

ment of the president, Mrs. T. E. Stevenson, who is well known for her personal work among the Zuni, the society enters upon the fifth year of its existence with undiminished enthusiasm and vigor; Mrs. Sybil A. Carter (wife of the Hawaiian minister) and Miss Florence Spofford acting respectively as president and secretary. Two meetings were held during January. On the 5th the subject of discussion was "The Evolution of a Community (Amana)," as presented by Mrs. Anita Newcomb McGee. The author of the communication has been for several months engaged in investigating the communistic societies of the United States, nearly all of which she has visited. The more general results of her studies were laid before the American Association at Cleveland in August last. Some of the elements of success or failure in communistic organizations are obscure, and have seldom been perceived by writers on the subject; and these Mrs. McGee sought to develop and set forth by a study of the origin, growth, and relations to environment at every stage, of the most successful American community. The conclusions were in line with those stated at Cleveland, and summarized in the *American Naturalist* for September last. The meeting on the 19th was occupied in the presentation of a communication on "Russia and the Russians" by Mrs. Hunt, widow of the late minister to the Muscovite dominion. The habits, customs, and beliefs of the various classes of Russia were vividly portrayed; and the skill of artificers in certain Russian villages in the production of enamelled silver and other wares, etc.,—arts handed down from generation to generation in Oriental fashion, and unknown elsewhere,—was illustrated by the exhibition of a collection of silver and fictile ware and unique textile fabrics.

#### The Survey for Irrigation.

Professor Thompson announces to the correspondent of *Science* that topographic parties of the United States Geological Survey engaged on the irrigation survey in New Mexico have completed their field-work for this season, and disbanded at Santa Fé.

An area of 3,500 square miles in the drainage basins of the Jemez and Rio Grande has been surveyed with sufficient detail to construct a map on the scale of two miles to an inch and contour interval of fifty feet.

This work has been under the immediate charge of Mr. Arthur P. Davis, who returns with most of his force to Washington to prepare final maps. One party, however, under charge of Mr. R. H. Phillips, will continue work in the lower Rio Grande valley, near El Paso, Tex., during the entire winter. A number of eligible sites for reservoirs and diverting dams have been located. It is estimated that sufficient water can be stored in the mountains about the head waters of the Jemez River to irrigate 150,000 acres of land where now the waters only serve about 4,000 acres.

#### Indian Relics from Florida.

Dr. Thomas Featherstonhaugh, a grandson of the famous pioneer geologist, has just returned from a visit to Florida, and has brought back an interesting collection of aboriginal remains. He thoroughly examined a mound of damp sand on the shore of Lake Apopka, about the geographical centre of the State, and farther south than any previous researches of the kind. The mound was fifty feet in diameter and fourteen feet high, and was covered with a dense growth of palmetto and other trees. It was found to be full of fragmentary bones and pottery, so numerous that Dr. Featherstonhaugh estimates that there could have been no less than four hundred bodies deposited there. A few Venetian beads near the top indicated intrusive burials, but below four feet there were no evidences of any intercourse with whites. Four shapely hatchets were recovered, also a charm-stone, and numerous specimens of decorated pottery. The whole find was presented to Major Powell, and by him turned over to the Museum.

#### NOTES AND NEWS.

STANLEY's letter to Tippo-Tip, which was recently published in the daily papers, contains no new information besides that which was conveyed in the recent telegrams. Stanley had succeeded in reaching Emin, and had returned to the Kongo in order to look after his rear guard. He was anxious to see Tippo-Tip, and invited

him to meet him at some distance from the Kongo, where he encamped. He intended to return to Emin. It was stated before, that Stanley's letters were detained for some unexplained reason at Stanley Falls Station, while the latest telegram said that there were no other letters besides the one mentioned, addressed to Tippo-Tip. The full information sent from Zanzibar has again proved incorrect, as was expected. The report of the arrival of a letter from Stanley had evidently been telegraphed to Zanzibar by way of London, where it was amplified and falsified, and came back through Reuter's agency. No reports on events in the Equatorial Province or on the upper Kongo coming from this source can claim any serious attention.

— The original portrait of Washington (right side of the face) by Gilbert Stuart, long thought to have been destroyed by the artist, seems to have been recognized in the hands of Dr. W. F. Channing of California, who inherited it from his distinguished father, Rev. William Ellery Channing, who obtained it from his uncle, Col. Gibbs. It is understood that both New York City and Chicago have made offers for it, to hang in their art galleries, and its ultimate destination is doubtful.

— Surgeon-Gen. Hamilton has had one of his expert assistants, Surgeon Kinyoun, carry on a series of experiments as to the effectiveness of new disinfectants. Phosphorus was the one taken for the chemical tests, with litmus-paper and micro organisms: and the conclusions arrived at were, "1st, that phosphoric pentoxide is a disinfectant to surfaces only; 2d, it has no penetrating power, and is altogether unfit for fumigation of any thing where penetration of the agent is desirable." So perishes the hope that the fumes of phosphoric pentoxide would be useful in extirpating the bacteria of disease.

— On the evening of Jan. 23 the Mathematical Section of the Philosophical Society held its forty-ninth meeting, elected officers, and heard and considered these papers: "A Brief Control for General Solutions of Normal Equations," by A. S. Flint; "On Napier's Logarithms," by Artemas Martin; "General Perturbations of the Minor Planets," by W. F. McK. Ritter.

— A bill has been introduced in the Legislature of Nebraska to provide for a geological survey of the State with special reference to economic purposes. It proposes co-operation with the United States Geological Survey. The professor of geology in the State University at Lincoln is made *ex-officio* State geologist, and the sum of five thousand dollars for each of two years is to be appropriated for the work.

— The War Department has granted to the Smithsonian Institution the privilege of erecting an astro-physical observatory on the heights of Arlington; its purpose being, as its name implies, the investigation of the physical constituents of the heavenly bodies.

— The bill for the establishment of a zoological park and museum stands much better in Congress than it did at the last session, and it looks at this moment as if the appropriation for the purchase of the land on Rock Creek would be granted. Professor Hornaday has made a strong impression on the committees which he has addressed, and has excited national emulation by contrasting this country with other lands in its neglect of opportunities to study its own natural history.

— The scientific bureaus of Washington are seeking more elbow-room. The ambition of the Geological Survey to have a new building (\$600,000) is matched by that of the Smithsonian, which seeks an appropriation of \$500,000 for the erection of a building in the other corner of the grounds. The plan contemplates a structure somewhat like the present, but without an interior court, and with two stories and a basement instead of one story.

— The National Museum has secured Col. James Stevenson's private collection of Indian relics, entirely Pueblo. It contains several hundred pieces, among them an example of pottery for which Tiffany recently offered \$250.

— Experiments are being made at Wheeling, W. Va., with a view to the utilization of natural gas as a fuel in the smelting of iron ore.