exhibits will be resumed. At. 7:00 P. M., there will be a banquet at the Stevens Hotel. It is hoped that among the guests at the banquet there will be distinguished engineers from abroad. For those who may not be able to attend the banquet (the hotel seating capacity is about 2,400) a special lighting display may be provided at the exposition grounds.

The week of June 25 at the exposition is to be made notable by the fact that the American Association for the Advancement of Science will begin its annual meeting on Monday, June 19, continuing through to Friday, June 30. Fifty distinguished scientific men from other countries have received special invitations to participate in this meeting.

The American Ceramic Society has definitely scheduled its 1933 summer meeting at the Century of Progress Exposition during the week of June 25, participating in the engineers' banquet with suitable joint programs with the several engineering societies, as well as with the American Association for the Advancement of Science.

The personnel of the local committee on arrangements for the American Ceramic Society is: R. A. Beverly (chairman), 3754 N. Central Park Ave., Chicago; Dr. L. I. Shaw, Western Electric Company, Department 7434, Hawthorne Station; F. L. Steinhoff, editor, *Brick and Clay Record,* 59 E. Van Buren Street; H. V. Kaeppel, editor, Industrial Publications, Inc., 59 E. Van Buren Street; D. F. Albery, Northwestern Terra Cotta Company, 2525 Clybourn Ave., and W. C. Lindemann, A. J. Lindemann and Hoverson Company, Milwaukee, Wisconsin.

SCIENTIFIC NOTES AND NEWS

PROFESSOR ALBERT EINSTEIN will deliver the Herbert Spencer lecture at the University of Oxford in 1933.

THE International Congress of Physiology at its recent meeting in Rome decided to hold the next congress in Moscow, when Professor Ivan Pavlov will doubtless be president.

DR. WALTER B. CANNON, George Higginson professor of physiology at the Harvard Medical School, has been elected an honorary member of the Barcelona Academy of Medicine.

DR. ALOIS F. KOVARIK, professor of physics at Yale University, was the recipient on July 2 of an honorary doctorate of science from Charles University in Prague, and on June 10 of the Memorial Medal from Comenius University in Bratislava. He gave lectures in May and June at these universities and at Brno. During his sabbatical leave he also visited many of the physical laboratories and radium institutes in Europe.

AT the forty-eighth meeting of the American Astronomical Society held in Cambridge, Massachusetts, on September 2, the following officers were elected: *Vice-president,* Benjamin Boss; *Secretary,* R. S. Dugan; *Treasurer,* F. C. Jordan; *Councilors,* F. R. Moulton, Harriet W. Bigelow, D. W. Morehouse and Otto Struve; *Member of the Division of Physical Sciences, National Research Council,* J. A. Miller. The next meeting of the society will be held at Atlantic City, from December 27 to 29, in affiliation with the American Association for the Advancement of Science.

DR. JENNINGS C. LITZENBERG, Minneapolis, was elected president of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons at its recent annual meeting in French Lick, Indiana.

DR. SHIRLEY W. WYNNE, health commissioner of New York, will celebrate, October 8, the twenty-fifth anniversary of his association with the city department of health. He was appointed assistant to the commissioner in 1920 after having spent thirteen years as medical inspector, assistant registrar and chief of the division of statistical research. He became deputy commissioner in 1926 and commissioner in 1928, succeeding Dr. Louis I. Harris.

DR. MARTIN FROBISHER, JR., has been appointed associate in epidemiology at the Johns Hopkins School of Hygiene and Public Health. He resigned as associate in pathology and bacteriology at the Johns Hopkins University in 1928 to join the Rockefeller Institute for Medical Research in New York. The last three years have been spent in Brazil, where he has been engaged in research on yellow fever for the International Health Division of the Rockefeller Foundation. Dr. Frobisher recently recovered from an attack of yellow fever.

PROFESSOR GEORGE F. ECKHARD, who has been professor of structural engineering at the University of Vermont and the State Agricultural College since 1915, has been appointed dean of the College of Engineering to succeed the late Josiah W. Votey, who died last year. Professor Eckhard was appointed acting dean at the time of Dean Votey's death.

DR. O. J. FARRELL has been appointed professor of mathematics at Union College.

DR. T. D. BECKWITH has been appointed associate professor of bacteriology at the University of California at Los Angeles.

