

rial skeletons, is remarkable for its thickness and superficial extent. Spread over an area of several square miles, and extending to the depth of 14 feet it furnishes an astonishing history of the myriads of minute creatures, inhabiting the waters that once stood above their present resting place. The minuteness of these skeletons almost exceeds belief. One cubic inch of this deposit contains 41,000,000,000 shields, and of these, 187,000,000 would not outweigh a grain of sand. The *berg-mehl* or *mountain meal*, found in Tuscany, is a vast infusorial deposit of great thickness and extent, and even many solid rock formations—some remarkable for hardness and beauty, especially flints and semi-opals,—prove to be of animalcular origin.

These infusorial deposits are not always made up entirely of shields of extinct species; many of the skeletons from these ancient deposits, correspond exactly with the form of living animalcules, and wherever the waters of any lake or marsh contain those animalcules, there we find deposits continually forming, similar to those of more ancient origin before described. Thus, deposits occur in the present ponds and lakes of Maine, Massachusetts, Connecticut, Vermont, New York, and doubtless every State and almost every county, in the United States. The ingenuity of man has turned these accumulations to good account. Most of these shields being silica, finely divided, they furnish a harder and finer polishing substance than could possibly be produced from silica by mechanical means. The different varieties of *tripoli* are from different deposits of fossil infusoria.

To return to the animalcular contents of a water drop; the species of *navicula* previously described is perhaps one of the most beautiful of the class, yet there are others that are scarcely less interesting. No less than six different species were discoverable in the water under examination. Besides the different varieties of *navicula*, other forms were visible, that were by no means as harmless or quiet as the former. It would be difficult indeed to answer the question so often propounded, "how many animalcules inhabit a drop of water?" Ehrenberg estimates that 500,000,000 sometimes exist in a single drop. Certainly they might exist to such numbers, and yet each individual would have, comparatively speaking, as much sea-room as a sperm whale in the Pacific.

One of the rarer and more graceful animalcules, which, in the case referred to, were revealed by the microscope, is termed *navicula spencerii*.*

* Receiving its specific name from that of the celebrated optician, C. A. Spencer, of Canastota, N. Y., who, by his devotions to science in its application to his favorite art, has succeeded in producing microscopes condenser none in the world. By means of one of these he was enabled to detect lines in this animalcule, that had not previously been discovered by microscopists.