these discordances zero. The discordances in position angle have been turned into arc of a great circle by multiplying them by the sine of the distance. For this reason the sum of the position angle discordances will differ slightly from zero, as the constant was applied before turning them into arc of a great circle. It should perhaps be remarked that the comparisons were made with the old Rutherfurd measures as printed in my paper on the *Pleiades*, already referred to, without the application of any corrections whatever. In conclusion, I wish to express my thanks to RUTHERFURD STUYVESANT, ESQ., who had placed at the disposal of PROF. J. K. REES, Director of the Columbia College Observatory, funds for the reduction of the RUTHERFURD plates. This has enabled the Observatory to secure the services of MRS. HERMAN S. DAVIS, who has relieved me of the very arduous labor of computation involved in the reduction of these measures.

TABLE OF DISCORDANCES,

RUTHERFURD MEASURES *minus* NEW MEASURES.

Star.	Plate 16.		Plate 18.		Plate 22.		Plate 24.		Means.		MAG.
	Angle.	Dist.	Angle.	Dist.	Angle.	Dist.	Angle.	Dist.	Angle.	Dist.	
A 34	0".00	—0".12	—0".24	—0".21	+0".07	+0".26	—0".20	—0".02	—".10	—".02	7.2
18 *m*	— .06	— .06	+ .12	+ .05	— .08	— .34	— .14	— .02	—.04	—.09	6.3
A 12	— .01	— .18	+ .40	+ .14	+ .16	— .10	+ .27	+ .13	+.20	.00	7.5
A 22	— .04	+ .27	— .06	— .08	— .06	+ .19	— .04	+ .06	—.05	+.11	7.0
A 24	— .02	+ .16	.00	+ .30	— .13	+ .10	+ .07	+ .30	—.02	+.22	7.0
A 28	+ .08	— .10	+ .18	— .13	— .12	— .13	— .14	— .43	.00	—.20	7.0
A 30	— .02	— .01	— .45	+ .08	+ .17	— .01	— .17	+ .00	—.12	+.02	8.4
A 39	+ .41	+ .03	+ .14	— .18	+ .39	+ .02	+ .20	— .01	+.28	—.04	7.7
A 34	+0".14	—0".15							+".14	—".15	7.2
18 *m*	+ .03	— .17							+.03	—.17	6.3
A 5	— .26	+ .06							—.26	+.06	9.1
A 6	— .05	+ .03							—.05	+.03	9.0
A 11	+ .04	+ .06							+.04	+.06	9.1
A 26	+ .19	+ .12							+.19	+.12	9.0
A 27	+ .03	+ .03							+.03	+.03	8.5
A 36	— .26	+ .02							—.26	+.02	8.5

COLUMBIA COLLEGE OBSERVATORY, March 10, 1896.

HAROLD JACOBY.

ANNUAL RECEPTION AND EXHIBITION OF THE NEW YORK ACADEMY OF SCIENCES.

THE New York Academy of Sciences held its third annual reception on the evening of March 16th, at the American Museum of Natural History. The reception included an exhibition of apparatus and specimens illustrating the progress of science during the year, and more particularly the work done by scientific men in and about New York. The exhibition in the afternoon was thrown open to students in the various educational institutions of the city, teachers and other persons interested in science, while the reception in the evening was attended by the members of the Academy and a number of guests. Both occasions were remarkably successful, the exhibits being of the same high character as have been shown at the previous receptions. The exhibition took place on the second floor of the Museum, which was kindly placed at the disposal of the Academy and was under the direction of Prof.

Henry F. Osborn, who was Chairman of the Committee of Arrangements. An innovation was introduced this year in having an address on recent scientific discovery and the large lecture room of the Museum was thronged by people eager to hear Prof. M. I. Pupin, of Columbia University, give an experimental demonstration of Röntgen photography. Prof. J. J. Stevenson, the President, also delivered an address stating the object and aims of the New York Academy of Sciences.

Among the many exhibits there were a number of unusual interest, as an effort had been made to include in the exhibition only objects illustrating recent discoveries or researches.

In the Astronomical section, which was under the direction of Prof. Harold Jacoby, there was exhibited a series of photographs lately made at the Harvard College Observatory. Prof. J. E. Keeler, of the Allegheny Observatory, contributed a series of photographs of planetary spectra. Prof. J. K. Rees exhibited some lantern slides and new instruments from the Columbia University Observatory. Prof. William Hallock, of the section of Physics, had collected in his exhibit a number of instruments and photographs connected with X-ray investigations. Several from Prof. Rood's laboratory showing the reflection of the rays and other phenomena; a series from Prof. Robb, of Trinity College, the most interesting of which was a record of the test of genuine and imitation gems, the real stones in each case appearing translucent; and a set from from Prof. Stevens, of Troy Polytechnic Institute, attracted considerable attention. Prof. Hallock's voice analysis apparatus was also shown and was accompanied by a number of photographs of vocal cords in action and the manometric flames. Prof. Pupin, the Chairman of the section of Electricity, exhibited a complete set of apparatus for producing the Röntgen rays, and by means of an Edison fluoroscope the penetration of the rays was shown. Prof. Pupin exhibited also a number of photographs he had taken and the apparatus he had devised for studying long electric waves. Charles T. Rittenhouse showed apparatus for studying the magnetic lay in closed magnetic circuits.

