SCIENTIFIC EVENTS

SURVEY OF THE MUSEUMS AND ART GAL-LERIES OF GREAT BRITAIN

A CORRESPONDENT of *The Christian Science Monitor* writes from London that, for the first time, the art resources of the British Empire have been catalogued. This has been accomplished through a survey of museums and art galleries which has been in progress since 1931 and which has just appeared in the form of a final report. The work has been carried on with the aid of a gift of £8,000 from the Carnegie Corporation of New York.

In the opinion of the secretary of the survey, S. F. Markham, the five most progressive museums in the entire empire, "taking into account building, finances, equipment, staff, technique, as well as wealth of collections," are the Science Museum, London; the Royal Ontario Museum, Toronto; the Auckland War Memorial Museum, New Zealand; the National Museum of Wales, Cardiff, and the Royal Scottish Museum, Edinburgh. On the other hand, the places of considerable population where art gallery and museum provision is of least adequacy and efficiency are Chesterfield, Croydon, Willesden, South Shields and Wigan (all England); Winnipeg, Manitoba; London, Ontario, and Newcastle, Australia.

New Zealand appears to be one of the most progressive sections of the empire in its enthusiasm for promoting the welfare of its galleries and museums. While South Africa and Canada spend no more than 1½d. a head a year on their art resources, New Zealand expends 3½d. a head. Throughout the empire the total annual expenditure on art galleries and museums is £1,700,000. Great Britain's annual expenditure a head is 7½d. The progressive attitude displayed in cultural matters by New Zealand is ascribed to the determination of the people not to be satisfied with the second-rate. Its high position is further indicated in the statistics relating to the provision made by individual towns and cities for art accommodation.

The finest collections are naturally to be found in London and in the national galleries in the British Isles. But apart from these it is thought that the best collection is that of the Royal Ontario Museum, Toronto, which not only has an admirable selection of the works of Canadian artists, but also a world-famous collection of Chinese antiquities. There are good collections at Melbourne, Sydney, Adelaide and Ottawa.

The need is emphasized for closer cooperation between the museums and galleries of the various parts of the empire. The suggestion is being made that, by an alteration in the present state of the law, the National Gallery, London, might radically assist the Dominions in their cultural efforts.

THE ARBORETUM OF THE UNIVERSITY OF WISCONSIN

GEORGE WILLIAM LONGENECKER, professor of horticulture at the University of Wisconsin, has been appointed executive director of the arboretum by the board of regents.

The arboretum, one of a half dozen or so of its kind in the entire country, was established last fall and at present contains 430 acres of land on the outskirts of Madison, bordering Lake Wingra. The land has been obtained by gift or purchase, with funds made available from the Tripp estate. No state-appropriated funds whatever have been used on the project.

Aldo Leopold, widely known Wisconsin conservationist, has been appointed professor of wild life management and research director. Funds for the development of the arboretum as an outdoor experimental laboratory, in which research work on various problems facing state reforestation and wild life propagation and conservation work can be carried on by the university, were made possible by a grant of \$8,000 by the Wisconsin Alumni Research Foundation.

Professor Longenecker has been connected with the university for seven years. When development of the arboretum was started last summer, he superintended the planting of about 13,000 Norway and white pines and about 2,000 white spruce trees. He also had charge of the building of a roadway through the large tract of land, and directed the rock work around the springs in the area.

The arboretum gives the university and the state an opportunity for experimentation in reforestation and in the propagation of wild life, in the opinion of members of the University Arboretum Committee, under whose direction the development of the land for the best interests of the people of the state is carried out.

The committee, composed of many university and state officials and private citizens, was appointed by President Glenn Frank last fall. E. M. Gilbert, professor of botany, is chairman.

ATTENDANCE AT THE FIELD MUSEUM OF NATURAL HISTORY

More than three million persons have visited the Field Museum of Natural History during 1933 to date, making an attendance record, according to a statement made by Stephen C. Simms, director of the museum, which exceeds any attained by a museum in the United States and probably exceeding the highest figure reached by such an institution. The best available comparative statistics indicate that the previous highest attendance for any similar institution was

something over 2,000,000 during an entire year, and not more than two American museums have reached that mark.

