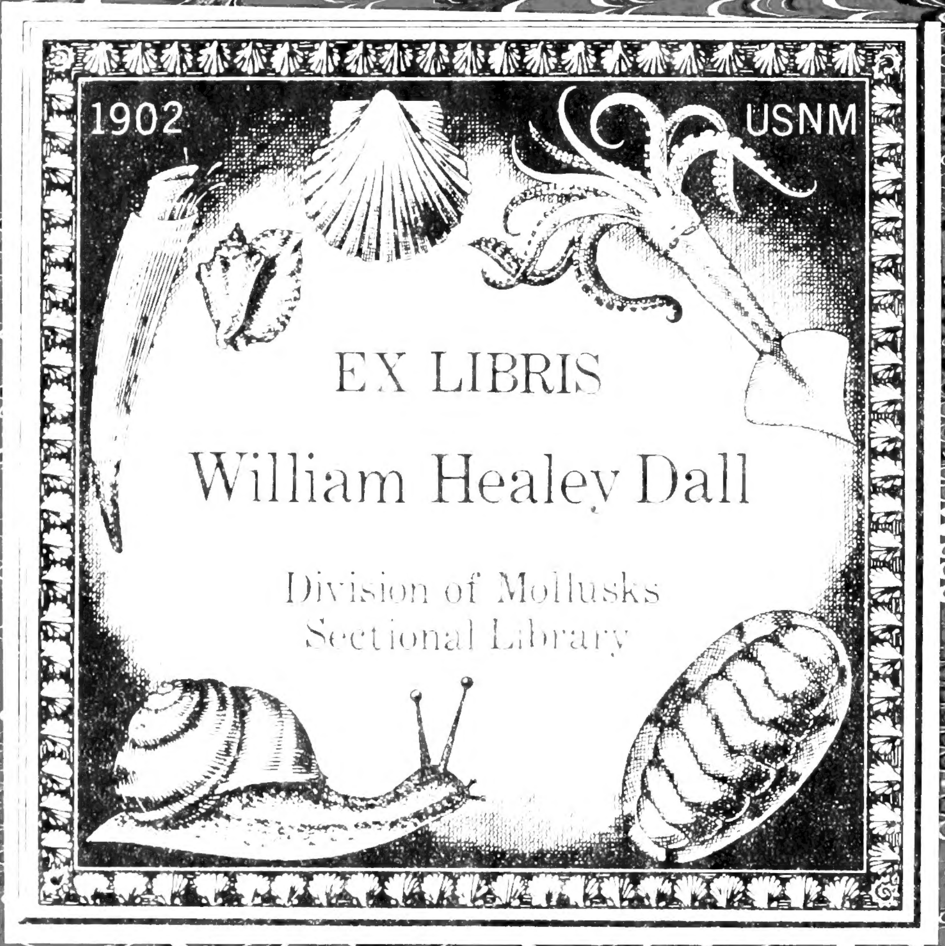

Verrill, Addison E.
Collected works:
Mollusks. (Binder's title)

6-9

3. *Occurrence at Newport, R. I., of two littoral species of European Shells not before recorded as American;* by A. E. VERRILL.—In the latter part of July and in August, of this year, I found living among the decaying sea-weed, at high-water mark in the docks at Newport, R. I., numerous specimens, both full grown and young, of *Truncatella truncatula* and *Assiminea Grayana.* They were associated with *Alexia myosotis, Anurida maritima, Chernes oblongus,* a large species of *Ligia, Orchestia agilis,* and other littoral species. Whether these shells have been accidentally introduced, at that point, by shipping, or are really indigenous, cannot at present be determined. They are now certainly well established inhabitants of our shores. They may have been overlooked hitherto.

4. *Rapid diffusion of Littorina littorea on the New England Coast;* by A. E. VERRILL.—It is well-known to American conchologists that this common European species has become well-established on the New England coast within ten or twelve years, appearing first on the coast of Maine about 1868; Dr. Dawson, however, states that he collected it on the shores of Nova Scotia at a much earlier date. I wish, at present, merely to put on record some additional data, as to its recent progress along the coast. In 1873, it was collected, in abundance, at Saco, Maine, by the U. S. Fish Commission, and was found sparingly at Peake's I., Casco Bay. In 1872 it was very rare at Provincetown, Mass., but in 1875, it was common there. In 1875, it was collected by the writer at Barnstable, Mass., on the shores of Cape Cod Bay, in large quantities. In 1879, it had become exceedingly abundant at Provincetown. In 1875, our parties found two specimens only, on the southern shores of Cape Cod, at Wood's Holl, but in 1876 it was found to be common there, and is now very abundant. The first specimen found so far westward as New Haven was obtained by Professor S. I. Smith, during the past winter. Other solitary specimens have since been obtained here by Mr. E. A. Andrews, and by Mr. J. H. Emerton. It is, at present, exceedingly abundant at Newport, R. I.

5. *Artificial propagation of the Spanish Mackerel (Cybium maculatum);* by A. E. VERRILL.—That this highly valued fish habitually breeds at certain localities in Chesapeake Bay was recently ascertained by Mr. R. E. Earll, of the U. S. Fish Commission. In July, he visited the locality and made experiments upon its artificial propagation. He was very successful and easily hatched many thousands of the young fish. These, though among the most minute of larval fishes, proved to be hardy and easy to transport. The eggs hatched in less than 24 hours after fecundation. The U. S. Fish Commission will undoubtedly be able to utilize this discovery next year on a large scale, and there is every reason to believe that this excellent fish may be thus introduced into all the waters south of Cape Cod, in great abundance.

6. *Occurrence of Ciona ocellata (Ascidia ocellata* Agassiz) *at Newport, R. I.;* by A. E. VERRILL.—This ascidian, which is one of the largest and most elegant found on our coast, occurs in abundance at Newport, both on the rocks and on the piles of wharves, at low-water, and on dead shells, to the depth of 20 fathoms. It seems to be very local in its distribution, for I have never seen it at any other locality on our coast. It was originally obtained by Agassiz, at New Bedford, Mass., according to Binney, in Gould's Invert. of Mass., where it is figured, but not described. It grows to the length of four or five inches, and about an inch in diameter. It is very translucent, allowing the internal organs to be well seen through the pale greenish or yellowish-white test. It is usually attached by the base and lower part of one side. The apertures are surrounded by a circle of bright lemon-yellow, and the ocelli are bright red. There are also two bright red spots connected with the nervous ganglia. The *Ciona tenella* (Stimp.), which is common in the Bay of Fundy, has the circles around the apertures bright red.