

portion of this amount to be assigned to women and to children of different ages. The following conclusions have been agreed on: (1) To state the weights of the various foods produced in each Allied country in metric tons. (2) It is not desirable to fix a minimal meat ration in view of the fact that no absolute physiologic need exists for meat, since the proteins of meat can be replaced by proteins of animal origin, such as those contained in milk, cheese and eggs, as well as by proteins of vegetable origin. The commission, on the other hand, resolved to fix a desirable minimal ration of fat—75 gm. per average man per day. The ration will be made up of (a) fats of vegetable origin and (b) fats of animal origin. If the amount of fats of vegetable origin are insufficient for this purpose, it may be necessary to maintain a certain stock of animals to furnish this fat. (3) The commission established the "man value," that is, the number of average men equivalent to the population of each of the Allied countries. This "man value" is taken as the basis for calculating the exact amount of food which must be provided for the adequate nourishment of the total population of each country. (4) The commission considered the estimates in tons of the home productions of the soil furnished by each Allied country for the year 1918-1919. These statistics will serve as a basis for determining the amount of food available for men and for animals, respectively, in each country. (5) Each delegation, in calculating the amount of calories available for men, should assign to men the maximal possible proportion of all cereals, excepts oats. (6) A uniform average milling extraction of 85 per cent. for wheat should be adopted throughout the Allied countries. This extraction may vary from 80 per cent. in summer to 90 per cent. in winter, and it can apply to the United States only as regards their internal consumption, and then only in case of scarcity. (7) The methods of reserving the maximal possible proportion of the cereal production for the use of man may vary in each country. Man should always take precedence over animals in the allocation of food. If this principle be accepted in the fixing of prices, it is

the prices of animal products which should be limited, rather than those of such vegetable products of the soil as may serve equally well for feeding men and animals. Thus the production of veal, pork and poultry at the expense of food available for man should be discouraged, and this is best achieved by fixing a price for those animal products which will make it unprofitable for the producer to feed them on cereals. (8) The commission reserved for its next meeting the task of examining the figures which will enable it to determine the caloric value of the home production of each of the Allied countries. The determination of this figure, compared with the needs in calories of the population of each country, will enable the commission to deduce the amount of imports necessary for the maintenance of the population or the exportable surplus, as the case may be. (9) In all the Allied countries, any propaganda, having for its object the encouragement of food production and of economy in the use of food, should be organized and directed by men of science well acquainted with the subject.

FOURTH NATIONAL EXPOSITION OF CHEMICAL INDUSTRIES

THE Fourth National Exposition of Chemical Industries will be held in the Grand Central Palace, New York City, during the week of September 23 this year. The managers are Charles F. Roth and F. W. Payne. The advisory committee consists of Charles H. Herty, *chairman*, Raymond F. Bacon, L. H. Baekeland, Henry B. Faber, Ellwood Hendrick, Bernhard C. Hesse, A. D. Little, Wm. H. Nichols, H. C. Parmelee, R. P. Perry, G. W. Thompson, F. J. Tone, T. B. Wagner and M. C. Whitaker.

The *Journal of Industrial and Engineering Chemistry* says that the exposition is a war-time necessity and, regarding it as such, each exhibitor is planning his exhibit to be of the greatest benefit to the country through the men who visit it, all of whom are bent upon a serious purpose—that of producing war materials in large quantities and constantly in-

creasing this production until the war has been won by the United States and its Allies.

The managers report that the amount of floor space already engaged is greater than last year, that the exhibits will be much more attractive, and that a movement is under way to show all exhibits of machinery in operation under actual working conditions as they would be found in the plants.

Some sections of the south are again sending exhibits, and Canada is taking the opportunity of presenting the materials it has available for development by the chemist and financier. A section for the Glass and Ceramic Industry has been added with which the American Ceramic Society is cooperating.

The program for the Exposition is in active preparation. Opening addresses will be made by Dr. Charles H. Herty, chairman of the advisory committee, and Dr. G. W. Thompson, president of the American Institute of Chemical Engineers. There will be a series of symposiums on "The Development of Chemical Industries in the United States, notably since July, 1914." This will embrace the period since the beginning of the European War, which, by removing the source of supply for our domestic industries, inspired the development of our own chemical industries which, now that we ourselves have entered the war, are proving so effective. The subjects to be discussed are Potash Development, Chemical Engineering, Acids, Industrial Organic Chemistry, the Ceramic Industries and the Metal Industries. Among the speakers will be:

- C. A. Higgins, "Recovery of potash from kelp."
- Linn Bradley, "Recovery of potash from cement dust and other sources by electrical precipitation."
- A. Hough, "Chemical engineering in explosives; T. N. T., T. N. A., picric acid and nitrobenzol."
- E. J. Pranke, "Development of nitric acid manufacture."
- S. P. Sadtler, "Development of industrial organic chemistry."
- George H. Tomlinson, "Wood as a source of ethyl alcohol."
- C. A. Higgins, "Kelp as a source of organic solvents."
- Alcan Hirsch, "Pyrophoric alloys."

Joseph W. Richards, "The ferro-alloys of silicon, tungsten, uranium, vanadium, molybdenum, titanium."

Theodore Swann, "Ferromanganese."

Leonard Waldo, "The development of the magnesium industry."

The American Ceramic Society, which will hold its meeting at the Exposition on Thursday afternoon, September 26, has already upon its program:

A. V. Bleininger, "Recent developments in the ceramic industries."

L. E. Barringer, "Manufacture of electrical porcelain" (illustrated).

H. Ries, "American clays."

F. A. Whitaker, "Manufacture of stoneware" (illustrated).

Following this meeting a series of motion pictures of the ceramic industries will be shown.

The motion picture program, in the arrangement of which the Bureau of Commercial Economics is again cooperating, carries forward the idea of the symposiums, the pictures appropriate to a subject being shown on the same day as the symposium on that subject is held.

NUTRITION OFFICERS STATIONED IN THE CAMPS¹

NUTRITION officers are to be stationed in every National Army cantonment and every National Guard camp, as well as in every camp where 10,000 or more soldiers are in training. These officers are food specialists who before they joined the army as members of the division of food and nutrition of the Medical Department were connected with colleges and public bodies as physiologists, chemists, economists, food inspectors and experts in other specialized work relating to food.

Since October of last year the division of food and nutrition has been making surveys of food conditions in the camps. Groups of officers have gone from camp to camp, studied the food served, how it was inspected, stored, and prepared, and have made recommenda-

¹ Statement from the office of the Surgeon General authorized by the War Department.