabling suitably educated lads,

who may be desirous of becoming officers in the Mercantile Marine, to obtain the necessary sea experience and nautical training and education. In our examination of witnesses, we made a point of endeavouring to find out if any considerable number of the youths of this country were likely to be desirous of following the sea in the capacity of officers in the event of the necessary training facilities being provided for them. Certain witnesses, who frequently come in contact with the sea-faring community, have told us that they are not aware of a single instance of an Indian lad of good family and education offering himself as an apprentice to the sea and that in view of the fact that Indians of the better classes appeared to lack the instinct or spirit of the sea, which is more or less inborn in British lads, it appeared to them doubtful if a sufficient number of suitable Indian candidates would be forthcoming to make it worth while to embark on any large scheme of training. Some of these witnesses feared that, even if Indians started their apprenticeship, they would not stick to the sea after they find out that it is a life having many hardships and few amenities. Many witnesses on the other hand have assured us that there will be no dearth of suitable Indian candidates coming forward for training if the necessary facilities are provided and that the reason why they have not come forward in the past is that they have hitherto been given little or no encouragement to take to a sea-faring life; and that even if they served their apprenticeship there was practically no prospect of their obtaining employment after completing their training. We consider that there is a good deal of force in this argument as we have ascertained in the course of our enquiries that, with one or two exceptions, steamship companies in India were not anxious to take Indian apprentices on board their steamers. The result has been that the few Indian lads, who have actually applied to be taken to sea as apprentices, were not accepted. We have also been told by other witnesses that one serious obstacle to the training of Indians for a sea life is on account of caste prejudices and the difficulties which must arise in the confined space available for accommodation in ships, especially cargo ships, if it is considered necessary to provide separate living and messing arrangements for apprentices belonging to different sects or communities. We have been assured by Indian witnesses, however, that these caste prejudices are rapidly disappearing. In any case we consider it necessary to make it clear from the start that, before any scheme of training for Indians can be made a success, apprentices of all classes must be prepared to live, study and play together on board ship in the interests of that *camaraderie* and *esprit de corps* which is so essential to the creation of an efficient mercantile marine. We are not disposed to attach any weight to the other objection mentioned, *viz.*, that the hardships of a sea life are likely to deter Indian candidates from coming forward and in any case we do not think that

there is any justification for coming to a conclusion of this kind until Indians have been given a fair trial. We are of opinion, therefore, that there is good ground for believing that, provided adequate facilities for their education and training are supplied, a fair number of educated Indians of good character will offer themselves as apprentices to the sea with a view to their ultimately becoming officers in the Mercantile Marine.

Scholarships for training in England not required.

9. In our terms of reference we were asked to consider the question of the creation of an adequate number of State scholarships for providing instruction to Indians in the Nautical Colleges and training ships in England, pending the formation of a Nautical College in India. We may say at once that in our opinion it should not be necessary to send Indian lads to England to undergo their nautical training. Para. 105 of the Report of Lord Lytton's Committee on Indian students states that of the training establishments in England only H. M.'s schoolship " Worcester " is prepared to admit a limited number of Indian candidates subject to certain conditions. Apart from this we consider that there are grave disadvantages in sending Indian boys several thousands of miles away from their homes to the rigorous climate of the United Kingdom at the somewhat tender age of 15 or 16 years at which it would be necessary for them to commence their training for a sea-life. We observe that Lord Lytton's Committee sympathised with the desire of Indians to render themselves eligible for appointment to the Royal Indian Marine and considered that the best way to provide for the required training of Indian students would be for Government to establish a Nautical Training ship in Indian waters with the necessary staff of instructors, etc., although they realised that this plan would involve heavy expense. We are in entire agreement with this view and consider that, if it is necessary for the Royal Indian Marine, it is even more necessary, if Indians are to qualify for the Mercantile Marine, that the necessary training facilities for them should be provided in their own country.

Desirability of establishing a Nautical Training ship in Indian waters.

Training ship should be in the form of a floating establishment.

10. An important point for consideration is whether the training ship should be in the form of a floating establishment like H. M.'s schoolships "Conway" and " Worcester " or a nautical academy on shore like the Nautical College, Pangbourne. We have carefully weighed the merits of both schemes and have come to the conclusion that the floating establishment is to be preferred. It seems to us that, if we are to create a spirit for the sea

in young Indians, the sooner they begin to imbibe the sea-life the better and the floating establishment will serve this purpose better than a school or college on shore.

Only one training ship is necessary with a small tender attached for cruises around the coast of India and Burma.

11. Having expressed our preference for a floating establishment, it now remains to be considered whether it will be necessary to provide one or more such establishments for the purpose in view. In deciding upon the number of training institutions to be provided three considerations should be borne in mind; firstly, that any scheme which is introduced at present must largely partake of the nature of an experiment until Indians have proved their aptitude and fitness for the sea; secondly, that although Indian witnesses are sanguine that a large number of the class of candidates required will be forthcoming, the numbers who will actually come forward when the scheme has been started is somewhat problematical; and thirdly, that the number of boys who should be accepted for training should at all events not be greatly in excess of the numbers for whom it will be possible later on to find employment after their training has been completed. The question of the employment of trained officers is dealt with in a later paragraph, but here it is only necessary to state our opinion that for some time to come, until the Indian shipping industry has been fully developed, the prospects of trained mercantile marine officers obtaining employment in this country will be somewhat limited. After taking these three factors into consideration we have come to the conclusion that it will be best in the beginning to provide for the training of not more than 50 cadets per annum and for this number we consider that one training hulk will be sufficient, to which a small tender should be attached in which the senior boys can be taken for cruises around the coast of India and Burma to visit the principal ports.

Training ship and tender should be located at Bombay.

12. The location of the floating establishment is a matter of great importance. Several witnesses have advocated placing one of these establishments at each of the big ports; others have stated that at least two are necessary. We have given reasons in the preceding paragraph why it does not appear to us to be necessary to provide more than one training ship or hulk at present. In choosing the port where this training ship should be located, we think it is necessary to select a port where the boys will continuously be in sight of the blue sea, where communication with the shore will mean real boat work, and where all kinds and classes of ships of various nationalities, who will be trading between ports the world over, will frequently pass in the course of their business close to the training ship. A further consideration to be borne in mind is that

the port selected should possess large modern docks with up-to-date machinery for the discharge and shipment of cargoes close at hand. Thus a steady course of automatic instruction in and familiarity with affairs nautical will gradually be absorbed by the boys. Of all the ports in India, Bombay appears to us to possess all these advantages in a peculiar degree and has the additional advantage of having a fairly equable climate. We consider Bombay, therefore, to be the most suitable in every way and we recommend that it should be decided upon as the location of the training ship and tender which we recommend should be provided for the present.

Curriculum of training.

13. We suggest that the curriculum of training on the training ship proposed should be similar to that in vogue in the English training establishments, which is a sound general and mathematical education in addition to one in the practice and art of navigation and seamanship. A sound general education, apart from being necessary for the profession of the sea, prevents a boy from falling behind his contemporaries on shore, so that should he for any reason give up the idea of a profession at sea, he will not be placed at a disadvantage when seeking employment in other walks of life. In this connection we would like to quote the following extracts from the prospectuses issued by :—

(1) The Nautical College, Pangbourne, and

(2) The South Africa Training Ship "General Botha";

which illustrate the advantages of a combined curriculum, including a vocational as well as a general education, for boys undergoing a nautical training :—

(1) "If a boy is physically sound and attracted by the sea, the decision to send him to a training establishment should be made early. Many parents hesitate to allow their sons at the age of 13 or 14 to adopt the sea as a profession, because the boy may change his mind only to find that his qualifications have suffered from a too vocational education. This contingency has been anticipated by the Committee of the Nautical College by offering a carefully balanced curriculum which includes an adequate proportion of general school subjects to the standard of the School Leaving Certificate as set by the Universities.

It should be noted that much of the strictly nautical training is of a nature valuable for any career. For instance, there can be few methods of cultivating quick observation, accurate memory, prompt and decisive application of knowledge, which can surpass a course in Signalling.

"Thus the final decision need not be reached until the conclusion of the preliminary training and provision is made for the boy who may finally elect to enter general professional life, while he has the advantage of that broadened outlook which he has acquired by association with those whose destiny is the sea."

(2) "Without a thorough and complete training in and knowledge of discipline himself, he can never be in a position to impose it upon others. To a Commander of a ship entrusted with human life and great financial responsibility, discipline is a real factor in his work; in fact, it is as much a subject of his educational syllabus as any ordinary subject of education is to a shore-going scholar preparing for a non-nautical appointment."

Very strict discipline must be maintained on board the training ship and the mind of every boy must be imbued with the idea that the sea is an arduous and trying life involving great responsibilities and is devoid of many of the comforts and amenities of a life on shore. This idea must be cheerfully accepted by the boys if they are to become efficient and capable sea officers.

Period of training.

14. The period of training in the training ship should be for two years and the Board of Trade should be asked to agree that these two years, provided the Cadet obtains a qualifying certificate, shall count as one year's sea time as is done in the case of the cadets trained in any one of the English establishments.

Appointments to the Bengal Pilot Service.

15. We are of opinion that the Secretary of State for India in Council might be asked to extend the same facilities to selected cadets from the Indian training ship to join the Bengal Pilot Service as is at present extended to cadets from the "Conway" "Worcester" and "Pangbourne."

Qualifications for admission and age for joining.

16. We observe that before a candidate is finally accepted for the Training College, Pangbourne, he must take the common examination for entrance to public schools or, if this is impracticable, a special examination of similar standard to be set by the College authorities. For the South Africa training Ship, "General Botha", a boy must have passed at least the sixth standard of education before he can be admitted. A competitive examination is also laid down for admission to the Kobe Training College in Japan. Similarly, for admission to the Indian Training Ship, all candidates should be required to sit for a special examination to be set by the authorities of the Training Ship of a standard similar to

the Middle School or Junior Cambridge examination. This examination may be held at various centres to meet the convenience of candidates in different parts of India. Before a candidate is allowed to sit for the written examination he should be required to produce a recommendation from the head of the School or College in which he has been educated, or from a magistrate or some well-known person, and a certificate of physical fitness from the Civil Surgeon of the district in which he resides. The age for joining should be not younger than 15 and not older than 17 years. Finally, a *viva voce* test should be held on board the training ship to gauge, so far as is possible, the aptitude and fitness of candidates for a sea-life. The first 30 successful candidates in the written examination should be allowed to appear for the *viva voce* test and of these the best 25 selected for admission. A knowledge of English is essential, because the translation of the standard works on navigation and seamanship into the various vernaculars which are spoken in India would be too lengthy and expensive an operation even if it was practicable.

Staff of officers and instructors for the training ship.

17. The Training Ship will require an ample, sympathetic and highly specialised staff of officers and instructors, and, as the success or failure of this enterprise will largely rest with them, we lay great stress on the importance of exercising the greatest care in their selection. In addition a small crew will be necessary for sanitary and domestic duties, but the remainder of the ship's duties must be carried out by the cadets as in England.

The mental, physical and moral welfare of the cadets should be the object of the greatest care and proper allowance made for religious observances. Suitable arrangements must also be made for games and recreation generally.

Two years' course to be divided up into four terms.

18. We suggest that the two years' course in the Training ship should be divided up into four terms. Not more than 25 pupils should be admitted at the beginning of each term, the total number of admissions during the year being limited to 50. This will prevent there being too many pupils of one age and standard undergoing training and subsequently passing out of the school at precisely the same time. It will be advisable to divide the number of admissions to be made in each term among the various Provinces and States of the Indian Empire.

Facilities to inculcate a sea sense in Indian boys at an early age.

19. It has been suggested to us by certain witnesses that primary nautical schools should be established, so that boys may be educated for the sea from their earliest years before going into a training ship. Although this is not

done in England, we are of opinion that to produce successfully a sea service it is necessary to imbue the spirit of the sea into the boys at as young an age as possible. As a step towards this end we suggest that it would be advantageous if Provincial Governments should provide in the curriculum of all schools for a study of the history of the influence of the sea on war and commerce, especially in its relation to the Empire in general and to India in particular; or to institute primary nautical schools as suggested by the witnesses. An institution of this description started and maintained by Sir Mohamed Yusuf, Kt., at Novha, Hog Island, Bombay, is a good example of this kind of school. Another suggestion which was put to us by one witness and warmly advocated by others was that, in order to inculcate the spirit and love of the sea in young Indians, about 200 of them should be selected and taken on a world-wide cruise in a sea going training ship when they would have a chance of seeing other countries and experiencing other climatic and meteorological conditions. The idea of this witness was that at the end of this cruise a fair percentage of the boys would be sufficiently imbued with the spirit of the sea to decide to follow a sea career. The proposal has its advantages and would undoubtedly be most helpful and excellent for the boys, but in our opinion it is much too costly an expedient to be deserving of serious consideration.

Maintenance of the training ship by Government.

20. We observe from paragraph 265 in Chapter VII of the Eighth Quinquennial Review of the Progress of Education in India that professional colleges are, with few exceptions, Government institutions. In the Chapter on Administration (paragraph 55) it is explained further that in view of the high cost of constructing, equipping and staffing such institutions, if the qualifications of the ex-students are to receive general recognition, there is every likelihood that professional education will for many years to come remain almost entirely in Government hands. The same interest and support should be given by Government to the training of Indians for the position of officers and engineers in the mercantile marine, and as Naval Architects and Engineers for shipbuilding works. We understand that the position in regard to professional colleges in India at present is that Government provides the building and pays for its equipment and the cost of the instructional staff. For the rest it is understood that students are charged fees and in addition are expected to pay for books and, if resident, for board and lodging. The fees charged, however, bear a very small proportion to the total cost of the whole institution. We strongly recommend that the same principle of Government support should be applied to institutions which may be established for the nautical

training of Indian cadets and that, to begin with, the training hulk and tender proposed by us, as well as the instructional staff required for the same, should be provided at Government expense and maintained by Government. We calculate on a rough estimate that the cost of the training hulk with tender attached, together with the cost of the instructional staff, should not exceed 3½ lakhs of rupees per annum. The fees to be charged to the students should not in any case exceed those which are ordinarily charged in other Government professional institutions. In the case of the latter, however, resident students usually pay for and make their own arrangements for food. On the training ship this arrangement will not be possible and it will, therefore, be necessary to provide the cadets with food free from the ship as is usually done in the case of all nautical training establishments. The cadets should be required to pay for books and uniforms, which latter should be simple and inexpensive.

R. I. M. Troop ship "Dufferin" suitable for conversion into a training ship.

21. In No. (5) of our terms of reference we have been asked to consider the question of the acquisition of training ships by gift from the Imperial Government or otherwise. We have already recommended that only one training ship need be provided at present. It is understood that, in the interests of economy and owing to the re-organization of the Royal Indian Marine, it has been decided to dispose of the three R. I. M. Troop ships "Dufferin" "Hardinge" and "Northbrook" Expert opinion shows that the "Dufferin" with certain alterations, which could be carried out economically in the R. I. M. Dockyard, Bombay, in about six months, would be eminently suitable and we recommend that she should be retained for conversion into the Training ship which we have suggested should be established at Bombay. The teak built motor vessel "Howard" built in Cochin and now lying in the harbour, unfinished, might, when completed, we consider, be suitable as the sea-going tender for the training ship, if the cost is not prohibitive.

Suitable sea going tender for the Training ship.

Facilities for further training as apprentices.

22. Under the Board of Trade Regulations candidates who wish to sit for a Second Mate's Certificate must produce evidence of four years' service at sea. After having completed their time in the training ship, therefore, which will only count as one year's sea service, Indian cadets will still have to serve for three years in a Mercantile Marine ship as apprentices before they will be qualified to sit for their Board of Trade Certificates as Second Mate. In England, where ample facilities exist for the purpose, subsequent service at sea is arranged for either by the parents of

the boys or by the authorities of the training establishment when they are about to complete their preliminary training. But we ascertained in the course of our enquiries that, with one or two exceptions, Steamship Companies in India were not willing to take Indians as apprentices. We came to the conclusion, therefore, that it would be necessary by negotiation with Steamship Companies to make specific provision for the further training of Indian apprentices to enable them to put in the qualifying sea service required under Board of Trade Regulations. In a Circular letter which we addressed to the Managing Agents of the Steamship Companies noted in the margin,* we enquired if they would be prepared to accept for training on board their vessels a certain number of Indians as apprentices from the Training Ship to be established in Indian waters, provided such apprentices have obtained a qualifying leaving certificate similar to the certificates issued by such establishments in England and that the Board of Trade agree to the proposal that this training be counted as equivalent to one year's sea time. We are glad to say that we have received a reply in the affirmative from all the companies named. We have also recommended in our scheme for Indianising the ownership of the Indian Mercantile Marine that accepting such apprentices shall be obligatory. We have, therefore, no fear that facilities will not be available for the further training of the candidates who will pass out of the training ship annually.

*1. The British India Steam Navigation Company.
2. The Asiatic Steam Navigation Company.
3. The Scindia Steam Navigation Company.
4. The Mogul Line.

Prospects of employment after completion of training.

23. Having provided for the education and training of young Indians for a sea life, it is necessary to consider what their prospects will be of obtaining employment. In our letter to Shipping Companies referred to above, therefore, we took the opportunity of enquiring if they would be prepared to employ young Indians as officers on board their ships, provided they prove efficient and satisfactory as apprentices and successfully pass their Board of Trade qualifying examinations as Mates and Masters. To this enquiry also we have received a reply in the affirmative. We are also recommending in the scheme for Indianisation of the ownership the compulsory employment of Indians as Officers. Employment is, therefore, assured so far as the coasting trade is concerned.

Assistance to Officers to pass their Board of Trade Examinations.

24. This is a matter which we think must be considered as opportunities for study are much fewer and more difficult to obtain at sea than on shore. In the United Kingdom at all the large ports there are establishments where officers can, on payment of fees, be coached for the various examinations. These are,

however, private establishments which are generally run by retired Mercantile Marine Officers. It is not likely that the Indian Mercantile Marine will be large enough for some time to come to make the establishment of such private schools in this country a paying proposition. It will, therefore, be necessary for Government to assist in this matter also and we consider that the simplest and most efficient form which Government assistance might take would be to open a Nautical class in the large Government Colleges in the first class ports, and also in the Training Ship at Bombay, for the purpose of coaching officers for their Certificates of Competency as Mates and Masters.

Period of service necessary to become Master of a ship.

25. Although it will not be many years before we have Indian Officers, it will be a considerable number of years before we have Officers of sufficient experience to become Masters of ships. According to the Board of Trade Regulations an Officer may pass for Mate and Master in a short period of time, but these are only qualifying examinations and years of practical experience are necessary before an Officer can be sufficiently qualified to be either Second or Chief Officer or Master of a Merchant ship. In establishing an Indian Mercantile Marine, we must be most careful not to jeopardize the success of the whole scheme by making promotions too quickly and thus putting insufficiently experienced people into the higher posts on board ship. In the beginning we consider that it will be necessary to follow the Japanese principle of employing foreigners; or non-Indians in the present case, except in the most junior posts, gradually eliminating them and replacing them by Indians as Indian Officers become competent. We consider that each young Indian Officer should serve at least one year as Fourth Officer, 2 years as Third, 3 years as Second and 5 years as Chief Officer before he can be given command of a ship: in other words, no Indian Officer with less than 11 years' service should be considered fit to take command.

Engineers.

26. We have been told that a number of Indians, chiefly Parsees, are already serving as Engineers on ships and that on the whole they make efficient engineers for the positions they occupy. They are, however, mostly occupying subordinate positions, and do not as a rule rise to high positions of trust and responsibility, chiefly we are told because they lack the education required for the higher posts and also because no part of their training has been spent, as in the case of engineers in Great Britain, in large shipbuilding yards or workshops where engine construction work on a large scale is undertaken. But

witnesses, who are entitled to speak with authority on the subject, have told us that there is no reason why, given the proper selection and suitable training, Indian youths should not be found entirely suitable as engineer officers in the Mercantile Marine and in the event of a shipbuilding industry being started in India they will have those very facilities of instruction in marine engine construction which are now lacking.

Facilities for training available in India.

