From the biological point of view it is not sufficient to merely ask for an expansion of production without providing suitable recommendations for handling those problems resulting from increasing the density of the animal population and to make provision for substituting adequate feeds and other products required for the animal population as a result of the changes brought about by the war. Production programs based upon the best existing available knowledge are currently being prepared for the guidance of farmers and breeders under the auspices of the Inter-Association Council on Animal Disease and Production.

This council is composed of the following representatives from the respective national associations: Dr. H. W. Jakeman, *chairman,* American Veterinary Medical Association; Dr. L. E. Card, Poultry Science Association; Dr. W. V. Lambert, American Society of Animal Production; Dr. G. E. Taylor, American Dairy Science Association; Dr. Mark Welsh, United States Live Stock Sanitary Association.

This council was formed as an outgrowth of an informal discussion held by a group of men whose interests were concerned with the activities of the associations mentioned above. The informal discussion was held on April 1, 1942, during the meetings of the Federation of American Societies for Experimental Biology. The scientists attending these meetings were pointing out the great need for improving the diet of the American public, and consequently those at the informal discussions recommended that official representatives be appointed from the associations for the development of coordinated programs, which would advise the farmer on the most practical methods of attaining the food production goals which he had been asked to reach.

Officially appointed representatives held their first meeting on May 11, 1942, in Chicago. They recommended that the Inter-Association Council prepare suitable production programs, utilizing the facts already well established, and that the National Research Council be requested to appoint a Committee on Animal Health for consideration of those critical problems which require further research before they can be suitably handled. Such a committee has been appointed by the National Research Council.

The report of the Inter-Association Council was duly accepted by the various organizations, and the council has proceeded in accordance with its instructions for the preparation of production programs. Outstanding consultants on the various classes of live stock have been appointed, and special programs are expected to be available in the near future. They will consist primarily of a series of recommendations which are designed to enable the farmer and breeder to most effectively produce the livestock and livestock products required of him.

H. W. JAKEMAN,
Chairman

SCIENTIFIC BOOKS

"FAMILY TREASURES"

Family Treasures. By DAVID D. WHITNEY. 299 pp. Illustrated. Jaques Cattell Press. 1942. $3.50.

A BIOLOGICAL teacher and investigator of long-established and high reputation has prepared a popular guide to heredity based upon observation of his own family and that of many of his students. Unlike most books on human genetics, stress is laid on normal, somatic and physiological traits rather than on pathological ones. As is very wise, the book deals prevailingly with facial features, since these are more accessible through photographs in successive generations of the same family.

An outstanding feature of this book in which it differs from all other books on human heredity is the abundance of photographic material secured and published in the 234 illustrations. Particularly striking is the large scale of many of the facial photographs that are reproduced, in many cases somewhat enlarged. This enlargement concentrates attention upon details which would otherwise be overlooked.

The book is also characterized by a comparative absence of quantitative materials such as are provided by careful measurements with various kinds of measuring apparatus. This will be regarded by many as a defect. On the other hand, the work is rendered the more readable by being qualitative rather than quantitative in its descriptions.

From the standpoint of the investigator in human genetics it may be stated that the author stresses too little the complicated inheritance of many human traits. Multiple factors are so widespread that some students have felt that a new approach to inheritance of human traits is best secured through a new quantitative method of approach. But here again the quantitative studies of this nature are decidedly esoteric and far beyond the scope of a book which is "written for amateurs in the study of human heredity and for those who are interested in personal inheritance of family traits." The book is well adapted to dispelling many of the myths surrounding some of the popular oppositions to heredity and it is also well adapted to the stimulation of other students of heredity to make further extensive studies.

For the purpose for which it is designed the book

seems admirably adapted. It is hoped that it will secure the widest possible circulation.

C. B. DAVENPORT

ENTOMOLOGY

General Entomology. By S. W. FROST. 9 × 6 inches. x + 524 pp. Frontis., 406 illus. New York: McGraw-Hill Book Company, Inc. 1942. $4.00.

