ture of the current series at the New York Academy of Medicine on January 20. He will speak on "Transfers of Water and Solutes in the Body."

THE annual meeting of the Pacific Division of the American Association for the Advancement of Science will be held in San Diego from June 20 to 25, under the presidency of Dr. J. S. Plaskett, director emeritus of the Dominion Astrophysical Observatory, Victoria, B. C. The last time the division met in San Diego was in 1916. Joint sponsors of the convention are the San Diego Society of Natural History, Scripps Institution of Oceanography, La Jolla, San Diego Museum Association, Zoological Society of San Diego, San Diego State College and San Diego County Medical Society. The scientific sessions will be held in Balboa Park, and there will be exhibits, social features and excursions to points of interest. It is anticipated that there will be a registered attendance of between 700 and 800. The chairman of the local committee is Clinton G. Abbott, Natural History Museum, Balboa Park.

THE cornerstone of the new diagnostic clinic at the Boston Dispensary was laid on December 5. The clinic was dedicated on his sixty-fifth birthday to Dr. Joseph H. Pratt, professor of clinical medicine at the Tufts College Medical School. The building, which will be known as the Joseph H. Pratt Diagnostic Hospital, has been made possible by recent gifts from William Bingham, 2d, who is interested in providing a medical center at which the development of rural medicine may be planned and supervised.

A CELEBRATION marking the fiftieth anniversary of the founding of the Hoagland Laboratory of the Hospital of the Long Island College of Medicine, Brooklyn, N. Y., was held on December 17. An address was given by Dr. Oswald T. Avery, formerly a member of the department on bacteriology in the laboratory, who for the past twenty years has been associated with the Rockefeller Institute for Medical Research. The subject of Dr. Avery's address was "Bacteriology Fifty Years Ago and To-day." Dr. J. M. Van Cott, president of the board of trustees of the laboratory, introduced the speaker. In the evening a dinner was held at the Bossert Hotel. The toastmaster was Dr. Van Cott, and the speakers were William Hill, secretary-treasurer of the board of trustees of the laboratory; Dr. Benjamin White, a former associate of Dr. Avery in the laboratory, and Dr. Wade Oliver.

THE Santa Barbara Museum of Natural History, California, according to *Museum News*, plans to start construction in the near future of an auditorium building situated in the oak grove to the west of the Indian Room. The new building will be about 90 feet long and 45 feet wide. The auditorium proper will be about 72 by 45 feet and will seat 450 persons. It will be equipped with stage and projection booth, and the walls will be decorated with blankets and other ethnological material. In the basement will be a carpenter shop and other service facilities for the museum. The architectural style will conform to the rest of the museum.

DR. RUFUS C. DAWES, on December 29 in his last official act as president of A Century of Progress Exposition in 1933–34, delivered certified checks for $160,000 to seven organizations. These included one to the Smithsonian Institution for $4,800 and one for a like amount to the Yerkes Observatory. Checks for $40,000 each were given to the Chicago Park district and to the Museum of Science and Industry, and one for $32,000 was given to the Chicago Art Institute. A check for $16,000 was given to the Adler Planetarium fund.

THE fourth anniversary of the inauguration of public demonstrations in the Fels Planetarium of the Franklin Institute, Philadelphia, was reached on November 6. The total attendance during this period was 722,474, of which 199,712, mostly school children, were admitted free. The total attendance during the year ending November 5, 1937 was 148,655, while the paid attendance was 122,596, representing an increase of 27.5 per cent. over the previous year. During the fourth year 886 demonstrations were presented, an increase of 159 over the third year, and making a total of 3,841 public performances. Of these, 1,300 have been conducted by James Stokley, director of the Fels Planetarium; 1,476 by Wagner Schlesinger, assistant director; 524 by William L. Fisher; 235 by A. Clyde Schock; 230 by Wm. H. Barton, Jr.; 42 by I. M. Levitt; 18 by Dr. Roy K. Marshall, and 13 by Dr. John H. Pitman.

DISCUSSION

OUR NATIONAL MONUMENTS

THESE monuments are all of historic, scenic or physiographic meaning, taking that word in its fuller significance, present and past. Of those monuments of higher nation-wide, even international value, there are three of outstanding significance alike to the chemist, the biologist and the geologist. These are the great petrified forests of Adamana and Holbrook in Arizona, set aside through the active interest of Lester F. Ward, the Dinosaur Monument of Utah, first proposed by W. J. Holland, and Fossil Cycad National Monument, as several times mentioned in SCIENCE.