In the department of Chemistry the preperation of Argon and Helium was shown and the spectra of these two elements could be seen through spectroscopes. Under Photography the development of process work in colors and new apparatus occupied considerable space, while here also were to be found more Röntgen photographs, that of a boot and foot by Nikola Tesla being remarkably distinct. In the section of Geology Prof. Stevenson exhibited some interesting specimens, while Prof. J. F. Kemp showed specimens connected with recent researches by himself and his assistants at Columbia University. In the division devoted to Mineralogy, under the direction of E. O. Hovy, were exhibited some rare specimens contributed by a number of collectors and colleges. The phosphorescence of the diamond was shown by George F. Kunz, by means of a new apparatus. In the department of Physiography the most recent maps and models were exhibited in the charge of Prof. R. E. Dodge. The feature of the Botanical Exhibit was the topographical map of the New York Botanical Garden, which was exhibited for the first time. A number of preparations and studies were also shown, several of which were undertaken in the interest of the Revision Committee of the United States Pharmacopæia. The Torrey Botanical Club exhibited a series of valuable studies. This section was in charge of Prof. H. H. Rusby and Dr. J. K. Small. An interesting exhibit of aquaria was made in the Zoölogical section and preparations from the zoölogical department of Columbia University were

shown. A shin and skull of the fish-eating rodent Icthyomys-Stolzmanni from Peru was shown by the department of Mammalogy and Ornithology of the American Museum of Natural History and was said to be the second known specimen. Dr. T. M. Cheeseman, in the department of Bacteriology, showed some preparations from the Bacterial Laboratory of College of Physicians and Surgeons of Columbia, and there was exhibited by Prof. Henry W. Conn, of Wesleyan University, some morphological preparations of Bacillus No. 41, interesting for its power of ripening cream for butter. Prof. George S. Huntington, of the division of Anatomy, had an extensive collection illustrating recent work in human and comparative myology. In the section of Paleontology, in charge of Dr. J. L. Wortman, were exhibited a number of specimens from Wyoming, Utah and Dakota, collected by Messrs. Wortman and Petersen during the past year. The department of Geology of Columbia University exhibited a number of specimens obtained in their last summer's expedition.

In the department of Ethnology and Archæology the recent valuable additions that have been made to the collections of the American Museum of Natural History were exhibited. Prof. J. McK. Cattell, in charge of the Department of Experimental Psychology, exhibited a new apparatus for determining photometric differences by the time of perception. Some new apparatus from the Yale University Psychological Laboratory was exhibited by Dr. E. W. Scripture, while Prof. C. B. Bliss, of New York, showed a pendulum chronoscope.

HERBERT T. WADE.

COLUMBIA UNIVERSITY.

CURRENT NOTES ON ANTHROPOLOGY.

THE INDIAN AS A FARMER.

THE general statement that the Indian of the Eastern United States was when first discovered in the wild or hunting stage of development, must be considerably modified when we come to study his mode of life with care. He was in many parts of the land an agriculturist, a small farmer, and was by no means dependent entirely on wild game or natural products.

This has been forcibly brought out by Mr. Lucien Carr, in an article 'On the food of certain American Indians and their method of preparing it,' published in the Proceedings of the American Antiquarian Society for 1895. The author has examined the literature bearing on the subject thoroughly and his references are abundant and judicious. Within the compass of thirty-eight pages he has collected an amount of information which the student will scarcely find in larger volumes and much of which the archæologist, engaged in the examination of shell heaps and village sites, will do well to make himself acquainted with. His conclusion is that so far as the comforts and conveniences of life are concerned, the Indian was little behind the white pioneer who dispossessed him.

RACIAL PSYCHOLOGY.

IN his 'Anthropologie du Calvados,' recently published at Caen, Dr. R. Collignon calls attention to the statistics of the French population compiled by Jacoby and others, showing the relation of superior mental ability to descent. The method pursued was to make a catalogue for each department of all the distinguished men born in it for a century, without reference to the grounds of their celebrity, and then to note what proportion this bore to a million inhabitants. The differences are remarkable, varying from 690 in the department of the Seine (including Paris) to 13 and 14 to the million in Charente and Creuse. Normandy showed 106 per million.

When the several lines of activity were analyzed in which these became eminent,