DESCRIPTION OF TWO NEW FOSSIL SHELLS OF THE UPPER AMAZON.

BY T. A. CONRAD.

The Pebas group of the Upper Amazon was first discovered by Prof. James Orton in 1867, who obtained a collection of the remarkable shells, some of which were first described by Mr. Gabb. Subsequently, at request of Prof. Orton, Mr. Hauxwell collected other specimens, and Prof. Steere obtained some new species, besides a very large number of several species of PACHYDON. Prof. Orton, having revisited the region in which the Pebas group occurs, has found two new forms which he has forwarded to me to describe. These new shells belong to fresh-water genera, and help to define the nature of the habitat of the group. They confirm the opinion I advanced in the preceding paper, that it was a basin of fresh water to which brackish water had access at times. The HEMISINUS herein described occurs crowded in the clay in such perfection that the species must have lived and died on the spot, and as the living shells of the genus inhabit fresh-water rivers of South America, very far from salt water, they are as much fresh-water shells as are those of MELANIA. Some of the shells are water-worn, and there is abundance of small fragments of shells in the clay, in which respect it resembles some of the Miocene beds of Virginia. The Pebas clay in all the localities is crowded with specimens of *Isæa Ortoni*, *I. lintea*, *Liris laqueata*, all of which I believe to be fresh-water shells of the family *Melaniidæ*.

The two shells described in this paper were found at Iquitos, about 100 miles west of Pebas.

Family UNIONIDÆ.

HAPLOTHÆRUS, Conrad.

Equivalve, hinge margin straight, the cartilage area very broad and thick, hinge edentulous, anterior muscular scar small, narrow, and deeply impressed, accessory situated under the primary scar.

This is a large, very thick shell, laminated and pearly like Unio, and is remarkable for the thick, broad hinge area. It comes in fragments, so that the entire outline is unknown. The anterior accessory scar is differently situated from that in ANODONTA,

which is on the posterior side of the primary impression. The latter is very much smaller than in an ANODONTA of the same size.

H. capax. Pl. 12, figs. 1, 2, 3.

Ovate,? thick and ponderous, inflated; umbo prominent, rounded; beaks distant from anterior extremity; valves somewhat contracted near the middle towards the base.

Prof. Orton remarks that he saw many fragments of this shell, and, therefore, it probably lived in company with Pachydon, but the lamina of the shell separate so readily that fragments only are obtainable. The shape of the shell is evidently somewhat like that of a TRIQUETRA.

HEMISINUS, Swainson.

H. tuberculiferus. Pl. 12, fig. 4.

Turreted, elongated, volutions 9, laterally straight; 3 prominent revolving tuberculated ribs on each volution of the spire, except two or three nearest the apex; last volution with 9 or 10 revolving lines, unequal in size; a fine carinated line borders the upper margin of the suture, which is indistinctly defined; aperture short.

A beautiful species, very distinct from any living shell of the genus. It occurs often very perfect, with the exception of the labrum, which is broken, in every specimen I have seen, from the chalky nature of the shell, not generally from attrition.

PACHYDON, Gabb.

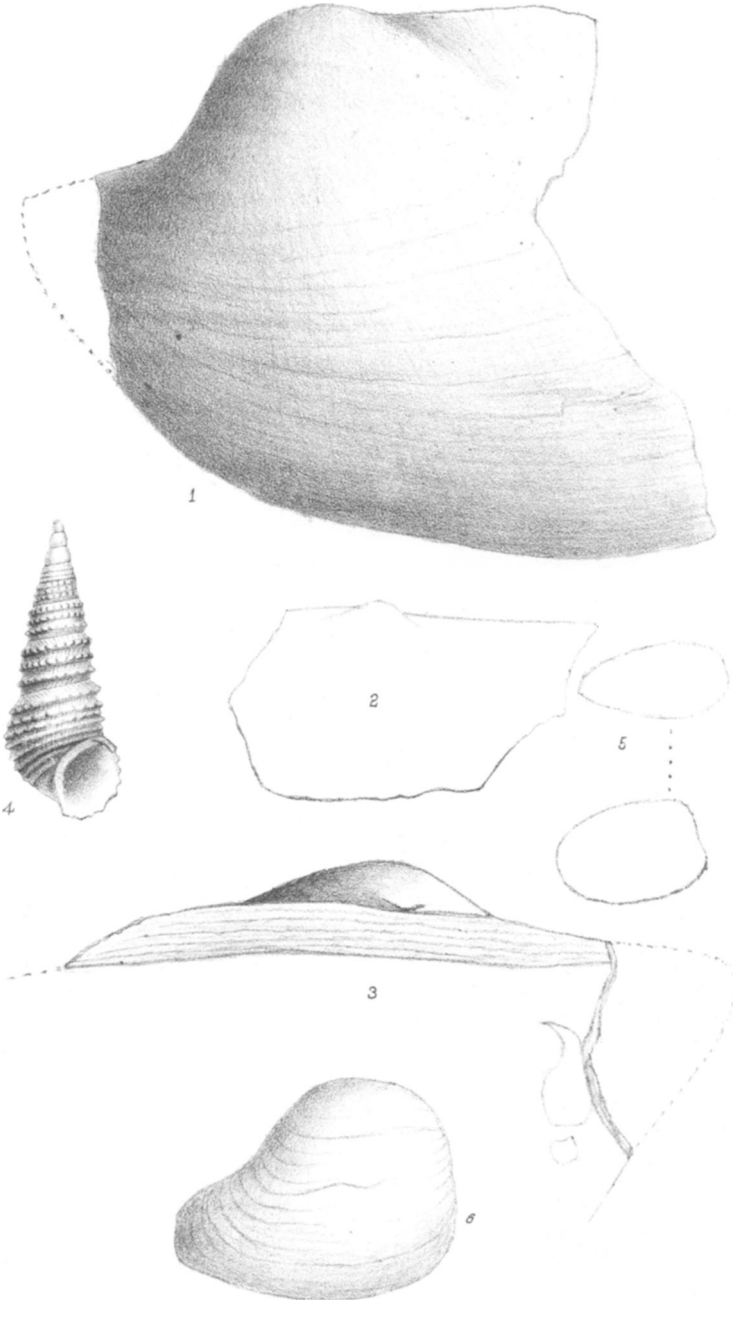
P. tenuis. Pl. 12, fig. 5.

Outlines representing extremes of variation.

P. ——. Pl. 12, fig. 6.

As there is only one specimen of this form, I am uncertain whether it is a distinct species or a variety of *P. tenuis*.

In my last paper, for *Mylitoides* read *Mytilopsis*.



Conrad's Fossils of the Pebas Group