SOCIETIES AND ACADEMIES.

THE SCIENTIFIC ALLIANCE OF NEW YORK.

A DINNER, arranged by the Scientific Alliance of New York, took place at the Hotel Savoy on the evening of April 5th. Mr. Cox presided and made an address emphasizing especially the need of bringing scientific work to the attention of those who are not special students of science. Other addresses were made by Professor Van Amringe, Professor Osborn and Mr. Leipziger, and these were followed by shorter speeches by Professor Dodge, Professor Cattell, Dr. McMurtrie, Professor Lloyd, Professor Dean, Professor Rees and Professor Hallock. At the conclusion Professor Britton, the Secretary, gave an account of the history of the Alliance in the following words:

The Scientific Alliance of New York was founded at a conference of delegates from the several societies held at the Museum of Natural History, March 11, 1891, pursuant to a suggestion made to the societies by the Council of the New York Academy of Sciences. These delegates were at first termed a Joint Commission, following the lead of the earlier established Alliance of the scientific bodies of the city of Washington. On May 19, 1891, a Constitution was adopted in which the term Council was first employed. At this time the issuing of an Annual Directory was provided for, and the first one printed was distributed in June of that year, containing the names and addresses of the 498 members of the Alliance comprised in the six original societies. The publication of the monthly Bulletin, announcing the titles of communications to be made to the societies and other matters of interest was authorized September 28, 1891. Both the Directory and the Bulletin have since been continued, with minor modifications, in the form thus inaugurated, eight numbers of the Directory and sixty-three numbers of the Bulletin having been published.

The New York Section of the American Chemical Society was admitted as a part of the Alliance in May, 1892. The second Annual Directory, issued in July of that year, shows that the membership was then 633 ; on November 15, 1892, the first joint meeting of the societies was held at the Museum of Natural History, and a number of addresses bearing on the progress and the needs of science in New York were delivered ; these were subsequently printed in pamphlet form and widely distributed. At a meeting held November 25, 1892, a Finance Committee was appointed; this Committee secured by subscription a considerable sum of money, subsequently termed the General Fund of the Council, as distinguished from the sums annually contributed by the societies for the publication of the Directory and Bulletins, known as the Societies' Fund. The General Fund has been of the greatest value and importance in the work of the Council; it has been used in arranging joint meetings and printing proceedings of them; in supplementing the Societies' Fund; in printing circulars, and in other ways as has proved desirable; it has twice been augmented by subscription, and it is well that it should be somewhat further increased.

The second joint meeting was held March 27, 1893, also at the Museum of Natural History, in honor of the late Professor John Strong Newberry; addresses were delivered, and the proceedings were published. On April 28, 1893, the Council resolved to establish by subscription a fund to be known as the John Strong Newberry Fund for Original Research, which now amounts to about $1,200. Grants for the aid of original investigation from accrued interest on the Fund have been made to Dr. Arthur Hollick in Geology; to Mr. Gilbert Van Ingen in Paleontology, and a third grant has been recently authorized in Botany or Zoology. The Third Annual Directory, issued in August, 1893, shows that the membership had increased to 724.

The New York Entomological Society was admitted into the Alliance in March, 1894. The Fourth Annual Directory, issued in July of that year, shows an increase in membership to 818.

After approval by all the Societies and by the Council, an Act of Incorporation of the Council was introduced into the New York Legislature in 1895, and became a law on June 5th. Pursuant to this law, a new Constitution was adopted September 17, 1895. The 5th Annual Directory, July, 1895, contains the

names of 939 members; the 6th contains 1,015 names, and the 7th 1,055.

On March 16, 1898, a reception and dinner was held at the Hotel Savoy, which gave so much pleasure as to form the reason for our assembling here again to-night.

The 8th Directory, issued last fall, shows that at that time the membership had increased to 1,069; it is now known to be over 1,100—that is to say, about twice as large as in 1892–93. This great increase in the membership of the scientific societies is a certain index to the scientific progress of the city, and that this Alliance has contributed much to this well-known remarkable progress there can be no doubt.

The element that is most needed now, as it was at the formation of the Alliance, is a building which will serve as a home for the societies, where all their meetings can be held and where their proceedings and lectures may best attract more public attention; the corner-stone for this building has recently been provided by Mrs. Esther Herrman, whose generous gift of ten thousand dollars, made to the Council, brings the great desideratum nearer than it ever has been before.

GEOLOGICAL SOCIETY OF WASHINGTON.

AT the 89th meeting of the Society, held in Washington, D. C., March 22, 1899, Messrs. W. C. Mendenhall and F. C. Schrader, of the U. S. Geological Survey, talked of the reconnaissances made by them the past field season in Alaska, while they were under detail with the military exploring parties sent out by the War Department.