The exact number of visitors received at Field Museum from January 1 to November 12, inclusive, is 3,-208,414. This represents an increase of 76 per cent. over the attendance for the entire twelve months of 1932, which was 1,824,202, and, with 49 more days of 1933 still to be added, the record will be even greater by the end of the year.

While, naturally, much of the increase may be attributed to the museum's proximity to the grounds of A Century of Progress, Mr. Simms points out that there has also been a large normal increase, continuing the steady upward tendency which has been noted year after year. This is shown by the fact that from January 1 to May 26, 1933, inclusive (the period prior to the opening of the exposition), attendance at the museum was 707,245, as compared with the 549,407 registered between the same two dates of 1932. Thus, even the preexposition period of 1933 shows an increase of 157,838, or more than 28 per cent., over 1932.

Of the more than 3,200,000 persons visiting the museum this year, 209,624, or only about six and one half per cent., paid the 25-cent admission fee charged on Mondays, Tuesdays, Wednesdays and Fridays; all the rest, numbering 2,998,790, or ninety-three and one half per cent., either came on Thursdays, Saturdays and Sundays when admission is free, or belonged to classifications such as children, teachers and students who are admitted free on all days.

According to Mr. Simms, these figures demonstrate the extent to which the museum has subordinated possibilities of increased revenue to the greater objective of providing service to the public on the widest possible scale. They show that the museum is fulfilling its mission as a great educational institution, and that full advantage of its tremendous resources for the dissemination of scientific knowledge is being taken and appreciated by citizens of Chicago and visitors to the city.

Some high attendance records for individual days have been made during 1933. There were two days on each of which the attendance was in excess of 65,000 persons, and seven days when attendance exceeded 50,000.

ANNUAL MEETING OF THE HIGHWAY RESEARCH BOARD

THE annual meeting of the Highway Research Board will be held in Washington in the building of the National Academy of Sciences on December 7 and 8. The subjects to be considered are as follows:

Finance

Further Studies of Taxation and Expenditures.

Highway Transportation Economics

General Principles for the Evaluation of Highway Systems. Physical Valuation of Highways.

Use of Traffic Surveys in Evaluation of Highways.

Methods for Determining Highway Transportation Costs.

Economy of Highway Improvement.

Wind Resistance of Motor Vehicles.

Relations between Tires, Surfaces and Skidding.

Motor Vehicle Tractive Resistance.

Highway Design

Roadside Development.

Research in Highway Lighting.

Use of High Elastic Limit Steel as Concrete Reinforcement. Portland Cement Macadam Pavement Experiments.

Materials and Construction

Relation between Composition of Cement and Durability of Concrete.

Curing of Concrete Pavements.

Effects of Calcium Chloride in Concrete.

Fundamental Research on Durability of Aggregates.

Fillers and Cushion Courses for Brick and Block Pavements.

Maintenance

Treatment of Icy Pavements.

Maintenance Costs.

Crack and Joint Fillers.

Snow Control Experiments.

Highway Traffic and Safety

Studies of Traffic Behavior under Various Conditions, at Seventeenth Street and Constitution Avenue, Washington, D. C.

Rules of the Road.

Studies of Prevailing Speeds on Rural Highways.

Analysis of Traffic by Moving Pictures.

Alcohol and Motor Vehicle Drivers.

Traffic Survey Methods and Forms.

EXCHANGE PROFESSORSHIPS

The Massachusetts Institute of Technology has inaugurated a general plan for exchange of professors with other educational institutions and research laboratories, according to an announcement by President Karl T. Compton. This is the outgrowth of a suggestion made by Professor D. C. Jackson, head of the department of electrical engineering, in a paper before the Society for the Promotion of Engineering Education in Chicago last summer.

The plan provides for such an exchange arrangement each year for one member of the staff of each of the departments of study in the institute, embracing the fields of science, engineering, architecture and humanities. The nominations to these exchange professorships will be made by the heads or deans of corresponding departments in the cooperating institutions. Each institution will continue to pay the regular salary of its professor, while on leave. In