27. A sufficiently practical training in Mechanical Engineering can be obtained at any one of the large workshops which we saw at Calcutta and Bombay and also at Rangoon. There are also three Government Colleges of Engineering in India at present *viz.*, those at Sibpur (Calcutta), Poona (Bombay) and Guindy (Madras), where we understand that students can obtain a thorough grounding in Mechanical Engineering. The Principal of the College of Engineering at Poona has told us that in his College students after graduation are supposed to serve an apprenticeship of at least two years in shops and that these graduates should have sufficient knowledge to become efficient Marine Engineers if their post-graduate apprenticeships were spent partly in shipbuilding or repairing shops and partly at sea. In the Bengal Engineering College at Sibpur all students are expected to undergo practical training in workshops before obtaining their diplomas. Alternatively, students can enter workshops, while at the same time attending technical school, spending the final two years of their apprenticeship at the College. The Principal considers that students trained under either of these methods would no doubt have sufficient technical training, which would probably be of a very much higher standard than in the case of the average Marine Engineer. At all events it is significant that students who have completed their course in Mechanical and Electrical Engineering in the Sibpur College are allowed to count two-thirds of the time spent there up to a maximum limit of two years in reduction of the period of Artificer training required by the British Board of Trade from candidates presenting themselves at the examination for certificates of competency as Marine Engineers. A good training in Mechanical Engineering can also be obtained in the Victoria Jubilee Technical Institute at Matunga (Bombay). None of these institutions, however, specialise in Marine Engineering, but the Principal of the last named Institute has told us that his Board would be quite willing to extend the scope of their curriculum so as to include Marine Engineering, provided Government is prepared to defray the expense of supplying the marine engine equipment required for practical work. We received a similar assurance from the Principal of the D. J. Sind College at Karachi, where a new engineering wing has recently been opened. We see no reason

why similar facilities for a training in Marine Engineering should not also be provided at the Government Colleges of Engineering above mentioned, since the probability is that this could be done without much additional cost.

Further experience at sea.

28. It is clear, therefore, that facilities can be provided in India, both in colleges and workshops, to enable any Indians of good education, who desire to go to sea as Engineer Officers, to obtain the requisite preliminary training. It will be necessary for them, however, after their preliminary training has been completed, to serve a period as Engineers without certificates at sea. We have no doubt that facilities for this purpose will be provided by the Steamship Companies who have already expressed their willingness in regard to the Deck Officers and we have arranged for this in our recommendations regarding coastal licenses.

Facilities for further study before sitting for Board of Trade Examinations.

29. Like the Deck Officers, however, Engineer Officers will, after completing their required sea time, need to be specially coached before they appear for their Board of Trade examinations. We suggest that arrangements for such further study should be made by opening special classes for the purpose in the existing Government Colleges.

Provision for employment after completion of training.

30. Having successfully completed their training and passed their Board of Trade examinations, it will be necessary for Engineer Officers to find employment. This can be found in exactly the same manner as has been suggested in paragraph 23 in regard to Deck Officers. But we wish to make the same proviso in the case of Engineer Officers, *viz.*, that after merely passing the necessary qualifying examinations, engineers of insufficient practical experience should not be given charge of the machinery of ships. It is necessary that ordinarily engineers trained in this country should serve at least six years in the junior grades and five years as Second Engineers before they can be allowed to serve as Chief Engineers of any sea-going ships. Given the facilities for training which we propose should be provided, we see no reason why, in course of time, Indians should not make as capable Engineer Officers in the Mercantile Marine as those trained elsewhere.

CHAPTER III.

Development of an Indian Mercantile Marine.

31. Judging from the tenor of the debate which took place in the Legislative Assembly on the 12th January 1922, we assumed at the outset of our enquiries that it was no part of our responsibility to examine the necessity for an Indian Mercantile Marine and that all that we were required to do was to consider what measures could usefully be taken to this end under the six heads mentioned in the Resolution, which was adopted by the Legislative Assembly and which forms our terms of reference.

Present condition of the Shipping industry in India.

32. As regards the present condition of the shipping industry in India, we have been told by one witness that at present less than 12 per cent. of the coastal trade and less than 2 per cent. of the international trade is carried in Indian bottoms. Another witness has gone so far as to say that approximately 90 per cent. of India's coastal trade and 98 per cent. of her export and import trade are served by ships which are owned by non-Indian Companies. We have not been able to ascertain how these figures have been arrived at and cannot, therefore, express any opinion as to their accuracy, but we think it is generally admitted that the proportion of the trade on the coast which is carried in ships owned by Indians is comparatively small, while the number of Indian ships which take part in the overseas trade is practically negligible. In any case we know for certain that with the exception of one or two companies, which are owned and managed by Indians, and possess small fleets, there are no other Indian Companies which possess up-to-date steam vessels capable of competing in the sea-borne trade of India with the established British shipping lines.

Conditions which militate against the development of shipping enterprises by the people of this country.

33. In our endeavour to find out what are the conditions which militate against the development of shipping enterprises by the people of this country, we were informed by a large majority of the witnesses who appeared before us that the absence of Indians from the shipping trade is due to the strong position occupied in that trade by the two or more existing British-owned lines which

enables them successfully to stamp out competition by rate wars, the deferred rebate system and other methods. These witnesses point to the many attempts which have been made by Indians in recent years to cut into the coastal trade and urge that their failure has been due not so much to trade slumps or other fortuitous circumstances but to the cause above mentioned. Other witnesses, on the other hand, assert that the failure of new ventures on the part of Indians has been made due not to competition from the established lines but to inexperience in the shipping trade and mismanagement on the part of the promoters. We find that as regards at least one company, which has been launched in recent years, the Directors admitted in their report that their failure was due to bad business management on the part of the original promoters, and we have little doubt that in the remaining cases which have occurred failure was in some degree due to the same cause. At the same time it is not difficult to see that the system of deferred rebates and rate wars must operate as an obstacle to the entry of new comers. These two systems have, therefore, been strenuously assailed by practically all the Indian and a few European witnesses who appeared before us, and they have strongly pressed for their removal as one of the first steps to be taken to encourage the development of an Indian Mercantile Marine. We do not propose to discuss the merits or demerits of these systems. We are suggesting in condition No. 4 of our recommendations in para. 43 that these questions should be considered by the licensing authority suggested.

34. Recognizing that the whole subject dealt with in our Questionnaire was a highly technical one, we decided to issue with it, for the benefit of those who desired to give evidence, a memorandum briefly explaining the different forms of State aid or protection afforded in other countries for the development of a national Mercantile Marine. It was hoped that this memorandum would serve as a guide to witnesses as to the particular lines on which their views and suggestions were required. Notwithstanding our efforts in this way to keep the enquiry on well defined lines, we found that in their written statements quite a number of witnesses had advocated the application to India of the whole catalogue of measures of State aid and encouragement which had been adopted in other countries. On oral examination, however, we found that those witnesses, who had given careful study to the subject, recognized the impracticability of adopting all these measures simultaneously and confined their advocacy to such measures only which they considered essential to secure the object in view. We shall now proceed to say what these measures are and what are our views in regard to each.

35. All witnesses were practically unanimous in advocating that the first step to be taken was to provide for the adequate training of Indians to become officers and engineers in the Mercantile Marine. We agree with this view and in Chapter II of this report have dealt fully with the facilities which we consider should be provided in Indian waters for the nautical training of Indians who desire to follow a sea career. While appreciating the readiness expressed by the existing lines to take Indian apprentices and to employ them as officers after they have been fully trained, we have come to the conclusion, after careful consideration, that the success of the scheme we are proposing for the training and future employment of Indian lads so trained should not be left to chance or the good will of Shipping Companies. We are, therefore, providing in our recommendations for the coastal trade that before a license is granted to any company an undertaking must be given that apprentices will be taken to the extent of at least two per ship, subject to a maximum of 60 for any one company, and that Indian officers and engineers as they become eligible will be employed up to the extent of 50 per cent. of the total number of officers and engineers employed. In this way it is hoped in course of time to bring about the complete Indianisation of the superior personnel of the coastal Mercantile Marine. The crews of these fleets are already Indian, as we have previously stated, so that it does not appear to be necessary for anything to be done at the present juncture to Indianise the crews.

Facilities for the training of officers and engineers the first step to be taken.

36. One section of the witnesses who appeared before us feel that active assistance on the part of Government towards the creation of an Indian Mercantile Marine should stop at the provision of the training facilities and that the rest should be left to a gradual process of development by ordinary commercial methods. They point out that what Indian companies generally lack at present are proper methods of organisation and management by men with practical experience in the shipping trade. This defect it is urged will be partly removed by the scheme for the training of Indians in navigation and their employment as officers on ships and partly by such steps as it may be necessary to take to develop an experienced staff for management. The Indian companies which will be formed in future will thus not suffer from lack of experienced officers and managers and will, therefore, be in a strong position to face competition and establish themselves in the trade. The witnesses, who take this view, refer to the case of at least one Indian company which has fought its way into the Conference without any State aid or encouragement and they see no reason why

View of certain witnesses that no further assistance beyond the provision of training facilities is required.

other Indian companies should not be equally successful, provided they have good financial backing, and are properly managed. These witnesses are, therefore, averse to any further assistance being given in the form of the reservation of the coastal trade to Indian owned ships, because they feel that a policy of restriction or exclusion will not be to the advantage of the country as a whole. They point out that there has been no complaint regarding either the efficiency or adequacy of the services offered by existing shipping lines and consider that it would be a mistake to substitute for them an agency, the efficiency of which is problematical and in any case has yet to be proved. They point to the action which has been taken in Australia to place restrictions on the coasting trade with the result that freights have risen to the detriment of Australian trade, necessitating the appointment of a Committee, which is sitting at present, to examine the coastal trading provisions of the Australian Navigation Act. They are apprehensive that the same result will follow in India if a policy of reservation is decided upon. If reservation is to be introduced at all they suggest that it should be confined to the exclusion of foreign ships only, but they strongly favour the policy of the open door as being the most beneficial to the welfare of India as a whole. This is one side of the question.

Other witnesses unable to agree that training facilities are enough and press for the reservation of the coastal trade for ships owned and managed by Indians.

37. The other side of the question has been presented to us by another section of witnesses who have given evidence. Their view is that if, as they understand, the object of this enquiry is to bring an Indian Mercantile Marine into being within a reasonable period of time, then it is not enough merely to provide for the training and the Indianisation of the personnel of the fleet and that in addition it is necessary to provide for the Indianisation of the ownership and management of the ships at the same time. In other words, they feel that it is not sufficient for Government to assist Indians only to man ships and that in addition they should be given facilities to own and manage them and that the two things should progress side by side. They point out that it is practically impossible under present conditions for Indian companies to gain a footing in the trade and do not consider that this view is controverted by the fact that one Indian company has succeeded in fighting its way into the Conference. That company, as they observe, was only successful after a protracted struggle involving heavy losses which other companies with limited resources at their disposal cannot afford to face. It was alleged that the present British shipping lines to a certain extent neglect the small ports on the coast and at Madras we were told of an instance in which a shipping company and a railway

company had entered into a contract with a view to attracting trade to a particular port. It was urged that such combinations are prejudicial to the development of the small ports to which, it was claimed, that more attention will be paid when more Indian shipping companies come into existence. They state that if direct action is taken to protect Indian shipping in the coastal trade plenty of Indian investors will be forthcoming to put up the money required to start Indian companies. It is pointed out by these witnesses that the coasting trade is the domestic preserve of the people of this country and that it is only right and proper that Indian enterprises in this trade should be especially fostered in preference to companies run by non-Indians. With this aim in view, they consider that action should be taken to secure that the coasting trade of India is gradually reserved for ships which are owned and managed and ultimately manned by the people of this country. They are averse to the policy of the open door as one which is not conducive to the growth of indigenous shipping enterprises and they do not apprehend that a policy of reservation will be followed by the adverse results described in the preceding paragraph. In any case they consider that in the interests of the Indian Mercantile Marine the risk, if any, must be faced as it has been faced by every country in the world, including a British Dominion, which has deliberately adopted the policy of reserving its coasting trade for its own people in order to encourage the growth of a national Mercantile Marine.

View of the Committee that something more is required beyond the provision of training facilities.

38. These are the two sides to the question as they have been presented to us by witnesses and we admit that there is a good deal of force in the arguments urged on both sides. It must be stated that so far as the ports served are concerned there is no great fault to be found with the efficiency or the regularity of the services offered by the existing shipping lines and that the question of a replacement of non-Indian lines by Indian concerns does not arise so far as these grounds are concerned. But we have been directed to examine what measures can usefully be taken for the development of an Indian Mercantile Marine, and we cannot agree that the provision of training facilities alone exhausts all the necessary avenues of action which can usefully be taken in the direction indicated.

Reservation of the coasting trade.

39. In other countries, which have desired to develop a national Mercantile Marine, one direction in which action has been taken to this end has been to reserve the coasting trade for the subjects of the particular country concerned. Under the provisions of the Indian Coasting Trade Act V of 1850 the coasting trade of India is open to all comers and it is the unanimous opinion of all witnesses who have

appeared before us that this Act should now be repealed with a view to the exclusion of foreigners from the coastal trade. It is understood that this action was suggested before the war when foreign participation in the Indian coastal trade threatened to assume serious proportions. With the outbreak of War, however, foreign competition declined and the proposal was dropped apparently because it was not considered advantageous to impose restrictions on the coastal trade at a time when India sorely needed coasting ships and was only too glad to receive allied or neutral shipping in her ports. With the return of peace the position has changed and it is understood that there is now a vast amount of surplus tonnage lying at British ports for which employment cannot be found. The present is, therefore, an opportune moment to reopen the question. The coasting trade of a country is regarded universally as a domestic trade in which foreign flags cannot engage as of right but to which they may be admitted as an act of grace. It is admitted that the policy of British Dominions or Possessions in regard to their own coasting trades must be determined by their local interests and we are of opinion that in the interests of the growth of an Indian Mercantile Marine it is necessary to close the coasting trade of this country to ships belonging to the subjects of foreign nations. It may be necessary to provide that an exception should be made in favour of those foreign States which enjoy any treaty rights in respect of the Indian coasting trade (*vide* Section 736(c) of the Merchant Shipping Act, 1894), but we consider that no foreign ships should under any circumstances enjoy superior privileges to those accorded to British ships. We have not been able to determine from navigation statistics the extent of foreign participation in the coasting trade of British India but the general impression is that it is very small and that in any case it is not large enough to justify the apprehension that its disappearance is likely seriously to injure the commerce of the country. We recommend, therefore, that action should now be taken to repeal the Indian Coasting Trade Act V of 1850, subject to the exception which we have mentioned above.

Exclusion of foreigners.

40. It has already been explained that a large number of witnesses do not consider that the exclusion of foreign shipping alone goes far enough to encourage the growth of an Indian Mercantile Marine and that what is required is action to reserve the coasting trade more or less exclusively for shipping companies, the controlling interests in which are predominantly Indian. In other words, the object of these witnesses is to compel existing British Steamship lines to gradually Indianise the character of their

Exclusion of foreigners from the Indian coastal trade not sufficient.

Proposal to reserve the coastal trade for Indian Shipping Companies.

companies in order that they may be considered eligible to trade on the coast. It is necessary here to examine the possibility of excluding British ships from the Indian coasting trade. As already stated the policy of British Dominions or Possessions in regard to their own coasting trades is determined by their local interests. This is borne out by Section 736 of the Merchant Shipping Act, 1894, which confers power upon the Legislature of a British Possession, by any Act or Ordinance, to regulate its coasting trade, provided that, in such Act or Ordinance, all British ships (including the ships of any other British Possession) shall be treated in exactly the same manner as ships of the British Possession in which it is made. We find that the Commonwealth of Australia has taken advantage of the provisions of this Section of the Merchant Shipping Act to introduce a law which has had the effect of conferring on Australian shipowners a monopoly in the Australian coasting trade. This has been done, not by excluding non-Australian ships in so many words, but by providing in the Australian Navigation Act for a system of control by means of licenses to trade on the Australian coast, which are only granted to vessels engaged in such trade under certain conditions. The conditions attached to the grant of a license for the Australian coasting trade apply to all British ships alike, but the nature of those conditions is such that they have the practical effect of automatically shutting out all except Australian owned vessels from the Australian coasting trade. It is clear, therefore, that if it is decided to take similar action in respect of the Indian coasting trade in the interests of Indian shipowners, there is nothing in the British Merchant Shipping Law, which would prevent action of this kind being taken, provided the conditions enforced are applicable to British and Indian ships alike. It is believed to be true that a Committee has been appointed to inquire into and report upon the effect of the operation of the Australian Navigation Act upon the trade, industry and development of that country and that the coastal trading provisions of the Act will form the subject of special enquiry by this Committee. Although, as before stated, one witness with recent Australian experience has said that the Act has been prejudicial to trade interests, there is no information whatever at present as to what conclusions this Committee has reached. Until the Australian Committee's Report is published it is impossible to base any conclusions on the experience alleged to have been gained in Australia of the policy of coastal reservation. At the same time it must be pointed out that the system of reserving the coastal trade has been adopted by other countries and is still continued by them. It does not follow, even if the Australian system has not

Possibility of excluding British ships from the Indian coasting trade.

Action taken in Australia to reserve the coasting trade for Australian shipowners.

been successful, that the system we propose for the Indian coastal trade will not be a success.

Recommendation that the Indian coasting trade should be reserved for ships the ownership and controlling interests in which are predominantly Indian.

41. We do not consider that it is possible to say at this stage whether the reservation of the Indian coasting trade for shipping companies, which are predominantly Indian in character, is likely to be beneficial for India or not, for the simple reason that there are no data at present on which a satisfactory conclusion can be based. In any case, it seems unfair to pronounce any adverse judgment as to the ability of Indians to run shipping companies as successfully and efficiently as the present concerns until they have been given an opportunity of owning and managing ships under more favourable conditions than those prevailing to-day. Indians have proved successful in other technical trades in which a short time back they possessed little or no practical knowledge or experience and we see no reason why, given a favourable opportunity, they should not prove equally successful in the shipping trade. The Honourable Member for Commerce stated in the Legislative Assembly on behalf of the Government that this desire on the part of the people for their own Mercantile Marine was a very natural desire. Recognising this natural desire we are of opinion that this should be met within a reasonable period of time and not in the distant future. This being so, it is our considered opinion that the provision of facilities for the training of Indian officers and engineers alone is not sufficient to meet the requirements of the case and that some further steps are required to achieve the object in view. These further steps we recommend should be in the form of the eventual reservation of the Indian coasting trade for ships the ownership and controlling interests in which are predominantly Indian. This should be done by the introduction of a system of licenses or permits as has been done in Australia, except that the conditions to be attached to the grant of a license or permit in India will be different to the conditions imposed in Australia. We recommend that it should be announced now that with effect from a date, to be fixed by Government, the privilege to engage or to take part in the coasting trade of India will be regulated by a system of licenses, the conditions of which are indicated in the paragraphs which follow.

Proposal to introduce a system of licenses in respect of the Indian coastal trade.

Definition of an ideal Indian Mercantile Marine.

42. The summary of evidence goes to show that an ideal Indian Mercantile Marine may be briefly described as follows :—

(*a*) Ships to be registered in India.

(*b*) Officers and crews to be Indians.

(*c*) The ships to be owned by joint stock companies (public or private) registered in India with rupee capital, with a majority of Indians on the Directorate or to be owned and managed by individual Indians.

(*d*) The majority of the shares in the companies to be held by Indians.

(*e*) The management of the companies to be predominantly in the hands of Indians.

(*f*) The ships shall be built in Indian shipyards belonging to companies constituted in a similar manner.

As an ideal to be worked up to eventually we accept the above definition but for the present we do not consider that it is capable of practical realisation in full. What we wish to provide for in our coastal trading regulations is that after a time the ownership and controlling interests in the ship or ships for which licenses are required shall be predominantly Indian and we think that this qualification should be held to have been fulfilled if a ship conforms to the following conditions :—

Definition of an Indian owned and managed ship for the purpose of the coastal trading regulations.

(*a*) That it is registered in India,

(*b*) That it is owned and managed by an individual Indian or by a joint stock company (public or private) which is registered in India with rupee capital, with a majority of Indians on its Directorate and a majority of its shares held by Indians, and

(*c*) That the management of such company is predominantly in the hands of Indians.

It is not possible at present to provide that the officers and crews should be completely Indian, because it will take some time under our training scheme to produce the requisite number of Indian officers and engineers, but in our coastal trading regulations which follow provision has been made for the compulsory Indianisation of the personnel. Nor is it possible at present to provide that the ships applying for licenses shall have been built in India, because no shipbuilding yards capable of constructing ocean-going steam vessels exist in this country but we hope that in course of time it will be found practicable to add both these *desiderata* to the conditions of the license, which we propose should be laid down.

