

5. *M. everetti*, Potts and Mills.
6. *Heteromeyenia ryderi*, Potts.
7. *H. argyrosperma*, Potts.
8. *H. pictovensis*, Potts.
9. *Tubella pennsylvanica*, Potts.

The first of these was described by Bowerbank as *S. lordii*. The specimen came from British Columbia. It was first discovered in England last summer, according to Carter. It turned out on examination, that Leidy, of Philadelphia, first described it as *S. fragilis*. No. 2 was described by Bowerbank over twenty years ago as *S. dawsoni*; next, by Potts as *S. lacustroides*. I called Mr. Potts' attention to Bowerbank's description, and it has been generally conceded since to be an American variety of the European *S. lacustris*. No. 3 was described by Carter, of England, in the January number of the "Annals and Magazine of Natural History," London. Potts claims that it is the same as his *S. iglooiformis*, a description of which, we think, has not yet been published. No. 5 is remarkable, as the species has never been observed before except in a pond upon Mt. Everett in Mass., U.S.A., at an elevation of 1,800 or 2,000 feet above the sea. It appears to be plentiful in Nova Scotia. No. 8, provisionally named, is remarkable for the paucity of its statoblasts, which for some time prevented its classification, although its skeletal spicules are very distinctive. Further investigation is necessary for the elucidation of the character and life-history of this species. This classification and nomenclature has the approval of H. J. Carter, the greatest living English writer on sponges.

E. Potts of Philadelphia, our best American authority, has observed that the spicules of sponges undergo variations within a very considerable limit, and that these variations are generally concomitant with the variation of the altitude of their habitat. The spicules of several of these Nova Scotian sponges he considers as varying from the usual type, but considers them as conforming to his hypothesis. The extensive deposits of these siliceous remains must have come proximately from silica in solution in the water. The analysis of the waters of Halifax lakes by Prof. Lawson shows the presence of soluble silica as well as of alumina, lime and iron, all of which have been found to exist in diatomaceous earths analysed by Zeigler, Hoffman, and