

EXPLANATION OF PLATE 1. B.

LOWER PALÆOZOIC ZOOPHYTA.

- 1 *VIOA PRISCA* (M^cCoy). Three left-hand figures natural size, groups of several branches each radiating from a perforation in the shell.
- 1 *a* — One group magnified three diameters. (As the amorphozoa are not described in this volume, this little boring sponge will be noticed under the head of *Pterinea demissa*, the shell in which it is found, from the Malverns).
- 2 *GRAPTOLITES SEDGWICKI* (Port.) Portion natural size from Lockerby (to shew the true form of the denticles).
- 2 *a* — Portion of ditto magnified six diameters.
- 3 *GRAPTOLITES LOBIFERUS* (M^cCoy). Portion natural size from Lockerby, Dumfriesshire.
- 3 *a* — Magnified six diameters.
- 4 *GRAPTOLITES TENUIS* (Port.) Portion natural size from Lockerby.
- 4 *a* — Magnified six diameters, shewing the tubular stem with the denticular cells, coming off at an acute angle, each with its transverse diaphragm, on which the body of the polyp rested.
- 5 — Curved specimen.
- 6 *GRAPTOLITES MILLIPEDA* (M^cCoy). Natural size from Lockerby.
- 6 *a* — Magnified six diameters.
- 7 *GRAPTOLITES LATUS* (M^cCoy). Portion natural size, shewing the great width of the undivided portion of the polypidom and small denticles, from the shale of Builth Bridge.
- 7 *a* — Magnified six diameters, denuded of its outer coat, and shewing the tubular stem, the oblique divisional walls between the cells, with the form of their mouths, and the transverse diaphragm near the bottom of each to sustain the polyp.
- 7 *b* — Shewing a portion of the outer envelope preserved in addition to the above.
- 7 *c* — A common appearance resembling 7 *a*, but with the transverse diaphragms invisible.
- 8 *DIPLOGRAPSUS RECTANGULARIS* (M^cCoy). Natural size from Lockerby, of an average, perfect specimen, with its filiform apex preserved.
- 8 *a* — Portion magnified six diameters, shewing the rectangular form of the two rows of denticles.
- 9 — Portion of specimen compressed at right angles to the direction of the above.
- 10 — Shewing an intermediate state of the above accidental distortion.
- 11 *PROTOVIRGULARIA DICHOTOMA* (M^cCoy). Branched specimen natural size from Lockerby, shewing the pinnules extended.
- 11 *a* — Portion of ditto magnified six diameters, shewing each of the pinnules divided by tubular sulci for the polyps.
- 12 — A fragment with the pinnules contracted up against the stem.
- 12 *a* — Magnified six diameters, shewing the tubular cellules on the margin of each pinnule in its contracted state.
- 13 *PYRITONEMA FASCICULUS* (M^cCoy). Natural size from the Limestone of Tre Gil.
- 13 *a* Portion of ditto magnified three diameters, shewing the external surface of the bundle of tubes with irregular transverse plicæ, and shewing in the horizontal section at top the terminations of the various filaments in the interior of the mass.
- 13 *b* — Smaller portion more highly magnified, shewing the absence of intermediate structure or walls to the tubes.
- 14 *SPONGARIUM INTERLINEATUM* (M^cCoy). From the Upper Ludlow Rock of Kendal, natural size.
- 14 *a* — Portion of exterior surface magnified two diameters, shewing the fine striæ between the larger radii.
- 15 *SPONGARIUM ÆQUISTRIATUM* (M^cCoy). Natural size, from the Upper Ludlow Rock of Kendal.
- 15 *a* — Portion of outer surface magnified two diameters, shewing the rugged subequal striæ.