

EXPLANATIONS OF THE SECTIONS AND PLATES.

SECTION I.

REPRESENTS the Old Red System of Scotland from its upper beds of Yellow Quartzose Sandstone to its Great Conglomerate base. *a.* Quartzose Yellow Sandstone. *b.* Impure concretionary limestone enclosing masses of chert. *c.* Red and variegated sandstones and conglomerate. These three deposits constitute an upper formation of the system, characterized by its peculiar group of fossils. (See Chapter IX.) *d.* Deposit of gray fissile sandstone which constitutes the middle formation of the system, characterized also by its peculiar organic group. (See Chapter VIII.) *e.* Red and variegated sandstones, undistinguishable often in their mineral character from the upper sandstones, *c.*, but in general less gritty, and containing fewer pebbles. *f.* Bituminous schists. *g.* Coarse gritty sandstone. *h.* Great Conglomerate. These four beds compose a lower formation of the system, more strikingly marked by its peculiar organisms than even the other two. (See Chapters II. III. IV. and V.) In the section this lower formation is represented as we find it developed in Caithness and Orkney. In fig. 5 it is represented as developed in Cromarty. where, though the fossils are identical with those of the more northern localities, at least one of the deposits, *f.* is mineralogically differ-