

SMITHS' WORK

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Smiths' Work by Paul N. Hasluck

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PAUL N. HASLUCK

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WITH NUMEROUS ENGRAVINGS AND DIAGRAMS

EDITED BY

PAUL N. HASLUCK

EDITOR OF "WORK" AND "BUILDING WORLD"
AUTHOR OF "HANDBOOKS FOR HANDICRAFTS," ETC. ETC.

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PREFACE.

THIS Handbook contains, in a form convenient for everyday use, a comprehensive digest of the knowledge of Smiths' Work, scattered over ten thousand columns of WORK—the weekly journal it is my fortune to edit—and supplies concise information on the general principles of the subjects on which it treats.

In preparing for publication in book form the mass of relevant matter contained in the volumes of WORK, much had to be arranged anew, altered, and largely re-written. From these causes the contributions of many are so blended that the writings of individuals cannot be distinguished for acknowledgment.

Readers who may desire additional information respecting special details of the matters dealt with in this Handbook, or instruction on kindred subjects, should address a question to WORK, so that it may be answered in the columns of that journal.

P. N. HASLUCK.

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SMITHS' WORK.

CHAPTER I.

FORGES AND APPLIANCES.

It is but fitting that the first chapter of a handbook on the art of the blacksmith should contain descriptions of the various appliances necessary to the performance of the work. The principal of these are noticed in this chapter, descriptions of the hand tools being given in the next chapter; descriptions of those appliances that require to be specially made for individual jobs are included in the explanations of the processes further on. Brief notices of some of the principal forges will be useful as a guide to the choice of one. Portable bellows forges, both rectangular and circular, are made in a great many sizes. One with a hearth measuring about 25 in. by 18 in. is sufficiently large for a single-handed worker, and in it bar iron up to 1 in. or $1\frac{1}{2}$ in. square may be heated. For heavier work, requiring the aid of a hammer-man, the hearth may measure 33 in. by 26 in., and range thence up to 39 in. by 30 in. for the largest work. The common forge built of bricks or stone is suitable for average and occasional heavy work.

The Sturtevant improved bench forge, Fig. 1, is of a very convenient height, and is especially adapted for light work. Fig. 2 illustrates a portable forge fitted with a long-shape bellows. The wrought-iron hooded forge, Fig. 3, has a circular blast bellows. Both of these latter forges are made and sold by Messrs. Linley & Bingham. Roots' patent "Acme" forge, as made by