Had there been an early active interest in the East,

another most remarkable petrified forest would have been segregated, that at Shade Creek near Athens, Ohio. But beginning quite a century ago specimens were all carried away so that even twenty years ago I found no visible trace of the original forest, even with the best of local help. Nor did I learn until recently that the so-called Lesquereux specimens from the Shade Creek Forest as representing a splendid giant seed fern are conserved in the Harvard collection.

It is seen that highly characteristic fossils soon disappear, are carried off by the curious, even in thinly settled regions. Preservation of outstanding types is therefore a subject of grave concern to the public. This is often far more than a local or state issue. There is that nation-wide interest far beyond anything that can be called local or mere selfish localism. Everything has its locality—even the North Pole. We all hope to see it. But it would not mean much were it not for the South Pole which also wobbles. Or in other words, while we wish state pride in all that which is worth-while and of interest to the public, anything in the nature of local attempt at profit must become very objectionable.

Not to be misunderstood at this point, let it be noted that very many occurrences of petrified tree trunks might well be considered to have a commercial value as semi-gem stones. In such a case the constitutionality of any state laws intended to prohibit their shipment might well be called in question.

To revert to Fossil Cycad National Monument, we must insist that it has a well-nigh sublime educational significance and value. But it will require almost more than any other of the national monument series, a very special development to bring out its sheer distinctiveness. It is therefore a pleasure to note that there is the full intention in the Interior Department (the Bureau of National Parks and Monuments) to further this development with as little delay as lies within the practical and the possible.

Also, Mr. Case of the second South Dakota Congressional district introduced in the first session of the 75th Congress a bill directing the Secretary of the Interior to proceed to this development by the construction of a field museum together with other necessary improvements for preservation and display of the *in situ* cycads and other materials. This bill, *H.R. 8247*, reads as follows:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Interior is hereby directed to develop the Fossil Cycad National Monument in the Black Hills of South Dakota, as created by the Proclamation of the President of the United States, October 21, 1922, by the erection of a museum suitable for the preservation and display of the rare petrified cycads of the Mesozoic deposits found in situ within the area, in keeping with their importance to science in telling the story of continental habitation through the development of plant life, and in keeping with the general interest in the beauty of the specimens there found; together with a caretaker's and visitor's lodge, water supply, trails from the nearest highway, suitable monument boundary markers, and such other improvements as he shall deem necessary: *Provided,* That the future care of the monument shall be under the jurisdiction of the Superintendent of the nearest National Park.

SEC. 2. For carrying out the purposes of this Act there is hereby authorized to be appropriated an amount not exceeding $95,000.

It is desired to record here a personal opinion or even serious objection to the proviso which ends the above bill because it would tend to needlessly and wrongly embarrass the Secretary of the Interior under many and important circumstances which could arise. Moreover, the proviso is rather needless because the Secretary of the Interior will already have the power to take such an indicated course if he so desires; but to limit him thus is against the national, even international values involved if we count the centuries through. Therefore, I would greatly desire to see substituted for the Case Bill the following which I have submitted to many of the Senators without raising a single adverse criticism and with indeed very much of attention and friendly response:

An Enabling Act of Congress purposed to aid the *National Park Service* under the *Direction* of the *Secretary* of the *Interior* in *Adequately Developing* the unusual *Public* and *Scientific Values* of the *Fossil Cycad National Monument* of the Southwestern Black Hills, of South Dakota, as set aside by *Proclamation* of the President of the United States of America, Warren G. Harding, October twenty-first, in the year one thousand nine hundred and twenty-two, or of the Independence of the United States of America the one hundred and forty-seventh.

WHEREAS, therefore, in the first instance it having been recognized that this Monument included rarely rich Mesozoic deposits of completely petrified cycads with yet other features of great scientific interest, and the exact facts and conditions having been absolutely proven by excavations carried out on the Monument mesa itself with the aid of CCC labor and the National Park Service during the month of November, 1935, resulting in the recovery of an *in situ* collection of the cycads of a hitherto unexampled beauty and interest; and

WHEREAS, since this material requires the elaboration and display on the Monument itself as originally planned, there is no longer reason for delay and there is now made available for this purpose under the direction of the Secretary of the Interior and the National Park Service as provided in the act of Congress to establish such a Service, and for other purposes (39 Stat. 535), with acts additional thereto or amendatory thereof, the sum of

Ninety-five Thousand Dollars to be expended approximately as follows:

(1) For a Roadway leading in from the so-called Atlantic-Yellowstone-Pacific Highway to the Northeastern corner of the present Monument area, and thence along the site of a proposed lodge and over the main mesa by the site of the planned Field Museum to an exit on the Southwest corner, being in all a distance of about one mile and a half, the sum of seven thousand dollars.

