Art. XI.—Notice of a new Trilobite, Ceraurus crosotus; by John Locke, M. D., Professor of Chemistry and Pharmacy in the Medical College of Ohio.

Messrs. Silliman—I enclose to you a drawing of a new species of trilobite, evidently of the genus Ceraurus of Green. It is one of the smallest, and at the same time one of the most elegant of this family of extinct crustacea; this drawing being magnified three times in linear dimensions. Fragments of this species have been repeatedly found in the rocks of this vicinity, especially the fringed margin of the shield; but it was not until last summer that I procured a specimen so nearly entire as to determine its generic relations. When Dr. Green established the genus of Ceraurus, it consisted of only one species, the Pleurexanthemus. But now that other species very closely allied to that are found, the justness of his discrimination is very apparent. I have named this new species crosotus, from the Greek word, signifying fringed. Dr. Green’s description of his species—“Clypeo, postice arcuato, angulo externo in mucronem valde producto, oculis minimis remotis, post abdomine in spinam arcuatum utrique extenso,” applies quite well to the crosotus; but this last differs from the former in having the shield pectinate or fringed anteriorly. The spines of the shield and of the several ribs are more nearly straight. Besides the spines terminating the ribs, there are six slender teeth, similar to those of the anterior fringe, attached, not to ribs, but to the terminal margin of the tail, four of them between the two last costal spines, at a, and the other two outside or anterior to the same, at b. Each of the costal arches is marked by two tubercles or “pimples,” (one in the other species,) one on its middle, and the other at the commencement of the free spine in which each costal arch terminates. These tubercles form four rows or lines down the body, two on each lateral lobe, the inner one being in the direction of the distant eyes.
MISCELLANIES.

2. Supplementary notice of the Ceraurus crosotus; in a letter from Prof. John Locke, M. D., to the Editors, dated Cincinnati, Feb. 24, 1843. — Below are some figures of parts of the crustacean which I have denominated the Ceraurus crosotus, described and figured in a previous letter. (See this Journal, Vol. xliv, p. 346.) It is very rare that we meet with this fossil entire; my own specimen, which is somewhat mutilated in its smaller appendages, is the only one known to me. To the practical geologist it will be a matter of interest to be informed what fragments are of most frequent occurrence. The subjoined figures represent such as are most abundant in our rocks.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 2 is an accurate drawing of a specimen in my own cabinet, magnified six times in linear dimensions. By referring as above to fig. 1, it will be seen that it is the cheek or lateral portion of the shield. This is by far the most common fragment, and it is fortunately very well characterized by its pectinate form. Fig. 3, from a fragment in my own possession, magnified to the same scale, represents the tail or termination of the animal. The two longer processes are continuations of the last costal arches, while the four intermediate smaller appendages, and the two exterior ones, of similar size, are attached merely to the margin of the crustaceous covering, and are similar to the fringe of the cheek in Fig. 2. Fig. 4, from a specimen in Mr. Carley's cabinet, is evidently the same as fig. 3, but with the lesser processes broken off, as at a. Before other parts had been examined, this last had deceived one of our best naturalists, who mistook it for the anterior instead of the posterior termination of a crustacean. Since I communicated to you my account of the entire fossil, (Vol. xliv, p. 346,) I have discovered that the best specimens are covered with elegant tubercles, showing in this respect a close analogy to the Ceraurus pleurexanthemus of Dr. Green. A fragment is not unfrequently found, which if it belongs to this species, would indicate a central process from the posterior margin of the shield, running down over the middle of the body, like a Chinese cue of hair. My best specimen, already referred to, is broken at this point, and does not settle the question with regard to such a process.