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The Moulder's and Founder's Pocket Guide: A treatise on moulding and founding in green sand, dry sand, loam, and cement; the moulding of machine frames, mill-gear, hollow-ware, ornaments, trinkets, bells, and statues, description of moulds for iron, bronze, brass, and other metals; the use of Paris, sulphur, wax, etc.; the construction of melting furnaces, the melting and founding of metals; the composition of alloys and their nature, etc. By Fred. Overman, M.E. A new edition, to which is added a supplement on statuary and ornamental moulding, ordnance, malleable iron, castings, etc. By A. A. Fesquet, Chemist and Engineer. Illustrated by Forty-four Engravings. In one volume, 12mo, 32 pages price \$2.00, by mail free of postage.

PREFACE.—The remarkable success which has steadily attended the publication of THE MOULDER'S AND FOUNDER'S POCKET GUIDE, by the late Frederick Overman, has induced the publishers to engage the services of Mr. A. A. Fesquet, in adding to it a supplement which shall bring it up to the best practice of the present day; more especially in some important particulars which are wanting in the original treatise. That gentleman has, therefore, after much conscientious and intelligent labor, and with special facilities which were extended to him, in the most courteous and liberal manner, by the heads of some of the first foundries in this city, produced the matter here presented, which appears under his name. A full index is now also for the first time added. We believe that in its present form it must prove even more useful and popular in the future than it has done in the past; great as that popularity has been.

CONTENTS.—CHAPTER I. MOULDING.—Materials for Moulding; Tools; Moulding in Green Sand; Moulding in Open Sand; Mixed Sand Moulding; Dry Sand Moulding; Loam Moulding; Removing of the Core; Moulding without thickness; Irregular Forms; Moulding of Bronze Ornaments; Moulding partly of Loam and Sand, and partly of Metal; Impressions and Castings. CHAPTER II. MELTING OF METALS.—Iron; Qualities of Iron; No. 1 Iron; No. 2 Iron; No. 3 Iron; Characteristics of Foundry Pig; Mixing of Iron; Kind of Castings; Kind of Moulds; Melting of Cast-Iron; In the Blast Furnace; Melting Iron in Crucibles; Melting in Reverberatories; The Cupola. Description of: Operation in a Cupola; Pigs; Blast-machines; Fans; Hot Blast; Drying Stoves. General Remarks. Cleansing of Castings; Time of Casting; Cost of Moulding and Casting; Melting of Bronze Metal; Melting of Lead, Tin, Antimony, and Brass.

APPENDIX.—Receipts and Tables; Alloys of Iron; Alloys of Precious Metals; Alloys of Copper; Brass; Lead and its Alloys; Tin and its Alloys; Zinc and its Alloys; Bronzing, etc.; Glazing of Castings; Enamel; Tables.

SUPPLEMENT.—STATUARY, ORNAMENTAL MOULDING, ETC.—BY A. A. FESQUET.—The Wax Process; Accidents; Finishing; Miscellaneous; Bronze Statuary; The New or French system; Practical Process; Separating the Parts of the Plaster Pattern; Tenons and Mortises; The Flasks; The Copes; the Moulding; The False Cores; The Openings or Gates for the Entrance of the Molten Metal; The Sands Used, etc.; Turning the Flasks over; Removing the Pattern, etc.; Requirements for an Inside or Real Core; Air and Gas Passages; Finishing the True Core; To Remove the True Core; Fastening the False Cores with Wires; Interior Coating of the Mould; Dividing the Pattern; Drying the Moulds; Temperature of the Moulds; Pressure; Repairing Accidents; Melting the Metal; Mounting or Joining the Parts of the Statuary; The Joints of Separately Cast Pieces; Tools Required; Patterns which may be Cast by this Process; Hardening the Plaster-Alum Plaster; Moulds for Castings of White Metals; Zinc Castings; Solders; Moulding in Wax; Plastic Clay for Deeply-cut Pattern; Brass and Bronze Ornamental Castings for Door Locks, Knobs, Hinges, etc.; Castings for Small Articles; Difficulty of the Metal Reaching the Extremities in Small Castings; New Alloys, Aluminium-Bronze; Phosphor-Bronze; Spiegeleisen; Snap Flasks; Plate Moulding, etc.; Preparation of the Mould for Casting; Door Hinges and Swivels of Cast Iron; Uniting of Cast and Wrought Iron; Small Sand Cores; Fitting of the Core in the Piece; Malleable Iron Castings; Cupolas; Blast; Fonderie a Cotelette; Scaffolding; Ordnance; Bronze for Ordnance; Moulding; Melting and Pouring the Bronze; Shrinkage; Gen. Gebatius's Experiments upon Increasing the Hardness and Elasticity of Bronze; Moulds for Bronze, Cast-Iron, and Steel Ordnance; Pig Metal used for Ordnance; Moulding Sand; Cast Steel Guns; Ordnance Cast Solid and with Core; Casting Cannon Balls; Hollow Projectiles; Hollowness in "Solid Shot" caused by Cooling; Crystallization of Metals in Cooling; Patterns should have no sharp Angles, etc.; Chilled Castings; A. Whitney & Son's Chilled Car Wheels; Stereotypes; Electrotypes; Flexible Moulds; Lotion-plaster; Gutta Serena; Moulds for Electro-Plating; Gelatine for Moulds; Contraction on Shrinkage of Metals and Alloys; Table of the Shrinkages of Castings; Weights of Castings from Patterns; Miscellaneous Processes and Receipts; Malleable Iron Castings; Index.

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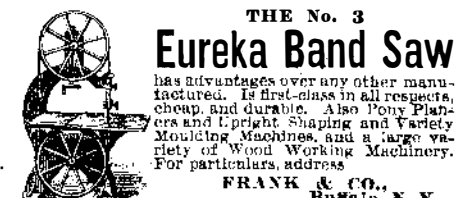
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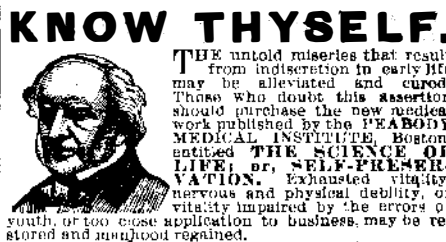
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