43. It should be announced that on and from a certain date to be specified by Government no ship should be entitled to engage or take part in the coasting trade of India unless such ship has first obtained a license from the licensing

Conditions which should be attached to the grant of licenses to trade on the Indian coast.

authority appointed for the purpose, subject to the following conditions :—

Condition 1.—Licenses or permits shall after the introduction of the licensing system be issued to any ship flying the British Flag, provided that it is proved to the satisfaction of the licensing authority that such ship, not being more than 25 years old, has been regularly engaged on the coasting trade during the preceding twelve months and that the Joint Stock Company (public or private) or individual by whom it is owned gives an undertaking in writing to take Indian apprentices for training subject to a minimum of 2 per ship, no line being compelled to take more than 60 apprentices all-told. Provided further that such Joint Stock Company or individual owner undertakes to employ qualified Indian officers and engineers, as they become eligible, up to the extent of at least 50 per cent. of the total number of officers and engineers employed. These licenses shall continue subject to Board of Trade Regulations until the ship has reached the age of 25 years, provided the conditions set forth above are being complied with.

Condition 2.—All ships hereafter seeking to enter the coastal trade can only obtain licenses on their complying with such conditions as may be laid down by Government for Indian Shipping concerns; provided also that the owners of all such ships are likewise required to give an undertaking on the lines indicated in Condition 1 regarding the employment of Indian apprentices and the gradual Indianisation of their officers and engineers.

Condition 3.—The licensing authority may be given discretion to waive all or any of these conditions during exceptional periods of stress such as trade booms, famines, war, etc., and to issue permits to any ship flying the British Flag to cover such periods as he may consider requisite.

Condition 4.—The licensing authority may also be vested with power to take such steps, with the approval of the Government of India, as may be considered advisable to deal with deferred rebates, rate wars, or any other conditions which act unduly as a restraint or trade.

Condition 5.—Provision should be made that, where by treaty made before the 13th May 1869, Her late Majesty Queen Victoria agreed to grant to any ships of a foreign State such rights or privileges in respect of the coasting trade of British India, those rights and privileges shall be enjoyed by those ships for so long as Her Majesty agreed or His Majesty the King may hereafter agree to grant them. This, however, should be subject to the proviso that no foreign ships should under any circumstances enjoy superior privileges to those accorded to British ships.

Column 6.—For the purpose of these regulations "Coasting trade" may be deemed to mean trade exclusively carried on between any port or ports in British India and any port or ports or place on the Continent of India (including Burma).

These, broadly speaking, are the conditions which in our opinion should be imposed under the licensing system which we recommend should be introduced on the coasting trade of India.

Proposal to purchase one of the existing British lines operating on the coast.

44. It has occurred to us that it would facilitate the growth of an Indian Mercantile Marine if, in combination with the licensing system which has been proposed above, arrangements could be made for the Government of India, by means of a loan, to purchase one of the existing British lines operating on the coast as a going concern and appoint Directors to control it, a majority of whom should be Indians. The present management should be retained until such time as there are sufficient Indians available with the necessary experience to undertake complete management. The ownership of the vessels in this line should be transferred by sale from time to time to approved Indian owners with a view to the above concern ultimately being placed in the hands of Indian companies. Such an arrangement would furnish an immediate opportunity for Indians to extend the Indian Mercantile Marine with a ready made fleet of proved efficiency and as the existing management would be retained it would have a definite commercial value offering a fairly safe return for the capital invested in its purchase. The possession of such a fleet of ships of the approved type would provide also immediate opportunities for the training of Indian apprentices and the employment of Indian officers, as well as opportunities for the training of Indians in the business management of shipping concerns by European shipping experts. We have not sounded any of the existing British owned lines as to whether they would be willing to sell out but we think it is not unlikely, under the changed conditions which, if approved

by Government, the reservation of the coastal trade on the lines indicated will bring about, that one or more of these companies might be willing to consider the matter if a suitable offer is made to them. In our opinion this proposition is a feasible one, provided it is combined with the licensing system which we have recommended, and we commend it as worthy of serious consideration by the Government of India.

Other forms of State aid not recommended.

45. In their evidence quite a large number of witnesses have recommended that, in addition to the reservation of the coastal trade for Indian shipping companies, such companies should also be given navigation bounties, cheap Government loans, State guarantee of interest on capital and other forms of financial aid which have been given in other countries simultaneously with the reservation of the coastal trade for their own subjects. In our opinion the reservation of the coastal trade in the manner which we have indicated will confer a substantial advantage upon Indian shipowners, and we see no justification for the grant of any other forms of State aid. We recommend, however, that at some future date, as soon as a sufficient number of trained Indian officers and engineers are available and Indian shipowners have proved efficient in managing and running coastal steamers, the question of granting navigation bounties to purely Indian shipping companies in respect of overseas trade to other countries should be favourably considered.

Question whether recommendations made in respect of the ownership of vessels to be licensed for the coastal trade are consistent with the provisions of Section 736 (*b*) of the Merchant Shipping Act, 1894.

46. A question may be raised whether the recommendations we have made in respect of the ownership of vessels to be licensed for the Coastal trade are consistent with section 736 (*b*) of the British Merchant Shipping Act of 1894 which limits the power of the Legislature of a British Possession in the matter of the regulation of its coasting trade by the condition that all British ships (including the ships of any other British Possession) shall be treated in exactly the same manner as the ships of the British Possession concerned. In requiring predominant Indian ownership for British ships as in the case of Indian ships, we do not think that the principle of that section is violated. This requirement applies to both classes of ships and in stipulating for a predominant Indian share in the management and controlling interests of British ships operating in the Indian coasting trade, there is certainly no evasion of the provisions of that section. But if it should be so considered by the Law Officers of the Crown, we would strongly recommend that section 736 (*b*) of the British

Merchant Shipping Act should be amended. If this is not agreed to, then we recommend that, in addition to the licensing system imposing the other conditions we have suggested, namely, employment of Indian apprentices and Indian officers, a system of bounties should be resorted to to develop the Indian Mercantile Marine. The bounties should be given to all Indian owned and Indian managed ships and Mail contracts should be given only to such ships and preference should be given for the carriage of Government Stores in such ships whether on the coast or in the overseas trade. The establishment of a competent authority for the purpose of regulating the coastal shipping trade and for developing the Indian Mercantile Marine in all its branches is highly essential in order to carry out our recommendations in this matter. If the coastal trade can be reserved in the manner suggested by us, the country will be saved much expense which a system of bounties and subsidies would involve. Every effort should, therefore, be made to secure the amendment of the section of the Merchant Shipping Act referred to above if really it stands in the way of carrying out our recommendations.

Mail subsidies.

47. It has always been an accepted principle that, so far as Maritime Services are concerned, the course of the post should follow as far as possible the course of trade. Consequently to secure the maximum economy in carrying mails, steamer services already in existence have been utilized for the purpose. We understand that mail subsidies are fixed by negotiation or tender based on the regularity and speed of the services and that the number of miles combined with the speed has been the determining factor in fixing the rate. In our opinion the broad principle enunciated above is sound and we see no reason to advocate any radical change. But should the licensing system we have advocated, for any reasons, not be adopted, it will be necessary to enter in all future mail contracts, in which the whole amount of the subsidy is to be paid by India, a stipulation to the effect that all suitable ships owned by such companies must take on board a number of Indian apprentices, in accordance with the limitations we have previously recommended under the licensing system.

Indianisation of the Pilot services, the Marine Departments under local Governments and Port Trust vessels.

48. In Chapter V we have dealt with the Indianisation of the Royal Indian Marine. The scheme for the nautical training of Indians which we have recommended in Chapter II will give Indian officers the requisite qualifications to enter any service for which sea experience is required and we recommend that one way of finding avenues of employment for these officers after their training has been completed should be to employ an

increasing number of them, as they become available, in services such as the Bengal and other Pilot services, the Marine Departments under local Governments and in vessels belonging to the Port Trusts, until these services also are practically Indianised.

Difficulties of Indian companies in regard to internal river traffic and trade connected with it.

49. We may add that some witnesses both at Calcutta and Rangoon sought to bring to our notice certain serious difficulties alleged to be felt by Indian Companies in the matter of internal river traffic and trade connected with it. We felt that we could not deal with these questions as they were outside the scope of the terms of reference to this Committee.

CHAPTER IV.

Measures for the Encouragement of Self-propelled Shipbuilding in India.

Present condition of Shipbuilding industry in India.

50. Only three witnesses who claimed to be shipbuilders came forward to give evidence on shipbuilding. These were non-Indians of Calcutta engaged in small yards in which no ship of more than 200 tons had been built. Two Indian witnesses claimed to be shipbuilders but beyond recommending that subsidies should be given by the Government their evidence was not of much assistance. The non-Indian witnesses believed that it would be a long time before Indians could compete in shipbuilding with English shipbuilders.

Shipyards visited.

51. We have, therefore, been compelled to form a judgment from our own observations of the shipyards which we visited, a list of which is given below :—

Bombay.—Royal Indian Marine Dockyard.

Mazagon Dock belonging to the P. and O. and British India Steam Navigation Companies.

Workshops of Messrs. Alcock Ashdown and Company.

Calcutta.—The Hooghly Docking and Engineering Company's workshops at Sulkea.

The British India Steam Navigation Company's workshops at Sulkea.

Messrs. Burn and Company's workshops at Howrah.

Messrs. John King and Company's workshops at Howrah and Sulkea.

The River Steam Navigation Company's workshops at Garden Reach.

Dockyard at Garden Reach belonging to the India General Steam Navigation and Railway Company, Ltd.

Rangoon.—The shipbuilding yard and workshops of the Irrawady Flotilla Company at Dalle.

52. The largest steel hull built in India is the s.s. " Bahdra " of 600 tons by Messrs. Burn and Company of Calcutta. The machinery for this vessel was built out of India. In all Messrs. Burn and Company have built 9 ships of a total of 2,373 tons gross which are of sufficient importance to be included in Lloyd's register of 100 tons gross and over. All the other shipbuilders whose yards we visited have built 13 ships totalling 2,915 tons gross as given in Lloyd's register for 1922-23. The number of ships of 100 tons gross and over built in the world in the ten years previous to the war is 16,975 and their total gross tonnage is 28,331,448. Thus it will be seen that the experience of shipbuilding in India is very limited as to quantity and size of ships.

Experience of ship-building in India is limited.

53. After careful consideration, we are of opinion that Calcutta would be the best position for shipbuilding as there is more experience of it there than elsewhere, and it is near the coal and steel producing districts and the steel works of Tatanagar. If, however, steel and coal from outside India for shipbuilding purposes be admitted free of duty, Bombay and some other ports may in time compete with Calcutta as shipbuilding centres.

Calcutta best position for ship-building.

54. Competition with non-Indian shipbuilders is at present only practicable for small vessels. The cost of bringing out such vessels to India is a sufficiently large percentage of the price to cover the difference in the building cost between Indian-built and non-Indian built ships.

Competition with non-Indian shipbuilders only practicable for small vessels.

55. If an entirely self-contained condition is desired for India, it would appear to be as necessary to be able to build ships in India as it is for Indians to own ships. Shipowners, however, naturally want to buy in the cheapest market, which is not India at present, but if protection is granted to shipowners to enable them to create an Indian Mercantile Marine, it would seem to be desirable for shipbuilders to have protection to create their industry.

Protection necessary for shipbuilders for the purpose of creating a self-contained Indian Mercantile Marine.

56. The methods proposed by witnesses to protect the shipbuilding industry are somewhat similar to those for shipping :—

Methods proposed to protect the shipbuilding industry.

1. Loans by Government.
2. Bounty of 25 per cent. of the cost of the ship.

3. Guaranteed dividends of the shipbuilding company by the Government.
4. Shipyards to be laid out and run by Government and sold by them by tender as going concerns.

One, any or all of these methods have been suggested by more or less responsible witnesses.

Cheap loans.

No. 1 is of no use by itself. Sufficient and remunerative work to employ the capital continuously and successfully must be found and as at present it is not likely to be got from outside India, it must be obtained within from Indian shipowners and the Government of India, Provincial Governments and Port Trusts. If the above conditions can be guaranteed, cheap loans might be given to a shipbuilding company up to the extent of one-third of the total paid up capital.

Construction bounties.

No. 2. We failed to get the reasons for this form of bounty either as to quality or quantity. We could get no reliable information as to the probable difference in cost between ships built in India and elsewhere and could, therefore, form no idea as to whether 25 or any other percentage was necessary to enable Indian shipbuilders to sell ships at the same price as shipbuilders of other countries. Any system of bounty should only extend to making up the difference between the minimum cost of production in India and abroad. We consider that this system would be more equitable in all ways than a fixed percentage. In any event, this difference should not exceed 25 per cent. of the price abroad. The determination of the difference will not always be easy, but the difficulty could be overcome by the establishment of a competent authority. If the fixed percentage system were adopted, it is not easy to see how an industry can be created or encouraged by allowing the seller to fix his own prices regardless of others.

Guaranteed dividends not recommended.

No. 3 is open to the serious objection that it gives no incentive to economic production.

Pioneer shipyards to be laid down and run by Government not recommended.

No. 4. By this method all the capital would have to be found by the Government, probably a crore per shipyard. The Government would have to find work for the yard and show a profit on it before the yard would be saleable. To continue to build for undetermined clients at prices in competition with the rest of the world would not be profitable. If sold at a profitable price, the increased cost of Indian-built ships above others for an Indian Mercantile Marine would be either a handicap to that marine or a drain on Government if Government made good the loss to the Indian Mercantile Marine. For the purpose of

developing an Indian Mercantile Marine the least costly way at present is to purchase the ships out of India. For the purpose of fully developing a shipbuilding industry in India, the existence of a large Indian Mercantile Marine must be assured and all ships of that mercantile marine must ultimately be built in India as well as all vessels built for the Government of India, the Provincial Governments and Port Trusts. In the latter connection it may be noted that the total number of vessels built for the Government of India and Port Trusts since 1910 is six, 100 ft. long and over, and 14 dredgers. We attach as an Appendix* to this Report a statement which gives the details of all the vessels built for India from 1910 to March 1921.

* Appendix D.

The reservation of the coasting trade to Indians on, say, 100 ships of 500,000 gross tons would necessitate the renewal of not less than five and not more than ten ships per year, that is, five for renewal and five for losses and obsolescence before being worn out. Assuming that they should all be built in India it would be necessary to have shipbuilding facilities capable of turning out ten ships in a year but commercially efficient when producing only five. The six Government and Port Trust vessels and the 14 dredgers built since 1910, seven before March 1921 and seven since, gave an average, excluding the four years of the war, of, say, two ships or dredgers per year. Hence the required shipbuilding facilities per year would be a minimum of seven and a maximum of twelve.

Indian shipowners should have their own repair shops which could be developed later into efficient shipbuilding yards.

57. There are facilities in existence in Bombay and Calcutta for repairs of ships, which have been developed during the war, for which full employment cannot now be found. Some of these facilities could be made use of for ship and engine building though no one establishment is fully equipped at present for completely building ships and engines of the kind mentioned in the preceding paragraph.

Any scheme of an Indian Mercantile Marine begun on the basis of reserving the coastal trade would necessitate repair shops at both Calcutta and Bombay. These shops might (*a*) be owned by shipping companies running the trade as the British India Steam Navigation Company do at present, or (*b*) these companies might rely on privately owned repair shops to do their work. Practically all the repair yards are controlled by non-Indians. If it is desired that the shipbuilding establishments of the future be run exclusively by Indians it would be worth while for the Indian shipowners to have their own repair shops and so plan or develop them that they should be capable of efficiently building their own ships and engines. The shipowner would pay what his ships cost him. If they cost more than what he could buy them for elsewhere, his freights

would have to be increased to make the same profit or he would have to receive a bounty. This is based on the assumption that the shipowners could agree sufficiently among themselves to have a shipyard or shipyards common to all shipowners or that some of the existing lines were taken over by an Indian company or companies together with their repair shops.

Expert assistance from abroad necessary at first.

58. For some years to come it would be necessary to obtain expert assistance from non-Indians, who must be familiar with all the types of vessels to be built in the proposed shipyard. This expert assistance might come from a shipbuilding firm who might be persuaded to assist an Indian firm or it might come from a firm of consulting Naval Architects and Engineers who had been entrusted with the superintendence of the design and construction of ships and dredgers for the Government and vessels similar to those required for the Royal Indian Marine and the coasting lines.

Construction bounties recommended.

59. Having given our best consideration to the various points set forth above, we recommend that for the present the most advantageous course to be adopted is to give construction bounties as indicated in paragraph 56. If a shipbuilding yard is projected by an Indian Company, the Government may aid that enterprise by (*a*) advancing a cheap loan to the extent of one-third of the paid up capital of that Company and assistance in acquiring suitable sites; (*b*) guaranteeing the giving of all Government and Port Trust work to this shipyard at a cost not unduly higher than the cheapest price which can be secured abroad for a similar class of work; and (*c*) legislating that, when such a suitable shipbuilding yard is completed and established, all ships seeking for a license on the coast should also be required to have been built in India. While agreeing with our recommendations, our colleague, the Hon'ble Mr. Lalubhai Samaldas, would prefer the Government pioneering this enterprise and establishing and maintaining a shipbuilding yard at its own cost.

Possibilities of training suitable Indian shipbuilding staffs.

60. Shipbuilding, including engine construction, is a highly developed and complex industry and among many things is dependent upon the training of shipbuilders. In Britain, even in the pre-iron stage of shipbuilding, it had its school of Naval Architecture which provided for the scientific education of Naval Architects and the technical education of the shipbuilding staff. When the era of iron ship-building commenced, it was the scientific Naval Architects of these schools who carried out this enormous change from wood to iron

Facilities in Great Britain for the scientific education of Naval Architects and the technical education of the shipbuilding staff.

shipbuilding to a successful state and to one from which the present state has developed. In the fifties of the last century, the only schools of Naval Architecture were those associated with the Royal Dockyards. Now, wherever there is a shipbuilding port, it has its school, or schools, in which a full technical education can be obtained, and there are three Universities in each of which a Chair of Naval Architecture and Engineering is established, wherein a full scientific education in the subject can be obtained. The effect of this is that ship-designing is done by men of high scientific and technical attainments and the shipyards are continuously recruiting young men who are technically trained to take positions as draftsmen, foremen and managers.

Necessity for the establishment of a similar educational system in India.

61. India has no such schools and if such a highly developed industry as shipbuilding is to be established in this country, its start must be associated with an educational system such as exists in England. Japan and the United States are instances of this method of development. In both countries men have been sent to Britain to learn in schools and shipyards and have afterwards become teachers and leaders in the industry.

Graduates from Engineering Colleges in India should receive additional courses in Naval Architecture and be used for assisting in the building of shipyards and afterwards in building ships.

62. During the time between beginning the laying out of a shipyard and engine works and its being in full swing trained Indian mechanical engineers will have to be selected to receive a further training in shipbuilding, and marine engineering, including both theoretical and practical instruction. These could be selected during the process of building the works, so many each year. They would be drafted, for a part of their time, into the building of the shipbuilding works as it went on and would thus become familiar with the plant and its construction before it began work. The Engineering Colleges could provide all the necessary men. These men would become draftsmen, foremen, assistant managers, etc. A small special staff of instructors in Naval Architecture would be necessary in one of the colleges, preferably Calcutta. The special course of training in shipbuilding and engineering given by the special staff should be similar to that in Glasgow University. The number of specially trained students need not exceed 10 per year. If these are sufficiently trained they will train the rank and file, and the industry will go on and grow naturally, so far as personnel is concerned.

CHAPTER V.

Royal Indian Marine.

63. Clause (1) of our terms of reference invites us to state what measures can usefully be taken for the liberal recruitment of Indians as Deck or Executive Officers in the Royal Indian Marine.

Re-organisation of the Royal Indian Marine into a purely combatant force or Indian Navy.

64. We are given to understand that the Royal Indian Marine Service is about to be reorganised into a purely combatant force or Indian Navy. Until the constitution of such a reorganised service is definitely settled, it appears difficult for us to give any opinion as to the detailed methods to be adopted to Indianise the service.

Indianisation of Royal Indian Marine or Royal Indian Navy a matter of importance.

65. We, however, take the opportunity of suggesting that the Indianisation of this service, whether it remains a Royal Indian Marine or becomes a Royal Indian Navy, is a matter of importance and that the preliminary training shall take place in the suggested Training ship for the Indian Mercantile Marine in special classes. This in our opinion is the most effective and economical course for the preliminary training of such officers.

Re-organisation of the Royal Indian Marine into an Indian Navy strongly recommended.

