

WILLIAM COLLINS, SONS & CO'S PUBLICATIONS.

ELEMENTARY SCIENCE SERIES

ELEMENTARY SCIENCE SERIES.—"Each book has evidently been entrusted to competent hands, and the arrangement of the materials, so far as we have examined it, appears to be clear and as simply set forth as the subject will admit. The illustrations are numerous and well executed, and the letterpress, paper and binding are decidedly good. The series is altogether one which we can recommend to the attention of teachers, not its least recommendation being its cheapness, which will bring it within the reach of the humblest schools."—*Educational Times*.

"These admirable text-books are designed to meet the requirements of candidates for the Government science examinations, and though by various writers are so far uniform in design that thoroughness and simplicity may be said to characterize them all."—*Manchester Examiner*.

"Written by competent teachers of the science they respectively explain, are handy in size, and are intended to take the place of considerably more expensive works."—*Dundee Advertiser*.

Printed uniformly in fcap, 8vo, fully illustrated, cloth lettered, price 30c. per volume.

PRACTICAL, PLANE, AND SOLID GEOMETRY. By H. Angel, Islington Science School, London. 30c.

PRACTICAL GEOMETRY — FIRST GRADE. By H. Angel. 5c.

PRACTICAL GEOMETRY — SECOND GRADE. By H. Angel; sewed, 15c; cloth limp, 25c.

PURE MATHEMATICS. By Lewis Sergeant, B.A. (Camb.), London. 30c.

Key to the above, cloth limp, 15c.

THEORETICAL MECHANICS. By William Rossiter, F.R.A.S., F.C.S., London. 30c.

APPLIED MECHANICS. By William Rossiter. 30c.

ACOUSTICS, LIGHT, AND HEAT. By W. Lees, A.M., Lecturer on Physics, Edinburgh. 30c.

MAGNETISM AND ELECTRICITY. By John Angell, Science Master, Grammar School, Manchester. 30c.

INORGANIC CHEMISTRY. By Dr. W. B. Kemshead, F.R.A.S., Dulwich College, London. 30c.

ORGANIC CHEMISTRY. By W. Marshall Watts, D.Sc. (London), Grammar School, Giggleswick. 30c.

GEOLOGY. By W. S. Davis, LL.D., Derby. 30c.

MINERALOGY. By J. H. Collins, F.G.S., Royal Cornwall Polytechnic Society, Falmouth. 30c.

ANIMAL PHYSIOLOGY. By John Angell, Science Master, Grammar School, Manchester. 30c.

ZOOLOGY. By M. Harvison, Newtonards. 30c.

VEGETABLE ANATOMY AND PHYSIOLOGY. By J. H. Balfour, M.D., Edinburgh University. 30c.

SYSTEMATIC AND ECONOMIC BOTANY. By J. H. Balfour, M.D., Edinburgh University. 30c.

PHYSICAL GEOGRAPHY. By J. Mac-turk, F.R.G.S. 30c.

PRACTICAL CHEMISTRY. By John Howard, Head-master, Islington School of Science and Art, London. 30c.

ASTRONOMY. By John J. Plummer, the Observatory, Durham. 30c.

QUALITATIVE CHEMICAL ANALYSIS. By F. Bostein. Translated by W. Ramsay. 30c.

EXTRA VOLUMES. PRICE 45c.

BIOLOGY (GENERAL). By Thomas C. MacGinley, Principal, Creagh National School, Donegal. 124 pages, post 8vo. 45c.

APPLIED MECHANICS. By Henry Evers, LL.D. Post 8vo, cloth. 45c.

ANIMAL PHYSIOLOGY. By John Angell, Science Master, Grammar School, Manchester. Enlarged edition, 252 pages, 92 illustrations, post 8vo, cloth. 45c.

DYNAMICS; or, THEORETICAL MECHANICS. By J. T. Bottomley, F.R.S.E. Post 8vo, cloth, 142 pp. 45c.

INORGANIC CHEMISTRY. Enlarged edition. By Dr. W. B. Kemshead, F.R.A.S., F.G.S., London. Post 8vo, cloth. 45c.

MAGNETISM AND ELECTRICITY. Enlarged edition. By John Angell, Manchester. Post 8vo, cloth. 45c.

AGRICULTURE. By Prof. Wrightson, College of Agriculture, Cirencester. 80c.

ADVANCED SCIENCE SERIES.

Adapted to the requirements of the South Kensington Syllabus, for Students in Science and Art Classes and Higher and Middle-Class Schools.

