

in which the fœtus is kept during the whole time of utero-gestation, and upon the influence of the bodily and mental affections of the mother upon the child; in further illustration of which, several instances are detailed in proof of the descent of various peculiarities of the mother to the offspring.

Observations on the Changes the Ovum of the Frog undergoes during the Formation of the Tadpole. By Sir Everard Home, Bart. V.P.R.S.
Read November 25, 1824. [*Phil. Trans.* 1825, p. 81.]

The ova of the Frog, when examined in the ovaria, consist of dark coloured vesicles, which acquire a gelatinous covering on entering the oviduct, and are completely formed by the time they reach the cavities in which the oviducts terminate, and during their expulsion from which they receive the male influence; after this, the contents of the ovum, previously fluid, coagulate and expand, the central part being converted into brain and spinal marrow, while in the darker substance of the egg the heart and other viscera are formed. The membrane forming the vesicles being destined to contain the embryo when it has become a tadpole, enlarges as the embryo increases, and may be said to perform the office both of the shell and its lining membrane in the pullet's egg, serving as defence and allowing aëration. The black matter which lines the vesicle probably tends to the defence of the young animals from the too powerful influence of the solar rays, frogs' spawn being generally deposited in exposed situations. Sir Everard observes, that in the aquatic Salamander, an animal whose mode of breeding closely resembles the frog, this nigrum pigmentum is wanting; but that that animal deposits its eggs within the twisted leaves of water plants, which afford them an equivalent protection.

A general Method of calculating the Angles made by any Planes of Crystals, and the Laws according to which they are formed. By the Rev. W. Whewell, F.R.S. Fellow of Trinity College, Cambridge.
Read November 25, 1824. [*Phil. Trans.* 1825, p. 87.]

The author, after stating the inconsistencies, inelegancies, and imperfections of the received notation for expressing the planes of a crystal, and the laws of decrement by which they arise, and of the usual methods of calculating their angles, explains the object of the present paper, which is to propose a system exempt from these inconveniences, and adapted to reduce the mathematical portion of crystallography to a small number of simple formulæ, of universal application. According to the method here followed, each plane of a crystal is represented by a symbol indicative of the laws from which it results, which, by varying only its indices, may be made to represent any law whatever; and by means of these indices, and of the primary angles of the substance, we may derive a general formula expressing the dihedral angle contained between any one plane re-