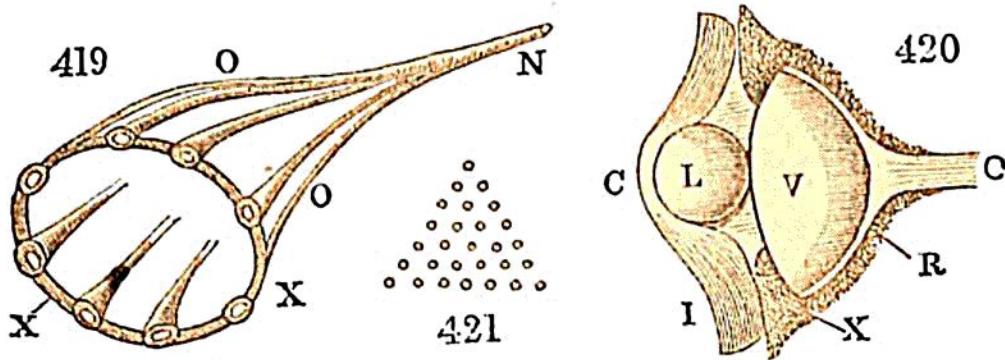


a caterpillar, which has eight of these eyes, are shown in Fig. 419, connected together by a circular choroid membrane (x x) common to the whole: together with the separate branches (o o) of the optic nerve (n) belonging to each.



brane (x x) common to the whole: together with the separate branches (o o) of the optic nerve (n) belonging to each.

All the Arachnida possess eyes of this latter description; and from their greater size afford facilities for dissection, which are not met with among proper insects. Their number in Spiders is generally eight, and they are disposed with great symmetry on the upper side of the head. Fig. 420 represents, on a magnified scale, one of the large stemmata, on the head of the *scorpio tunensis*, dissected so as to display its internal parts; in which are seen the cornea (c,) derived from an extension of the integument (i;) the dense spherical crystalline lens (l;) the choroid coat with its pigment (x,\*) forming a wide opening, or pupil; the vitreous humour (v,) covered behind by the retina (r,) which is closely applied to it; and the optic nerve (o,) with which the retina is continuous.

Examples of the conglomerate eye occur in the Myriapoda: in the *Scolopendra*, for instance, they consist of about twenty contiguous circular pellucid lenses, arranged in five lines, with one larger eye behind the rest, which Kirby compares to a sentinel, or scout, placed at some little distance from the main body. In the *Julis terrestris*, or common Millepede, these eyes, amounting to 28, form a triangle, be-

\* Marcel de Serres states, that some of the stemmata of the insects which he examined contain a thin choroid, having a silvery lustre, as if intended as a reflector of the light which falls on it.