Mr. Mendenhall spoke of a reconnaisance from Resurrection Bay to the Tanana River. He said the route followed by the military exploring party to which he was attached extended from Resurrection Bay, on the southeast shore of Kenai Peninsula, to the Tanana River, at the mouth of the Delta, one of its southern tributaries. The western continuation of the St. Elias Range was crossed by following up the valley of the Matanuski, which rises north of these mountains in a vast marshy plateau on which branches of the Copper and Sushitna Rivers also rise. Beyond this plateau extends the lofty Alaskan Range, with peaks 14,000 feet in height. The Delta River cuts a gap through these mountains, through which the explorers traveled.

The greater part of the region traversed was before quite unknown. It presents much diversity in landscape and physical features. These different types, from the snowy barriers along the Pacific to the dreary wastes of the interior, were illustrated by original views.

The geology of the various areas studied was brought out, and something of the history of the land forms as we now find them. But little gold is known in this part of Alaska, and that little is found along the coast and the adjacent parts of the mainland. Many claims have been staked since the boom struck the Cook Inlet country a few years since, and, although one or two of the richest of these yield as high as $120 a day to the man, the great majority do not pay expenses.

Mr. Schrader described a hasty reconnaissance of a part of the Copper River district. The object of the expedition was to find an all-American route from the coast into the gold districts of the Upper Yukon. A route was found which, with some engineering through three miles of canyon on Lowe River, will probably prove satisfactory.

The Copper is one of the largest rivers on the southern coast of Alaska. It heads far back of the Coast Range, but breaks through it at about 30 miles from the coast and then debouches over its large delta into the sea.

A little west of Mount St. Elias the St. Elias Range divides into two ranges; of these the main continues westward as the Coast Range around the head of Prince William Sound; the shorter range, diverging northwestward, forms the divide between the Copper, on the southwest, and the White and Tanana Rivers, on the northeast. In the fork of these two ranges, back of the Coast Range, lies the basin proper of the Copper. A lobe of the northwest range extending into the basin on the east terminates in the Wrangell group of mountains, culminating in a maximum height of more than 17,000 feet. Between Prince William Sound, on the south, and the Copper Basin, on the north, the Coast Range consists of a mountainous belt about fifty miles broad, with its general land mass rising to a height of 5,000 feet and slightly

tilted toward the coast. Its surface is studded by innumerable barren peaks and short saw-tooth ranges interspersed by glaciers and nevee. Its edges, on both the costal and inland sides, where the mountains break off abruptly, are etched by short, deep canyons and gulches, which carry off the drainage. The canyon of the Copper alone cuts through the range.

The northwest rim of the basin in the open fork of the ranges is poorly defined. It lies in a vast plateau-like tundra at an elevation of nearly 3,000 feet. The interior of the basin is occupied by a plateau-like terrain consisting principally of unconsolidated silts, sands and some gravel. It is horizontally stratified and seems to represent an extensive inland lake-bed or arm of the sea deposit covering several thousand square miles. Through this terrain the Copper River and its tributaries now flow, as a superimposed drainage, in newly-cut canyon-like valleys, at a depth of five or more hundred feet. As bed rock has scarcely anywhere been reached by erosion, the deposit is probably a thousand or more feet in thickness.

The surface of the terrain slopes gently southward and from the east and west toward the center of the basin, where its elevation is about 1,500 feet. Back from the streams it is dotted by lakelets and some swamp areas, and is nearly everywhere covered by a fair growth of timber and moss, with local areas of luxuriant grass.

At the head of Woods Canyon, where the Copper enters the mountains, all trace of the lake beds ceases, denoting apparently the barrier which confined the lake before the canyon was cut. The natural features were well illustrated by original views.

The rocks in the Coast Range are mostly sandstone, arkoses, slate, mica-schist and quartzites. On its north base some green amphibolite schist occurs. This schist seems also to form the southwest base of the Wrangell group, but the group itself seems to be mostly volcanic rocks, of which the northwestern end appears to be principally red rhyolite.

Wm. F. Morsell.

The Philosophical Society of Washington.

The 498th meeting of the Society was held at 8 p. m. on March 18th, at the Cosmos Club. The first paper was by Dr. Artemas Martin on 'Triangles whose angles are 60° or 120° and sides whole numbers.'

From the equation $x^2 - 2xy\cos\phi + y^2 = z^2$ in which x,y,z denote the sides of *any* plane triangle and ϕ the angle included by x and y, the author deduces the general values

$$x = p^2 - q^2,\ y = 2pq - 2q^2\cos\phi,$$
$$z = p^2 - 2pq\cos\phi + q^2.$$

When $\phi = 60°$, the sides are

$$x = p^2 - q^2,\ y = 2pq - q^2,\ z = p^2 - pq + q^2;$$

and when $\phi = 120°$, they are

$$x = p^2 - q^2,\ y = 2pq + q^2,\ z = p^2 + pq + q^2.$$

He determines the limitations of the values of p and q for both cases. The smallest triangle for $\phi = 60°$ is 8, 3, 7; the smallest for $\phi = 120°$ is 3, 5, 7.

Numerous examples were given and tables of such triangles were submitted.

