

ISOTELUS (*Basilicus*) TYRANNUS (*Murch. Sp.*)

*Ref. and Syn.*—*Asaphus tyrannus* Murch. Sil. Syst. t. 25. f. 1.

*Sp. Ch.*—*Cephalic shield* semicircular, about twice as wide as long, length equalling the thoracic and three first pygidial segments; *glabella* obscurely pyriform, convex, not reaching the front margin, with an obscure tubercle on the neck and an oval swelling on each side between the neck and the eye-lobe; *eyes* with very minute lenses, narrow, crescent-shaped; *thorax*, axial as wide as the lateral lobes; *pygidium* elevated, one-third longer than the head, obtusely triangular, one-fifth wider than long, axis less than half the width of the lateral lobes, moderately convex, of about fifteen distinct and many minute segments, sides with about thirteen strong, equal, rounded ribs reaching about two-thirds to the margin, the upper ones reaching nearest to the margin, and nearly at right-angles to the axis, becoming gradually more oblique, and reaching a shorter way as they approach the extremity, leaving a steep, concave, smooth margin, one-third the width of the pleuræ all round. Average length of pygidium two to three inches.

*Position and Locality.*—Llandeilo, Caermarthenshire; Craig y Glyn, near Llanarmon Fach, E. of the Berwyns; Rhiwlas, N. of Bala Lake, Merionethshire; Goldengrove, Llandeilo; Nant yr Arian; Tre Gil, S. of Llandeilo.

Genus. ILLÆNUS (*Dal.*)

*Gen. Char.*—*Cephalic* and *caudal shields* forming two nearly equal and similar portions of hemispheroids, the articular margin of each being truncated, the base of the glabella and caudal axis only indicated in the respective shields by two short axial sulci; nine or ten body-segments, destitute of pleural grooves, and with long, very narrow, nearly obsolete facets. *Eyes* and *eye-line* nearly as in *Asaphus*.

There are three British subgenera:—1st *Illænus*, having ten body-rings and the lateral cephalic angles rounded. 2nd *Bumastus* (*Murch.*), differing only in having no trilobation of the body. 3rd *Dysplanus* (*Burm.*), having the lateral cephalic angles produced backwards into spines, and only nine body-rings, otherwise like *Illænus*.

*Subgenus.* ILLÆNUS (*Dal.*) restricted.

*Gen. Char.*—Body subcylindrical, with equal rounded ends; *cephalic shield* subhemispherical; *glabella* only defined by two short, parallel, unconnected longitudinal furrows at the posterior margin; *eyes* smooth, small, semicircular, placed very far apart on the sides of the head; *eye-lines* subparallel, longitudinal, cutting the posterior margin near the middle of the cheeks, forming the small eye-lobe over the eye and extending thence to two widely-distant points of the anterior margin, where they are connected by a transverse suture; *thorax* three-lobed, of ten equal segments; *pygidium* resembling the buckler in size and shape; *axis* only indicated at the anterior margin by two short parallel unconnected furrows.

ILLÆNUS DAVISHI (*Salt.*) Pl. 1. G. fig. 36.

*Ref.*—Mem. Geol. Surv. Dec. 2. t. 2.

*Sp. Ch.*—*Head, thorax*, and *pygidium*, of nearly equal length, gibbous; *cephalic shield* semioval, length rather more than two-thirds the width, very gibbous, the front nearly vertical; axial furrows sigmoid, half the length of the head, slightly nearer in front than at base; the included space about one-fourth wider than the cheeks; *eyes* rather more than their own length in advance of the posterior margin, and half-way between the axial furrows and the margin; *thoracic segments* with the axial and lateral portions of about equal width, deflexion from the knee close to the axis in the anterior segments, gradually removing to one third of the width in the posterior ones; *pygidium* semioval, length two-thirds the width, moderately convex, the outer third of the circumference rather abruptly sloping to the margin, axial furrows barely indenting the margin. Surface smooth. Average length of head nine lines.