DR. OTIS M. COPE has resigned as associate professor of physiology and pharmacology at the University of Nebraska College of Medicine, to accept the professorship of physiology and physiological chemistry at the New York Homeopathic Medical College and Flower Hospital.

W. F. MCCORMICK, who received the doctorate of philosophy in chemistry from Pennsylvania State College in June, has been appointed head of the department of chemistry at the Mississippi State College for Women, Columbus, Mississippi.

DR. DOROTHEA H. SCOVILLE, formerly resident physician at Vassar College, and Dr. Margaret Kelly, formerly a member of the faculty, have joined the staff of Connecticut College, Dr. Scoville as resident physician and Dr. Kelly as associate professor of chemistry.

DR. W. W. FLEXNER has been promoted to be associate in mathematics at Bryn Mawr College.

HENRY IVES BALDWIN, formerly in charge of forest investigations for the Brown Company, Berlin, New Hampshire, will spend the academic year 1932–1933 teaching silviculture in the department of forestry at the Pennsylvania State College, substituting for Assistant Professor H. J. Lutz, who is studying for the Ph.D. degree at Yale University.

DR. ROBERT A. MILLIKAN, director of the Norman Bridge Laboratory of the California Institute of Technology, has returned to Pasadena after spending some weeks in obtaining records of the intensity of cosmic rays at various latitudes and altitudes.

DR. ROBERT J. TRUMPLER, of Lick Observatory of the University of California, has returned after a year in Europe. He spent the greater part of the time at the University of Zurich, engaged in astronomical research. In addition, he visited observatories and laboratories in Germany, Holland and England and represented the University of California at the celebration of the three hundredth anniversary of the founding of the University of Amsterdam.

DR. C. E. MCCLUNG, professor of zoology and director of the laboratory of zoology at the University of Pennsylvania, spent several weeks in August as the guest of the laboratory of biology at the University of Colorado.

DR. SAUL B. ARENSON, associate professor of chemistry in the University of Cincinnati, has recently returned from a sabbatical leave spent in the Orient and the Tropics.

DEAN F. G. MILLER, of the School of Forestry of the University of Idaho, has spent a leave of absence in study and travel in Europe. He worked at the Dresden Technological Institute, specializing in forest management and forest economics.

DR. JOSEPH EASTMAN SHEEHAN, of New York, recently sailed for Istanbul, Turkey, at the invitation of the government, to establish a unit for treatment by plastic surgery of soldiers wounded in the World War.

FRANCISCO DE SANTOS HALL, assistant professor of forestry in the University of Lisbon, who has been spending a year's leave studying American forestry, left Washington on September 15 to resume his work at Lisbon.

A. SCHMID, professor of animal breeding in the Swiss Federal Institute of Technology, at Zurich, after attending the International Congress of Genetics at Ithaca, visited Davis, California, to make a study of the organization and work of the animal husbandry division of the College of Agriculture of the University of California.

THE seventeenth annual meeting of the Optical Society of America will be held at the Lake Placid Club, Essex County, New York, from October 13 to 15. There will be a series of contributed papers on the morning and afternoon of Thursday, October 13, and in the evening a lecture on "The Early History of Optics" by Dr. K. K. Darrow, of the Bell Telephone Laboratories. On Friday, October 14, arrangements for conference groups have been made. In the afternoon there will be invited papers on "A Century of Optics." These include "Sidelights on the Era of Young and Fresnel" by Professor E. L. Nichols, Cornell University, "The Electromagnetic Theory" by Dr. W. F. G. Swann, Bartol Research Foundation, and "The Modern Theory of Light" by Professor E. U. Condon, Princeton University. On Saturday morning, October 15, there will be invited papers on "Scattering of Light by Supersonic Waves," with experimental demonstration, by Professor P. Debye, of the University of Leipzig, and Professor F. W. Sears, of the Massachusetts Institute of Technology, followed by group conferences which will be continued in the afternoon.

