must be written 2.1 ± 0.8. Such considerations justify the earlier statement that a very long statistical series is necessary to calibrate one instrument against another, unless the observations are performed at the same spot.

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SCIENTIFIC EVENTS

A CHINESE NATIONAL RESEARCH INSTITUTE

THE founding of a National Research Institute modeled on the Smithsonian Institution was one of the first acts of the new Nationalist Government in China. Dr. Chi Li, field archeologist of the Freer Gallery, has issued a statement in regard to the work of the institute, which is in part as follows:

The purpose of China's national research institute is expressed in a phrase borrowed from the Smithsonian Institution—the increase and diffusion of knowledge. The institute has already organized an expedition to the Province of Kwang Si, to study the geology, paleontology, zoology and botany of the province. The expedition hopes also to include eventually anthropology and archeology in its scope. The cost will be shared by the national government and the provincial government of Kwang Si. The institute hopes in this way to develop systematic scientific exploration of every province in China.

The membership of the institute includes thirty well-known scientific men. Dr. Li represents archeology and was the first member of the new organization. He will continue as field representative of the Smithsonian Institution and the Freer Gallery.

The most productive native institution, according to Dr. Li, has been the Geological Survey of China, organized about twelve years ago. Its geological, paleontological and archeological reports are internationally known.

The Smithsonian Institution plans to cooperate actively with the new institute, and Dr. Li will see the Nationalist authorities at Nanking on his return to China to work out a method of cooperation. It is Dr. Li's opinion that the new growth of national self-consciousness has considerably brightened the outlook for foreign cooperation in scientific research in China.

I consider science the most powerful agent for international understanding [said Dr. Li]. In my own case I feel more at home with an archeologist, no matter what his race, than with one of my own countrymen whose interests are not my own.

In sketching the history of modern science in his country, Dr. Li said that the first national activity of importance began with the founding of the Chinese Republic in 1912. Shortly thereafter a science society was organized to diffuse the scientific knowledge accumulated by the western world. In 1920 a biological laboratory was established at Nanking, and a movement is on foot to establish a second laboratory at Peking.

THE BRITISH EMPIRE VEGETATION COMMITTEE

PROFESSOR A. G. TANSLEY, F.R.S., and Dr. T. F. Chip, of the Royal Gardens at Kew, president and secretary, respectively, of the British Empire Vegetation Committee, have sent out a letter announcing the intention of the committeee to put into effect a resolution passed in 1924 by the Imperial Botanical Conference, to the effect that all future work published on the vegetation of the British dominions and colonies should be registered and abstracted, the abstracts being made generally available by periodical publication.

By the courtesy of the British Ecological Society, publication of these abstracts will take place by way of supplement to *The Journal of Ecology*, which is published twice a year, and of which Professor Tansley is the editor, and this supplement will appear as a part of each number. The supplements will also be obtainable separately from the rest of the journal. It is hoped that all botanists will cooperate with the committee by supplying proofs or separates and preparing abstracts of any of their publications that may bear on the subject, beginning with January, 1927. It is requested that abstracts should not exceed in length from three to five per cent. of the book or paper abstracted; in many cases considerably shorter abstracts will be adequate. At the same time it is realized that in the case of new and important results of detailed ecological or vegetational work longer abstracts may be found necessary. A description of the plan for making and despatching abstracts will be mailed on request by the secretary of the committee.

FEDERAL AID TO AGRICULTURE

IN a speech on federal aid for agriculture before the Round Table on Agriculture at the Institute of Public Affairs, University of Virginia, on August 8, which is reported in the *U. S. Daily*, Eric Englund, senior agricultural economist in the Department of Agriculture, pointed out that, although the Depart-

is $\frac{1}{6}$ and the chances of different numbers of highest could be obtained from the expansions of $(\frac{1}{6}+\frac{4}{6})^{17}$. Now Hope was highest in nine years out of seventeen and the chance for a score so high as this is about 1 in 400—even the chance that some one of five stations should have such a score is only about 1 in 80. In a similar way one may examine the fact as to whether a station is above or below the mean of the five by considering $(\frac{1}{2}+\frac{1}{2})^{17}$, but the criterion is not so discriminating.

ment of Agriculture has a total fund of $155,059,968.43 for 1928, the greater part of this can not be classified exclusively as aid to agriculture, since nearly 56 per cent. of the amount is for such purposes as federal-aid highways. Of all revenue of the agricultural experiment stations in 1889, only 18 per cent., in round figures, was obtained from within the states, and 82 per cent. from the federal government; by 1910 and 1925 the proportion of state support had advanced to 62 and 86 per cent., respectively. In 1927, notwithstanding the fact that federal support for each state had been increased by $30,000 under the Purnell Act, the stations received 77 per cent. of their support from within the states and 23 per cent. from the federal government.