(2) For a suitable bridge across a deep ravine best traversed by the preceding proposed highway, the sum of three thousand dollars.

(3) For the proposed guest, students and visitor's lodge, with development of water supply for lodge and museum, the sum of twenty thousand dollars (items being Water, $5,000, Lodge, $15,000).

(4) For the erection of a simple but substantial, and lasting *Field Museum* on the main Mesa front as planned, the sum of fifty thousand dollars.

(5) For preparation, installation and display of exhibit of the cycads with illustration of the meaning of the phenomena of petrification, the sum of twelve thousand dollars.

(6) For low set obelisks marking the geologic divisions and horizons about the Museum, and for the tasteful care of the immediately surrounding grounds, the sum of three thousand dollars,—the sum total provided for the several purposes enumerated in the present Act being as stated *Ninety-five Thousand Dollars;* while finally it is understood that the future care of this monument will be provided for by the monies Congress has already set aside for Parks and Monuments, or will set aside for such and related worthy purposes, it being the intent in carrying out the foregoing items of development to accentuate the museum on the mesa front and the display within it.

WHENCE, any sum left over while carrying out the lesser items enumerated in this Bill, necessary and closely estimated though they be, should be applied to the two major items (4 and 5), plainly of such significance that in the long future a larger sum of money, whether from public or private source, could well be expended upon them.

It is advised that the Monument area be eventually added to up to at least one, or better two, squares miles.

In closing these notes I wish to record a very pleasant fact indeed, one of a genuine international meaning. There lie more or less hidden in the Apennines, along the shores of the Isle of Wight, and also the Isle of Portland, and especially in the Galician Carpathians, forests of the same kind and age as that in far fuller view at Fossil Cycad National Monument; and Europeans because of their direct interest in our venture have contributed wonderful comparative materials from all these localities.

Because of such a friendly fact, such a world-wide interest in sheer ideals, does it not become rather absurd that certain of our American specimens of first importance to our greater recovered series are known to have been dragged out of view by parties possessed indeed by a frantic curiosity, but entirely and sadly ignorant of scientific values and with far less of use in view than the Etruscans had for *Cycadeoidea etrusca* over four thousand years ago? As related to the Fossil Cycad National Monument series we have also the occurrence of remarkable related types scattered about in the San Juan Basin. A large collection of these including three species is now at Yale and has been frequently mentioned in print. It is peculiarly desirable to learn the exact features of the flowers of this free-flowering group. One specimen in the hands of a local dealer appeared to have the floral features. It was promised for use in research, but was subsequently stubbornly withheld. One could wish that research might not encounter anything like that! Clearly, no individual in this or any country should be allowed to sequester materials valuable in the study of paleontology which he is utterly unable to use or understand; and it is greatly to be doubted if the state or province should have an undisputed right to do so either. Fortunately, there are always many who in addition to curiosity have the boundless, wonderful wish to be useful; many who are ever ready and anxious to aid in the assemblage of unusual paleontologic materials and data. The principle of eminent domain carried to its fullest and logical conclusion must ever protect the interests of all the people of a great nation now and for the far future. The task of delimiting and obelisking featurewise an ocean-bound country can not be else than long. Let no one mistake the real values, and let simplicity and economy ever prevail.

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THE LOWER SONORAN IN UTAH

READERS of Professor Cottam's[1] interesting article on the effect of the heavy frost in January, 1937, may be pleased to know that, after all, Utah is in no danger of losing her claim to the Lower Sonoran life zone.

Stimulated by the above-mentioned article and having an opportunity to drive through southwestern Utah in August, 1937, the writer took note of the condition of the Lower Sonoran vegetation, both in the region around St. George and in a considerable area on the alluvial fans west of the Beaver Dam Mountains.

Particular attention was paid to four typical Lower Sonoran plants—creosote bush, *Larrea divaricata;* mesquite, *Prosopis chilensis;* burro weed, *Franseria dumosa;* and desert willow, *Chilopsis linearis.* All these species showed the effects of the frost, but not

[1] W. P. Cottam, SCIENCE, 85: 563–564, June 11, 1937.