Printed uniformly in post 8vo, fully illustrated, cloth lettered, price 75c. per vol.; half-bound roan, \$1; half-calf, \$1.35.

Now Ready.

PURE MATHEMATICS. By Edward Atkins, B.Sc. (Lond.), Leicester. 2 vols. Each 75c.

"We congratulate Mr. Atkins upon the admirable manner in which he has treated this very difficult subject. We hope his attempt to make it popular will meet with the reward it so richly deserves."—*Leicester Chronicle*.

ACOUSTICS, LIGHT, AND HEAT. By W. Lees, A.M., Edinburgh. 75c.

MAGNETISM AND ELECTRICITY. By F. Guthrie, B.A., Ph.D., Royal School of Mines, London. 90c.

INORGANIC CHEMISTRY. By T. E. Thorpe, Ph.D., F.R.S.E., Professor of Chemistry, Glasgow. Vol. 2 in the press. Vol. 1 ready. 75c.

"From such a book the student of science will derive valuable aid. A very neatly bound post octavo volume, containing 400 pages, profusely illustrated, for the price of half a crown! We cannot pretend to say how the thing is done."—*The Watchman*.

ANIMAL PHYSIOLOGY. By J. Cleland, M.D., F.R.S., Professor of Anatomy and Physiology, Galway. 75c.

"A stout book of some 320 pages, voluminously illustrated, and gives an excellent general view of the science and of the relations of one part of the study to another."—*The School Board Chronicle*.

METALLURGY. By W. H. Greenwood, A.R.S.M. In 2 vols. Each 75c.

"The author has given a full account of the theory and practice involved in the various smelting and other processes, so that its information may become a solid basis for acquiring the fullest knowledge of metallurgy. The descriptions are lucid, the general style is simple and uninvolved and we should say the manual must be a useful one to all who wish to grasp the scientific principles on which our industrial manipulations of the metals proceed. It is illustrated by numerous engravings."—*Edinburgh Courant*.

NAVIGATION. By Henry Evers, LL.D., Plymouth. 75c.

"We feel certain that no better tutor can be wished for by the earnest student than Dr. Evers' little volume."—*Practical Magazine*.

STEAM AND THE STEAM ENGINE
—Land, Marine, and Locomotive. By Henry Evers, LL.D. 75c.

"I have gone over your book very carefully, and I say candidly that I consider it to be a very valuable addition to the mechanical library, and does you great credit. The price is a perfect marvel to me. As a rule the figures are good, and altogether it is a remarkable book, irrespective of price."—*Dr. Anderson, Government Inspector of Machinery*.

PHYSICAL GEOGRAPHY. By J. Young, M.D., Professor of Natural History, Glasgow University. 75c.

"Dr. Young may be complimented on the book which he has produced. It is in every way well suited for the purposes to which it is devoted."—*Athenaeum*.

IN PREPARATION.

PRACTICAL, PLANE, AND SOLID GEOMETRY. By Professor F. A. Bradley, London. 75c.

MACHINE CONSTRUCTION AND DRAWING. By E. Tomkins. 2 vols. Plates \$1.50. Text. 75c.

THEORETICAL MECHANICS. By P. Guthrie Tait, Professor of Natural Philosophy, Edinburgh. 75c.

APPLIED MECHANICS. By Professor O. Reynolds, Owens College Manchester, 75c.

ORGANIC CHEMISTRY. 75c.

GEOLOGY. By J. Young, M.D., Professor of Natural History, Glasgow University. 75c.

VEGETABLE ANATOMY AND PHYSIOLOGY. By J. H. Balfour, M.D., Edinburgh University. 75c.

SYSTEMATIC AND ECONOMIC BOTANY. By J. H. Balfour, M.D., Edinburgh University. 75c.

NAUTICAL ASTRONOMY. By Henry Evers, LL.D., Plymouth. 75c.

GRAMMAR AND COMPOSITION. TEXT-BOOK OF ENGLISH COMPOSITION, FOR JUNIOR CLASSES, WITH EXERCISES. By Thomas Morrison, A.M., Glasgow, Post 8vo, cloth. 45c.

"This little book forms a sensible guide and introduction to the subject—far too much neglected—of English composition. . . . The book as a whole is a good one, and takes a commonsense view of the subject."—*Athenaeum*.

WILLIAM COLLINS, SONS & COMPANY,

LONDON:

Bridewell Place, New Bridge Street, E. C.

GLASGOW:

Herriot Hill Works, 189 Stirlings Road.

EDINBURGH:

The Mound;

TO BE HAD THROUGH ANY BOOKSELLER IN THE DOMINION OF CANADA.