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though the siphon is not recurved; pillar smooth, nearly straight with little callus; the body with no subsutural callus; the outer lip slightly flaring, hardly thickened; lon. of shell 26, of aperture 15.5, lat. 13.0 mm.

San Pedro, Cal., in rather deep water, E. W. Roper; in whose honor the shell is named.

This is a singular species, recalling Ocinebra or Muricidea by its surface sculpture and the constricted and appressed sutural region of the whorls. I have not been able to find any species with similar characters in the monographs or in the National Collection. It is probable that it should be separated sectionally from the group typified by F. colus, and it cannot be associated with Sipho or Chrysodomus, so it may be regarded as typifying a new section, Roperia.

### NEW UNIONIDÆ

### BY BERLIN H. WRIGHT.

### U. Strodeanus sp. nov.

Shell smooth, subtriangular, not inflated, inequilateral, rounded before, obtusely angular behind, slightly arched above and gracefully rounded beneath. Substance of the shell solid and nearly uniform throughout. Beaks gracefully pointed, not prominent, scarcely extending above the short red ligament and surrounded by a few coarse, low undulations which do not extend back as much as usual. Umbos flattened. Epidermis olive-black, rayless. Not polished and with distant, faint marks of growth. Umbonial slope obtusely angular or rounded; posterior slope slightly compressed and with two or three slightly impressed lines extending from beaks to margin. Cardinal teeth strong, deeply cleft and inclined to be direct. Lateral teeth prominent, curved and inclined to be double in both valves. Shell cavity moderate and quite uniform. Beak cavity slight and abruptly rounded. Cicatrices small, barely distinct and well impressed. Nacre white and only slightly iridescent towards the margins. Width 2 in., length 11 in., diam. 1 in.

Habitat: Escambia River, West Flordia.

Type in National Museum.

Remarks: Affinity, *U. reclusus* nobis and *U. simulans* Lea. From the former it differs in having a darker and rougher epidermis, not so pointed behind, flatter sides, shorter and teeth heavier. From

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the latter it differs in its shorter dorsal line, more pointed posterior, red ligament and greater length. It has the outline of *U. Genthii* Lea but it is darker, rayless and the teeth are heavier, the single lateral being uniformly tapered off to its posterior end instead of ending abruptly. Twelve specimens were taken along with *U. succisus* (cacao) Lea, *U. incrassatus* Lea, var. boykinianus Lea and neissleri Lea, var.

We name it in honor of our esteemed friend, Dr. W. S. Strode, of Lewiston, Ill.

U. cylindricus Say, var. strigillatus nov.

The chief distinguishing characters of this variety are: Much more compressed, sculptured throughout, and lateral teeth widely diverging and curved downwards. The umbonal ridge is very low nad broad, and fluted with elongated, divergent, flattened elevations. Nacre usually pink.

Habitat: Clinch River, Lee Co., Va. Type in National Museum. Remarks: A large number of these shells was received several years ago from Mr. J. F. Sword, of Jonesville, Va., and sent out under Mr. Say's name. Recently several young ones were found which convinced me of their varietal value, indicating a connecting link with *U. tuberculatus* Barnes.

# ISAAC LEA DEPARTMENT.

[Conducted in the interest of the Isaac Lea Conchological Chapter of the Agassiz Association by its General Secretary, Dr. W. S. Strode].

# INTERGLACIAL SHELLS AT TORONTO, CANADA.

[Extract from the report of James II, Lemon. From the Transactions of the Isaac Lea Conchological Chapter for 1897.]

The most interesting deposit from a conchological standpoint is found at Taylor's Quarry on the banks of the Don River, a mile northeast of the city of Toronto. At this point a good section of the Drift has been exposed. The underlying rocks are Hudson River shales belonging to the Silurian period, rising about 30 feet above the bed of the river. They are immediately covered by a layer of till three feet thick, and which fills in all irregularities of the underlying shale. The fos-ils are found in a few inches of clay

just above this till. collected and sent Simpson, who iden pustulosus, U. pustulosus, U. τ

Besides these a Pleurocera subular carinata, Campelon Sphaerium, etc.

A peculiar fact bis and Physa, she of the Don. Of t Mr. Simpson only Unio phaseolus and in Lake Erie, but

Three of the spe not found to-day it confined to the Mi

The presence of climate existing d more southern th out by the nature

Along the shore line of cliffs known deposits. Only a the beds are very

The deposits ale interesting results

QUATERNARY

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One day in App Signal Hill, which one side of the hill called.

While climbing on either side liter lowing species, viz