

and privately owned timberlands, under the Clarke-McNary Act; \$28,000 for the protection of migratory birds, \$200,000 for the acquisition, maintenance and administration of bird refuges under the migratory bird conservation act, and \$150,000 for the acquisition of additional lands for the Cheyenne Bottoms Bird Refuge, under the Bureau of Biological Survey; \$25,000 for extending the market inspection service, \$43,000 for the market news service, \$300,000 for enforcement of the perishable agricultural commodities act of June 10, 1930, \$23,000 for enforcement of the grain standards act, and \$57,000 for the administration of the warehouse act, under the Bureau of Agricultural Economics; \$70,000 for strengthening the plant-quarantine inspection service of the Plant Quarantine and Control Administration; \$27,000 to provide more adequately for the enforcement of the grain futures act; \$200,000 for increasing inspection and analytical work connected with the enforcement of the food and drugs act; and \$35,000 for the collection of loans made to farmers in previous years in flood, storm and drought-stricken areas.

The budget provides for the transfer of the department's experiment station at Fairbanks, Alaska, to the Alaska Agricultural College and School of Mines, and for the abandonment of the department stations at Sitka and Kodiak, Alaska, entailing a reduction of \$28,750, which, however, is offset in part by a recommended appropriation of \$15,000 to be paid to the Territory for the agricultural experiment station. Other decreases in the budget include \$75,000 for operation of Center Market in Washington, on account of the proposed closing of this market on January 1, 1931, in connection with the federal building program; \$50,000 for corn borer control, incident to removal of the requirement with respect to certain regulated products, and \$30,000 for control of the Asiatic beetle, due to the lifting of the quarantine against this pest.

Provision is made in the budget for an increase from \$11,000,000 to \$12,500,000 for forest roads and trails and from \$75,000,000 to \$125,000,000 for federal-aid highways in connection with the enlarged construction programs contemplated by the acts of April 4, 1930, and May 5, 1930.

Included within the increases provided by the budget for 1932 is a total of \$268,287 for salary adjustments under the provisions of the Brookhart Salary Act of July 3, 1930, amending the classification act of 1923. This amount is exclusive of approximately \$30,000 for Brookhart Act salary adjustments of employees carried on certain special appropriations, such as the Federal-aid highway and forest road and trail funds, which have been absorbed by these appropriations without increase in their totals.

The budget also includes, distributed throughout the appropriation items, recommended increases totaling \$223,820 for underaverage salary grade adjustments.

CHECK LIST OF THE BIRDS OF THE WORLD

THE Museum of Comparative Zoology announces that the first volume of a Check List of the Birds of the World by James Lee Peters is now in press and will be issued shortly.

The classification followed for the higher groups is that proposed by Dr. Wetmore, with the sequence of genera and species according to the author's own ideas where no authoritative treatment has been published. The first volume will contain about three hundred genera and one thousand seven hundred species and subspecies covering the following orders:

Struthioniformes, Rheiformes, Casuariiformes, Apterygiformes, Tinamiformes, Sphenisciformes, Gaviiformes, Colymbiformes, Procellariiformes, Pelecaniformes, Ciconiiformes, Anseriformes, Falconiformes.

The only recent attempt to list most of the species in these groups was that made in the first volume of Sharpe's Hand-list published in 1899 and consequently now thirty-two years old and out of date.

It is expected that at least ten volumes will be required to complete the work. The second volume is in active preparation and preliminary work on others is under way.

The new check list is not a museum publication and will not be distributed to the museum's exchange list, but will be published by the Harvard University Press.

CONFERENCE ON HUMAN PROBLEMS IN INDUSTRY

A SCIENTIFIC study of human problems in industry, directed at the roots of such social evils as unemployment, middle-age obsolescence, labor unrest and strikes, will be made at the Institute of Human Relations at Yale University, with the cooperation of leading industrialists and engineers, according to an announcement made following a conference on January 13 in New Haven between a committee of the American Society of Mechanical Engineers and members of the institute.

