SOLID OR SPATIAL GEOMETRY.

PART I.

DESCRIPTIVE GEOMETRY.

1. Solid or Spatial Geometry, or the Geometry of Space, deals with the properties and relations of figures not confined to one plane (P. Art. 19).¹

The elements of spatial figures are the point, the line, the curve, the plane, and the curved surface. The first four of these are defined in plane geometry (P. Arts. 12, 14, 17); but we repeat here the definition of the plane, as upon that definition several corollaries and other definitions depend.

Def. A plane is a surface such that the join of any two arhitrary points in it lies wholly in the surface and coincides with it.

Cor. 1. A line cannot lie partly within a plane and partly without it. For the part within the plane must have at least two points in the plane, and must therefore coincide with the plane throughout its whole extent.

¹ References marked P. are to the Author's 'Geometry of the point, line, and circle in the plane.'