

the diaphanous condition of the front part, may likewise be easily explained as subservient to such a function.

That the organs in question cannot, as formerly held, be eyes, may be inferred from several facts:—1. The nerve that penetrates the organs, or at least those belonging to the trunk, is very thin, and does not give rise to any special (retinal) expansion. 2. The structure of the hinder part of the globule is wholly different from that observed in true eyes, being completely filled with a cellular mass, in the centre of which the fibrous corpuscle lies embedded, and having its pigment-coating not internal but external. 3. The arrangement of the organs belonging to the tail is such, assuming the organs to be eyes, as by no means to admit of a good visual impression, the constant motion of the pleopoda approximating the organs at very short intervals, whereas the effect of phosphorescence may for that very reason be materially augmented, giving to the light a glittering or tremulous lustre. 4. Finally, I have found, as stated above, a similar organ embedded in the pedicle of the true eyes themselves, and this organ, being immobile, also entirely lacks the front hemisphere with its lenticular corpuscle, whereas the hinder one in every respect agrees with the posterior part of the other organs, exhibiting in the centre a large bunch of phosphorescent fibres, and externally a coating of red pigment (see Pl. XI. fig. 8). It is certainly far from probable that any one examining the last of these organs would venture to assign it the function of sight; and, indeed, Professor Claus, who has recorded and figured the organ in the larvæ—in the adult animal it would seem to have totally escaped his attention—has nothing whatever to state respecting its probable function. Meanwhile, the organ undoubtedly bears the closest relation to the above described globules, both in regard to structure and function, the light it produces being, in fact, very intense, though comparatively more steady, than is that from the other movable organs. Since the eye-pedicles, however, are themselves movable, the animal may also, to a certain extent, be able to vary the effect of these organs.<sup>1</sup>

*Nervous System* (see Pl. XII. fig. 30).—The nervous cord in the Euphausiidae exhibits certain rather striking peculiarities as compared with that in other Schizopods. Thus, the number of separate ganglia belonging to the anterior division of the body is greater than in any other known form of podophthalmous Crustaceans, since, exclusive of the cerebral or supra-oesophageal ganglion, no less than eleven ganglia occur, all of which, however, lie embedded, as it were, within a common envelope of connective tissue. The most anterior only of these ganglia, belonging apparently to the mandibular segment, would seem to present all the features of a simple nervous dilatation, whereas the succeeding ones consist of two well-marked lateral halves, and are connected by double and somewhat distant commissures. Each of the two pairs of maxillæ are innervated by their separate ganglion, whereas these ganglia in most other Crustacea are, as is well-known, united and consolidated with the mandibular ganglion into one nervous mass. The two posterior ganglia

<sup>1</sup> See Narr. Chall. Exp., vol. i. p. 743, 1895.