THIS book, which is a text for elementary college entomology, covers a wide field in a general manner, and stresses the study of insects in their native habitats. Its 23 chapters are devoted to the position of insects in the animal world; the origin and distribution of insects, using Wallace's 1876 figures to show distribution trends; the abundance and reproductive capacity of insects, as indicated by the prolificness of aphids, flies and some scale insects; beneficial and injurious insects, including poisonous ones and those transmitting human diseases; the different orders, with keys for their separation; metamorphosis; immature insects, with special consideration of various types of eggs, nymphs and pupae and their adaptations; insect morphology; color, including color changes, sexual coloration, varietal coloration, insect color perception, photogenic insects, etc.; sonification, using the cicada, crickets and grasshoppers as examples; insect behavior mostly from the view-point of tropotaxes; insect associations, including hibernating, protective, migrating, swarming and sleeping aggregations as well as social aggregations; solitary insects, their food and nesting habits; scavengers, predators and parasites; associations of plants and insects, including mutual associations, adaptations of flowers and insects, and insectivorous plants; leaf-mining insects; leaf-rolling insects; gall insects; boring insects; subterranean insects; aquatic insects; case-making insects; and cessation of activity, including diapause, suppressed development, sleep, death feigning and factors causing the death of insects.

Each chapter, which is a complete essay in itself, is accompanied by a bibliography of the more important papers in that field. In addition there is an appendix consisting of field keys to the immature forms (except eggs and pupae) of the Orders, keys to common groups of Coleopterous and Lepidopterous larvae, a table of the synonymy of Order names, a table showing schemes of the classification of orders from 1735 to 1937 and a summary of the important groups of leaf-mining and subterranean insects. An adequate index ends the volume. The illustrations are numerous and uniformly good.

Because of the enormous field covered by Professor Frost, the discussions are, of necessity, brief. Nevertheless, his summaries are adequate and sound and represent the matured and extensive knowledge of many years of experience and research. In addition, Professor Frost has incorporated in his book various topics not usually found in our text-books, such as Bryson's table for the identification of soil insects by characteristics of their burrows, discussions of the food habits of large groups of insects, of the fecula of insects, of the amounts of foliage consumed by certain species and of other important discoveries by entomologists. These facts, together with his presentation, make this volume an extremely interesting one and an ideal and stimulating introduction of the subject for college students.

HARRY B. WEISS

SPECIAL ARTICLES

CLOSE RELATION BETWEEN RUSSIAN SPRING-SUMMER ENCEPHALITIS AND LOUPING-ILL VIRUSES[1]

IN 1938 Russian scientists isolated and described a virus obtained from the brain tissue of fatal cases of encephalitis occurring in Russian woodsmen.[2] They placed their virus in the St. Louis-Japanese B encephalitis group on the basis of reactions in laboratory animals but then differentiated it sharply from St. Louis and related it slightly to Japanese B virus as a result of immunological tests.

The Russian virus sent to Dr. R. R. Parker in this country[3] was made available to us for study through the agency of the Commission on Neurotropic Virus Diseases of the United States Army and the cooperation of Drs. Dyer, Parker and Cox, of the U. S. Public Health Service.

We have found this strain of Russian virus to be similar to a strain of louping-ill virus, the causative agent of an encephalitis of sheep in Scotland[4] and possibly of Australian X disease of children.[5] The strain of louping-ill virus in our laboratory was obtained from Dr. T. M. Rivers in 1932, shortly after he had received it from Scotland.

Our observations on the Russian virus are briefly

[1] These investigations were aided through the Commission on Neurotropic Virus Diseases, Board for the Investigation and Control of Influenza and Other Epidemic Diseases in the Army, Preventive Medicine Division, Office of the Surgeon General, United States Army.

[2] E. N. Levkovich, A. K. Shubladze, M. P. Chumakov and V. D. Soloviev, *Arch. sc. biol.*, 52 (1): 162, 1938; A. A. Smorodintseff, *Arch. ges. Virusforsch.*, 1: 468, 1939–40.

[3] R. R. Parker, *Public Health Rep.*, 57: 1963, 1942.

[4] J. M. Alston and H. J. Gibson, *Brit. Jour. Exp. Path.*, 12: 82, 1931.

[5] J. B. Cleland, *Proc. Roy. Soc. Med.*, 12 (Sec. Path.): 33, 1918–19; A. Breinl, *Med. Jour. Australia*, 4: 454, 1917.