

is one also on the inner side, but it is wanting in this genus on the first or coxal joint.

The second joint or basis, the basocerite of Milne-Edwards, has on the outer and lower angle a double-lobed calcified process corresponding with one developed on the first or coxal joint, and which rotates against it, by the single lobe of the latter, which is formed by a simple convolution of the hard wall, falling between the double lobe of the basal joint. On the inner side of the basal joint the articulating process is also developed, but there is no corresponding one on the coxa with which it can articulate. Probably this is primarily due to the fact of the large projection of the sternal portion of the first antennal somite precluding calcareous development in the inner walls of the coxal joint of the second pair of antennæ. The inner articulating process of the basal joint having no point of attachment has a free motion, and being pressed upwards, rests upon the anterior portion of the projected sternum of the first antennal somite; the attaching membranous tissue is consequently largely developed and overlies it also. On the inner surface of this membranous fold, between it and the sternal portion of the first

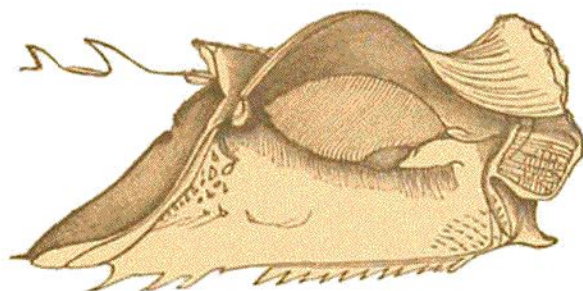


FIG. VIII.—*Palinurus vulgaris*. Basal joint of second antenna, showing stridulating organ.

antennal somite, just where it joins the concave surface of the hard wall of the antennæ, two small chitinous plates are developed; one is comparatively large, ovate, and obliquely striated with regularly corresponding lines, it is elastic in structure and opaline in appearance; the other is small, ovate, with a smooth surface, and amber coloured; below these, planted in a furrow, there is a line of thickly-set hairs. These structures form the stridulating organ (Pl. XA. fig. c), and the joint instead of being articulated at both extremities with the preceding as is usual in other forms, has the inner surface free and capable of being played forwards and backwards over the smooth wall of the first antennal somite, thus producing a sound that may be heard at a distance, even when produced artificially after death.

The fact that the common rock-lobster possesses the power of making a sound by means of the antennæ has long been known to our fishermen. It was mentioned by Dr. Leach in his *Malacostraca Podophthalma Britannica*, but the sound-producing structure was first described by Dr. Karl Möbius in 1867.¹ More recently it has been

¹ *Archiv f. Naturgesch.*, Jahrg. xxxiii. p. 73, 1867.