METALLURGISTS will meet in Pittsburgh on October 28, to hear reports on studies in steel research undertaken at the Carnegie Institute of Technology. The occasion is the sixth annual open meeting of the metallurgical advisory board to that institution. The morning session will be devoted to reports on studies made by the bureau of metallurgical research on the alloys of iron, manganese and carbon. The afternoon session will be devoted to the work of Dr. C. H. Herty, Jr., and his assistants who are working under the auspices of the metallurgical advisory board. His first report will be on "The Deoxidation of Steel with

Manganese, Aluminium, Silicon Alloys." In his second report he will be assisted by C. F. Christopher. The subject will be "The Use of Manganese, Silicon Alloys in Open Hearth Process." The final report with M. W. Lightner will be on "The Effect of Deoxidation and Furnace Manipulation on Some Physical Properties of Open Hearth Steel." A business session and a dinner, at which Dr. Thomas S. Baker, president of the Carnegie Institute of Technology, will preside, will be held in the evening at the Hotel Schenley.

THE following resolution dissolving the Association to Aid Scientific Research by Women was approved at a recent meeting: *Whereas,* the objects for which this association has worked for thirty-five years have now been achieved, since women are given opportunities to engage in scientific research on an equality with men, and to gain recognition for their achievements, be it *Resolved,* that this association cease to exist after the adjournment of this meeting.

The Official Record of the U. S. Department of Agriculture reports that Secretary Hyde has revoked the domestic European corn-borer quarantine and regulations on all federal restrictions on interstate shipments under that quarantine have been cancelled. Secretary Hyde states that the reason for the revocation is the failure to obtain funds sufficient to maintain effective control. The department's estimate as to the needs for this work during this fiscal year was $795,000, a decrease of $155,000 from the last year's appropriation. The sum of $295,000, which has been appropriated, is inadequate to prevent the shipment or trucking of corn from the infested areas and to carry out the other measures essential for the protection of uninfested districts, and the department therefore has no choice but to cancel the regulations. Revocation of federal regulations will give uninfested states an opportunity to issue such orders as they may feel necessary for protection against the introduction of infestation. The appropriation will enable the department to continue scouting to determine the limits of distribution of the borer. States outside the infested area will thus be able to keep informed as to the areas to which any state restrictions should apply and infested states will know the territory in which suppressive measures are needed.

THE Shenandoah National Forest, which is in Virginia and West Virginia about 100 miles southwest of the nation's capital, has been renamed the George Washington National Forest by executive order of President Hoover. Secretary Hyde upon recommendation of R. Y. Stuart, chief of the Forest Service, chose this forest as the most fitting national forest to be named after Washington. This forest is in a region frequently traversed and in part surveyed by Washington. The George Washington National Forest is the largest in Virginia. It stretches for nearly 100 miles along the summit and slopes of the Shenandoah Mountains and for a shorter distance along the Massanutten Range. Its gross area is 802,700 acres, more than half of which has already been acquired by the government. The land now supports extensive stands of growing and mature timber. It has great value for watershed protection and recreational purposes. Numerous cities and towns draw their water supplies from its area and it constitutes an important part of the drainage area of the Shenandoah and Potomac Rivers. The forest's camping and outing facilities are being developed. This is the second national forest to be named for a president of the United States this year. The Colorado National Forest was recently renamed the Roosevelt. Other national forests named for presidents are the Lincoln in New Mexico and the Cleveland in California.

FOR a number of years, according to the Paris correspondent of the *Journal* of the American Medical Association, the lack of space for the growing needs of the laboratories and the constant increase in the number of students at the faculty of medicine at Paris has made a change of site more and more imperative. The Rockefeller Foundation donated, some time ago, 150,000,000 francs ($6,000,000) for the purpose, on condition that the central government would contribute an equal sum. All that remained to do was to decide on the new site, which would have to be large and yet not too far distant from the residential sections of Paris, to take account of the needs of the professors and their pupils. That is a double requirement difficult to realize. A preliminary meeting was recently held at the ministry of public instruction, under the chairmanship of the minister himself, which was attended by Professor Balthazard, dean of the faculty of medicine; Professor Roussy, his assistant; Mr. Carléty, rector of the University of Paris; Mr. Cavalier, director of higher education, and representatives of other ministries. The choice fell on a tract of land (formerly used for military purposes) bordering on the southern line of the old fortifications, which is a long distance from the center of Paris. The plan was long discussed, but unfortunately, according to the correspondent, rejected to locate the new faculty of medicine on the site of the present Halle aux vins, which, in that case, would have been transported outside of Paris. This site would have been better for the university buildings. Situated on the bank of the Seine, alongside the Institut médico-légal, it would not have been too far from the other faculties where are installed the publishers of medical works, the shops of the manufacturers of instruments

and the rooming houses for students. The selection of the more distant site will mean a loss to the interests mentioned.

