

**THE ILLUSTRATED LONDON
PRACTICAL GEOMETRY,
AND ITS APPLICATION TO
ARCHITECTURAL DRAWING**

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The Illustrated London Practical Geometry, and Its Application to Architectural Drawing by
Robert Scott Burn

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ROBERT SCOTT BURN

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THE ILLUSTRATED
LONDON
PRACTICAL GEOMETRY,
AND ITS APPLICATION TO
ARCHITECTURAL DRAWING.

FOR THE USE OF SCHOOLS AND STUDENTS.

BY ROBERT SCOTT BURN, M.E., M.S.A.

EDITOR OF THE "ILLUSTRATED LONDON DRAWING BOOK," ETC. ETC. ETC.

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THE ILLUSTRATED LONDON PRACTICAL GEOMETRY.

INTRODUCTION.

THE term GEOMETRY, according to its strict derivation, means the "art of measuring the earth." The science is supposed to have originated with the Egyptians. The annual overflowings of the Nile caused frequent destruction to the marks and boundaries of the fields on its banks, hence the first impulse to the discovery of means whereby a knowledge of their extent and boundaries could be ascertained and recorded. Whether this be the true history of the origin of the art or not, it is not within our province to determine; like many other theories it may be more fanciful than correct. We are rather inclined to think that the science has been a strictly progressive one, a slight knowledge of its use and elements being possessed by man even in the early stages of the world's history. In daily contact with material things, the eye becomes accustomed to measure distances and scan altitudes, the river's breadth, and mountain's height,—the hand, in grasping objects, to ascertain their figure and estimate their bulk. The science of Geometry is now, however, that which investigates the properties of magnitude generally, and its relation to number,—its objects are, extension and figure.

Geometry is divided into two parts or branches—Theoretical and Practical, or Demonstrative and Constructive; in the former the principles of the science are treated abstractly,—the latter shows their application to the useful purposes of every-day life. In the varied branches of the arts and sciences, numerous are the operations performed by its aid. In the warlike operations of the "tented field," the soldier is indebted to it for assistance, in razing the fortress and cannonading the "leagured town,"—the sailor, ploughing the pathless deep, owes his safe arrival in his