

**BRASSFOUNDERS' ALLOYS: A
PRACTICAL HANDBOOK CONTAINING
MANY USEFUL TABLES, NOTES AND
DATA, FOR THE GUIDANCE OF
MANUFACTURERS AND TRADESMEN**

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Brassfounders' Alloys: A Practical Handbook Containing Many Useful Tables, Notes and Data,
for the Guidance of Manufacturers and Tradesmen by John F. Buchanan

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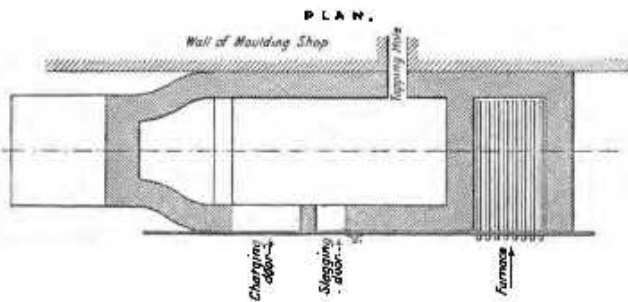
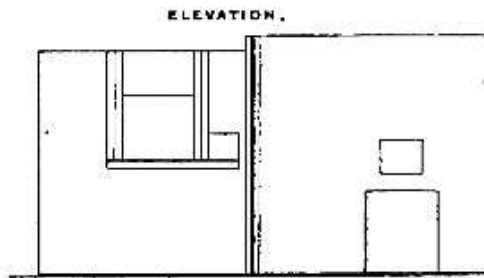
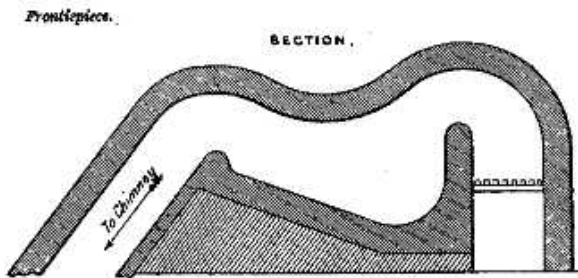
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JOHN F. BUCHANAN

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A REVERBERATORY FURNACE.

BRASSFOUNDERS' ALLOYS

A PRACTICAL HANDBOOK

CONTAINING

MANY USEFUL TABLES, NOTES AND DATA,
FOR THE GUIDANCE OF MANUFACTURERS
AND TRADESMEN

TOGETHER WITH SEVERAL ILLUSTRATIONS AND
DESCRIPTIONS OF APPROVED MODERN METHODS AND APPLIANCES
FOR MELTING AND MIXING THE ALLOYS

BY

JOHN F. BUCHANAN

BRASSFOUNDER



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PREFACE.

It would be difficult to explain why so many books of a purely technical type have been written or compiled on the subject of alloys and metals generally, and so little attention has been given to the methods and formulæ that find favour in the foundry.

No such work, dealing with the practical points of alloying, has been presented yet, so far as we know; and hitherto, for want of such a *vade mecum*, brassfounders have had to struggle through a mass of technical details before they could arrive at an understanding of the few things of importance in the making of alloys.

This handbook is an attempt to meet the want; and being the accumulated experience and data gathered throughout an extensive responsible connection with the trade, it is calculated to present the practical features of manufacturing the alloys on a commercial basis.

By classifying the particular alloys required by the several branches of trade interested in them, and by tabulating only those mixtures which have been approved in practice, as well as by discussing freely what are understood to be the best methods of conducting the various operations, we hope to make these pages both interesting and profitable to all who are engaged in or connected with brassfounding.

J. F. B.

GLASGOW: 1901.

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BRASSFOUNDERS' ALLOYS.

INTRODUCTION.

It is not within the province of a mere handbook of alloys to give any elaborate description of the metals and their uses; therefore we make no attempt to grapple with their history, prior to the refining processes that all metals are more or less subject to before being brought into the market, neither do we purpose straining at the academic style common to the text-books on the subject; our aim being, briefly, to place before practical metal-workers a résumé of the operations involved in the manufacture of the various brassfounders' alloys, along with some carefully chosen tables of mixtures in present use.

Naturally, we leave the statement of the technical relations of metals and alloys, their physical formulæ, and the evolution of chemical equations, to those specially fitted to deal with these matters.

Various methods of classifying the metals have been adopted by the different scientists.