Mention was made of a paper on 'The Theory of Commensurables,' by Edward Sang, published in the Transactions of the Royal Society of Edinburgh.

The second paper was by Mr. Lyman J. Briggs on 'Electrical Methods of Investigating the Moisture Temperature and Soluble Salt Content of Soils.' The abstract of this valuable paper has not yet come to hand. The third paper was by Mr. C. K. Wead, on 'Applications of Electricity to Musical Instruments.' Mr. Wead said in part:

Electricity is to-day practically applied on a commercial scale to musical instruments in three ways: (1) As a motive power to blow organs and operate self-playing instruments. (2) To operate the pallets of large organs by means of the electro-pneumatic action patented and introduced by Barker in England in 1868, and shown at the Centennial Exhibition in 1876 by Roosevelt, of New York. (3) To control the application of power to the keys of a piano, the electric circuits being governed by the perforated paper sheet patented to Seytre in France in 1842 and to Bain in England in 1847.

Patents have been granted for specific mechanisms for applying electricity to ring bell chimes and play guitars; to record the music played on a keyboard instrument; to sustain in-

definitely the vibrations of a piano-string by impulses from an electro-magnet supplied with an intermittent current of proper frequency, and to produce 'electrical music' by the simultaneous action upon a loud-speaking telephone of several currents of proper pitch and wave-form synthesized in the line-wire. If these last two inventions shall enjoy any considerable popularity they will inevitably influence, to a marked degree, musical ideas and philosophy.

E. D. PRESTON,
Secretary.

PHYSICS CLUB OF NEW YORK.

THE teachers of physics in secondary schools of New York City have formed an organization to promote efficiency in the teaching of physics. The more specific objects of the club will be to cultivate a personal acquaintance and interchange of thought among laboratory men; to secure the cooperation of the departments of physics in the colleges; to discuss matters of interest concerning laboratory methods, apparatus, new books and kindred matters.

The officers for the present year are: President, Frank Rollins; Vice-President, Albert C. Hale; Secretary, A. T. Seymour; Treasurer, S. A. Lottridge. The Executive Committee consists of the officers and Messrs. R. H. Cornish, B. M. Jaquish, G. C. Sonn. The membership is limited to 30. There are at present 29 members. The next meeting will be held at the Teachers' College, April 22, 1899.

A. T. SEYMOUR,
Secretary.

SUB-SECTION OF ANTHROPOLOGY AND PSYCHOLOGY OF THE NEW YORK ACADEMY OF SCIENCES.

THE annual meeting of the Sub-section was held on Monday, March 27th. Dr. Franz Boas was elected Chairman and Dr. Chas. H. Judd Secretary for the ensuing year. The following papers were presented: 'Notes on Chilcotin Mythology,' by Dr. Livingston Farrand; 'Zapotecan Antiquities,' by M. H. Saville and A. Hrdlicka; 'Recent Suggestions for a new Psychology,' by Dr. Charles B. Bliss.

CHAS. H. JUDD,
Secretary.

DISCUSSION AND CORRESPONDENCE.

'THE EVOLUTION OF MODESTY.'

TO THE EDITOR OF SCIENCE: Mr. Havelock Ellis, in his interesting study, 'The Evolution of Modesty,' in the current *Psychological Review*, regards sexual modesty, concealment physiological and anatomical, to be mainly founded in the fear of disgusting others. But wherein, we must ask, does such fear merit the term modesty? Does this kind of fear have any distinct quality? Is it a real species? And in any case is modesty a kind of fear? It appears to me that the fear of exciting disgust in others toward ourselves is, like fear of exciting anger, hatred or any other injurious emotion, not a distinct *genus* of emotion, nor even a species of fear. We have here a more subtle and complex fear than in dodging a stone, but social fears of others' mental attitudes toward ourselves, while they form perhaps a species of fear, yet the particular fear of disgust can hardly be considered as having any peculiar quality over against fear of hatred, and other such emotions. In tracing the history of modesty-actions, Mr. Ellis is tracing not the development of a new psychosis, but merely the development of social fear with reference to a new object, the producing disgust by exposure of the body. Excretory acts in general come to be regarded as disgusting, but if I refrain from spitting in public for fear of disgusting others this can hardly be termed modesty on my part.

Modesty as a really new and significant psychosis is not to be sought in mere objective modesty-actions of the sort which Mr. Ellis considers. We see this mere objective modesty in contrast with true subjective modesty in an incident which Miss Hapgood relates in 'Russian Rambles.' While staying at a country house she was invited by the ladies to go to the ladies' bathing pool, where the Russian ladies went in without costume, and she, to her reluctance, felt obliged to imitate them, since she saw that they plainly thought that the use of clothing at such a time could be only for the hiding of defects. The Russsan ladies had no real delicacy or modesty, and had no conception of it, though they had a fear of disgusting. Real modesty as a distinct psychosis, as a regard for one's own feeling rather than for the feelings of others, resenting intrusion, calling for privacy, is a late