

or by natural means. Another exhibit may be for the purpose of showing the distribution of corresponding implements over different geographical areas. These and similar special exhibits are instructive, and under proper restrictions should be made; but unless the design of each exhibit is clearly explained, the average visitor to a museum will be confused and misled, for such objects so grouped convey a different impression than when exhibited with their associated objects in proper geographical sequence.

The anthropology of America is now being investigated, and the results are being made known through museums and publications as never before.

The thoroughly equipped Jesup North Pacific Expedition, with well-trained anthropologists in charge, was organised for the purpose of obtaining material, both ethnological and archaeological, for a comparative study of the peoples of the northern parts of America and Asia. Although only in the third year of its active field work, it has already furnished most important results and provided a mass of invaluable authentic material.

The Hyde Expedition, planned for long-continued research in the archæology and ethnology of the south-west—a successor in regard to its objects to the important Hemenway Expedition—is annually adding chapters to the story of the peoples of the ancient pueblos.

The results of the extensive explorations by Moore of the mounds of the southern Atlantic coast are being published in a series of important monographs.

The Pepper-Hurst Expedition to the Florida Keys has given information of remarkable interest and importance from a rich archæological field before unknown.

The United States Government, through the Bureau of Ethnology of the Smithsonian Institution, has given official and liberal support to archæological and ethnological investigations in America.

The constantly increasing patronage, by wealthy men and women, of archæological research at home, as well as in foreign lands, is most encouraging.

The explorations in Mexico and in Central and South America, the publication in facsimile of the ancient Mexican and Maya codices, the reproduction by casts of the important American sculptures and hieroglyphic tablets, all have been made possible by earnest students and generous patrons of American research.

The numerous expeditions, explorations and publications of the Smithsonian Institution and of the museums of Washington, Chicago, Philadelphia, New York and Cambridge, are providing the student of to-day with a vast amount of authentic material for research in American and comparative anthropology.

The Archæological Institute of America, the American Folk Lore Society, and the archæological and anthropological societies and clubs, in active operation in various parts of the country, together with the several journals devoted to different branches of anthropology, give evidence of widespread interest.

Universities are establishing special courses in anthropology, and teachers and investigators are being trained. Officers of anthropological museums are preparing men to be field workers and museum assistants.

The public need no longer be deceived by accounts of giants and other wonderful discoveries. The wares of the mercenary collector are at a discount, since unauthentic material is considered worthless. Anthropology is now a well-established science. It is required of those who follow any of its branches to do so in seriousness and with scientific methods.

With all this wealth of materials and opportunities there can be no doubt that anthropologists will in time be able to solve that problem which for the past half-century has been discussed in this Association—the problem of the unity or diversity of prehistoric man in America.

UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

A LARGE amount of information referring to examining authorities and educational institutions in this country appears in the students' numbers issued by several of our contemporaries. The *British Medical Journal* of August 26 and the *Lancet* of September 1 are almost entirely devoted to descriptions of the various methods by which a student may become a fully qualified

practitioner. The *Chemical News* of September 1 gives a list of British universities and the chief colleges, technical schools, and institutes. The *Chemist and Druggist* of September 2 contains particulars of the educational requirements for qualification in pharmacy, medicine, dentistry, and veterinary surgery.

SOME time ago a departmental committee was formed to report as to the buildings and site of a proposed new Royal College of Science for Ireland. It is now announced by the *Times* that the Government have arranged to acquire the whole of the house property and ground occupying the site recommended by the departmental committee in addition to the buildings mentioned in the report. The total area thus acquired amounts to over 50,000 superficial feet, and the new buildings will have a frontage both on Kildare Place and Upper Merrion Street, and will, as the report recommends, be in immediate connection with the Museum of Science and Art.

THE West Ham Municipal Technical Institute is one of the newest of the London Polytechnics, and the first session of full work will commence towards the end of the present month. The Institute has been built by the Council of the County Borough of West Ham at a cost of 45,000*l.*, and a further sum of 15,000*l.* has been spent upon the equipment and fittings. Under the direction of the principal, Mr. Albert E. Briscoe, an admirable programme of classes has been prepared; and a glance through it shows that provision has been made for theoretical and practical instruction in most branches of pure and applied science and art. Every effort appears to be made to encourage students to use wisely the educational facilities which the Institute affords. As an instance of the excellent policy which is being pursued, the following extract from the "Program" just published is noteworthy:—"Trade students are urged not to make the mistake of joining trade classes only. If any thorough knowledge of the principles of their trade is to be gained, they must possess an acquaintance with elementary science, and have some knowledge of arithmetic, mensuration, and elementary mathematics. For example, very little progress can be made in building or engineering drawing without some knowledge of elementary geometry; plumbing and engineering students will not obtain a clear grasp of their work unless they have some knowledge of elementary physics, of arithmetic, and elementary mathematics. They are further advised to pursue thoroughly the study of one or two subjects, and not waste their energies by attempting to cover the whole ground of science, and so obtain only a smattering of knowledge. The advantage of systematic study in science lies not so much in the number of facts learnt as in the training in habits of accuracy of work and thought, that enables men to attack new problems as they present themselves in a manner likely to ensure their successful solution." Much may be hoped from a Polytechnic in which such sound educational principles are impressed upon the students.

SCIENTIFIC SERIALS.

American Journal of Science, August.—Rotatory polarisation of light in media subjected to torsion, by A. W. Ewell. The difficulties encountered in the choice of a proper material for experiment are very great, as already pointed out by Verdet and Werthelm. The author found a satisfactory combination in jelly supported in rubber tubes, and the observations with jelly, corroborated by a few observations with glass, demonstrate that torsion of a cylinder produces the rotatory polarisation of a ray proceeding in a direction parallel to the axis of the cylinder, the rotation of the plane of polarisation being opposite to the twist, and a function of the twist of degree higher than the first.—Studies in the Cyperaceæ xi., by T. Holm. This article deals with the abnormal development of some specimens of *Carex stipitata*, Muhl., caused by *Livia vernalis*, Fitch.—The constitution of tourmaline, by F. W. Clarke. The author discusses the respective merits of Penfield and Foote's formula for tourmalines, regarded as salts of the alumino-borosilicic acid, $H_{11}Al_3B_2Si_4O_{21}$, and his own derivation from the similar acid, $H_{14}Al_5B_3Si_6O_{21}$, with all of the hydrogen atoms replaceable by bases. He retains the general form of his own formula, but suggests that certain irreducible differences of constitution may be due to the fact that there exists a series of borosilicic acids.—Determination of tellurous acid in the presence of haloid salts, by F. A. Gooch and C. A. Peters. In the estimation of tellurous acid by oxidation with excess of potassium permanganate, no correction