66. It is the almost unanimous desire of all Indian witnesses that the creation of an Indian Navy capable of defending the coasts, harbours and commerce of India should proceed hand in hand with the development of an Indian Mercantile Marine, and we strongly recommend to Government that the re-organisation of the Royal Indian Marine into such a service shall be undertaken with the least possible delay.

EDWARD HEADLAM,
President.

T. RANGACHARIAR.

J. H. BILES.

LALUBHAI SAMALDAS.

*A. H. FROOM.

JADU NATH ROY.

J. H. GREEN,
Secretary.

The 3rd March 1924.

* Subject to a minute of dissent.

MINUTE OF DISSENT.

I regret that I have been unable to agree with the conclusions arrived at by my colleagues as set forward in their recommendations in chapter III of this report.

Many witnesses who appeared before us stated emphatically that there were in this country large numbers of Indian lads of good education and of the right stamp who were desirous of following the sea as a profession and who would cheerfully undergo the strict training necessary for them to become Officers and Engineers in the Mercantile Marine if the proper facilities were offered them. Other witnesses expressed their doubts as to this but it appeared to the Committee that it would be only fair to offer Indian lads an opportunity of training, such as is done in other countries, and that this could be the only real test as to whether the demand for a sea-going life is a real one.

Chapter II of this report deals with a scheme for training and I am in general agreement with the views of my colleagues as expressed therein.

I have referred to this question of training as in my opinion the whole crux of our enquiry rests on the creation, if found practicable to do so, of efficient and trustworthy Indian Officers and Engineers. I cannot agree that ships owned by Indians and managed by Indians could rightly be described as belonging to an Indian Mercantile Marine so long as they were officered in both the Deck and Engine-room departments by other than Indians. It appears to me, therefore, to be entirely incorrect to put forward any scheme for establishing a so-called Indian Mercantile Marine until the first test has been made of ascertaining whether in the future it will be possible to man ships from the highest grade to the lowest with Indians entirely. Indian Crews have already proved themselves and it remains for Indian Officers and Engineers to do likewise.

Coming to chapter III, I will first examine the licensing scheme put forward in the report and I will state at the outset that I am strongly against Government control in any shape or form in connection with trade or Mercantile enterprises and more especially with shipping; the licensing system recommended at once means Government control in some form or other. I do not propose to argue here whether or no it is possible to encourage an Inland Industry by protection but the bolstering up of any Mercantile Marine by artificial means is unsound. There should be complete freedom on the seas; any

restriction in the Coastal trade of India in the shape of reservation for Indian owned ships or by any other means would surely result in an inefficient service accompanied as a corollary with high freights, due to a lack of incentive occasioned by the absence of any fear of competition.

Several witnesses in their examination before us quoted the British Mercantile Marine as an example of the beneficial effects to be obtained from legislative reservation and made reference to the old Navigation Act of 1651. It is well known, however, that these Navigation Laws were repealed in 1854 and it cannot be contended that the British Mercantile Marine experienced anything but the greatest benefit by the repeal of the Laws since the prosperity of British Shipping increased rapidly from the date of the removal of the Act from the Statute Book. An interesting historical survey on flag discrimination was drawn up a short while back by the Sea Transport Committee of the International Chamber of Commerce with a view to assist the deliberations of the Second General Conference on Communications and Transit which assembled at Geneva on the 15th November last under the auspices of the League of Nations. I attach an extract from this survey which I think will be found interesting; it will be seen that far from flourishing under the Navigation Laws the British Mercantile Marine was in danger of imminent decay due to the restrictions imposed by them.

Condition 1 of the licensing scheme provides that those ships at present trading on the Coast and flying the British flag shall be entitled to a license to continue their trade so long as they comply with certain regulations as to carrying Indian apprentices and to employing a certain percentage of Indian Officers and Engineers as they become competent. Taken by itself this condition might not appear to be objectionable, but

Condition 2 prevents the existing British-owned Companies from renewing their coastal fleet as their ships reach the age limit and in effect provides for the ultimate elimination of all British-owned (as distinct from Indian-owned) shipping on the Coast of India.

That this would prove beneficial to the Coastal Trade of India or have anything but a detrimental effect on the country's trade as a whole I cannot conceive. Several witnesses admitted that any scheme to reserve the coastal trade exclusively for Indian-owned ships might not confer any benefits upon shippers or prove of advantage to the trade, but at the same time they pressed for the establishment of an assisted Coastal Indian Mercantile Marine in order to satisfy the aspiration of those demanding an Indian Mercantile Marine. They added that India would gladly

pay the price but what authority they had for making such a statement was not produced. My opinion is that there are limitations to any sentimental preference shippers may have for tonnage and that the carriage of the trade should be left free at any rate to all British-owned ships, with which I include Indian-owned, flying the British flag.

I am in thorough agreement with those witnesses who deprecated any recommendation which would uncompromisingly squeeze out the efficient and well-proved service of the existing Shipping Lines on the Coast in order to introduce some other service the efficiency of which is at least problematical. I agree with those witnesses who have claimed that the existing British Companies on the coast have built up the coastal trade of India by perseverance, patience and the expenditure of enormous capital over a long period of years and that to seek protective legislation in order to oust them now can only be regarded as an unreasonable proposal, apart altogether from the detrimental effects which would be experienced by the trade which they have fostered, encouraged and brought into the prominent position which it holds to-day.

No one refutes the right of India, or of any of the Dominions, to have a Mercantile Marine of their own but to seek to establish these by domestic legislation against the shipping of any other part of the British Empire is much to be deprecated. In fact so much importance is attached to the freedom of shipping within the Empire that the British Merchant Shipping Act of 1894 provides against such domestic legislation.

This Act is referred to in Chapter III of the report by my colleagues who in doing so appear to have some doubt as to whether the licensing scheme recommended by them contravenes section 736 (*b*) of the Act and they therefore propose that if it is held that the scheme would violate the Act, a system of bounties, etc., should be adopted.

In my opinion the proposed licensing scheme, which would compel a British-owned and British-managed ship to become an Indian-owned and Indian managed ship, does contravene the Act, in as much as the former vessel is obliged to lose its identity and therefore it is not being treated in exactly the same manner as the latter, which similarity of treatment is required by the Act.

Several witnesses quoted the Commonwealth of Australia and the measures taken by that country to reserve its coastal trade. The rules introduced by Australia, however, can be adopted by any British Shipping Company should it think it worthwhile to do so and in that way presumably the British Merchant Shipping Act has been complied with. As mentioned in the report, however, the benefits accruing to Australia by the action of her Legislature appear to be extremely doubtful and a Committee is enquiring into

the whole matter at the present time. One witness who had been in Australia informed us that the trade had suffered under the imposed restrictions.

I am rather surprised at Australia being held up as an example by several witnesses to be followed by India, seeing that if many of the Shipping Lines who trade with Australia had thought fit to comply with the regulations it would have entailed the dismissal of many thousands of Indians who would have been thrown out of employment—I am referring to Indian Deck and Engine-room Crews.

The question of bounties to aid the development of an Indian Mercantile Marine has not been discussed by the Committee at any length and they have not been recommended by my colleagues except as a possible alternative in the event of the licensing scheme not being found practicable or in conformity with the British Merchant Shipping Act. It was recognised by all witnesses that bounties would entail a heavy expense on the Government of India and some witnesses further held the opinion that bounties merely represented the difference between efficiency and inefficiency. I am in agreement with both these views.

Conditions 3, 5 & 6.—I do not propose to discuss these three conditions which would appear to be necessary attachments to the proposed licensing scheme.

Condition 4.—Neither will I discuss this condition in any detail but will merely content myself with remarking that the suggestion to empower a Licensing Authority in India to deal with Deferred Rebates, etc., which have been widely discussed in most countries throughout the world and have recently been the subject of an examination by an Imperial Shipping Committee in England composed of the greatest experts, seems to me to be investing one particular body with powers which are not held by any authority within the British Empire.

I now come to the suggestion that the Government of India hould, by means of a loan, arrange to purchase one of the existing British Lines operating on the Coast as a going concern and to appoint Directors to control it, the majority of whom should be Indians It is not suggested, however, that there should be a compulsory sale of one of the British Lines but the effect of the purchase, even if such were possible, would be to establish a State-owned Line which has been tried in many other countries usually as an aftermath of the War, and in no instance has the experiment proved a success. With the examples before us I cannot support any recommendation that the Government of India should adopt the proposal. There is no reason to suppose that the Government of this country

would succeed in such a venture where others have failed. Government should leave commercial enterprises severely alone and refrain from competing in commercial pursuits. Should one of the existing Shipping Companies on the Coast be willing to sell its concern there does not appear to be anything to prevent any other party from buying it in the ordinary way of business.

In chapter III of the report a reference is aptly made to the study of shipbuilding in India as set forward in chapter IV. If a shipbuilding industry can be profitably started in India I would welcome it as I would any other industry which would afford employment to the people and assist in the prosperity of the country.

The whole question of the practicability of shipbuilding in India is a matter for experts and the Committee has been fortunate in having as one of them a notable expert in ship construction. The expense to the country, however, of establishing shipbuilding is another matter and I am not in favour of Government embarking on a costly and unremunerative scheme. The recommendations of the Committee in chapter IV will require the most careful consideration from the financial aspect.

The principles enunciated by my colleagues in the first part of the paragraph in chapter III dealing with Mail Subsidies appear to me to be sound and I concur in them. I cannot agree, however, that any extraneous conditions outside the business of carrying the Mails should be inserted in a Mail Contract. It has always been held by the British Government, as represented by the Postmaster General, that the terms of a Mail Contract should deal solely with the satisfactory and economic carriage of Postal matter and any attempt to introduce irrelevant conditions has been strenuously opposed. The Postmaster General's views are undoubtedly sound as once any precedent was created allowing the insertion in a Mail Contract of conditions not strictly applicable to the carriage of Mails it would leave the door open for pressure to be brought to bear to insert clauses bestowing benefits on outside parties to the detriment of the most economical and efficient Mail service. I cannot agree, therefore, with the recommendation that a stipulation should be inserted in any Mail Contract entered into by the Government of India, as to the composition of the personnel of the Crews of ships carrying the Mails.

Reference has been made in the report to the statement by some witnesses that the attempts made from time to time by Indian Companies to establish themselves in the Indian Coastal trade have been frustrated by action taken by existing Companies to meet their competition. It cannot, however, be argued that this is anything but usual in the ordinary course of business or that one particular trade should be singled out for Government intervention.

There is no question of the defensive action of the existing Companies on the Coast being directed against Indian Companies *qua* Indian. Similar action is taken against any new comer, of whatever nationality, seeking to cut into their established business.

The terms of reference to our Committee were "to consider what measures can usefully be taken for etc., etc.," The word "usefully" formed the subject of considerable discussion among the Committee and is dealt with by my colleagues in the opening paragraph of Chapter III. My interpretation of the word was that the Committee should consider whether India would benefit by the establishment of an Indian Mercantile Marine by means of artificial or extraneous aid. This view, however, was not shared by all my colleagues, hence it was considered by them necessary to put forward some scheme which might have the effect of starting an Indian Mercantile Marine through some agency other than that of the natural course of commercial enterprise. Having this object in view the licensing scheme detailed in Chapter III, with which I am not in agreement, was evolved.

To sum up :—While I am in favour of affording suitable Indian lads an opportunity of adopting the profession of the sea as Officers and Engineers and concur generally with the recommendations put forward in Chapter II of this report, I cannot agree with the scheme submitted in Chapter III. My objections to the scheme have been given in detail and I only wish now to reiterate my opinion that the further establishment of an Indian Mercantile Marine—by which is understood ships owned and managed by Indians—should be left to be developed by those who have a real interest in the business of shipping.

A. H. FROOM.

DELHI;
The 4th March 1924.

Appendix to Minute of Dissent.

Extract from a Historical Survey on Flag discrimination prepared by the Sea Transport Committee of the International Chamber of Commerce.

Great Britain, in repealing the Navigation Laws, was looking not only to develop her trade with other countries but to save from imminent decay her Mercantile Marine. The Maritime Commerce of the British had been sacrificed to the vicious principle of discrimination. A general sense of disquietude led to an examination by the Government into the state of the British Mercantile Marine and reports from all quarters proved that its efficiency had greatly declined " so that British shipowners feared free trade because they knew that successful competition on equal terms with foreign ships was impossible ". It was suggested that this degradation was largely due to the removal by the Navigation Laws of the incentive provided by free and open competition in the world's markets. The British Government had the courage to respond to this suggestion by repealing the Navigation Laws. There were not wanting supporters of the policy of restriction who predicted the final ruin of British shipping from its repeal. Far from being ruined however British shipping immediately improved, and this improvement was year by year increased until in 1875 the Secretary of the Board of Trade was able to draw attention to the fact that British Merchant Shipping had in the twenty years succeeding the repeal of the Navigation Laws enjoyed its due proportion of the increase in the trade of the world which followed on free trade and the use of steam.

It is a widespread misconception that the British Mercantile Marine attained its pre-eminence under a policy of flag discrimination. There is a large volume of evidence to show that under the Navigation Laws British Shipping suffered and its growth was hindered. It carried, it is true, most of the trade of the British peoples throughout the world, but producers, consumers and shipowners were penalised. They were denied the benefit of obtaining their transport at the cheapest price of the day as fixed in keen world competition. A policy of protection is opposed to cheapness of service, and breeds inefficiency. Once the drastic step had been taken of throwing open all the ports of the British Empire to the shipping of the world, the British Mercantile Marine entered upon a period of growth and prosperity which it had never experienced before.

APPENDIX A.

Instructions to persons invited to give evidence before the Indian Mercantile Marine Committee.

The " terms of reference " to the Committee are stated in the attached memorandum*. The following questions are designed to cover the whole field of the enquiry, so far as it can be outlined at this stage. It is not, therefore, expected that each witness should necessarily answer all the questions put. It is particularly requested, however, that categorical replies should be given to each question which a witness may find himself in a position to answer and that no attempt should be made to reply to the Questionnaire as a whole in the form of a general memorandum. If a witness wishes to give his views on any points relevant to the enquiry, which have not been included in the Questionnaire, it would be convenient that such points should be dealt with in a supplementary statement. Appendix C.† contains a brief account of the different forms of State Aid or protection given in various countries for the development of a national mercantile marine which, it is hoped, will serve as a useful guide to witnesses as to the particular lines on which their views and suggestions are required. The special attention of shipbuilding and engineering firms is drawn to the separate list of questions on the subject of shipbuilding and engineering which forms an enclosure to the Questionnaire.

* Not reproduced.

† See Evidence Volumes.

2. The Committee is inviting directly or through Local Governments various associations and individuals to forward in writing their replies to the Questionnaire. The Committee will also be glad to receive replies from any Associations or individuals not so invited, who may wish to represent their views. Copies of the Questionnaire can be obtained on application to the Secretary, Indian Mercantile Marine Committee, Royal Indian Marine Dockyard, Bombay, or to the Secretary in the Marine Department of the Governments of Bombay, Bengal and Madras and the Secretary in the Commerce Department of the Government of Burma.

3. The early receipt of written replies to the questions will greatly facilitate the work of the Committee. After perusal of the replies the Committee will select the witnesses for oral examination. To give adequate time for this it is requested that replies may be despatched to the Secretary with the least possible delay.

QUESTIONNAIRE.

Development of Shipping Industries.

1. What is your opinion regarding the present condition of the Shipping industry in India?

2. If you consider the situation unsatisfactory, what, in your opinion, are the conditions in India at present which militate against the development of shipping enterprises by the people of this country?

3. Can you suggest any measures to remove or mitigate existing difficulties or disabilities, without having recourse to State aid, and to encourage the people of this country to embark on shipping enterprises?

4. Are you of opinion that State aid is necessary or desirable to promote the satisfactory development of shipping industries by the people of this country?

5. If you consider State aid necessary or desirable, what method or methods do you advocate?

6. Do you advocate any legislative measures for the purpose of the satisfactory development of shipping industries by the people of this country and, if so, what should the legislative measures be?

7. Do you favour the grant of navigation bounties to vessels owned by the people of this country and on the Indian register and trading (*a*) between Indian ports (*b*) between India and ports abroad and (*c*) between ports outside India?

8. Would you, in the case of vessels owned by the people of this country and registered in India, restrict the grant of navigation bounties to specified routes and, if so, to what routes and state your reasons for selecting the particular routes you suggest?

9. Do you advocate any limits as to gross registered tonnage, average speed at sea and age for the aforesaid vessels to be eligible for a navigation bounty and, if so, what limits in each case?

10. If you are in favour of these bounties, what rates and limits of bounty would you advocate for the aforesaid vessels for a bounty based on gross registered tonnage, minimum average speed at sea and minimum distance run over a stated period?

11. Would you recommend any additional percentage of increased bounty for extra speed over and above the minimum average speed at sea advocated by you and, if so, what percentage on vessels engaged in trading as indicated in question No. 7 (*a*), (*b*) and (*c*)?

12. Do you advocate that provision should be made for the gradual reduction of the bounty after a specified term of years? If so, what percentage of reduction would you suggest and after how many years for vessels engaged in trading as indicated in question No 7 (*a*), (*b*) and (*c*)?

13. Would you advocate that Navigation bounties should not be paid to vessels built outside of India unless they have been on the Indian register for a specified period of years and, if so, for what period?

14. Do you advocate that Navigation bounties should cease altogether after a specified period of years in respect of vessels built outside of India, and if so, after what period?

15. Would you advocate that all vessels receiving a Navigation bounty must take on board a certain number of Indian apprentices for purposes of training?

16. Would you exclude the employment of (*a*) non-British subjects and (*b*) non-British Indian subjects on vessels receiving a Navigation bounty except when vacancies, which it is impossible to fill, occur at a foreign port? If you advocate exclusion, would you reserve any power to the Government to make exceptions?

17 Would you advocate the cessation of Navigation bounties in the case of vessels being sold, chartered or mortgaged to non Indians?

18. Under the provisions of the Indian Coasting Trade Act V of 1850, the coasting trade of India is open to all comers. Are you in favour of this policy or do you recommend any reservation of the Indian coasting trade for the development of an Indian Mercantile Marine, and, if so, what?

19. What, in your opinion, would be the effect of any policy of reservation on the Indian coastal trade?

20. If you advocate the reservation of the Indian coastal trade would you impose a condition that such ships should give facilities for training Indian apprentices?

21. What size and description of vessels, in your opinion, are most likely to be required for an Indian Mercantile Marine?

DEVELOPMENT OF SHIPBUILDING AND MARINE ENGINE CONSTRUCTION.

22. Do you consider that vessels required for the Indian Mercantile Marine should be built entirely in private shipyards, or do you recommend the establishment or development of Government dockyards for this purpose?

23. What is your opinion regarding the present condition of the Shipbuilding and Marine Engine construction industry in India?

24. If you consider the situation unsatisfactory, what, in your opinion, are the conditions in India at present which militate against the development of such industries by the people of this country?

25. Can you suggest any measures to remove or mitigate existing difficulties, or disabilities, without having recourse to State aid, and to encourage the people of this country to embark on such industries?

26. Are you of opinion that State aid is necessary or desirable to promote the satisfactory development of those industries by the people of this country?

27. If you consider State aid necessary or desirable, what method or methods do you advocate?

28. Do you advocate any legislative measures for the purpose of the satisfactory development of these industries by the people of this country and, if so, what should the legislative measures be?

29. Are you in favour of the grant of construction bounties to vessels built in Indian shipyards?

30. Do you advocate that construction bounties should be confined to vessels built of steel only? If so, what, in your opinion, should be the minimum gross registered tonnage of vessels built in Indian shipyards, which can be considered eligible for a construction bounty?

31. If you advocate the grant of construction bounties, what rate per ton of gross registered tonnage do you recommend should be given for the hull alone?

32. If propelling machinery also is built in India, would you advocate a bounty per actual horse power being paid to the propelling machinery builder?

33. In the case of vessels which are to receive shipbuilding bounties, do you advocate that no materials made outside of India should be used for the construction of the hull and propelling machinery or would you advocate any exceptions such as:—

(i) Stem, stern post, rudder and rudder tiller, rudder post, quadrant, and rudder pintles.

(ii) "A" brackets and triple screw shaft bearings.

(iii) All stanchions not less than 7 inch diameter.

(iv) All kinds of springs.

(v) Corrugated and plain or flanged boiler furnaces.

(vi) Rotor (wheel) spindle or shaft and blades for turbine engines.

(vii) Patented articles or articles of new design made abroad.