In other words, federal aid for agriculture through scientific research in the experiment stations increased from $585,000 in 1889 to $2,880,000 in 1927, or about five-fold, while support for the stations from within the states increased from $125,000 to $9,768,000, or seventy-eight fold.

Federal funds for research in the Department of Agriculture in 1927, aside from the support for state experiment stations, amounted to nearly $10,600,000, exclusive of research in forestry, wild-life conservation and highway construction. In that year federal support for research roughly classified as directly and specifically related to agriculture in the department and in the experiment station amounted to nearly $13,500,000.

The more controversial subject of federal aid under the "50–50 system" includes agricultural extension, vocational education in agriculture and road construction, which, as already noted, is of general public importance. State funds for these purposes greatly exceed the federal support.

In 1925, nearly $19,700,000 was spent for cooperative extension work, of which 62 per cent. was derived from sources within the states and 38 per cent. from the federal government. Of the federal contributions of $7,400,000, the states were required under the terms of the Smith-Lever Act to match only $5,400,000. Hence, in 1925, the states contributed $2.27 for every federal dollar that had to be matched to make it available for agricultural extension in the states.

The support for vocational agricultural education under the Smith-Hughes Act in 1927 amounted to $7,500,000, of which $2,800,000, or 38 per cent., was supplied by the federal government.

RESEARCH IN AVIATION

RESEARCH now being carried on in the fields of aerial communication, instruments and meteorology by various branches of the government and by private concerns will be coordinated by a standing committee of the National Advisory Committee for Aeronautics.

Members of the committee have been appointed as follows:

Dr. Joseph S. Ames, of the Johns Hopkins University National Advisory Committee for Aeronautics, chairman; Dr. L. J. Briggs, Bureau of Standards; Paul Henderson, National Air Transport, Inc.; Dr. J. C. Hunsaker, American Telephone and Telegraph Company; Captain E. S. Land, Daniel Guggenheim Fund for the Promotion of Aeronautics; Colonel Charles A. Lindbergh, G. W. Lewis, National Advisory Committee for Aeronautics; Professor Charles F. Marvin, United States Weather Bureau, and C. N. Young, aeronautics branch of the Department of Commerce. J. F. Victory, secretary of the advisory committee, also is secretary of the committee.

The subcommittee studying problems of aerial communication, headed by Dr. J. C. Hunsaker, will cooperate with other organizations at present conducting research along the same lines, including the American Telephone & Telegraph Company, the Bureau of Standards, the War Department, the Navy Department and the Radio Corporation of America.

Dr. L. J. Briggs will be in charge of the subcommittee studying instruments, which hopes to bring about by its research the development of better and more accurate instruments for aerial navigation.

A subcommittee studying meteorology, headed by Dr. Charles F. Marvin, plans to work with the committee recently established by the Guggenheim Fund to study the problem of fog landing. There already are three extending major committees of the Advisory Committee. These are the committees on aerodynamics, power plants for aircraft and materials for aircraft.

AN AKELEY MEMORIAL IN THE BELGIAN CONGO

THROUGH Prince Albert de Ligne, ambassador to the United States, the Belgian government, as reported in the New York *Evening Post*, has requested permission to place a commemorative tablet of bronze on the tomb of Carl Akeley, African explorer, who lies buried where he died in the Belgian Congo.

M. Caspar, prime minister of Belgium and minister of the colonies, said in making the request: "This action is desired as a token of the admiration of the Belgian government for the great American scientist."

Carl Akeley died suddenly on November 17, 1926, on the slopes of Mount Mikeno, in the Parc National Albert of the Belgian Congo, where he and Mrs. Akeley had undertaken to fulfil a mission from Albert, King of the Belgians. Mrs. Akeley, aided by the other members of the party and her black boys, prepared his grave in the solid volcanic rock and, using the only available materials, built a coffin of