

ranean parted at a depth of 1200 fathoms, and was raised for repair under the direction of the electrical engineer, Fleeming Jenkin. Forty miles of cable were drawn up, bringing with it a quantity of Coral and other organisms, a few specimens of which were sent to Professor Allman, who made a list of fifteen varieties of animal life, including eggs of a Cephalopod, *Grantia*, *Plumularia*, *Gorgonia*, *Alcyonium*, *Cellepora*, *Retepora*, *Eschara*, *Salicornaria*, *Ascara*, *Lima*, and *Serpula*. Wyville Thomson says that, according to Jenkin's private journal which he was allowed to consult, a specimen of *Caryophyllia*, a true Coral, was found adhering to the cable at 1200 fathoms, the very point where it had snapped. Some portions of the cable were subsequently examined by A. Milne-Edwards,¹ who showed that the animals were living at the bottom, for their soft parts were preserved, and the bases of the Corals, &c., were moulded on the inequalities of the cable. Among the Mollusca were *Ostrea cochlear*, found in many parts of the Mediterranean; *Pecten opercularis*, common in the Mediterranean, which was found adhering to the cable at a depth of 1100 fathoms (?) and was highly coloured; *Pecten testæ*; a small somewhat rare comb-shell; and two Gasteropods. Corals were more numerous than Mollusca, including a species apparently identical with *Caryophyllia arcuata*, found fossil in the upper strata of Piedmont and at Messina, and another species of the same genus, *Caryophyllia electrica*, quite similar to a Pliocene fossil found by Deshayes at Donera, Algeria.² Besides these, two *Serpulæ*, some Bryozoa, and a few *Gorgoniæ* were observed. The result of these observations proved that forms till then known only as fossils existed at the bottom of modern seas. In directing the attention of geologists to these discoveries, Prestwich³ shows the connection between some of the species collected and the geological strata:—

Ostrea cochlear, Coralline Crag.
Pecten opercularis, Coralline and Red Crag.
Pecten testæ,
Monodonta limbata, } Pliocene strata of Italy.
Fusus laminosus,

Previous to these observations the existence of living animals at considerable depths was still regarded by many naturalists as doubtful; it was held to be uncertain whether the creatures found adhering to the sounding line or caught in the sounding machine came really from the bottom or were captured in intermediate waters. The discovery by Fleeming Jenkin of members of the higher groups living attached to the cable

¹ Observations sur l'existence de divers Mollusques et Zoophytes à de très grandes profondeurs dans la mer Méditerranée, *Ann. Sci. Nat.*, Zool. ser. 4, tom. xv. pp. 149-157, 1861.

² Wyville Thomson (*Depths of the Sea*, p. 29) states that according to Jenkin's notes only one or two species, particularly *Caryophyllia borealis*, were found adhering to the cable at depths exceeding 1000 fathoms. From that depth Jenkin himself took off specimens of *Caryophyllia*. Thomson suspects that specimens from lesser depths were mixed with the deeper ones in the series examined by Milne-Edwards.

³ Presidential Address, *Quart. Journ. Geol. Soc.*, vol. xxvii., 1871.