(viii) Windlasses, cargo winches, steering engines and gear, anchors and chains, wire ropes, hand bilge pumps, fire pumps, cabin ports, electric apparatus, steam and electric pumps, and ash ejectors.

(ix) Steel plates, angles, forgings and castings (iron or steel)

34. If you advocate any exceptions as suggested above, do you recommend the grant of any customs concessions, and, if so, what?

35. What measures do you suggest to prevent the abuse of these concessions?

ENCOURAGEMENT OF THE CONSTRUCTION OF WOODEN SHIPS.

36. What is your opinion regarding the present condition of the Wooden Shipbuilding industry in India?

37. If you consider the situation unsatisfactory, what, in your opinion, are the conditions in India at present which militate against the further development of such industry by the people of this country?

38. Can you suggest any measures to remove or mitigate existing difficulties or disabilities, without having recourse to State aid, and to encourage the people of this country to further develop such industry?

39. Are you of opinion that State aid is necessary or desirable to promote the further development of this industry by the people of this country?

40. If you consider State aid necessary or desirable, what method or methods do you advocate?

41. Do you advocate any legislative measures for the purpose of the further development of this industry by the people of this country and, if so, what should the legislative measures be?

42. Are you in favour of the grant of construction bounties to wooden ships built in Indian shipyards?

43. Is any difficulty experienced in effecting the insurance of Indian built wooden ships and, if so, what remedial measures do you recommend?

Officers for the Indian Mercantile Marine.

44. Do you consider that any considerable number of the youths of this country are likely to be desirous of following the sea in the capacity of Officers in the Mercantile Marine?

45. If so, should Government take any active steps to provide for—

(*a*) their training,

(*b*) future employment, and

(*c*) facilities for further study when qualifying for Board of Trade certificates in the various grades, or would you leave these to private enterprise in India?

Preliminary training as cadets.

46. Do you advise that cadets for training should proceed direct to sea as apprentices or should they undergo a preliminary course of instruction in a training ship or training establishment on shore?

47. If you are in favour of preliminary training in a training ship or establishment, do you advise that this should be carried out in India, and if so do you recommend that the training ship or establishment should be provided or supported by Government?

48. If some cadets are also trained in England, do you consider that they should be expected to pay the full fees for such training, or do you advise that Government should assist by establishing a system of scholarships for the purpose? If the latter, please give your views regarding the form which these scholarships should take?

49. If the training ship or establishment should be in India, should there be one or more, and do you recommend that the maintenance charges of such institutions should be met wholly or partially by the levy of fees? If not wholly, by what means do you suggest that the maintenance charges should be met?

50. Do you advocate the establishment of a training ship or nautical college on shore?

Further training as apprentices to the sea.

51. Do you advocate that after undergoing their preliminary training, the boys should serve a period of apprenticeship in steamers of the Mercantile Marine or in a sea-going training ship?

52. If the former, do you consider that shipowners are likely to accept apprentices for training, and if not, do you know what their principal objections are to doing so? Can you suggest any measures to overcome such objections and to encourage shipowners to accept apprentices?

53. If the apprentices are required to pay a premium for their apprenticeship, should Government pay the whole, or any portion of it?

54. If you recommend the provision of a sea-going training ship for apprentices, do you consider that this should be supplied and maintained by Government, or are you of opinion that it could be maintained entirely or partially by premiums and by carrying freight or Government stores?

55. Do you consider that apprentices in a sea-going training ship should be given free food, and any uniform or clothing allowance during apprenticeship?

56. Have you any views as to the curriculum of study during the period of training as a cadet and as an apprentice?

57. Do you consider that any sort of Nautical Academy or Academies should be established for the purpose of enabling Indian Mercantile Marine Officers, who have completed their apprenticeship, to undertake special studies before appearing for their Board of Trade Certificate for Mates and Masters, on the lines that now obtain in the United Kingdom?

58. If so, how many academies do you consider are likely to be required for the purpose and in which ports should they be situated? Could they be made self-supporting by fees or should they be provided and maintained wholly or partially by Government?

Engineers for the Indian Mercantile Marine.

59. Do you consider that any considerable number of the youths of this country are likely to be desirous of following the sea in the capacity of Engineers in the Mercantile Marine?

60. If so, should Government take any active steps to provide for—

(*a*) their training,

(*b*) future employment, and

(*c*) facilities for further study when qualifying for Board of Trade Certificates in the various grades or would you leave these to private enterprise in India?

61. Will you please state your views in detail as to the nature of the facilities which should be supplied by Government?

62. Do you consider that the present Engineering and Shipbuilding firms in India can give sufficient practical training to apprentices to enable them to become efficient Marine Engineers?

63. Are there any schools, colleges or institutes in the ports of India where sufficient theoretical knowledge can be obtained by apprentices to enable them to become efficient Marine Engineers, and if so, are the numbers sufficient?

Recruitment of Indians as Executive Officers and Engineers in the Royal Indian Marine.

The Commissioned ranks of the Royal Indian Marine both in the Executive and Engineering branches are open to Indians provided they have the necessary qualifications. These qualifications are:—

Executive Officers.

Under the rules, as they stand at present, the limits of age for appointment to the junior executive rank of the Royal Indian Marine, *viz.*, Sub-Lieutenant, are 17 and 22 years. A Board of Trade Certificate (Second Mate) is not obligatory, but in lieu thereof a candidate must produce evidence of four years' service at sea, or a course in a training ship with subsequent service at sea amounting to four years in all. Candidates must have had sea service outside the Indian Ocean. Preference is ordinarily given to candidates trained on His Majesty's School Ships "Conway"

or " Worcester " or at the Pangbourne Nautical College. If a candidate is without a Board of Trade certificate, he is appointed on probation as a midshipman for 18 months in the first instance, during which period he is required to qualify for promotion to the rank of sub-lieutenant. The candidates are selected by a Selection Board appointed by the Secretary of State for India.

The Government of India are now considering proposals for obtaining candidates for the Royal Indian Marine direct from the training ship in future, instead of from the Mercantile Marine Service, and for completing their training in India.

The "Worcester" is at present the only training establishment which is prepared to take youths from this country and that only to a limited extent. They would have to join at the age of fourteen.

The Royal Indian Marine being a small service the average entry in each year is only about four.

64. Do you consider the present arrangement adequate or would you recommend some other scheme, such as the establishment of a training ship in India for the Royal Indian Marine or a combined training ship for the Royal Indian Marine and proposed Indian Mercantile Marine? Please state your views.

Engineer Officers.

The qualifications for these appointments are five years service as an apprentice in a recognised Engineering firm or Government Dockyard.

At present there are no Engineering firms or Government Dockyards which can give the necessary training in Marine Engineering as no construction work of sufficient size is undertaken.

It will be necessary, therefore, until a shipbuilding industry is instituted in India or the Royal Indian Marine Dockyard is largely developed, that candidates for Commissions in the Engineering branch of the Royal Indian Marine must be trained in Great Britain.

65. Under these circumstances, do you consider that the Government should give any facilities to enable suitable candidates to serve their apprenticeship?

General.

Postal Subventions.

It has always been an accepted principle that so far as Maritime Services are concerned, the course of the post should follow as far as possible the course of trade. Consequently to secure the maximum economy in carrying mails, steamer services already in existence have been utilised for the purpose. Subsidies are fixed by negotiation or tender based on the regularity and speed of the services and the number of miles combined with the speed has been the determining factor in fixing the rate.

66. Do you accept the above or have you any other views as to how these mail contracts should be arranged?

67. What other conditions, if any, do you consider it necessary or advisable to introduce in mail contracts in the future and with what object?

68. What considerations, if any, do you wish to urge in order to give all steamship companies in India an equal chance of competing for mail contracts?

69. Do you advocate any methods of indirect aid to promote the establishment of an Indian Mercantile Marine? If so, what are they?

Indirect Aid.

70. If you have advocated direct or indirect State Aid or assistance, what method or methods can you suggest for the purpose of raising the funds required? Will you give figures in support of your proposals, including the total sum involved?

Finance.

For the purpose of questions Nos. 1 to 35 "Vessels" should be deemed to mean "self-propelled vessels" unless where otherwise expressly stated.

"Actual horse power" should be deemed to mean "indicated horse power" except in the case of turbine engines. In the latter case it should be "shaft horse power" plus 10 per cent.

The words "bounty" and "subsidy" have been used in the questionnaire with a strict regard to the literal meaning of these terms. Thus "bounty" should be understood to mean a free gift of money by the State for the encouragement of the shipping or shipbuilding industry, and "subsidy" a payment made by Government for the performance of a specific service such as the conveyance of mails.

Shipbuilding and Engineering.

1. What kind of ships or vessels do you build, wood or steel, or both?

2. What is the largest wood ship you have built?

3. What is the largest steel vessel you have built?

4. Do you build engines?

5. What is the largest engine you have built for a vessel? Give the dimensions and power.

6. Do you build boilers?

7. What are the dimensions and working pressure of the largest boiler you have built?

8. What is the area of your shipyard?

9. How many building berths have you?

10. What lengths of ship or vessel can you build and launch?

11. What number of ships or vessels of the sizes stated by you could you build per year with your present plant if the necessary contracts were secured?

12. What amount of engines and propelling machinery for the number of vessels stated above could you make?

13. If you could not make all or part of the propelling machinery and boilers, could you get it supplied quickly enough to secure the output of vessels *per annum* stated above?

14. The total tonnage of steamers of the Indian Shipping Companies and shipowners in the Ports of India is stated to be about 140,000 tons gross. Assuming that the replacement of this tonnage takes place every twenty years, what proportion of this replacement could your present plant undertake?

15. If you saw a certainty of building sufficient ships or vessels of larger size than you can now build, would you enlarge your present shipyard and plant and to what extent?

16. It has been stated that the Mercantile Marine of Japan was 491,258 tons gross in 1906, and that it increased to 841,931 tons in 1914,

showing an average increase of 43,834 tons per annum for the eight years. Suppose that the shipbuilders of India had to construct a mercantile marine at this rate, what amount of tonnage per annum would you be prepared to construct?

17. Where do you recommend the placing of a shipyard or shipyards assuming that measures were taken "for the encouragement of shipbuilding and of the growth of an Indian Mercantile Marine by a system of bounties or other measures"?

18. Can you give the Committee the approximate relative cost of vessels and machinery built in India as compared with other countries?

19. If so, will you state the relative rates paid per hour of the relative trades, and the relative amount of work produced per hour in the various countries including India?

20. Can you give the relative cost in the various countries, of the principal kinds of material that go to make a vessel and her machinery?

21. Will you give the average and maximum number of men you have employed—

(1) before 1914,

(2) between 1914 and end of 1918,

(3) since the beginning of 1919,

giving them under the various headings of staff (in detail), and of their respective trades?

22. Will you furnish statements as to the number and scope of the machines that you have in your works and supply plans of your ship yards, if you have any?

23. If you have any plans of proposed new shipyards in India, will you supply them?

APPENDIX B.

List showing the number of written statements submitted to the Indian Mercantile Marine Committee.

Name of Place.	Name of the witness.
Bombay . . .	1. Commander H. Morland, R.I.M., Officiating Port Officer, Bombay.
	2. A. M. Green, Esq., M.A., I.C.S., Collector of Customs, Bombay.
	3. Engineer Lt. Commander E. S. Borner, R.I.M., Principal Engineer and Ship Surveyor to the Government of Bombay.
	4. Manmohandas Ramji, Esq., J.P., Malabar Hill, Bombay.
	5. Sir Mohamed Yusuf, Kt., Sumander Mahel, Bombay.
	6. Hiralal Dayabhai Nanavati, Esq., Solicitor, 80, Esplanade Road, Bombay.
	7. The Scindia Steam Navigation Company, Ltd., Bombay.
	8. B. F. Madon, Esq., Care-of R. D. Tata and Coy., Ltd., Navsari Buildings, Bombay.
	9. The Indian Merchants' Chamber, Bombay.
	10. Capt. H. F. Darvell, Acting Shipping Master, Bombay.
	11. L. W. H. Young, Esq., General Manager, Bombay Steam Navigation Company, Limited, Bombay.
	12. Bombay Presidency Trades' Association, Ltd., Bombay.
	13. F. E Hardcastle, Esq., J.P. and Hony. Presy. Magistrate, Marine Surveyor, Bombay.
	14. Bombay Port Trust, Bombay.
	15. Messrs. Mackinnon Mackenzie and Coy., Ltd., Bombay.
	16. Messrs. Killick Nixon and Coy., Ltd., Bombay.
	17. Mr. Jivandas Pitamber of Messrs. Pitamber & Co., Bombay.
	18. Messrs. Ericson and Richards, Bombay.
	19. The Bombay Native Piece Goods Merchants' Association.

List showing the number of written statements submitted to the Indian Mercantile Marine Committee—*contd.*

Name of Place.	Name of the witness.
Bombay—*contd.*	20. The Grain Merchants' Association, Bombay.
	21. Messrs. Turner Morrison & Co., Ltd., Bombay.
	22. The Chamber of Commerce, Bombay.
	23 The State Vakil, Porbandar State.
	24. The Millowners' Association, Bombay.
	25. The Ahmedabad Millowners' Association, Ahmedabad.
	26. The Dewan of the Baroda State.
	27. F C. Annesley, Esq., Care-of Messrs. Killick Nixon & Co., Bombay.
	28. The State Vakil, Junagadh State, Rajkot.
	29. A. J. Turner, Esq., J.P., B. Sc. (London), F.I.C., Principal and Secretary, Victoria Jubilee Technical Institute, Matunga, Bombay.
	30. Professor K. T. Shah, B.A., B.Sc., (Economics, London), Bar.-at-law, University Professor of Economics, University of Bombay.
	31. Bombay Rice Merchants' Association, Bombay.
	32. Capt. R. Parcou, F.R.G.S., Hony. Agent, Mercantile Marine Service Association of Liverpool, Bombay.
	33. Passenger and Traffic Relief Association, Bombay.
	34. E. P. Newnham, Esq., C.I.E., Chief Constructor, R. I. M. Dockyard, Bombay.
	35. The Tukoji Powar Steam Navigation Company, Ltd., Bombay.
	36. Mr. Pruthulal Harilal Vasavada, B.A., LL.M., Advocate, Bombay.
	37. M. B. Sant, Esq., Ex-Asst. Secy., Indian Industrial Conference, Sangamner (Bombay Presidency).
Sind	38. Capt. H. M. Salmond, C.I.E., R.I.M., Port Officer, Karachi.
	39. Engr. Lt. Commdr. J. S. Page, R. I. M., Engineer and Ship Surveyor, Karachi.

List showing the number of written statements submitted to the Indian Mercantile Marine Committee—*contd.*

Name of Place.	Name of the witness.
Sind—*contd.* . .	40. The Port Trust, Karachi.
	41. Messrs. Mackinnon Mackenzie and Coy., Karachi.
	42. H. H. Hood, Esq., Chief Collector of Customs, Karachi.
	43. Messrs. Forbes, Forbes, Campbell and Coy., Ltd., Karachi.
	44. The Buyers and Shippers Chamber, Karachi.
	45. The Karachi Indian Merchants' Association, Karachi.
	46. Professor S. C. Shahani, M.A., Principal, D. J. Sind College, Karachi.
	47. The Hedjaz Steam Navigation Coy., Ltd., Karachi.
	48. Sir Montagu Webb, Kt., C.I.E., C.B.E., General Manager, Forbes, Forbes, Campbell and Coy., Ltd., Karachi.
Bengal . . .	49. D. Addy, Esq., 13 Chetla Road, Alipore, Calcutta.
	50. Commander P. G. Glanville, R.I.M., Offg. Port Officer, Calcutta.
	51. Eng. Commdr. W. H. Waters, R. I. M., Principal Engineer and Ship Surveyor to the Government of Bengal, Calcutta.
	52. S. K. Roy, Esq., of Messrs. J. C. B. K. Roy and Coy., Chittagong.
	53. Central National Muhammedan Association, Calcutta.
	54. The Commissioners for the Port of Chittagong.
	55. Messrs. Mackinnon Mackenzie and Coy., Calcutta.
	56. The Marwari Association, Calcutta.
	57. The Port Officer, Chittagong.
	58. Messrs. Anderson Wright and Coy., Calcutta.
	59. East Bengal Engineering Works, Cossipore.
	60. Messrs. Bando and Coy., Calcutta.
	61. Raja Sree Nath Roy and Bros., Managing Agents, East Bengal River Steam Service, Ltd., Calcutta.

List showing the number of written statements submitted to the Indian Mercantile Marine Committee—*contd.*

Name of Place.	Name of the witness.
Bengal—*contd.*	62. Bengal National Chamber of Commerce, Calcutta.
	63. British Indian Association, Calcutta.
	64. Engr. Lt. Commdr. James Beggs, R.I.M., Engr. & Ship Surveyor, Chittagong.
	65. Indian Association, Calcutta.
	66. Marwari Chamber of Commerce, Calcutta.
	67. Indian Mining Federation, Calcutta.
	68. David S. Erulkar, Esq., B.A. (Cantab.) Bar.-at-law, Manager, Scindia Steam Navigation Coy., Ltd., Calcutta.
	69. Indian Engineering Association, Calcutta.
	70. R. K. Bomanji, Esq., Calcutta.
	71. Bengal Chamber of Commerce, Calcutta.
	72. Babu Nil Krishna Roy, Calcutta.
	73. R. C. Doogar, Esq., of Messrs. Madhulal Doogar and Coy., Calcutta.
	74. I. B. Roy, Esq., Calcutta.
	75. Indian Seamen's Union, Calcutta.
	76. Dr. P. C. Ray, Director, Bangiya Inland Steam Navigation Company, Ltd., Calcutta.
	77. N. K. Roychowdhry, Esq., of Messrs. Nolen & Chowdhry, Calcutta.
	78. British Indian Peoples' Association, Calcutta.
Burma . . .	79. G. S Hardy, Esq , I.C.S , Chief Collector of Customs, Rangoon.
	80. Capt A. St. C. Bowden, R.I.M., Principal Port Officer, Burma, Rangoon.
	81. Messrs. A. V. Joseph and Coy., Rangoon.
	82. The Burma Chamber of Commerce, Rangoon.
	83. The Rangoon Import Association.

List showing the number of written statements submitted to the Indian Mercantile Marine Committee—*contd.*

Name of Place.	Name of the witness.
Burma—*contd.*	84. The Commissioners for the Port of Rangoon.
	85. The Rangoon Trades' Association.
	86. Messrs. Bulloch Brothers & Coy., Ltd., Rangoon.
	87. Lt. Commdr. W. G. Horley R.I.M., Principal Engineer and Ship Surveyor to the Government of Burma, Rangoon.
	88. S. N. Haji, Esq., Manager, Scindia Steam Navigation Coy., Rangoon.
	89. Ba Dun, Esq., M.L.C., of Messrs. Ba Dun & Leong, Rangoon.
	90 The Burmese Chamber of Commerce, Rangoon.
	91 The Burma Hardware Merchants' Association, Rangoon.
Madras . . .	92. A. E. Boyd, Esq., Collector of Customs, Madras.
	93. Commander R. Severs, R.D., R.N.R., Port Officer, Cuddalore.
	94. Chairman, Port Trust, Madras.
	95. M. R. Ry., Rao Bahadur, V. Govindan, Avl., B.A., F.Z.S., Assistant Director of Fisheries, Calicut.
	96. Lt. Comdr. F. H. Cocke, R.N.R. (Retd.), Port Officer, Calicut.
	97. Lt. Commdr. L. L. Scott, R.N.R. (Retd.), Port Officer, Pamban.
	98. Sir Ahmed Thamby Maricair, Kt., Negapatam.
	99. The Southern India Skin and Hide Merchants Association, Madras.
	100. Messrs Binny and Coy., Madras.
	101 W. L. Kelly, Esq., Port Officer, Vizagapatam.
	102. W. J. Swan, Esq., Port Officer, Negapatam.
	103. J. Heard White, Esq., Port Officer, Tuticorin.
	104. The Cuddalore Landing and Shipping Fees Committee
	105. A. V. Narayanswamy Naidu, Esq., Vizagapatam.

