So far as I am aware, no description of the shell, previous to my own, has been published; and unless proof of such publication is shown I shall claim priority both for the name and description. This claim has especial reference to a criticism of the name applied to the shell in my former article.

It might be well to add that the incipient tooth in the interstice next to the anterior fold, as shown in the figure published in THE NAUTILUS for April, 1893—is not typical, since it is discernable in less than five per cent of the specimens, and very slightly in them. In a hurried selection of the specimen for drawing purposes, this very minute protuberance was unobserved by me. Otherwise it would not have been drawn. This error has been corrected in the figure accompanying this article.

BEACH SHELL COLLECTING IN CONNECTION WITH A STUDY OF OCEANIC PHENOMENA.

BY MRS. M. BURTON WILLIAMSON.

It has often occurred to me that a shell collector who is something of a physicist, having a love for historical facts, could furnish interesting data in regard to shore collecting under certain physical conditions of the ocean. Few amateur collectors note the historical, or rather chronological appearance of genera and species collected by them, they are usually satisfied with obtaining a "good find," but time and seasons are hardly observed, certainly not studied as furnishing data for future reference. A storm is hailed as a precursor of "rare finds," but a study of the storm with notes in regard to it, accompanied with a list of shells found after such a storm are too frequently neglected by collectors. Mollusks are collected too often as a miser collects his money, *as a mania*, not as a medium for an intelligent study of Nature. It seems to me, that a study of mollusks thrown upon the shore from other areas, in connection with a study of the physical condition of the ocean at such times, would be very helpful to the collector, although of no value to science. It may be urged that shells cast up by the sea are merely "happen-

ings" and no data can be gathered in reference to what seems a work of chance. When a heavy gale ploughs up the home of mollusks and huge breakers land them, by the incoming tide, on the shore, no collector can fore-tell when such a phenomenon may occur, nor what conchological rarities may follow in the wake of such a storm. Rare shells are sometimes washed ashore, then years may elapse before they again make their appearance. Sometimes shells considered as belonging to the fauna of a different latitude are found among the drift in such small numbers as to raise a question as to their introduction by artificial means. During a violent storm mollusks travel great distances before they are cast upon the shore. This is especially noticeable in pelagic organisms which are often cast upon the beach when some ocean current buoys them inward toward the shore. All these facts combine to make it impossible to collect *working* data, but one cannot doubt that a study of collections as the result of unusual conditions of Neptune might be conducted with some satisfactory results. A diary of the atmosphere, tides, daily physical conditions of the ocean with lists of shells found during the same period, if followed any length of time, might be resultant in adding a few facts that would be interesting, even though not very valuable. High and low tides would influence "finds" at any time, but some "low tides" are much richer in molluscan forms than others.

As a rule each region has its own fauna; when this fauna is disturbed and carried outside the range of its own normal environment it must be due to unusual conditions in the surrounding water; shells from the laminarian and inner corallines zones found strewn upon the beach are the *effect* of some *cause*. To a physicist, a study of the storm that stranded rare forms upon the beach, would surely be as interesting and important as the shells found in the drift! The study of oceanic phenomena in connection with conchological acquisitions might be valuable to the collector in many ways; although of no value to the scientific world in these days of applied science, with hydrographers collecting data, and with all the modern appliances furnished to ships sent out on scientific explorations.

We narrow our horizon by failing to observe and study that which is near at hand. There are environments that afford more than ordinary facilities for study, but only a few are so favored, and only a small proportion of these utilize their opportunities.