St. Nicholas magazine, which is so popular with young people and has on the whole exercised such an excellent influence, will with the new year add a department of natural history, under the editorship of Mr. Edward F. Bigelow, editor of *Popular Science*. Six pages, monthly, will be devoted to this new department. Two of these will be given up to the out-door world; two more to indoor study and research, both in nature and science; one to correspondence from the children; and one to a department of 'Questions and Answers.'

SOCIETIES AND ACADEMIES.

PHILOSOPHICAL SOCIETY OF WASHINGTON.

THE annual meeting of the Society was held at the Cosmos Club on December 23, 1899. The usual reports of the Secretaries and Treasurer were read and an Amendment to the Constitution proposed at the last annual meeting was adopted. By this action membership in the General Committee is subject to new conditions as far as the ex-Presidents of the Society are concerned.

The election of officers for the coming year resulted as follows:

President: G. M. Sternberg, Surgeon General U. S. A.; *Vice-Presidents:* H. S. Pritchett, Superintendent Coast and Geodetic Survey; C. D. Walcott, Director Geological Survey; L. F. Ward, Geological Survey; Richard Rathbun, Smithsonian Institution; *Secretaries:* J. E. Watkins, National Museum; E. D. Preston, Coast and Geodetic Survey; *General Committee:* Cyrus Adler, Library of Congress; W. A. DeCaindry, War Department; J. H. Gore, Columbia University; G. W. Littlehales, Navy Department; H. M. Paul, Naval Observatory; F. W. True, National Museum; C. K. Wead, Patent Office; I. Winston, Coast and Geodetic Survey; C. F. Marvin, Weather Bureau.

E. D. PRESTON,
Secretary.

SCIENCE CLUB OF THE UNIVERSITY OF WISCONSIN.

THE December meeting of the Science Club of the University of Wisconsin was held on the evening of December 18th, the program of the evening being a paper by Mr. S. M. Babcock, dealing with the fat globules of milk.

Mr. Babcock stated that, although the fat globules of milk were discovered about two hundred years ago, no accurate knowledge of their structure, number or size was gained until quite recently. Two hypotheses have been advanced regarding their structure. One is that they are surrounded by a thin membrane of albuminous matter which prevents their uniting when they come into contact and protects them from the solvent action of ether when this is shaken with milk, unless a little acid or alkali is first added to dissolve the membrane. The other hypothesis holds that the globules are free particles of fat emulsified with the serum. It was shown that all phenomena which have been considered to favor a membrane are such as occur also in artificial emulsions, where no true membrane can exist if the fat globules are as small as those of milk, and it was, therefore, concluded that milk is an emulsion. The method of counting fat globules by means of capillary tubes was described and the circumstances which affect their number and size were discussed with the aid of lantern slides.

WM. H. HOBBS.

THE ACADEMY OF SCIENCE OF ST. LOUIS.

AT the meeting of the Academy of Science of St. Louis of December 18, 1899, Dr. Amand Ravold addressed the Academy on the necessity and means of filtering and otherwise purifying water, especially with reference to freeing it from bacteria, for municipal purposes. The speaker explained the sand-bed filter system as used in Germany and England, and the American mechanical system, represented by two commercial devices. The Wormser filter plate was also described and its characteristics were considered.

WILLIAM TRELEASE,
Recording Secretary.

DISCUSSION AND CORRESPONDENCE.

OBSERVATIONS WITH THE MERIDIAN CIRCLE.

TO THE EDITOR OF SCIENCE: In reading Professor Keeler's most interesting report upon the results of the Lick Observatory, as printed in SCIENCE for November 10, 1899, I find a statement on page 669 which, if not a misprint, eclipses all work of a similar character.