reality of the distinction between the mass of southern, and the northern specimens of *P. appressa*. The northern shells described by Say have no incised spirals whatever, and the upper lip-tooth is frequently developed. The southern specimens (which we have called *P. appressa perigrapta*), have spiral incised lines more or less developed, and the upper tooth is wanting in the vast majority of cases. When it is present, as in the Cherokee Co., N. C. examples mentioned by Mr. Wetherby, I would regard it as an interesting case of reversion.

As to Polygyra tridentata, Mr. Wetherby has not read my paper with sufficient care to see my meaning. He attacks my P. fraudulenta, but says in the next sentence that P. fallax is perfectly distinct from tridentata. The truth is that Helix fallax of Wetherby and other modern authors and collectors is identical with my fraudulenta! The true H. fallax of Say is identical with H. introferens Bland, as I have already stated in this journal and elsewhere. So my critic discredits and affirms the validity of this form in one article! As to P. tridentata edentilabris, Mr. Wetherby has evidently never seen it. The var. juxtidens is a well-known form. I believe it to be a distinct line of differentiation, well worth attention and recognition by name.

I have not referred in this article to the large class of individual variations such as is shown in the banding of many Helices. This mode of variation is often repeated, different species having parallel modifications. The mutations are frequently not inherited, any of the forms giving birth to numerous others, as is the case with the band-varieties of Helix nemoralis. This tendency to "sport" in all directions is a totally different thing from the moulding of an entire race explained above; and its products cannot usefully be given varietal names. They are best expressed by formulæ devised to cover entire classes of such variations.

### TYPES OF ANODONTA DEJECTA REDISCOVERED.

#### BY CHAS. T. SIMPSON.

In making a final arrangement of the general collection of Uniowidx of the National Museum I found the other day among some

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d in this article to the large class of individual shown in the banding of many Helices. This often repeated, different species having parallel mutations are frequently not inherited, any of h to numerous others, as is the case with the ix nemoralis. This tendency to "sport" in all different thing from the moulding of an entire 2; and its products cannot usefully be given 29 are best expressed by formulæ devised to such variations.

# NODONTA DEJECTA REDISCOVERED.

BY CHAS. T. SIMPSON.

rrangement of the general collection of Unionluseum I found the other day among some Unios, Lewis' types of Anodonta dejecta. The species was furnished by Dr. H. C. Yarrow, Surgeon and Naturalist of the Wheeler Expedition, and was said to have come from the Arkansas or its tributaries, west of the 100th meridian. The lot consists of three broken valves, two of them forming a normal pair but very much distorted.

I saw in a moment that the shell I named Anodonta mearnsiana in the NAUTILUS, Vol. VI, no. 12, p. 134 was the same, and my name will therefore have to be relegated to the synonymy.

Lewis described his species in Field and Forest, Vol. 1, nos. 3 and 4, page 26, and in Wheeler's Report upon Geographical and Geological Explorations and Surveys West of the One Hundredth Meridian, vol. V, Zoology, p. 952, 1875, but did not figure it.

I am almost certain that the locality given by Dr. Yarrow is wrong, as the specimens collected by Dr. Mearns were from San Bernandino Ranch, Arizona, out of waters that drain into the Colorado River of the West. A very large number of specimens were sent, and there can be no doubt as to where they were found.

It would indeed be a strange thing if this species was obtained from two places seven or eight hundred miles apart, in two distinct drainage areas. As the locality given for Lewis' species is rather vague, and a large amount of the collections of the Wheeler Expedition were made on the Pacific slope it is quite probable that the types of A. dejecta came from the Colorado drainage basin.

Washington, D. C., Aug. 1st, 1894.

## DESCRIPTIVE NOTICES OF NEW CHITONS, V.

## BY H. A. PHISBRY.

Ischnochiton ptychius n. sp.

Shell small, oval, moderately elevated, with fine and distinct though rather obtuse dorsal keel and slightly convex side-slopes; bright flesh-pink, with a few white dots along the sutures, and creamy angular patches on the outer portions of the pleura of some valves, the girdle dull flesh-colored with indistinct whitish mottling in some places.

Median valves short, the posterior outlines slightly concave, with the beaks but slightly indicated. Lateral areas slightly raised, each