liver cells, but there is no answer to the meaning of the differences.

The work as a whole is a valuable treasure-house of knowledge that will save both investigator and student much time and labor. The author does not state which system will form the subject of the next volume, nor when we may expect it to appear. At the same rapid rate of work it will be due in 1902, and we feel sure that the same excellence will be maintained.

B. F. Kingsbury.

RIVER PROFILES.

An interesting and valuable publication of the Department of Hydrography of the U. S. Geological Survey on the profiles of rivers in the United States, by Henry Gannett, has just been published and is now available for distribution. It embodies within a hundred pages the leading facts of about one hundred and fifty of the most important rivers and streams of the country, noting their length, drainage area, the location of water power in their courses, their peculiarities of flow and the nature of their drainage basins.

The rivers selected are those which are the largest in size and bear most directly upon the varied interests of the country such as the Connecticut, Hudson, Susquehanna, Ohio, Potomac, Mississippi, Missouri, Platte, Colorado, Sacramento, Columbia and others. The figures for the table showing the height above sea-level and fall per mile were collected from various sources. Some were obtained from the report of the chief engineer of the U. S. Army, some from railroad companies when their lines cross the streams and some from the atlas sheets of the U. S. Geological Survey. In the case of such rivers as the Connecticut, Susquehanna, Mississippi and Colorado, where the surrounding country is in part or whole of peculiar physiographic interest, very excellent and vivid descriptions of its leading physical characteristics are given, which add to the interest, and render it valuable from an educational standpoint in geographic and physiographic instruction. The pamphlet is the result of much careful work and is the first attempt to collect and compile this information in its present form.

SOCIETIES AND ACADEMIES.

ZOOLOGICAL CLUB, UNIVERSITY OF CHICAGO. WINTER QUARTER, 1901.

I.

The first meeting of the quarter on Jan. 9 was devoted to a paper by Professor F. R. Lillie, entitled 'A Comparison of the Power of Regeneration in Three Genera of Planarians, viz., *Planaria*, *Phagocata* and *Dendrocœlum*.' The following is an abstract of the paper:

"The greater part of the large volume of recent work on regeneration of planarians has been carried out on a single genus, *Planaria*. Attention should be called to the importance of the comparative method in studies of this kind. This may be illustrated by some results of observations on two other genera, *Phagocata* and *Dendrocœlum*. These three genera are found living together in a single pond in Falmouth, Mass. *Planaria* is especially abundant in this pond, in some parts of which as many as twenty or thirty individuals may be found on the under surface of a single large stone. Scattered about among these individuals one finds usually from one-half to one-third this number of individuals of *Phagocata* and two or three specimens of *Dendrocœlum*. *Planaria* is thus much more abundant than *Phagocata* and the latter than *Dendrocœlum*. The last is more abundant relatively in portions of the pond where there is a large amount of vegetation growing on the bottom. The habits of life of the three genera in question are, however, very similar.

"*Phagocata* was found to resemble *Planaria* very closely both in the modes of, and capacity for, regeneration. *Dendrocœlum*, however, offers the greatest contrast to both *Planaria* and *Phagocata*. The first experiment was to cut a single specimen in half through the pharynx. The cut surfaces healed and the farther fate of the parts was as follows: The posterior part formed no new tissues, although it lived for some days; from the anterior part, on the other hand, there grew out a pointed piece, which acquired the characters of a tail. Two weeks after the operation this piece also died without any extensive remodeling of the whole having taken place. I afterwards repeated the ex-