method of keeping the initial displacement small under a disturbing force be devised, but it is equally undesirable that the moment of inertia be materially increased by the introduction of the stabilizing device. This consideration alone would serve to discard all methods of stabilization making use of heavy masses, such as heavy gyroscopes or pendulums, and an effective stabilizing device would have to call into play the stabilizing surface by means of a mechanism of transmission operated by a light mass sensitive to light disturbing forces, such as a small but rapidly rotating gyroscope. Direct stabilization by a heavy pendular mass, for instance, is a purely chimerical procedure.

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EARLY MAN IN SOUTH AMERICA

Five years ago the Bureau of American Ethnology published a bulletin on Skeletal Remains Suggesting, or Attributed to, Early Man in North America, based on the researches of Dr. Ales Hrdlička, Curator of Physical Anthropology in the U. S. National Museum. There is to appear shortly in similar form, under the title of Early Man in South America, a résumé of the investigations of Dr. Hrdlička, in collaboration with Mr. W. H. Holmes, head curator of the Department of Anthropology in the U. S. National Museum, Mr. Bailey Willis, of the U. S. Geological Survey, and Messrs. Fred. Eugene Wright and Clarence E. Fenner, of the Geophysical Laboratory of the Carnegie Institution of Washington.

Even before the completion of his report on ancient man in North America, Dr. Hrdlička became interested in the evidence bearing on the corresponding problem in South America, and subsequently, at the suggestion of Mr. W. H. Holmes, he was sent by the secretary of the Smithsonian Institution to visit Argentina for the purpose of making a study at first hand of the available material and an investigation of the most promising regions.

In view of the important position occupied by geology in studies of this nature, Mr. Bailey Willis of the U. S. Geological Survey was chosen to accompany Dr. Hrdlička.

The chief objects of the expedition were: the examination of the skeletal remains relating to early man, in Brazil and Argentina; the study of the principal localities and deposits from which these finds came; and, if possible, the collection of osseous, archeologic and other specimens bearing on the subject of man's antiquity. It was hoped that thorough investigation on the ground would enable the explorers to form more definite conclusions concerning the finds than the literature relating to them warranted, and that possibly by means of new discoveries additional light would be thrown on the whole subject of early man in South America, especially in Argentina.

The party reached Argentina early in May, 1910. Dr. Hrdlička spent two months in that country, while Mr. Willis remained somewhat longer, nearly all of this time being given to the researches recorded in the report. The work was greatly facilitated by several of the local men of science, and the authors express warm appreciation for the valuable assistance thus rendered. During the first part of the stay in Argentina, Dr. Hrdlička devoted his time to the study of the available skeletal material attributed to ancient man, found in the various local museums, while Mr. Willis examined the various samples of baked earth, and other objects believed to have been associated with the activities of prehistoric man. Several localities in Buenos Aires where local exposures could be studied, including the drydock where the "Diprothomo" skull had been found some time before, were carefully examined. On May 24 the party set out for the coast where important specimens had been discovered, and a few days later were joined at Mar del Plata, by the late Professor Florentino Ameghino and his brother Carlos, who assisted the expedition materially, accompanying Dr. Hrdlička and Mr. Willis for more than three weeks from place to place on the coast, and to several inland points of interest.

After the completion of this general survey, Dr. Hrdlička visited the valley of the Rio Negro whence came several fossil crania many years ago, while Mr. Willis proceeded to

Arroyo Siasgo and Alvear, to study the geology of these territories and several specimens of baked earth supposed to be the product of ancient human industry. Early in July, both explorers met again in Buenos Aires, and after finishing their work in that region started for Ovejero, a locality in northwestern Argentina that has come into prominence in the last few years through its yield of human bones; they also visited Tacuman, San Juan and Mendoza. Dr. Hrdlička then proceeded to Peru while Mr. Willis returned to Buenos Aires.

The researches occupied nearly three months. Every specimen relating to ancient man that could be found was examined and every important locality was investigated. Unfortunately the general results of the inquiry are not in harmony with claims previously made by the various authors who reported the several finds. On the contrary, the conclusion was reached that to the present time the evidence is unfavorable to the hypothesis of man's great antiquity, especially as to the existence of very early predecessors of the Indian in South America; nor does it sustain the theories of the evolution of man in general, or even that of an American race alone, in the southern continent. The facts gathered attest everywhere merely the presence of the already differentiated and relatively modern American Indian. This should not be taken as a categorical denial of the existence of early man in South America, however improbable such a conclusion may now appear; but the position is maintained that the final acceptance of the evidence on this subject can not be justified until there is accumulated a mass of strictly scientific observations, requisite in kind and volume, to establish a proposition of so great importance.

The expedition secured numerous geological, paleontological and anthropological specimens, some of which throw light on the question under investigation. All these specimens have been deposited in the United States National Museum for further study and exhibition.

THE NEW ALLEGHENY OBSERVATORY

THE new Allegheny Observatory, situated in Riverview Park, Pittsburgh, was dedicated on the afternoon of Wednesday, August 28, in the presence of the members of the Astronomical and Astrophysical Society of America, and of many of the Pittsburgh friends of the institution. The principal instruments of the new observatory are a 13-inch visual refractor, a 30-inch reflector (a memorial to James Edward Keeler), and a 30-inch photographic refractor (a memorial to William Thaw and his son, William Thaw, Junior). The last of these telescopes is not quite completed, as the objective remains to be supplied. Addresses were made by Dr. John A. Brashear, chairman of the observatory committee; by Dr. Samuel Black McCormick, chancellor of the University of Pittsburgh, of which the observatory forms the astronomical department; by Dr. Frank Schlesinger, director of the Allegheny Observatory, and by Professor E. C. Pickering, director of the Harvard College Observatory. Mrs. William Reed Thompson, the daughter of William Thaw and the sister of William Thaw Junior, closed the exercises with the unveiling of the memorial tablet on the Thaw telescope.

SCIENTIFIC NOTES AND NEWS

DR. W J MCGEE, known for his contributions to geology, anthropology and the conservation of natural resources, died at Washington on September 5, aged fifty-nine years.

DR. M. PLANCK, professor of theoretical physics in the University of Berlin, has been elected permanent secretary of the mathematical and physical section of the Berlin Academy of Sciences.

DR. JEAN MASCART, of the Paris Observatory, has been appointed director of the Lyons Observatory in succession to M. André.

IT was stated in last week's issue of SCIENCE that the friends and former students of Professor Wilhelm Wundt had presented to him on his eightieth birthday a foundation for the University of Leipzig. The disposition of the foundation was left to Professor Wundt, who