List showing the number of written statements submitted to the Indian Mercantile Marine Committee—*concld.*

Name of Place.	Name of the witness.
Madras—*contd.*	106. L. B. Clarke, Esq., Port Officer, Cochin.
	107. Cochin Landing and Shipping Dues Committee.
	108. H. F. Heycock, Esq., Port Officer, Mangalore.
	109. Rao Sahib Presingu Venkata Rangayya, Masulipatam.
	110. Commdr. E. H. Dauglish, R.I.M., Surveyor in Charge, Marine Survey Office, Coonoor.
	111. S. D. Krishna Iyengar, Esq., B A., B.L., Madura.
	112. The Chamber of Commerce, Madras.
	113. Madras Piece Goods Merchants' Association, Madras.
	114. The Calicut Chamber of Commerce, Calicut.
	115. The Diwan of Travancore.
	116. The Chief Engineer, Travancore.
	117. The Principal Port Officer, Travancore.
	118. The Presidency Port Officer, Madras.
	119. S. Rajagopalachari Esq., P.A., Joint Secretary to the National Fund and Industrial Association, Madras.
	120. A. Subbarayudu, Esq., the Southern India Chamber of Commerce, Madras.
General .	121. H. A. Sams Esq., C.I.E., I.C.S., Offg. Director General of Posts and Telegraphs.
	122. John Catto, Esq., Consulting Engineer and Marine Surveyor.
	123. The Mysore Chamber of Commerce, Bangalore.
United Provinces .	124. The United Provinces Chamber of Commerce, Cawnpore.
Punjab . .	125. Dr. B. R. Dewan, Lahore.
	126. The Punjab Trades' Association, Simla.
	127. The Delhi Piece Goods Association, Delhi.
Ajmer Marwara .	128. Rai Sahib Munshi Chandrika Prasad Retd., Asst. Traffic Superintendent, B. B. & C. I. Railway, Ajmer.

List of Witnesses Orally Examined by the Indian Mercantile Marine Committee.

Name of place.	Name of the witness.	Name of the firm, Association or Chamber which he represented.
Bombay . .	1. Capt. H. Morland, R.I.M., Port Officer, Bombay.	.....
	2. Engr. Lt. Commdr. E. S. Borner, R.I.M., Principal Engineer and Ship Surveyor, Bombay.	.....
	3. Manmohandas Ramji, Esq., J. P.	.....
	4. Manmohandas Ramji, Esq., J. P.	Bombay Native Piece Goods Merchants' Association.
	5. Hiralal Dayabhai Nanavati, Esq., Solicitor, Bombay.	.....
	6. B. F. Madon, Esq. . . .	.....
	7. Capt. R. Parcou, F.R.G.S., Honorary Secretary, Mercantile Marine Association of Liverpool in Bombay.	.....
	8. L. W. H. Young, Esq. . .	Bombay Steam Navigation Company.
	9. L. W. H. Young, Esq. . .	Messrs. Killick, Nixon and Company.
	10. F. E. Hardcastle, Esq., Marine Surveyor, Bombay.	.....
	11. Mathradas Canji Matani, Esq.	Bombay Rice Merchants' Association.
	12. N. Birrell, Esq. . . .	Bombay Chamber of Commerce.
	13. F. L. Barnett, Esq. . .	Bombay and Persia Steam Navigation Co., Ltd.
	14. A. J. Turner, Esq., Principal and Secretary, Victoria Jubilee Technical Institute.	.....
	15. E. P. Newnham, Esq., C.I.E., Chief Constructor, R.I.M. Dockyard, Bombay.	.....
	16. Walchand Hirachand, Esq. .	Scindia Steam Navigation Company.
	17. B. F. Madon, Esq., and Lalji Naranji, Esq.	Indian Merchants' Chamber, Bombay.
	18. F. C. Annesley, Esq., of Messrs. Killick, Nixon and Company, Bombay.	.....
	19. Capt. J. C. Richards . .	Messrs. Ericson and Richards.

List of Witnesses Orally Examined by the Indian Mercantile Marine Committee—*contd.*

Name of place.	Name of the witness.	Name of the firm, Association or Chamber which he represented.
Bombay—*contd.*	20. Jivandas Pitamber, Esq.	.....
	21. Seth Velji Lakhamsi, B.A., LL.B.	Grain Merchants' Association.
	22. J. E. P. Curry, Esq., Shipping Master, Bombay.	.....
	23. Professor K. T. Shah, University Professor of Economics.	.....
	24. Manilal B. Nanavati, Esq., Baroda Government.	Baroda Government.
Sind	25. Commdr. N. M. Wood-Smith, R.I.M., Offg. Port Officer, Karachi.	.....
	26. Engr. Lt. Commdr. J. S. Page, R.I.M., Engr. and Ship Surveyor, Karachi.	.....
	27. Haridas Lalji, Esq. and Ishardas N. Malik, Esq.	Indian Merchants' Association, Karachi.
	28. E. A. Pearson, Esq.	Messrs. Forbes, Forbes, Campbell and Company.
	29. Mian Mohd. Bakhsh	Hedjaz Steam Navigation Company.
	30. Seth Mohd. Ali A. K Alvi, Seth Haridas Lalji Lakhmidas.	Buyers and Shippers Chamber, Karachi.
	31. Sir Montagu Webb, Kt., C.I.E., General Manager, Forbes, Forbes, Campbell and Coy.	.....
	32. Professor S. C. Shahani, M.A., Principal, D. J. Sind College.	.....
Bengal	33. Capt. O. Goldsmith, Port Officer, Calcutta.	.....
	34. Engr. Commdr. W. H. Waters, R.I.M., Principal Engr. and Ship Surveyor.	.....
	35. J. W. A. Bell, Esq.	Messrs. Mackinnon, Mackenzie and Company.
	36. J. W. A. Bell, Esq.	Bengal Chamber of Commerce.
	37. Commdr. E. C. Withers, C.I.E., R.I.M., Port Officer, Chittagong.	.....

List of Witnesses Orally Examined by the Indian Mercantile Marine Committee—*contd.*

Name of place.	Name of the witness.	Name of the firm, Association or Chamber which he represented.
Bengal—*contd.*	38 D. P. Khaitan, Esq. . .	Marwari Association, Calcutta.
	39. I. A. Clark, Esq. . . .	Messrs. Anderson Wright and Company.
	40 G. S. Thompson, Esq. . .	East Bengal Engineering Works, Cossipore.
	41. A. Cameron, Esq., M.I.M.E. .	Indian Engineering Association Calcutta.
	Millar M. King, Esq. .	
	42. Maulvi Mohd. Nur-ul-Haq, Choudhry, M.A., B.L.	Central National Muhammadan, Association, Calcutta.
	43. S. N. Bando, Esq. . .	Messrs. Bando and Company.
	44. Babu Jogendranath Roy .	East Bengal River Steam Service.
	45. David S. Erulkar, Esq., Manager, Scindia Steam Navigation Co.	.....
	46. Kumar Pramathanath Roy .	British Indian Association.
	47. Dr. Pramathanath Banerjee, D.Sc.	Indian Association, Calcutta.
	48. Babu Nil Krishna Roy. .	Sonatan Nittyanundo Roy and, Co. of Chittagong.
	49. R. C. Doogar, Esq., of Messrs. Madhulal Doogar and Son.	.....
	50. K. Ahmad, Esq., M.L.A. .	Indian Seamen's Union.
	M. Daud, Esq. . .	
	51. Rai Upendra Lal Roy Bahadur	Bengal National Chamber of Commerce, Calcutta.
Burma . .	52. Capt. A. St. C. Bowden, R.I.N., Principal Port Officer, Burma, Rangoon.	.....
	53 J. W. Richardson, Esq. . .	Burma Chamber of Commerce.
	54 S. N. Haji, Esq. B.A. (Oxon). Manager, Scindia Steam Navigation Co., Ltd.	.....
	55. G. R. Campbell, Esq. . .	Messrs. Bulloch Brothers and Company.

List of Witnesses Orally Examined by the Indian Mercantile Marine Committee—*concld.*

Name of place.	Name of the witness.	Name of the firm, Association or Chamber which he represented.
Burma —*contd.*	56. Lt. Commdr. W. G. Horley, R.I.M., Principal Engineer and Ship Surveyor, Rangoon.	.....
	57. Maung Ba Dun, M.L.C., Bar.-at-Law.	.....
	58. A. V. Joseph, Esq. . .	Messrs. A. V. Joseph & Coy.
	59. Maung Tok Kyi, M.L.A. .	Burmese Chamber of Commerce.
Madras . .	60. Commdr. R. Severs, R.D., R.N.R., Port Officer, Negapatam.	.....
	61. Sir Ahmed Thamby Maricair, Kt., Negapatam.	.....
	62. Lt. Commdr. F. H. Cooke, R.N.R.	Calicut Chamber of Commerce.
	63. Lt. Commdr. F. H. Cook, R.N.R., Port Officer, Calicut.	.....
	64. M. R. Ry. Rao Bahadur V. Govindan, Avl., B.A., Asst. Director of Fisheries (coast), Calicut.	.....
	65. M. A. Abdur Rahim Sahib and Mohd. Ismail Sahib.	Southern India Skin and Hide Merchants' Association.
	66. Capt. E. W. Huddleston, C.I.E., C.B.E., R.I.M., Presidency Port Officer, Madras.	.....
	67. Rao Sahib B. Papayya Chetty	Madras Piece Goods Merchants' Association.
	68. S. D. Krishna Ayyangar, Esq., B.A., B.L., Madura.	.. ...
	69. A. V. Narayanaswami Naidu, Esq., Vizagapatam.	.....
	70. L. B. Clarke, Esq., Port Officer, Cochin.	.....
	71. C. V. Chandrasekharan Ayyar, Esq., M.A. (Oxon), Travancore State.	.....
	72. Commander H. Digby-Beste, O.B.E., R.I.M.	.....

APPENDIX C.

Report on His Visit to Japan by Sir John Biles, K.C.I.E.

To

THE PRESIDENT,
INDIAN MERCANTILE MARINE COMMITTEE.

SIR,

I have the honour to report that in accordance with instructions received from the India Office as per their letter No. C. and R. 2361/23, dated the 26th June 1923, I left London on the 22nd August 1923 and arrived at San Francisco on the 4th September. On the 1st September the earthquake took place in Japan. This threatened to make it impossible for me to obtain the desired information. After careful consideration I refrained from asking for instructions from you as it seemed that you were hardly in a position to advise me. On the 6th September I left San Francisco having been informed that no passengers would be allowed to land at Yokohama for some time on account of the damage done to the town and the docks. Before reaching Yokohama the Captain of "President Taft" kindly got into communication with the American Consul who advised me to see the British Vice-Consul at Yokohama. After considerable search in rough weather in a small motor launch, I found the British Vice-Consul who advised me to go to Tokio which I did on the 23rd September. Notwithstanding the great destruction which had taken place in Tokio, I found that some of my Japanese friends were able and willing to help even under the distressing circumstances in which the city then was. In this connection I should like to mention particularly Baron Kondo, Admiral Asaoka, Mr. Ryozo Asano and Dr. Terajima.

On the 24th September I went to the British Embassy and found that they had sent a wireless advising me not go to Tokio, but to go to Kobe. This message got lost somewhere in the air, but was found at Kobe a month later. The British Embassy had been destroyed by the earthquake and the members of the staff were living in temporary buildings. On the voyage I had prepared a Questionnaire,* copy of which is attached, as I anticipated considerable difficulty in obtaining interviews with and collecting information from the people best able to give it. I asked the British Embassy to give copies of this Questionnaire to the Government of Japan and to the leading ship-owning companies, asking them to give what answers they could to the questions. I remained in Tokio until the 8th October. During that time all the people who were likely to give answers were interviewed and, as a result, the Ministry of Communications, Mr. Ryozo Asano of Asano and Company, Ltd., Mr. Imakoa of Uraga Dock Company, and Mr. Ito, the President of the Nippon Yusen Kaisha, gave full answers to the questions. I suggest that all the answers to the Questionnaire be published in the Evidence Volume of the Committee's Report. Other information collected while there included an extract† from the British Naval Attache's Annual Report for 1922, showing the number and tonnage of the merchant steamers of Japan at the end of November 1922, with the totals for the preceding year and a statement‡ showing the number and tonnage of ships laid up (including sailing vessels), etc. Copies of all these papers are attached.

* Enclosure 2.

† Enclosure 4.

‡ Enclosure 5.

On the 8th October I proceeded to Kobe and reported to the British Consul. I was helped with further information by Mr. Cox, Lloyd's Chief Surveyor for Japan, by Mr. Kamiya, President of the Nippon Shipowners' Association and by Mr. Yamakawa, Naval Architect of the Kawasaki Shipbuilding Company of Kobe. To Mr. Cox I am indebted for general assistance and introductions, where necessary; to Mr. Kamiya, for his translation of "the History of Ship-building in modern Japan compiled by the Ship-builders Association of Japan", from which has been written the Memorandum* of the History of Ship-building in modern Japan up to 1907 (copy enclosed); to Mr. Yamakawa I am indebted for a great deal of personal attention in showing the shipyards and Training College at Kobe, together with detailed information which he placed at my disposal on behalf of the Kawasaki Shipbuilding Company. In Kobe I visited the Kawasaki Dockyard and the Mitsu Bishi Dockyard. Both of these are large establishments, quite comparable with large yards in Great Britain and America. The Kawasaki Yard is largely employed on ship and machinery building. It has only one dry dock. The Mitsu Bishi Dock does little shipbuilding and is largely employed on repairs, which are mostly done on three floating docks. Full answers to the Questionnaire were given by Mr. Yamakawa of the Kawasaki Ship-building Company and by the President of the Mitsu Bishi Company. The Kobe Government Training College was visited and full information as to this establishment was obtained which is given in the attached summary† of information collected in Japan.

* Enclosure 3

† Enclosure 1

On October, the 23rd, I left Kobe and arrived at Bombay on the 18th November 1923.

I have attached tables‡ supplied me by Sir Westcote Abell, K.B.E., Chief Surveyor of Lloyd's Registry, London. These tables show :—

‡ Enclosure 6.

(1) Number and gross tonnage of steamships of 100 tons and upwards *owned* by Japan during the years 1890 to 1923; and

(2) Number and gross tonnage of ships of 100 tons and upwards *launched* by Japan during the same period.

I would invite perusal of Chapter XXV on Shipping and Shipbuilding which appears in the Japan Year Book, 1923. I attach a complete summary§ which I have prepared of the information I was able to collect which, together with the other documents enclosed, will enable you and the other members of the Committee to form your own conclusions as to the history and position of Japan Shipping and Ship-building.

§ Enclosure 1

It is suggested that the thanks of the Committee should be conveyed through the Government of India and the British Embassy in Tokio to all those who are named in this letter and to all others who assisted us.

I have the honour to be,
Sir,
Your most obedient servant,
J. H. BILES, *Member*,
Indian Mercantile Marine Committee.

DELHI,
15th February 1924.

Enclosure 1.

SUMMARY OF INFORMATION COLLECTED IN JAPAN.

The modern Mercantile Marine of Japan began about the year 1870 when the Mitsu Bishi Company commenced by trading between Tokio, Osaka and Kochi. In 1875, the Japanese Government bought out the American interest in the Shanghai-Yokohama trade and handed the vessels over to the Mitsu Bishi Company. In 1874 the Japanese Expedition to Formosa took place when the Mitsu Bishi Company worked for the Government 13 steamers which had been purchased abroad. In 1875 these steamers were given to the Company. In 1878, annual subsidies were granted to the Company amounting to 250,000 yen for navigation and 15,000 yen for a Marine school, for which the Company agreed to engage in the Shanghai and coastwise trade of Japan, carry mails free of cost and to give the Government the power to requisition their vessels at any time. This subsidy was granted for 15 years. Eighteen other vessels of a dissolved Company were given by the Government to the Mitsu Bishi Company who then had 35 vessels. In 1877, the Company, with the financial help of the Government, purchased 10 vessels from abroad. In 1882 the Government ordered the Mitsu Bishi Company to maintain a fleet of 22,000 tons. From 1878 to 1885 were years of severe competition between Japanese lines. In 1885 Government compelled the competing Japanese Companies to combine under the name of the Nippon Yusen Kaisha. Government first guaranteed an annual 8 per cent. dividend, but in the next year replaced this guarantee by an annual subsidy equivalent to 8 per cent. on the capital for 15 years. The company's share capital was about 11 million yen, of which Government owned one-fourth. The fleet consisted of 58 steamers of 68,724 tons and eleven sailing vessels of 4,700 tons. These were engaged on 18 regular lines. By 1892 a fifth of the shares were redeemed and new debentures issued at low rates of interest. The Company's capital then stood at about 8,800,000 yen. During this time Japanese Railways were developing and several new shipping lines were opened between 1889 and 1893. In 1884 a Company, a prototype of the present Osaka Shosen Kaisha, was formed of 10,000 tons with a capital of 1,200,000 yen and a subsidy of 50,000 yen and later in 1888 another 20,000 yen for mails. At the end of 1893 the Nippon Yusen Kaisha tonnage was about 70,000. In 1894 the Chino-Japanese War broke out and most of the Nippon Yusen Kaisha's steamers were requisitioned by Government and the coastal trade was opened to non-Japanese Companies. The Government purchased 14 steamers of 40,000 tons and the N. Y. K. bought 23 ships of 65,000 tons. At the end of the War in 1895, the tonnage of Japanese ships was 213,000 against 110,000 tons at the beginning. In 1896 the lines to Europe, Seattle and Australia started with the help of subsidies, the N. Y. K. then owning 63 ships of 126,450 tons running on 22 lines. In 1896 the Navigation Encouragement Law was passed. This was replaced by the Ocean Lines Subsidy Law in 1910. The main provisions of these laws are given in Appendix* C to our Questionnaire. By the 1896 law, subsidies may be paid to Japanese subjects, who engage in the transport of goods and passengers on vessels borne on the Japanese Register, which are the exclusive property of Japanese subjects. Subsidies were limited to vessels of not less than 1,000 tons and 10 knots speed and of less than 15 years of age. Vessels built abroad, which were 5 years old at the time of their entry on the

*See Evidence Volumes.

Japanese Register, were ineligible. Subsidies were paid at the rate of 6 annas per 1,000 nautical miles per gross ton for vessels of 1,000 tons and 10 knots speed, with 10 per cent. added for every additional 500 tons, and 20 per cent. for every additional knot, the upper limit being restricted to 6,000 tons and 17 knots. These subsidies were only applicable to vessels not more than 5 years old. For vessels above this age a deduction of 5 per cent. was made for each year. For vessels built abroad and entered on the Japanese Register subsequent to 1st October 1899, only half of the subsidy described above was given. Ship-owners had a right of appeal to the courts in case of disputes as to subsidy.

Provision was made for the training of apprentices, ranging from 2 to 4 apprentices in ships of 1,000 to 6,000 tons. Foreigners could not be employed in the offices or on the staff of the vessels without the permission of Government. Post Office officials and mail matter were to be carried free of cost. Vessels could not be mortgaged or sold within 3 years of having received a subsidy, unless some subsidy was refunded or the services could not by *force majeure* be continued or by permission of Government. The law was extended to 18 years and penalties were imposed for infraction. The Ocean Lines Subsidy Law of 1910 modified that of 1896 by limiting the period of subsidy to 5 years on four routes, the European, the North American, the South American and the Australian, and the consent of the *Diet* had to be obtained for the period and the amount of the subsidy. It was limited to vessels of not less than 3,000 tons, of 12 knots speed and of less than 15 years old. Foreign-built vessels were excluded from the subsidy except such as had been on the register for not less than 5 years, subject to the consent of Government. The maximum amount to be 12 annas per ton for every 1,000 miles travelled at 12 knots, with an increase of 10 per cent. for every additional knot, the amount being reduced by 5 per cent. per annum after 5 years; but for foreign-built vessels only half of this subsidy was given. By special agreement on a new route not opened for five years an increase of 25 per cent. could be allowed, passenger and freight rates being subject to the consent of Government. Wireless apparatus was made compulsory and officials on special duty travelled free of charge.

At present no subsidy is given for Japanese vessels trading between ports outside Japan. Subventions are given to particular lines trading between Japanese ports where a loss is sustained by fulfilling the conditions required by Government.

The mail subsidy lines in the N. Y. K. only are:—

Yokohama-London Line—

Steel vessels of not less than 5,500 tons gross and 15 knots per hour;

Kobe-Seattle Line—

Steel vessels of not less than 5,500 tons gross and 12 knots per hour;

Kobe-Hongkong Line—

Steel vessels of not less than 5,500 tons gross and 14 knots per hour;

Yokohama-Melbourne Line—

Steel vessels of not less than 5,000 tons gross and 15 knots per hour.

The subsidized ocean lines are:—

San Francisco	12,500—13,560 tons	18—20 knots
South America E.	5,000—7,500 ,,	14—16 ,,
,, ,, W.	6,000—9,700 ,,	13—15 ,,

The Coastal and near Sea Lines number 31 in all and have varying limits of tonnage between 700 to 6,000 tons and from 9 to 17 knots per hour.

