Dr Wright then proceeded with his report on the anatomy of the *Hydroidæ*.

The following communications were read:—

1. *Observations on British Zoophytes.* By Joshua Alder, Esq.

(1.) *Hydractinia areolata.*—*Polypary* encrusting, consisting of a solid chitinous expansion, from which rise simple linear spines in irregular groups, leaving areolar spaces between them. *Polyps*, naked, small, white, columnar, slightly expanding above, and terminated by a conical mouth, below which is a single circle of from six to ten rather slender tentacles, appearing of different lengths from their varying contractibility. Gonophores sessile, large, globular, or slightly pear-shaped, containing each a single medusoid. *Medusoid*, with a moderately deep sub-globose umbrella, with four golden-yellow radiating canals, at the bulbous base of which are four rather short tentacles; four shorter ones alternate with them, and between each again are eight others, almost tubercular. The peduncle is rather long, columnar, white, with four tufts of thread cells surrounding the mouth.

On a small *Natica Alderi*, from deep water, Cullercoats.

(2.) *Atractylis arenosa.*—*Polypary* minute, consisting of a creeping fibre, from which arise short funnel-shaped tubes, rather irregular in form, but always expanding more or less at the top. *Polypes* entirely retractile, with long, slender, strongly muricated tentacles, varying in number, according to age, from six to twelve. The polypary is usually covered with minute grains of sand.

On stones and the roots of *Laminaria*, within tide-marks, at Tynemouth and Cullercoats.

Dr Wright stated that he had found this zoophyte at Largo, in autumn last, and had observed its mod eof reproduction, which was unique amongst the Tubulariadæ.

2. *On the Anatomy of Sacculina.* By John Anderson, M.D.

3. *On Reproduction in Æquoria vitrina.* By Dr Strethill Wright.

In vol. i. of Agassiz's "Natural History of the United States," the following passage occurs:—"As to the Æquoriadæ, I have no doubt that they are genuine hydroids, though I have not been able to trace with certainty the origin of the Æquoria of our coast to any true hydroid. But the structure of Æquoria in its adult Medusa state is so strictly homologous to that of all the naked-eyed Medusæ, that even if it were ascertained that it undergoes a direct metamorphosis from the egg to the perfect Medusa, I would not hesitate to consider it as a member of the order of Hydroids, since it has simple radiating aquiferous tubes, a circular canal, and marginal tentacles closely connected with it, and provided with minute pigment spots at the base." Agassiz was doubtless correct; and he might also have predicted that it belonged to the genus Campanularia or

laid aside his titles, and honours, and power; and hath passed from the uncertain and turbulent shadows of this world, to the serene light of the eternal day. Gentle, and wise, and good,—earnest in the work of the present,—he was of those who, standing on the mountain tops, gaze wistfully on the brightening dawn of the future. "*Nobody*," saith he, who being dead yet solemnly speaketh—"*Nobody who has paid any attention to the peculiar features of our present era, will doubt for a moment, that we are living at a period of most wonderful transition, which tends rapidly to accomplish that great end to which, indeed, all history points*—THE REALISATION OF THE UNITY OF MANKIND. (Speech of the Prince-Consort at the Lord Mayor's Banquet, 1850.)

Laomedea, as it corresponded with those genera in the presence of otoliths. In the beginning of this month (November) my friend Mr Fulton, to whom I owe so much, sent me two living specimens of *Æquoria vitrina*,—one about three inches in diameter, the other about six inches and a half. The number of lips of the latter was about forty, the radiating canals, each having a long ovisac, about eighty, and the marginal tentacles, by estimation, four hundred. On examining the ovaries, I found that the eggs were hatched, and the young, in the form of almost invisible planulæ, were issuing from the ovisacs. These were gently extracted with a glass syringe, an instrument so useful to those who practise the obstetric art amongst the hydroidæ, and were placed about three weeks ago in glass tanks of clean sea-water prepared for their reception. Many thousands of larvæ were placed in the tanks, and of those, about a score have been developed into Campanularian polyps, about a hundred are still progressing to that end, and the rest have disappeared. It was with no little impatience and anxiety that I saw the Planula during a fortnight fix itself to the glass, spread itself out into a short thread, secrete its scleroderm, put forth its polyp-bud,—this last slowly swelling day by day, until at last it opened, and a polyp appeared, furnished with twelve alternating tentacles, joined together for about one-third of their length by a web, the polyp enclosed in a cell terminating in many acuminate segments. It is now about six years ago that I was watching in like manner the slow evolution of a bud from a Campanularian Zoophyte, the *Laomedea acuminata* of Alder,—the Campanulina of Van Beneden,—the bud opened, and a bright green medusoid issued forth, having four lips and two tentacles. The polyp form of *Æquoria vitrina* is, as far as I can determine, identical with that of *L. acuminata* in shape; but is so excessively small,—quite invisible to the naked eye,—that we must wait for further development before we can determine their identity. Geganbaur has proved that the medusoid of Velella acquires a further number of canals and tentacles; and I have elsewhere recorded the successive changes which occur in the medusoids of several species of Atractylis. It is also certain that such increase in the number of elements does occur in *Æquoria vitrina*, for the smaller specimens have always a less number than the larger. Meantime, the questions as to the larval state of *Æquoria vitrina* is settled. This, the largest of all the naked-eyed Medusas, is the reproductive phase of one of the smallest of all the Hydroidæ.

Monday, 16th December 1860.—Alexander Bryson, Esq., President, in the chair.

It was moved by George Logan, Esq., and unanimously agreed to, that, on account of the deeply lamented death of H.R.H. the Prince-Consort, the Society do adjourn to the fourth Wednesday of January.

SCIENTIFIC INTELLIGENCE.

GEOLOGY.

*Coal.**—In the year 1853 a remarkable trial took place at Edinburgh before the Lord-Justice-General and a special jury to try the question

* In anticipation of a full review of Dr Percy's admirable work on Metallurgy, we have quoted the following remarks on Coal, as having reference to questions of interest at the present day.—(Ed. *New Phil. Jour.*)