THE Navy Department has announced the publication of the new hydrographic chart of Cuba, marking the completion of a twenty-five-year naval survey which has made available accurate information of Cuban waters for the benefit of merchant ships and naval vessels. To obtain the data for this work, 2,300 miles of shore line have been surveyed and 23,429 square nautical miles of soundings have been made. During this field work one general chart, twenty-one coastal charts and fifty-six harbor or plan charts have been evolved, all of them hydrographically and geodetically accurate. While the work progressed 634 editions of the various charts have been produced, incorporating changes and additions as the data became available from the field parties. With the exception of the years 1917 to 1921, the Navy has had one and, part of the time, two naval survey vessels engaged in this work during the season when it could be expeditiously employed. During the last few years, since the development of aviation and with the assistance of aerial photography, much more topographic detail was obtained. Mangrove-covered shores and cays which were almost inaccessible by boat were accurately charted. More than 1,265 miles of the main coast line of Cuba and the Isle de Pines have been flown, photographed and charted by naval planes.

AN account of variations in the standards of electrical resistance established by the British Association Electrical Standards Committee in 1865 was given by Sir Richard T. Glazebrook and Mr. L. Hartshorn in a paper read in the Mathematics Section at the York meeting. This traced the history of the variations known to have occurred in the standard coils and discussed the results up to date. The records, it was noted, showed that most of the coils had changed appreciably during their long life, but that two of the platinum coils of pure metal originally made in 1867 had remained unchanged. Between 1880 and 1888 the value of the British Association unit as expressed in terms of mercury remained unaltered. Down to 1908, allowing for recorded alterations in the coils, the value assumed for the British Association unit was satisfactorily known. The point of most importance which emerged from Sir Frank Smith's measurements in that year was the permanence of the platinum coils. This had continued, and according to Mr. Hartshorn's observations in 1932 the values observed for the minute difference between them had lain between 0.00059 and 0.00063 British Association units.

DISCUSSION

THE SHOVELNOSED STURGEON IN THE ARKANSAS RIVER

ON November 20, 1931, I visited Mr. J. R. Alexander on his plantation near Scott, Arkansas, about 20 miles below Little Rock, and about two miles from the Arkansas River. While there, Mr. Bruce Crump presented me with some fragments of fish armor of a very unusual kind, but evidently from a sturgeon. The fisherman, Mr. T. C. Hamilton, who had caught it, said that the fish was called a "sand sturgeon." Later, Mr. Crump obtained from the same fisherman and sent me the head and major part of the skin of such a fish (the tail part only being lacking). This fragment of armor had suffered much from exposure to wind and weather, but still there was no doubt that it came from a *Scaphirhynchus,* a sand sturgeon.

Later still, the same fisherman caught in the Arkansas River a specimen of the fish about two feet long. This Mr. Crump opened up, removed viscera and flesh, cured in salt, dried and sent to me by mail. It reached me in perfect condition, save that the tip of the upper lobe of the caudal was broken off. A glance at this splendid specimen showed beyond doubt that it was a shovelnosed sturgeon, a *Scaphirhynchus* and presumably a *platorhynchus.* But considerable study was necessary before it could be definitely said what form it is. This was because a closely allied form, *Parascaphirhynchus albus,* has been taken in the Mississippi River at Alton and Grafton, Illinois, and later at various points up the Mississippi River to Keokuk, Iowa. Compared with the better-known common shovelnose, this form is rare.

These two fish are differentiated mainly on many small unlikenesses, not very apparent unless they are before the student. These fine points can not be made out very well on a dried specimen, but there are enough major differences to enable me to say that these fish taken from the Arkansas River belong to the genus and species *Scaphirhynchus platorhynchus.* The common names given to it in various parts of the Mississippi Valley are the sand sturgeon, shovelnosed sturgeon, switchtail or hackleback.

Now comes the question as to whether this fish has ever before been taken in the Arkansas River, and further whether or not it has ever been recorded from any of the other rivers of the state.

Diligent search has been made through all the articles listing or describing fishes collected in Arkansas, and once only do I find it listed. However, so long ago as 1857 there was published "Reports of Explorations and Surveys . . . for a Railroad from the Mississippi River to the Pacific Ocean, Made . . .