## SCIENTIFIC AND MECHANICAL.

ORTON & SADLER'S BUSINESS CALCULATOR AND ACCOUNTANT'S ASSISTANT. A Cyclopædia of the most concise and practical methods of business calculations. Including many valuable and laborsaving tables, togetier with improved interest tables, decimal system 1 showing the interest on from \$10 to \$10,000-rate, ten per cent. per annum. By HOY D. ORTON, Lightning Calculator, formerly teacher of Rapid Calculations.at the U. S. Naval Academy, and W. H. SADLER, President and Founder of Sadler's "Bryant & Stratton" Business College, Baltimore, Md. Designed for the practical use of the Banker, Merchant, Accountant, Mechanic, Farmer, Business Man and Student. Containing the shortest, simplest and most rapid methods of Computing Numbers, adapted to all kinds of business and every-day life. Written and arranged so as to be within the comprehensios. I every one having the slightest knowledge of figures. Price \$1.25.

PRACTICAL GUIDE TO THE DETERMINATION OF MINERALS BY THE BLOWPIPE. By DR. C. W. C. FUCHS. Translated and edited by T. W. DANBY, M. A., F. G. S. \$2.25.

## MR. TRAUTWINE'S ENGINEERING WORKS.

THE FIELD PRACTICE OF LAYING OUT CIRCU-LAR CURVES FOR RAILROADS. By JOHN C. TRAUTWINE, Civil Engineer. Eleventh edition, enlarged and rewritten. 12mo., morocco tuck, gilt edge, \$3.00.

A NEW METHOD OF CALCULATING THE CUBIC CONTENTS OF EXCAVATIONS AND EMBANKMENTS BY THE AID OF DIAGRAMS, together with Directions for Estimating the Cost of Earthwork. By JOIN C. TRAUTWIKE, Civil Engineer. 10 steel plates. Eighth edition, completely revised and enlarged. 8vo., cloth, \$2.25.

CIVIL ENGINEER'S POCKET-BOOK OF MENSURA-TION, Trigonometry, Surveying, Hydraulics, Hydrostatics, Instruments and their adjustments, Strength of Materials, Masoury, Principles of Wooden and Iron Roof and Bridges Trusses, Stone Bridges and Culverts, Trestles, Pillars, Suspension Bridges, Dams, Railroads, Turnouts, Turning Platforms, Water Stations, Cost of Everthwork, Foundations, Retaining Walls, etc., etc. In addition to which the elucidation of certain important Principles of Construction is made in a more simple manner than heretofore. By JOHN C. TRAUTWINE, C.E. Twenty-fifth thousand, revised and enlarged, with new illustrations. By JOHN C. TRAUTWINE, JR., C. E. 12mo., morocco flaps, gilt edges, \$6.00.

**TWENTY YEARS WITH THE INDICATOR.** By THOMAS PRAY, JE., Consulting and Mechanical Engineer. Numerous Diagrams and Plates. Vol. II., Svo., cloth, \$2.00. The work is by a practical engineer of more than nineteen years' experience in readjusting and correcting, as well as for power, economy, etc., of the Steam Engine by the Indicator -- and no formula has been introduced except in plain, simple language, concisely stated. Vol. I., recently published, 8vo., cloth, \$2.00. Vols. I. and II., 8vo., cloth, \$4.00.

ARMENGAUD, AMOROUX, AND JOHNSON,--THE PRACTICAL DRAUGHITSMAN'S BOOK OF INDUS-TRIAL DESIGN, AND MACHINIST'S AND ENGI-NEER'S DRAWING COMPANION: Forming a Complete Course of Mechanical Engineering and Architecturel Drawing. From the French of M. Armengaud the elder, Frofessor of Design in the Conservatiore of Arts and Industry, Paris, and MM. Armengaud the younger, and Amoroux, Civil Engineers. Rewritten and arranged with additional matter and plates, selections from and examples of the most useful and generally employed mechanism of the day. By WILLIAM JOHNSON, Assoc. Inst. C. E., Editor of "The Practical Mechanic's Journal." Illustrated by fifty folio steel plates, and fifty wood-cuts. A new edition, 4to., half merocco, \$12.00.

DWYER.-THE IMMIGRANT BUILDER: or, PRAC-TICAL HINTS TO HANDY MEN, By C. P. DWYER. 12mo., cloth, \$1.25.

FARMER'S BARN BOOK. By CLATER, YOUATT, SKINNER, and MILLS. A Treatise on the Diseases and Treatment of Oxen, Sheep, Swine, Neat Cattle, Horses, etc. 12mo., \$1.50.

he proper , \$1.00.

AOUTies of the the Fabri-Composi-, etc., etc. ted 12mo,

ther, and Il Ameris. 12mo.

reatise on lucts. By yal Teche, Berlin. oyal Agri-. D., Secgs. 8vo.

litions on

-Book of Business Together alth. By io., cloth,

FOR-ME-Member on Railume, full

FICAL ENCE of Labor,

ghtsmen, nools and 3.00.

AND ection of Revised, 1. \$4.25. DER'S ear, Holfor Iron, the Con-Composi-A new coulding,

and En-Iohn W. Tenth

GEORGE