Members of the committee, which will act in an advisory capacity in the study, are E. W. Rice, Jr., honorary chairman of the board, General Electric Company, Schenectady, N. Y.; H. E. Howe, editor, *Industrial and Engineering Chemistry*, Washington, D. C.; Ralph E. Flanders, general manager, Jones and Lamson Machine Co., Springfield, Vermont; D. M. Bates, president of Bates, Inc., Philadelphia; J. P. Jordan, partner of Stevenson, Harrison and Jordan, New

York City; and Henry M. Crane, technical assistant to the president of General Motors Corporation, New York City. Members of the institute at the conference were Dean Charles H. Warren, Sheffield Scientific School; Dean M. C. Winternitz, Yale School of Medicine; Dean Edgar S. Furniss, Yale Graduate School; George Parmly Day, treasurer, Yale University; Professor S. W. Dudley; Professor Mark A. May, executive secretary of the Institute of Human Relations, and Professor Elliott D. Smith, Yale University, director of the study.

The industrial committee of the institute, already formed and at work, includes among others a psychiatrist, a psychologist, an economist, a lawyer and a sociologist, directed by an engineering and management group interested in focusing the attention of these specialists upon various phases of the development of human problems in specific industrial organizations.

"In the solution of this problem," the committee states, "there arise many important questions related to the major human sciences; such physiological problems as fatigue, such medical problems as occupational diseases, such psychological problems as capacity to learn, such psychiatric problems as the emotional effects of fear of loss of job, such social problems as absorption by the community of workers thrown out of employment, such economic problems as the absorption of increased output, such legal problems as adaptation of labor legislation to technological change, while in its very structure it is a problem of engineering and of management."

The first instance of increased technological efficiency to be studied will be the "stretch-out"—the recent rapid increase in the number of spinning frames and looms tended by the individual worker. This preliminary study will provide material for a comparison of procedures and effects. It will be a contribution of distinct practical value, the committee believes, by calling to the attention of managers the nature of

the social problems involved and the extent to which they are dependent upon good managerial handling.

AMERICAN ASSOCIATION OF TEACHERS OF PHYSICS

At the Cleveland meeting of the American Association for the Advancement of Science an organization was formed for the purpose of promoting and improving the teaching of physics of college and university grade, under the name "American Association of Teachers of Physics." The new organization fills a need long felt by those interested in methods of instruction, from the pedagogical as well as from the laboratory and demonstration points of view. A tentative constitution was adopted, and an executive committee chosen to perfect plans for the organization, which are to be discussed and acted upon at the New Orleans meeting. Regional, as well as general, meetings are to be held. The first general meeting is to take place at the Bureau of Standards in April, in connection with the regular meeting of the American Physical Society. At this meeting, Dr. A. W. Hull, assistant director of research of the General Electric Company, will present a paper on the training of physicists for industry.

Officers elected for the ensuing year are: *President*, Dean Homer L. Dodge, University of Oklahoma; *Vice-president*, Dr. P. E. Klopsteg, Central Scientific Company; *Secretary-Treasurer*, Professor W. S. Webb, University of Kentucky. The executive committee consists of the officers and the following members: Professor O. B. Blackwood, University of Pittsburgh; President Karl T. Compton, Massachusetts Institute of Technology; Professor R. S. Minor, University of California; Dean F. K. Richtmyer, Cornell University; Professor M. N. States, University of Kentucky; Professor B. A. Wooten, University of Alabama. Applications for charter membership will be received until June 1, 1931.

SCIENTIFIC NOTES AND NEWS

THE William Wood Gerhard Gold Medal of the Pathological Society of Philadelphia was presented on January 8 to Dr. Simon Flexner, director of the Rockefeller Institute for Medical Research.

PROFESSOR ERNST VON ROMBERG, of Munich, informs the *British Medical Journal* that the commission entrusted with the grant of the Dr. Sophie A. Nordhoff-Jung Cancer Prize for the best work of recent years in the field of cancer research has unanimously awarded this prize to Dr. Alexis Carrel, of the Rockefeller Institute for Medical Research, for his develop-

ment of the method of tissue cultivation and his application of it in the solution of the basic problems of pathological growths, especially the growth of malignant tumors. The commission was composed of Professors Borst, Döderlein, von Romberg and Sauerbruch.

THE Geological Society of London on January 16 awarded the Bigsby Medal to Dr. Norman L. Bowen, of the Geophysical Laboratory of the Carnegie Institution at Washington, in recognition of the value of his study of the physical chemistry of igneous rocks.