It will thus be seen that under the Law of 1910 the lower limit of speed is 12 knots per hour and the subsidy was only paid to vessels less than 15 years old.

The rates of subsidies are:—

(*a*) Navigation subsidy to ocean services:—

Less than 50 sen per ton per 1,000 miles run at a speed of 12 knots per hour per vessel.

(*b*) Special subventions to particular lines:—

Each case is dealt with and the rates are so fixed that the loss may thereby be covered.

(*c*) Postal subventions:—

The rates are fixed from the quantity of mails carried.

About 180,000,000 yen has been paid in all for subsidies, etc.

The effect of reserving the coastal trade to Japanese vessels is small. The services are short and insignificant in volume. This reservation may be discontinued at any time if other nations adopt the same policy. Subsidized coastal lines give facilities for training apprentices at the ship-owners' expense. Whether subsidized or not, owners take on Board a certain number of apprentices at the request of the Nautical College.

The following is the summary of the Japanese vessels as at June 1922:—

(a) *According to hull*—

Gross tons	Vessels	Tons.
20—100	1,400	78,564
100—1,000	945	392,726
1,000—3,000	442	869,523
3,000—6,000	311	1,410,450
6,000—10,000	92	666,394
10,000 and over	10	117,350

(b) *According to age*—

Less than 15 years' old	193	1,960,866
15—25 years' old	117	390,531
More than 25 years' old	218	565,320

(c) *According to speed*—

12—15 knots	104	496,824
15—17 ,,	18	115,076
More than 17 knots	5	53,432

Development of ship-building.

Japanese ships have been built entirely in private shipyards. At present there is little or no demand for the construction of ordinary vessels. Construction is confined to vessels of special types. All shipyards have been obliged to curtail the scope of their work and in

some cases to suspend altogether. Steel and labour costs are high; there has been no reduction in wages since the War. The average wage is about Rs. 3½ per day of 8 hours, 48-hour week. It is believed that State aid is necessary to promote the ship-building industry.

The Ship-building Encouragement Law as published in 1897, suspended in 1917 and nullified in 1919 gave bounties, Rs. 18 per ton for vessels from 700 to 1,000 tons and Rs. 30 for vessels above 1,000 tons; these subsidies being altered in 1909 to Rs. 16½ and Rs. 33 per ton to vessels above 1,000 tons according to the kind and class of vessel, but regardless of their size. Bounties were also given for propelling machinery, Rs. 7½ per I. H. P., Turbine Engines H. P., being 5 per cent. more per S. H. P. In these constructions no restriction was placed on the importation of steel, but some items of construction were prohibited from importation.

It is difficult to determine the effect of these subsidies alone upon the development of the Mercantile Marine of Japan, because in 1894 a considerable impetus had been given to this development by the Sino-Japanese War. In 1893 the tonnage owned by Japan was 151,773 tons and in 1895 it had increased to 279,668 tons. In 1896, the year of the Navigation Encouragement Law, it was 334,592 and it increased up to the year 1904, the year of the Russo-Japanese War, to 668,360 tons. In 1914, the year of the Great War, it had increased to 1,708,386 tons. In the year 1919, it was 2,325,266 tons. In 1923 it was 3,604,147 tons.

The following figures have been obtained showing the subsidies actually paid under these laws during the period 1896 to 1922.

Navigation Subsidy from 1896—1922.

Year	Amount.	Year.	Amount.
	Yen.		Yen.
1896	134,774	1910	8,869,575
1897	538,702	1911	9,671,733
1898	671,320	1912	10,158,716
1899	896,904	1913	11,376,019
1900	4,132,627	1914	9,599,625
1901	5,333,952	1915	6,591,006
1902	6,141,136	1916	6,263,638
1903	6,103,177	1917	5,608,169
1904	1,889,933	1918	4,471,816
1905	1,464,126	1919	4,261,501
1906	4,710,516	1920	6,266,996
1907	6,696,761	1921	6,120,090
1908	6,616,073	1922	6,308,179
1909	7,106,571		

Amount paid as Shipbuilding encouragement grants.

Year.	Amount.	Year.	Amount.
	Yen.		Yen.
1897	13,109	1911	614,654
1898	213,875	1912	673,384
1899	187,780	1913	998,645
1900	152,930	1914	1,639,942
1901	581,094	1915	1,550,782
1902	411,348	1916	3,074,739
1903	437,810	1917	5,210,913
1904	272,786	1918 (up to Sept.) . .	2,489,681
1905	574,132		
1906	494,428		
1907	677,318		
1908	1,589,575		
1909	1,021,460		
1910	369,048		

NOTE.—The payment of Shipbuilding encouragement grants was abolished by Law No 29 of July 1917.

Construction of Wooden ships.—Wood shipbuilding is confined to small vessels and junks. The latter carry coals and serve as warehouses in harbour. Large wooden vessels are not approved. No bounty is or should be paid to wooden ships. Insurance rates for wooden ships are high and in some cases insurance cannot be effected.

Officers for the Mercantile Marine.—Many youths are desirous of becoming officers or engineers, but since the War the number is decreasing, as better wages are obtainable on land. For training there are two Government Nautical Colleges, one in Tokio and one in Kobe, and 10 prefectural nautical schools throughout Japan. Successful students have generally found employment, but the slump in shipping has caused the Government to decrease the numbers of entering students.

The Government College was founded in 1917 as a private institution with a private endowment and handed over to the Japanese Government in 1920. A training ship for 120 boys is being constructed for the Kobe College. The Tokio College was destroyed in the earthquake. The Kobe College has accommodation for 480 boys, but at present only 300 are training. Admission is between the ages of 17 to 21 by competitive examination. The Government pays Rs. 37½ per month for half of the students, the remainder pay fees. Uniform is provided by Government for all. The college course covers two years

of four terms for all students. Details of the curriculum are given below:—

Navigation Course.	*Engineering Course.*
Morals.	Morals.
Navigation.	Steam Engine and Boiler.
Seamanship.	Electrical propulsion.
Hydrographical Surveying.	Internal Combustion Engine.
Marine Engine.	Rigid Dynamics.
Electric Engineering.	Hydro Dynamics.
Naval Architecture.	Applied Dynamics.
Marine Meteorology.	Thermo Dynamics.
Hygiene.	Machine Design.
Science of Commerce.	Ship Construction.
Marine Law.	Hygiene.
Commercial Geography.	General Law.
Algebra plane and spherical.	Algebra, Analytical Geometry,
Trigonometry, Analytical.	Differential and Integral Calculus.
Geometry, Differential and Integral Calculus.	Industrial Chemistry.
Dynamics.	English.
Physics.	Gymnastics.
Chemistry.	Workshop and Seaman's Training.
English.	
English, French or Malay.	
Gymnastics.	
Sailor's Work and Training.	

At the end of the College Course, Navigators have six months' Gunnery Course, one year in a Training ship and six months as an apprentice on a steamer. Engineers have 18 months in a workshop and one year in a Training ship. After this the students sit for the final examination at the College and, having passed, proceed to sea. After one year at sea his Chief Officer's or First Engineer's certificate is automatically granted. Formerly some cadets were trained in foreign vessels and paid their fees themselves. The ten prefectural schools are on a lower grade and their students must pass all the Board of Trade examinations before receiving their Chief Officer's or First Engineer's certificates. The cost of the Training ship is borne by Government.

No objection to taking apprentices exists on the part of the shipowners. Apprentices are not required to pay premiums. The training ship does not carry freight. The first training ship did, but she was lost. No establishment for training mercantile officers after completion of their apprenticeship is necessary under the Japanese scheme. Sufficient practical training for engineers can be obtained in engineering works in Japan. In shipbuilding and engineering works night schools for tracers and young draughtsmen exist. For more advanced studies men go to the universities, from which shipbuilders draw their staff after two years' apprenticeship. Workmen are encouraged to go to night schools and successful ones receive from 8 annas to Re. 1 per day increase of wages. These workmen's schools are run by private enterprise, supported by the shipbuilders.

Postal Subventions.—The accepted principle of supported subventions, so far as the marine services are concerned, are agreed to by the Japanese. Theoretically all Japanese companies can compete for mail contracts, but these are practically granted to a few lines having mail steamers. There are some mail contracts with non-Japanese

steamship lines as well. Government lends money through a bank for purchasing or constructing ships. Training to seamen is mostly supported by Government.

The subsidies at present given amount to the following. These sums are paid from taxation and Government revenue:—

		Rs.
N. Y. K.	1921-22	36,09,000
O. S. K.	1921-22	33,78,000
T. K. K.	1921-22	21,48,000
South Seas	1922	7,55,000
South China	1922	2,25,000
Korea West Coast	1922	1,50,000
Dairen	1922	1,50,000
Japan Sea	1922	3,77,250
Kagoshima-Nawa	1922	90,000
China (Yangtze-Kiang)	1922	6,55,500
Hokkaido	1922	3,10,701
Shanghai	1922	5,25,000
North China	1922	1,75,500
Main Land-Hokkaido	1922	75,000
Vladivostock	1922	60,000
Bonnin Island	1922	1,50,000
	Total	1,26,33,951

Enclosure 2.

THE JAPANESE MERCANTILE MARINE.

QUESTIONNAIRE.

Development of Shipping Industries.

Note—For the purpose of questions Nos. 1 to 29 "Vessels" should be deemed to mean "self propelled vessels" unless where otherwise expressly stated.

1. What is your opinion regarding the condition of the shipping industry in Japan in 1894?

2. Was the situation unsatisfactory and what in your opinion were the conditions in Japan in 1894, which militated against the development of shipping enterprises by the people of this country?

3. Were any measures suggested to remove or mitigate these difficulties or disabilities without having the recourse to state aid, to encourage the people of Japan to embark on shipping enterprises?

4. Are you of opinion that state aid was necessary or desirable to promote the satisfactory development of shipping industries by the people of Japan?

5. If state aid was necessary or desirable, what method or methods were adopted?

6. Do you favour the grant of bounties to the vessels owned by the people of this country, and on the Japan register and trading (*a*) between Japanese ports, (*b*) between Japan and ports abroad and (*c*) between ports outside Japan?

7. In the case of vessels owned by the people of Japan, and registered in Japan, do you restrict a grant of navigation bounties to specified routes, and if so, to what routes? Please give your reasons for selecting these particular routes.

8. Are there any limits as to gross registered tonnage, average speed at sea, and age for the aforesaid vessels to be eligible for a navigation bounty? What are the limits in each case?

9. In the case of these bounties, what rates and limits of bounty are there for the aforesaid vessels for a bounty based on gross registered tonnage, minimum average speed at sea, and minimum distance run over a stated period?

10. Do you give any additional percentage of increased bounty for extra speed over and above the minimum average speed at sea, and if so, what percentages on vessels engaged in trading as indicated in question No. 6 (*a*), (*b*), (*c*)?

11. What provisions are made for the gradual reduction of the bounty after a specified term of years? What percentage of reduction do you adopt, and after how many years for vessels engaged in trading as indicated in question No. 6 (*a*), (*b*), (*c*)?

12. Do you pay navigation bounties to vessels built outside Japan, unless they have been on the Japanese register for a specified period of years, and what period?

13. Do navigation bounties cease after a specified period of years in respect of vessels built outside Japan, and if so, after what period?

14. Do vessels receiving a navigation bounty take on board a certain number of apprentices for purposes of training?

15. Do you exclude the employment of non-Japanese subjects on vessels receiving a navigation bounty excepting when vacancies, which it is impossible to fill, occur at Foreign ports? If you have adopted exclusion, do you reserve any power to the Government to make exceptions?

16. Is there cessation of navigation bounties in the case of vessels being sold, chartered or mortgaged to non-Japanese?

17. What in your opinion has been the effect of the policy of reservation on the Japanese coastal trade?

18. In the reservation of the coastal trade, do you impose a condition that ships should give facilities for training Japanese apprentices?

19. What size and description of vessels are used in the Japanese Mercantile Marine?

Development of Shipbuilding.

20. Were the vessels required for the Japanese Mercantile Marine built entirely in private shipyards?

21. What is your opinion regarding the present condition of the Shipbuilding industry in Japan?

22. Was State aid necessary or desirable to promote the satisfactory development of the shipbuilding industry by the people of Japan?

23. What State aid was necessary or desirable and what method or methods were adopted?

24. Were construction bounties given to vessels built of steel only, if so, what was the minimum gross registered tonnage of vessels built in Japanese shipyards which were considered eligible for a construction bounty?

25. In the case of construction bounties, what rate per ton of gross registered tonnage was given for the hull alone?

26. If propelling machinery also was built in Japan, was a bounty, actual per horse power, paid to the propelling machinery builder?

27. In the case of vessels which are to receive shipbuilding bounties, are materials obtained outside Japan used for the construction of the hull and propelling machinery, or do you only admit certain specified materials? If so, what are the exceptions?

28. If you grant any exceptions, do you grant any customs concessions and if so, what?

29. What measures do you adopt to prevent the abuse of these concessions?

Construction of Wooden Ships.

30. What is the present condition of the wooden shipbuilding industry in Japan?

31. Are you of opinion that State aid is necessary or desirable to promote the further development of this industry by the people of Japan?

32. If you consider state aid necessary or desirable what method or methods do you advocate?

33. Are you in favour of the grant of construction bounties to wooden ships built in Japanese shipyards?

34. Is any difficulty experienced in effecting the insurance of Japanese built wooden ships?

Officers for the Mercantile Marine.

35. Is there any considerable number of the youths of Japan desirous of becoming officers of the Mercantile Marine?

36. Does the Government take any active steps to provide for:—

(*a*) their training,

(*b*) their future employment, and

(*c*) facilities for further studies when qualifying for Board of Trade or equivalent certificates in the various grades or do you leave these to private enterprise in Japan?

37. Do your Cadets proceed direct to sea as apprentices for training, or do they undergo a preliminary course of instructions in a ship or training establishment on shore?

38. If you were in the early stages of the development of your Mercantile Marine in favour of preliminary training in a training ship or establishment, was this carried out in Japan or did any cadets go to Europe for training? Is your Japanese training ship or establishment provided or supported by Government?

39. If some cadets were trained in Europe, did they pay the full fees for such training or did the Government assist by establishing a system of scholarships for the purpose? If the latter, what form did these scholarships take?

40. In the training ship or establishment in Japan, were the maintenance charges of such Institutions met wholly or partially by the levy of fees? If not wholly, by what means were the maintenance charges met?

41. Do you advocate the establishment of a training ship or a nautical college on shore?

42. Do you advocate that after undergoing their preliminary training, the boys should serve a period of apprenticeship in steamers of the Mercantile Marine, or do you prefer a sea-going training ship for them?

43. If the former, do your shipowners accept apprentices for training and if not, do you know what their principal objections are to doing so? Have any measures to overcome such objections and to encourage shipowners to accept apprentices been tried?

44. If the apprentices are required to pay a premium, does Government pay the whole or any portion of it?

45. If you have a seagoing training ship for apprentices, is this supplied and maintained by Government? Have you ever had a training ship maintained entirely or partially by premiums from apprentices and by carrying freight or Government stores?

46. Are your apprentices in a seagoing training ship given free food and any uniform or clothing allowance during apprenticeship?

47. What is the curriculum of study during the period of training as a cadet and as an apprentice?

48. Have you any sort of nautical academy or academies established for the purpose of enabling Mercantile Marine officers, who have completed their apprenticeship, to undertake special studies before appearing for their certificates for Mates and Masters on the lines that now obtain in England?

49. If so, how many academies are required for the purpose, and in what ports are they situated? Are they made self-supporting by fees or are they provided and maintained wholly or partially by Government?

Engineers for the Mercantile Marine.

50. Is there any considerable number of youths in this country desirous of becoming Engineers in the Mercantile Marine?

51. Does the Government take any active steps to provide for:

(*a*) their training,

(*b*) future employment, and

(*c*) facilities for further studies when qualifying for certificates in the various grades, or do you leave these to private enterprise?

52. Did the Engineering and Shipbuilding Firms in Japan give sufficient practical training to apprentices to enable them to become efficient Marine Engineers? How long has this efficient training existed?

53. Are there any Schools or Colleges or Institutes in the ports of Japan where sufficient theoretical knowledge can be obtained by apprentices to enable them to become efficient Marine Engineers?

Postal Subventions.

It has been an accepted principle that so far as Marine Services are concerned, the course of the post should follow as far as possible the

course of trade. Consequently to secure the maximum of economy in carrying mails, steamer services already in existence have been utilised for the purpose. Subsidies are fixed by negotiation or tender based on the regularity and speed of the services and the number of miles combined with the speed has been the determining factor in fixing the rate.

54. Do you accept the above or have you any other views as to how mail contracts should be arranged?

55. Do you give all Japanese Steamship Companies an equal chance of competing for mail contracts?

56. Are there any mail contracts with non-Japanese steamship lines?

57. What are the conditions of the contracts for carrying mails in steamships?

58. Did you give any indirect aid to promote the establishment of a Mercantile Marine; if so, what was it?

59. If you have adopted direct or indirect aid or assistance, by what method or methods were the funds obtained? Will you give figures of the sums so applied?

Note.—The words "bounty" and "subside" have been used in the questionnaire with a strict regard to the literal meaning of these terms. Thus "bounty" should be understood to mean a free gift of money by the State for the encouragement of the shipping or shipbuilding industry and "subside" a payment made by the Government for the performance of a specific service such as the conveyance of mails.

Shipbuilding and Engineering.

Note.—"Horse power" should be deemed to mean "indicated horse power" except in the case of turbine engines. In the last case it should be "shaft horse power" plus 10 per cent.

60. What kind of ships or vessels do you build, wood or steel or both?

61. What is the largest wooden-ship you have built?

62. What is the largest steel vessel you have built?

63. Do you build engines?

64. What is the largest engine you have built for a vessel? Give dimensions and power?

65. Do you build boilers?

66. What are the dimensions and working pressure of the largest boiler you have built?

67. What is the area of your shipyard?

68. How many building berths have you?

69. What lengths of ship or vessel can you build and launch?

70. What number of ships or vessels of the sizes stated by you could you build per year with your present plant if the necessary contracts were secured?

71. What amount of engines and propelling machinery for the number of vessels stated above could you make?

72. If you could make all or part of the propelling machinery and boilers, could you get it supplied quickly enough to secure the output of vessels per annum stated above?

73. Can you give the approximate relative cost of vessels and machinery built in Japan as compared with other countries?

74. If so, will you state the relative rates paid per hour of the relative trades, and the relative amount of work produced per hour in the various countries?

75. Can you give the relative cost in the various countries of the principal kinds of material that go to make a vessel and her machinery?

76. Will you give the average and maximum number of men you have employed?

(1) Before 1914,
(2) Between 1914 and end of 1918,
(3) Since the beginning of 1919,

giving them under the various headings of staff (in detail) and of their respective trades.

Enclosure 3.

MEMORANDUM ON THE HISTORY OF SHIPPING AND SHIPBUILDING IN MODERN JAPAN UP TO 1907 BY SIR JOHN BILES, K.C.I.E.

(Compiled from "The History of Shipbuilding in Modern Japan.")

The Mitsu Bishi Company was one of the first shipping concerns in Japan to achieve any measure of success. It was formed in 1873 from the wreckage of two other shipping companies founded in 1869 and 1871 respectively. The Mitsu Bishi commenced by trading between Tokio, Osaka and Kochi in competition with another Company the Nippon Yubin Joki.

In 1877 the Japanese expedition to Formosa took place, and the Japanese Government was compelled to buy thirteen steamers for transportation of troops. The Mitsu Bishi Company placed its fleet at the disposal of the Government, purchased ten other vessels for transport and also undertook to man the Government vessels.

At the conclusion of the Formosan expedition, 1878, the Japanese Government determined on a policy of subsidies to encourage and maintain the mercantile marine. In consideration of the Mitsu Bishi's services in 1877, the Government handed over to that Company the 13 vessels purchased in 1877, and granted it subsidies as follows:—

Yen 250,000 for navigation.
Yen 11,000 for a Marine School and Crew's Depôt.

These subsidies were to be granted for fifteen years and the following conditions were to be observed by the Mitsu Bishi Company:—

The Government to have power to requisition the Company's vessels at any time.

The Company to engage in the Shanghai and coastwise trade.

The Company to carry mails free of cost.

