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# Practical Boat Building for Amateurs:

CONTAINING

FULL INSTRUCTION FOR DESIGNING AND BUILDING PUNTS,  
SKIFFS, CANOES, SAILING BOATS, ETC.



ILLUSTRATED WITH WORKING DRAWINGS



By ADRIAN NEISON, C.E.



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NEW AND REVISED EDITION.

BY

DIXON KEMP, A.I.N.A.,

(Author of "Yacht Designing," "A Manual of Yacht and Boat Sailing," &c.)

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## PREFACE.



THE fact that a second edition of "Practical Boat Building" has been called for is incontestable evidence that the title Mr. Neison gave to his work was an appropriate one; nevertheless, as no work is so perfect that it cannot be improved, it was considered possible to render the second edition of Mr. Neison's treatise even more practically useful than the first. With this end in view, as Mr. Neison was travelling in America, Mr. Dixon Kemp undertook the revision of the book, and, whilst retaining generally the original text, has amplified it or altered it where necessary.

The sections relating to designing and clench-work building have been entirely re-written, and the instruction given on these matters is now in accordance with the most approved methods followed in this country.

*April, 1880.*

# Practical Boat Building for Amateurs.



## CHAPTER I.

### *INTRODUCTORY—DESIGNING.*

THE skill necessary to build a boat of some form which will be serviceable and pleasurable is possessed by few amateurs, and as boats and canoes are now so extensively used in athletic and other amusements, and the followers of the rod and gun find them almost indispensable in certain varieties of these pursuits, no doubt very many amateurs would like a little information which would assist them to construct such things. The reason, perhaps, why amateurs do not more often try their skill on boat-building is because there are technical difficulties which seem to throw a barrier in the way of all who do not care, or have not the time, to spend on a thorough study of the subject. Such an idea is a mistake, for boat-building is well worth the amateur's attention; for it is really a simple craft, not requiring nearly so much skill and technical knowledge as good joiner's work. For instance, anyone who can make a box or a table would be able to make an ordinary punt. Of course, to construct a light punt which would row well would require more

skill than this, for it would embrace an amount of technical knowledge not generally possessed by the amateur.

Everyone is aware that boat-building, in some form or other, is practised all over the world, by savage as well as by civilised nations—the inhabitants of the former often showing as great skill as the best artisans and mechanics of the latter nations. For instance, the war canoes of New Zealand and the prahs of the Malays equal in every respect the skill displayed in the large sailing and rowing craft of Europe, while the Canadian birch bark canoe and Esquimaux ryah or skin canoe, of which our Rob Roys are a reproduction, show an amount of ingenuity and skill of construction which is unsurpassed. When such facts are considered, it is surprising that more attempts to develop the useful art of boat building are not made in our home workshops; for surely, with the better materials and tools at our command, and the ample resources of pen and pencil contributed so largely from all parts of the world by various authors, the amateur, with the exercise of a little patience and study, should be able to make for himself a presentable and useful craft.

To be able to build a boat well, and to his own ideas and plans, requires that the amateur should be both a designer and builder, which, in their turn require that he should be an efficient draughtsman and carpenter. No one can hope to succeed in building a boat to his own plan, unless he is fully able to design and lay down the lines and body plan of the proposed craft, and added to this in many kinds of boats, such as a small sailing boat, or a steam launch, it is necessary that he should be able to calculate the displacement and the position of the centre of buoyancy. With this knowledge at his command, an unlimited field is opened to the amateur boat-builder, as he will be able to build after his own ideas. Many must have experienced the difficulties of getting some peculiarity in design carried out for