

**HAND-BOOK TO THE LOCAL
MARINE BOARD EXAMINATION,
FOR THE OFFICERS OF THE
BRITISH MERCANTILE MARINE**

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Hand-Book to the Local Marine Board Examination, for the Officers of the British Mercantile Marine by Janet Taylor

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JANET TAYLOR

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HAND-BOOK
TO THE
LOCAL MARINE BOARD EXAMINATION,
FOR
THE OFFICERS
OF THE
BRITISH MERCANTILE MARINE:

INCLUDING

The New Regulations for Masters and Mates in the Coasting Trade.

A DIAGRAM ILLUSTRATING CURRENT SAILING, AND DIRECTIONS

FOR WORKING THE TIDES;

WITH

FULL AND COMPLETE

ANSWERS TO THE QUESTIONS IN STEAM.



TWENTIETH EDITION.

Considerably Enlarged and Improved; with several Diagrams.



Entered at Stationers' Hall.

London:

PUBLISHED BY MRS. JANET TAYLOR,
AT HER NAUTICAL ACADEMY AND NAVIGATION WAREHOUSE,

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1860.

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PREFACE.

THE very extensive and increasing demand for the "HAND-BOOK TO THE LOCAL MARINE BOARD EXAMINATION," (which has already passed through several Editions,) and the universal approval its general arrangements have received, have induced me, in preparing another edition, to add much new and valuable matter to its pages, to render it deserving the continued patronage of those desirous of making themselves thoroughly competent for passing the Local Marine Boards; and on examination of the work, it will be found to contain all those Questions and Exercises in Navigation and Steam, requisite in preparing for the different grades in the profession,—independent of Seamanship, a knowledge of which can only be acquired by service at sea.*

The Arithmetical Questions and Exercises in Logarithms, which have been introduced at the commencement,

* Mrs. Taylor has published a work on Seamanship, by Capt. Liddle, which contains all the required answers in Seamanship, in which great care has been taken not to overburden the memory by useless matter, but just give such brief information as will help the pupil to put his own ideas into fitting words. To the edition just published (July 1859,) have been added Questions and Answers on Seamanship for *Entre Masters*.

will be found useful, as preparatory to the Examples in Nautical Astronomy.

Part of the very useful paper with accompanying Diagrams, on the *Rule of the Road*, which was originally published in the *Mercantile Marine Magazine*, have been added to this work, the great necessity for a better knowledge of this important part of a seaman's duty, being obvious to all who take an interest in affairs connected with our Mercantile Marine, and the very simple directions there given, with diagrams illustrative of ships' positions, and best mode of manœuvring when placed in imminent danger, will be found of service in the everyday practice of the seaman's life.

To this Edition have been added directions, and a diagram, for working the questions in Current Sailing, by which the principle is fully demonstrated.

The method of finding the height of the water at any time of Tide, is likewise introduced and explained.

In the *Examination for Extra Masters* have been added,—

First, fully worked examples of the Latitude by Double Altitudes of the Sun, as verified by Sumner's method,—the *rule*, unassisted by calculation, presenting a difficulty to some, to whom the clear exposition of the rule thus given, will be found of great service.

Secondly, the Article on "*The Law of Storms*," has been considerably enlarged, and much valuable information, accompanied by diagrams, introduced, a careful study of which will be of great advantage to those frequenting the Hurricane portions of the Ocean; every imaginable danger being met by brief directions, and carefully digested rules of action under existing difficulties.

In the Answers to the Questions in Navigation, it has been thought sufficient to give only the more prominent portions of the solutions, thereby leaving the student to do something for himself, by studying the Rules in the Epitome, and endeavouring to fully understand the use of Logarithms and other Tables. If properly and accurately worked out, the answers should not deviate in any case, more than 10" or 12" from those given at the end of the book, such difference arising from the Dip and Refraction Tables which the student may use. It cannot be too deeply impressed on all, that an accurate knowledge of *Time* is essentially requisite, without which, no question in Nautical Astronomy can be correctly solved.

It is necessary to state, that in all cases where the Moon's horizontal parallax is used, that element has been reduced for the latitude of the place of observation.

The instructions for Stowing Cargo, are those recommended by Lloyd's. In respect to Charter-party, Bills of Lading, Bottomry Bonds, &c. it has been the object merely

to give a general knowledge of the subjects, and to indicate what is required, for the entire description and requirements of such documents cannot be given in a work of this description, in such a manner as to make the young Master fully acquainted with them, as condensation of such matter frequently involves obscurity; and it is incumbent on every Master to understand thoroughly the Laws of Shipping, for which purpose, reference must be made to the Works of ABBOT, M'CULLOCH, STEEL, LEES, &c.

Appendix I, contains the Questions and Answers for the Examination in Steam. Although the answers are given very fully, the works indicated in p. 131, should be carefully perused, in order to obtain a better and sounder knowledge of the subject.

Appendix II, contains the Answers to the general Questions in Navigation, &c.

Appendix III, contains the Answers to the Questions in the Extra Examinations.

JANET TAYLOR.

NAUTICAL ACADEMY,
104, MINORIES, LONDON.

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Extract from the Mercantile Marine Magazine,

"This book is intended as a Guide to the Officers of all grades of the Merchant Service, in the Examinations they are required to undergo, before the Local Marine Board. It does not profess to include Seamanship, which is a subject to which seamen generally devote more attention than to Navigation and Nautical Astronomy, forgetful that the latter branch of their profession is as essential as the former, if they desire to advance in life. So far as we have looked through the book, it seems judiciously arranged, and the different subjects carefully drawn up, and to the purpose; in fact, *without any pretensions, it is the best book of the kind that has yet been published.* A good method has been adopted in regard to the answers, (given at the end of the work,) whereby the student at sea can at once fix on that part of the solution, in which he may have committed an error, by which means he will be encouraged to progress, and to improve himself."