During the same month the Japanese Government handed over to the Mitsu Bishi Company twelve more vessels from another shipping concern that came to grief early in the year. Thus the Mitsu Bishi Company acquired 35 vessels, three of which were over 2,000 tons and

9 over 1,000 tons. In 1875, the Company after severe but successful competition, urged the Government to buy out the American interest in the Shanghai-Yokohama trade. This the Government did and acquired 4 vessels aggregating 7,844 tons and warehouses in Shanghai and Yokohama. Later these vessels were handed over to the Mitsu Bishi Company.

In 1876, the P. and O. Steam Navigation Company and the China Merchants S. S. Company unsuccessfully attempted to establish themselves on the Yokohama-Shanghai line.

The years 1877 to 1883 were prosperous ones for Shipping Companies. There was a scarcity of tonnage and freights rose. In 1882 the Japanese Government ordered the Mitsu Bishi Company to maintain a fleet of 22,000 tons registered to supplement lost tonnage and to fix passenger fares and freights. On account of the shipping boom new companies were formed, competition became severe and in 1883 the P. and O. again attempted to establish themselves in Japanese waters. The most powerful rival of the Mitsu Bishi Company was the Kiodo Unyu. This Company was formed in July 1882 by the amalgamation of three small concerns. In January 1883 it had a capital of Yen 6 millions and owned 16 steamers and 9 sailing vessels. During the year 15 steamers were purchased in Europe, two of them of 2,500 tons each, and several were ordered in Japan. Competition was at its height in 1884, and the 3rd class passenger fare between Kobe and Yokohama fell from Yen 5·50 to Yen 1. It is estimated that in the latter half of 1884 each Company lost Yen 680,000 in cut-throat competition. In 1885 the Government stepped in and forced them to an agreement regarding passenger fares and freights. In 1885 the Mitsu Bishi Company commenced to pay back Government loans, in order to free itself from financial interference. Competition with the Kiodo Unyu was resumed, and it was so keen as to threaten the stability of Japanese shipping. The Government again stepped in and ordered the two companies to amalgamate and in August of 1886 the two companies became one under the name of the Nippon Yusen Kaisha.

The newly formed Nippon Yusen Kaisha was Government controlled. The Government guaranteed an annual 8 per cent. dividend, and in return appointed the Company's Directors, made the Company into a limited liability company, reserved to itself the right of inspection of the Company's ships, and the right at any time of requisitioning any of the Company's vessels. Moreover the Company had to carry mails free, to train its seamen and to submit to Government approval all financial schemes. Of the Company's share capital of Yen 11 millions the Government held a quarter: the remainder was in the hands of the public. The Company's fleet consisted of 58 steamers (68,724 tons) and 11 sailing vessels (4,725 tons). These vessels were engaged on 18 regular lines extending to Tientsin, Chemulpo and Vladivostok in foreign waters, and to the Hokkaido ports, the east and west coast ports of Japan and the Liuchoo Islands. In 1887 the Government withdrew its guarantee of 8 per cent. dividends, and replaced it by an annual subsidy of Yen 880,000 for 15 years. At the same time the Company redeemed all its debenture bonds, Yen 1,070,000 and decided to redeem Yen 2,200.000 of its shares. By 1892 these shares were all redeemed and new debentures were issued at a low rate of interest. The Company's capital then stood at Yen 8,800,000.

With the development of Japanese railways there was an increase in the shipping trade and between 1889 and 1893 the Shanghai Vladivostok line and the Kobe-Manila line were opened; the Korean

and North China lines were developed, and in 1893 the Kobe-Bombay line was inaugurated in conjunction with Messrs. Tata and Company. At the end of 1893 the Company had reduced the number of its steamers from 58 to 47 and increased its tonnage from 68,724 to 69,454. In 1893 the Company became a public concern and Government control was greatly reduced.

In 1894 the Chino-Japanese War broke out and the Government requisitioned most of the Company's tonnage, and 33 foreign steamers had to be chartered to maintain the Company's lines, and to maintain trade the Government was forced to open coastal shipping to non-Japanese companies. After the Chino-Japanese War the Company was involved in heavy expenses on account of repairs of the ships that were on War Service. Notwithstanding this development continued; in 1896 the lines to Europe, Seattle and Australia were inaugurated with the help of subsidies, and at the close of the year the Company owned 63 vessels of 126,450 tons running on 22 lines extending to Europe, Australia, India, and inland.

Owing to heavy expenditure for repairs and for new vessels ordered from England, the year 1897 was a poor one financially, but the Company's strength was sufficient for it to join the Conference of Shipping Firms trading on the Bombay-Kobe line, the European line and the American line. By 1900 the Company had recovered from the effects of the Chino-Japanese War and received further encouragement from the Government in regular stipends to be applied for the European and American lines, but at the same time the Government subsidies which had operated since the formation of the Company came to an end. In the case of the Far East and coastal trade they were renewed. In 1901 it was decided to write off 4 per cent. per annum of the Company's reserves to be applied to the maintenance and renewal of the fleet. At the end of 1903 the fleet was 76 strong with a tonnage of 245,273, and though no new lines were inaugurated the number of voyages increased—being twice as many on the European and American lines as in 1898 and 1901 respectively.

The Russo-Japanese War (1904-05) gave another set back to the Company. At one time 71 vessels were on Government service and although foreign vessels were chartered to maintain some of the lines. the Australian and Korean runs had to be suspended. It was not till March 1906 that the Company's fleet was released from Government service. Meanwhile new building plans were put forward and orders for six twin screw steamers of 8,600 tons each were placed in Japan. These were intended to replace the 6,000 ton vessels on the European run. These new vessels were to develop 8,600 I. H. P. giving a maximum speed of 16·5 knots and were to be placed on service during 1908 and 1909.

The Osaka Shosen Kaisha.—This Company was formed with a capital of Yen 1,500,000 in Osaka in 1882 by the amalgamation of a number of small companies trading in the Inland sea. The tonnage of the Company was 15,000 for 93 ships, only 3 of which exceeded 500 tons. The ships were wooden with the exception of two; the largest was 620 tons and they were all 10 years old. The Company applied to the Government for assistance to carry out a ten year building programme. An 8 years subsidy was granted in 1888, for which the Company was to maintain more than 13,000 tons of shipping, carry mail free and open up 20 lines between the Kansai ports. By 1891, 18 ships were built and 12 were purchased, totalling 14,400 tons and at the end of 1892 there was a fleet of 50 ships (15,581 tons).

The O. S. K. and the China-Japanese War.—More than 30 vessels were commandeered by the Government, and the Company's regular services were impaired in spite of the fact that foreign vessels were chartered. During the War the Company's capital was increased to Yen 2,500,000 and larger vessels were purchased for Government service, and at the end of 1895 the fleet numbered 55 with a tonnage of 22,535.

The development of the Chinese and Korean trade led the Company to a further increase in its capital, and in October 1896 it amounted to Yen 10,000,000. Government subsidies were renewed in March of the same year with an increase for coastal mails. At the same time the Company secured a mail subsidy from the Formosan Government, and with it a service was established between Kobe and Keelung. Further subsidies were granted in 1900 and a Formosan Coastal Trade was established. In 1900 and 1901 there was a financial depression and the Company's capital was reduced to Yen 5,000,000. This depression was further accentuated for shipping firms by the development of the Japanese railways which carried on keen competition with the coastal trade. The Company therefore was forced to extend its enterprises. During 1898 and 1899 lines were established to South and North China, to the upper and lower Yangtse, to Saigon and Java. By 1899 the Company had increased its fleet to 57 vessels with an aggregate of 42,851 tons, and in 1900 its capital was increased to Yen 11,000,000 besides debentures amounting to Yen 4,000,000. The Boxer rising of 1900 withdrew 14,000 tons of the Company's shipping for Government service, and the various lines were maintained with difficulty. During this year and the next, one small shipping concern and a portion of another were acquired, adding 15 small vessels to the fleet.

During the Russo-Japanese War, the Company experienced the same difficulty as the N. Y K. in maintaining its lines. Thirty-five of its vessels were on Government service and foreign vessels had to be purchased to replace them. In 1907 the Tosa Shosen Kaisha and a smaller Company were acquired, and at the same time a new Company was formed to take over the Yangtse trade. At the end of 1907 the Company's whole fleet amounted to 108 vessels (107,081 tons) besides 6 others on order of 6,000 tons each.

The Toyo Kaisen Kaisha.—This Company was formed originally in 1887 and was established as the T. K. K. in 1896. Its object was to open a New York Batuum line, and a Pacific line as a subsidiary enterprise. An agreement was arrived at with the Southern Pacific Railroad Company to open a Sanfrancisco-Hong Kong line, and for this purpose three new vessels were ordered from England. These commenced operations in 1898 with the help of a Government subsidy. This subsidy was renewed in 1900 for ten years at Yen 1,000,000 a year. This permitted the Company to open a line between Hong Kong and North China. In 1905 three large vessels of 13,500 tons each fitted with Parsons turbines were ordered in Japan to compete with foreign companies on the Sanfrancisco-Hong Kong line and at the same time three oil tankers were added to the fleet.

Wooden Vessels.—The Japanese Government has encouraged the building of wooden vessels since 1868, giving subsidies; junks were steadily replaced by semi-foreign or foreign types of vessels. In 1885, a wooden vessel of 1,491 tons, the largest built in Japan, was launched in Nagasaki.

Effects of the Shipbuilding Encouragement Act.—In 1895 there were 528 registered vessels in Japan with an aggregate of 331,000 tons, and the number was increasing. Shipbuilding, however, was in a backward condition. The Mitsu Bishi Yard at Nagasaki was the only one that could repair large ships and even it at times had to send work to the Naval Yards. The China-Japanese War revealed the need for better shipbuilding and docking facilities, and in 1896 a bill was passed granting shipbuilding subsidies for a period of 15 years.

A table showing ships over 700 tons constructed from 1883 to 1907.

Year.	G. T. Over 700.	G. T. Over 1,000.	G. T. Over 2,000.	G. T. Over 3,000.	G. T. Over 4,000	G. T. Over 5,000.	G. T. Over 6,000.	G. T. Over 7,000.
1883 . .	...	1,416 (1)	...	...	...	...	...	...
1884 . .	...	...	...	...	...	...	...	...
1885 . .	...	...	...	...	...	...	...	...
1886 . .	...	...	...	...	...	...	...	...
1887 . .	...	...	...	...	...	...	...	...
1888 . .	...	...	...	...	...	...	...	...
1889 . .	...	...	...	...	...	...	...	...
1890 . .	...	...	...	...	...	...	...	...
1891 . .	708 (1)	...	...	...	...	...	...	...
1892 . .	...	...	...	...	...	...	...	...
1893 . .	...	...	...	...	...	...	...	...
1894 . .	...	...	...	...	...	...	...	...
1895 . .	...	1,503 (1)	...	...	...	...	...	...
1896 . .	...	...	...	...	...	...	...	...
1897 . .	...	1,610 (1)	...	...	...	...	...	...
1898 . .	728(1)	...	...	...	...	...	6,172 (1)	...
1899 . .	...	1,695 (1)	2,692 (1)	...	...	...	6,309 (1)	...
1900 . .	863 (1)	4,932 (3)	4,490 (2	...	...	...	...	...
1901 . .	735 (1)	4,992 (4	4,788 (2)	...	...	...	12,620 (2)	...
1902 . .	1,416 (2)	4,334 (3)	5,469 (2)	...	...	...	...	...
1903 . .	3,401 (4)	6,177 (4)	2,186 (1)	...	...	5,539 (1)	6,444 (1)	...
1904 . .	5,416 (7	2,834 (2)	2,039 (1)	...	...	5,068 (1)	...	...
1905 . .	2,501 (3)	9,580 (6)	...	...	...	...	...	7,463 (1)
1906 . .	4,096 (5)	9,386 (7)	4,228 (3)	...	...	6,716 (1)	...	...
1907 . .	4,740 (6)	...	5,018 (2)	10,765(3)	...	...	...	...

Figures in brackets show number of vessels.

Enclosure 4.

EXTRACT FROM NAVAL ATTACHE'S ANNUAL REPORT FOR 1922.

SECTION XII.

MERCANTILE MARINE.

The number and tonnage of the merchant steamers of Japan at the end of November 1922 were as follows:—

Steamers.	Number.	Gross tons.	Registered tons.
20—100 tons	1,321	55,497	23,700
100—300 ,, ...	414	74,614	36,018
300—500 ,, ...	173	69,590	39,230
500—1,000 ,, ...	300	224,878	134,582
1,000—2,000 ,, ...	215	344,918	211,615
2,000—3,000 ,, ...	169	413,026	259,066
3,000—4,000 ,, ...	113	382,068	239,027
4,000—5,000 ,, ...	49	215,319	142,549
5,000—6,000 ,, ...	121	687,611	459,405
6,000—7,000 ,, ...	46	298,651	193,700
7,000—8,000 ,, ...	32	234,549	148,823
8,000—9,000 ,, ...	3	24,884	16,199
9,000—10,000 ,, ...	12	113,872	71,263
Over 10,000 ,, ...	10	117,351	65,701
Total .	3,008	3,256,828	2,040,818
Over 1,000 tons	800	2,832,249	1,807,288

The corresponding totals for the end of 1921 were:—

Total number	Gross tons.	Registered tons.
2,949	3,151,202	1,982,187
Number over 1,000 tons.	**Gross tons.**	**Registered tons.**
773	2,714,166	1,737,557

showing a moderate increase during the year under both headings.

The number of ships of more than 1,000 tons launched during the year was 16, with a total tonnage of 59,000.

From statements in the press it appears that the purchase of foreign second-hand ships, which was on a considerable scale until August 1922, ceased from that time on account of the rise in the price of tonnage on the London market. The purchases between November 1921 and August 1922 amounted to 44 ships with an aggregate gross tonnage of 266,337. Against this the exports of ships for the 10 months ending October 31st, 1922, were 15, of a total value of Yen 1,045,000. The tonnage is not given, but judging by the value of the ships it could not have been large.

According to the Department of Communications, 280 ships (steam and sailing) with a tonnage of 117,255 tons were laid up in November 1922. The figures for the previous 12 months are also given and show a rising tendency latterly but this is probably due partly to seasonal variations.

Enclosure 5.

Number and tonnage of ships laid up (including sailing vessels).

	Number.	Tonnage.
1921—		
December	364	124,000
1922—		
February	351	118,000
March	323	87,000
April	247	75,000
May	258	78,891
June	260	79,377
July	248	76,211
August	298	88,840
September	260	92,399
October	269	100,512
November	280	117,255

In the absence of a return of a period of good trade, which does not seem very likely, it is improbable that the Japanese mercantile fleet will be largely increased during the coming year. The shipbuilding yards are hard hit by the Naval Reductions and would no doubt gladly welcome new orders even at low prices but the shipping companies are likely to place few orders. Of the big lines the Toyo Kisen Kaisha (T. K. K.) is still running at a loss and declared a deficit of Yen 932,535 last October, but paid a dividend of 5 per cent. by taking Yen 900,000 from the Special Reserve and Yen 550,000 from dividend equalisation fund.

Some apprehension has been expressed that the Government subsidies to the shipping lines would be reduced but the result of enquiries by the British Commercial Counsellor do not bear this out.

Enclosure 6.

Tables supplied by Sir Westcote Abell, K.B.E., Chief Surveyor of Lloyd's Registry, London.

Number and gross tonnage of Steamships and Motorships of 100 tons and upwards OWNED by Japan during the years 1890 to 1923.

(From Lloyds Registry.)

Year.	Number.	Tons.
1890	165	138,431
1891	255	151,595
1892	250	142,492
1893	272	151,773
1894	288	174,466
1895	339	279,668
1896	373	334,592
1897	434	404,475
1898	462	454,163
1899	477	473,704
1900	484	488,187
1901	503	524,125
1902	535	555,230
1903	544	585,542
1904	591	668,360
1905	691	870,839
1906	775	996,553
1907	829	1,068,747
1908	865	1,140,177
1909	861	1,150,858
1910	846	1,146,977
1911	861	1,200,975
1912	960	1,344,991
1913	1,037	1,500,014
1914	1,103	1,708,386
1915	1,155	1,826,068
1916	1,151	1,847,453
1919	1,418	2,325,266
1920	1,940	2,995,878
1921	2,033	3,354,806
1922	2,026	3,586,948
1923	2,093	3,694,147

Number and Gross Tonnage of Ships of 100 tons and upwards **LAUNCHED** *in Japan during each year from 1892 onwards.*

(From Lloyds Registry.)

Year.	Number.	Tons.
1892	...	...
1893	3	1,132
1894 Year of Chino-Japanese War	14	3,173
1895	3	2,296
1896	26	7,849
1897	22	6,740
1898	9	11,424
1899	3	6,775
1900	3	4,543
1901	94	37,208
1902	53	27,181
1903	62	34,514
1904 Russo-Japanese War	67	32,969
1905	81	31,725
1906	107	42,489
1907	78	66,254
1908	73	59,725
1909	75	52,319
1910	70	30,215
1911	109	44,359
1912	168	57,755
1913	152	64,664
1914	32	85,861
1915	26	49,408
1916 Great War	55	145,624
1917	104	350,141
1918	198	489,924
1919	133	611,883
1920	140	456,642
1921	43	227,425
1922	49	83,419

APPENDIX D.

Vessels built for India from 1910 to March 1921.

	Engines.					Boilers.			
	Completed.	Length B. P.	Breadth.	Depth.	Type.	Cylinders.	Stroke.	H. P.	No. and Type.
Vessels 180' to 250' long.		Ft. in.	Ft. in.	Ft. in.			Inch.		
Dredger "Lees"	1912	205 0	43 0	13 0	T. S. C.	11"—17"—28"	21	806	2 Cylindrical.
Pump Engines	...	...	...	...	T. S. C.	19"—30"—50"	27	1127	...
Dredgers "Oswald" and "Campbell"	1912	210 0	38 0	9 0	T. S. C.	10"—16"—26½"	16	578	2 Cylindrical.
Pump Engines	...	...	...	...	T. S. C.	16½"—27"—43"	24	882	...
E. I. M. S. "Nearchus"	1914	180 0	29 0	14 6	Turbine	...	...	685	1 Yarrow W. T.
Propelling and Dredging Engines	1916	180 0	33 6	13 6	T. S.	11"—17"—28"	21	640	1 Cylindrical.
Dredger "Cachalot"	...	...	...	...	T. S. C.				
"Lawrence"	1919	225 0	34 0	19 9	Turbine	...	...	1800	2B. and W. W. T.
"Clive"	1920	240 0	38 0	24 6	Turbine	...	...	2200	2B. and W. W. T.
Vessels under 180' long.									
M. L. "Commerce"	1910	46 0	8 0	4 9	Motor	4½"	5	84	...
2 P. S. "Sara" and "Damukdia"	1910	132 0	22 0	6 0	P. C. S. C.	16½"—30"	42	360	1 Yarrow W. T.
Motor Launch for Madras	1910	20 0	5 0	2 10½	Motor	4½"	5	12	...
S. L. "Kistna"	1910	40 0	8 0	4 0	T. S. C.	5½"- 8"—12"	6	53	1 Yarrow W. T.
Dummy Hopper Barge	1911	110 0	25 0	12 0	...	...	...	...	...
S. L. for Burma	1913	90 0	15 0	7 6	T. S. T. S. C.	6"—9½"—15"	9	180	1 Mumford, W. T.
S. L. for Burma	1913	76 0	12 0	6 0	T. S. T. S. C.	6"—9¼"—14"	7	260	1 Simpson Strickland W. T.
Pontoon Grab Dredger	1913	70 0	21 6	5 0	...	...	...	...	1 Vertical.
S. L. for Mohammerah	1913	60 0	11 0	4 0	C. S. C.	7"—14"	8½	91	1 Simpson Strickland W. T.
4 Motor Launches, Burma	1914	26 0	7 0	3 2	...	3½"	4½	7	...
Terminal Pontoon "Lees"	1915	80 0	56 0	7 6	.	...	...	...	1 Cochran.
Terminal Pontoon and Pipe Line "Mudlark"	1916	50 0	37 0	6 0	...	...	..	...	...
3 Steam Launches, Basra	1916-17	60 0	11 0	4 0	C. S. C.	7"—14"	8½	96	1 Simpson Strickland W. T.
Dredger for Pegu-Sittan Canal	1920	102 0	25 0	7 9	C. S. C.	13"—26"	15	...	1 Cylindrical.
Propelling and Pump Engines									
Dredger for Shatt-el-Arab, Pump Engines	1921	94 0	26 0	7 6	C. S. C.	13"—26"	15	206	1 Cylindrical.

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