accepted by the Association a satisfactory combination of scientific and social interest may be confidently anticipated.

AWARD OF THE LOUBAT PRIZES.*

THE undersigned, a committee appointed in 1895 to examine and report upon the various monographs submitted in competition for the Loubat prizes to be awarded in 1898, beg leave to report that they have carefully considered the different works received, and have also, in accordance with the rules governing the competition, examined such other works relating to American archæology as have been published in the English language during the three years ending with the first day of April, 1898. In their consideration of these monographs the Committee have taken into account not only the scientific value of the work, but also the importance of the subjects treated, the methods of investigation pursued by the authors, and the artistic and literary excellence of the presentation.

The monographs that were formally submitted for examination were the productions of eight different authors. Of these the committee have selected as being the most meritorious, and as most fully complying with the conditions prescribed for the competition, the treatise offered by Mr. William Henry Holmes, Curator of the Department of Anthropology in the National Museum at Washington. The title of this treatise is 'Stone Implements of the Potomac-Chesapeake Tide-Water Provinces.'

This volume may be held to mark an epoch in American archæological research, by interpreting the remarkably abundant artifacts of a typical region in the light of previous studies of actual aboriginal handiwork, and thus establishing a basis for the classification of the stone art of the entire western hemisphere. It is the result of many years of personal study, numerous experiments and close typographical analysis, and is supplied with a wealth of illustrative material that gives it most exceptional interest and value. The Committee, therefore, recommend that the first prize of \$1,000 be awarded to Mr. William Henry Holmes.

*Report of the Committee to President Low, of Columbia University.

The elaborate monograph entitled *The Social Organization and Secret Societies of the Kwakiutl Indians*, by Dr. Franz Boas, of the Metropolitan Museum of Natural History of New York City, is a remarkably complete descriptive and analytic treatise setting forth the characteristics of a well studied tribe in such a manner as to offer a model for students and raise the standards of ethnological work. Its information is derived from personal research conducted on the very best scientific principles and dealing with a wealth of carefully collected material. Your Committee, therefore, recommend that the second prize of \$400 be awarded to Dr. Franz Boas.

Of the remaining authors represented in the competition the Committee desire to single out for especial mention Dr. Karl Lumholtz, who presented a treatise entitled *Objective Symbolism of the Huichol Indians*; Mr. Frank H. Cushing, who offered a manuscript interpretive of aboriginal art and industry under the title *Tomahawk and Calumet, Shield and Gorget*; and Dr. Walter Hoffman, whose extended memoir embodies a careful study of the Menomini Indians.

The Committee desire also to mention with especial commendation a work by Alfred P. Maudslay, of London, dealing with the archæology of Central America. This work was not submitted by its author in the competition, and it has not yet been completed in publication; but its great merit is such as to demand some especial mention on the part of this Committee.

All of which is respectfully submitted.

Committee: H. T. PECK, *Chairman*.

D. G. BRINTON,

W J MCGEE.

MAY 21, 1898.

NEW GASES IN THE ATMOSPHERE.

A FURTHER communication of great interest on the occurrence of hitherto unsuspected elements in the atmosphere was made, according to the *London Times*, to the Royal Society by Professor Ramsay and Mr. Travers, on June 16th. Since the discovery of argon it has always been a question whether the gas isolated by Lord Rayleigh and Professor Ramsay was in reality a single uniform substance, a point which was very difficult to settle owing to the

impossibility of applying any ordinary chemical test. Moreover, as the molecular weight of helium—which shares with argon the peculiarity of being an entirely inert element—is four, whilst that of argon is almost 40, it appeared probable that an element of intermediate molecular weight remained to be discovered. Professor Ramsay and Mr. Travers have, therefore, prepared a large quantity of ‘argon’ from atmospheric nitrogen; separating this latter gas by means of magnesium, and having liquefied it by cooling with liquid air, they have then fractionally distilled the product. The first portion, consisting of less than one hundred cubic centimeters, distilled off from the liquid obtained by condensing 18 litres of argon, was found to have a density of about 13 instead of 20, which is that of argon; and its spectrum differed from that of the known gases, a yellow line, less refrangible than those characteristic of helium and krypton, being especially prominent. On continuing the distillation, after nearly the whole of the liquid argon had evaporated, a solid was obtained which only slowly volatilized. The gas into which this solid was converted was found to be of practically the same density as argon, but its spectrum was altogether different and peculiar, consisting for the most part of bands, not of lines. It is proposed to call the lighter element Neon, and that derived from the solid Metargon.

These observations, as well as those on krypton communicated to the Society the previous week, must obviously be regarded as but indications of the presence in various minute proportions of a variety of new substances, probably all elements, in the atmosphere. Further development of the investigations will be awaited with interest. The success which has thus far been obtained is striking proof of the great value of the new engine of research which liquid air affords, especially as diffusion experiments had failed to afford any evidence of the presence of such substances in our air.

CIVIL SERVICE EXAMINATIONS IN SCIENCE.

THE Civil Service Commission invites attention to the fact that no applications were filed for the examination scheduled to be held on June 7th for Assistant Curator, U. S. National

Museum (Division of Mammals), Smithsonian Institution; and it announces that July 21st has been set for examination for the position mentioned, salary \$1500 per annum. Applicants will not be required to appear before a board of examiners for examination, but they will be rated on the elements of education, experience, publications and a thesis, which are to be indicated upon special forms furnished by the Commission. These subjects will be weighted 10, 15, 50 and 25 per cent., respectively. The Department states that it is desirable that persons certified for this position shall be men not less than 25 nor more than 40 years of age and that they should possess a good general education (college graduates preferred); a general knowledge of zoology and a thorough knowledge of mammalogy, more especially as relating to the North American fauna; they should have a practical knowledge of field collecting, and of museum methods of preserving, arranging and labeling collections.

On July 14th an examination will be held to fill two vacancies in the grade of Assistant, U. S. Coast and Geodetic Survey, Treasury Department, the salaries of which are \$1,200 per annum.

The examination will consist of the subjects mentioned below, which will be weighted as follows:

Knowledge of the operations of geodesy, .	40
Experience in the work of a trigonometric survey,	40
Knowledge of field astronomy,	20

A statement of the experience in the work of trigonometric survey is to be submitted upon a special form, which will be furnished applicants with their application blanks. This statement must be filed with the application. Applicants for this examination must not be over 50 years of age.

No eligible candidates were secured from the examination held on May 6, 1898, for the position of Chief of Division of Library and Archives, U. S. Coast and Geodetic Survey, Treasury Department, and another examination will be held on July 21st and 22d. The salary of this position is \$1,800 per annum.

The examination will be as follows: