

**THE BUILDER'S POCKET MANUAL:
CONTAINING THE
ELEMENTS OF BUILDING,
SURVEYING, AND ARCHITECTURE**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649405886

The Builder's Pocket Manual: Containing the Elements of Building, Surveying, and Architecture
by A. C. Smeaton

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A. C. SMEATON

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THE
BUILDER'S POCKET MANUAL;

CONTAINING THE ELEMENTS OF
BUILDING, SURVEYING,
AND
ARCHITECTURE;

96. WITH 219
PRACTICAL RULES AND INSTRUCTIONS
IN
CARPENTRY, BRICKLAYING, MASONRY, &c.

OBSERVATIONS ON THE PROPERTIES OF MATERIALS,
AND
A VARIETY OF USEFUL TABLES AND RECEIPTS.



WITH TWELVE PLATES.

By **A. C. SMEATON,**
CIVIL ENGINEER, &c.

A NEW EDITION, REVISED, CORRECTED, AND ENLARGED.

LONDON:
M. TAYLOR, BARNARD'S INN, HOLBORN.
NEW YORK: WILLIAM JACKSON, CEDAR STREET.

MDCCLXXXVII.

P R E F A C E.

ALTHOUGH so many books have been written upon Architecture and the Art of Building, calculated to assist the experienced practitioner, there are few, if any, that profess to assist the student in the acquisition of elementary knowledge. This important omission is supplied by this volume, and it will be found, we hope, a desirable assistant to every young man who has devoted himself to any engagement connected with these interesting pursuits. If the reader desire to become a workman, he will find, in these pages, facts that will aid his progress, and convey in a few hours the information that has been collected with great labour by studious men, in a long series of years; if he intend to be a surveyor of work, he will here find the elements of his art. The architectural student will need both these branches of knowledge, but to assist him still more, we have added an outline of the history of his profession. To whatever branch of the art of building the reader may belong, he will find something valuable to him, and calculated to assist his progress. But, although the book is mainly intended for the student, yet it is hoped that every workman who peruses it will gather some valuable information, and some practical hints which he may carry out in his engagements. To the amateur also, the following pages may be useful, by explaining the technical terms used among workmen, as well as the scientific principles which regulate construction.

ADVERTISEMENT TO THE SECOND AMERICAN EDITION.

THE extremely rapid sale of the former edition of this work having convinced the Publisher that it was adapted in a considerable degree to the wants of the Artificers for whom it was chiefly compiled, he has been induced to have the whole revised, in order to present it again to the Public in as complete a form as circumstances would permit. It has therefore been placed in the hands of one whom he considered competent to the task, and the results of whose labors will be found in the ensuing pages.

It is too commonly the case, in producing works of this nature, to consider the matter only, without regard to the manner, of the information communicated. Hence the expression is often vague, the style hard, and the subject is robbed of the interest to which its importance is entitled; for, be it remembered, the greater proportion of those who read works of this kind are not such as will prosecute their search of information through all the difficulties of language. An attempt has been made to remedy the defects of the former edition, in this respect, not by any alteration in the text, such as the substitution of new matter for old, but by occasionally altering the form of the expression, and by additional care with regard to the punctuation.

The work being originally written for English perusal and practice, was deficient in some respects for the necessities of this country; to supply such deficiencies, and to adapt it more closely to American use, a few notes have been appended to the text, brief accounts of certain materials which are used here, but not in Great Britain, have been added, and rigid care has been taken as to the typography. The calculations also have been revised and corrected. In England, where this work originally appeared, it could hardly have any other object than that of being an assistant to the workman, as it is usual there to call in the surveyor, before payment is made for work of any magnitude. But in the wide extent of this country, where artificers are comparatively scarce, and in particular the western and all new regions, it is incumbent on the settler to put his own hand to many things of which in a crowded population he never dreamt. Hence a knowledge of the details, in matters so important as those which are here contained, will be found of the greatest advantage. They will facilitate the acquisition of those domestic comforts without which the arduous duties of clearing and settlement could not be successfully encountered; they will enable him also to do this cheaply, effectually, and quickly, all of which are highly important considerations.

It is therefore confidently believed that the present edition of The Builder's Manual will be found considerably improved and generally useful. It is offered in the expectation that artificers will meet with occasional hints and information on subjects connected with their particular occupations, and that the community will find their judgment and calculations materially assisted when purposing to incur expenses of such nature.

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