

LETTER TO THE SECRETARY.

OFFICE UNITED STATES GEOLOGICAL AND
GEOGRAPHICAL SURVEY OF THE TERRITORIES,
Washington, D. C., January 1, 1879.

SIR: I have the honor to transmit herewith, for your approval and for publication, Volume XII of the Final Reports of the Survey under my direction.

This volume has been prepared by Prof. Joseph Leidy, the eminent comparative anatomist and microscopist, who is well known as one of the most valued collaborators of the Survey, and the author of the first volume of the quarto series of Reports, entitled "Contributions to the Extinct Vertebrate Fauna of the Western Territories."

Professor Leidy spent the greater portion of two seasons in the West under the auspices of the Survey. During this time he made a careful exploration of the country about Fort Bridger, Uinta Mountains, and the Salt Lake Basin, in search of the materials for this memoir.

The use of the microscope in all branches of natural science has become so universal that the publication of the present volume in connection with the Survey needs no explanation. It is intended as a guide and aid to students in this new or little-known field of observation. The facility with which these small objects for study can be obtained all around us will render the work still more timely and useful to the students of this country. There are also a number of closely allied fields of inquiry, as the Diatoms, Desmids, Infusoria, Rotifera, Entomostraca, and Aquatic insects, etc., which, when pursued with the same skill and devotion, will prove equally fruitful in results.

The Rhizopods are the lowest and simplest forms of animals, mostly minute, and requiring high power of the microscope to distinguish their structure. While most of them construct shells of great beauty and variety,