

with the horticulture and popularisation of colonial plant products, and N. Lallié (500 francs), for his book, "Les moteurs agricoles"; the Henry Wilde prize between A. Claude (2000 francs), for his researches in astronomy and physics, and Georges Sagnac (2000 francs), for an apparatus useful in national defence; the Gustave Roux prize to Joseph Guyot, for his contributions to physics; the Thorlet prize to Adolph Richard, for his work in connection with catalogues of scientific periodicals in Paris libraries. The Lannelongue foundation is divided between Mmes. Cusco and Rück; the Trémont foundation (1000 francs) to Charles Frémont, for his researches on the working of metals; the Gegner foundation to Ferdinand Gonnard, for his work in crystallography and mineralogy; the Henri Becquerel foundation to (the late) Bernard Collin (1500 francs).

The Vaillant, Fourneyron, Pierson-Perrin, Damoiseau, Pierre Guzman, G. de Pontécoulant, Bréant, Godard, Mège Argut, Fanny Emden, Alhumbert, Lonchamp, Laplace, Rivot, and Normal School prizes were not awarded this year.

#### COMMITTEE ON THE CHEMICAL TRADE.

THE Committee appointed by the Minister of Reconstruction to advise as to the procedure which should be adopted for dealing with the chemical trade has now concluded its deliberations and issued its report (Cd. 8882, price 1d. net). The Committee was appointed (1) to advise as to the procedure which should be adopted by the Minister of Reconstruction for dealing with the chemical trade; (2) to consider and report upon any matters affecting the chemical trade which could be more effectively dealt with by the formation of special organisations for the purpose, and to make suggestions in regard to the constitution and functions of any such organisation.

The members of the Committee are:—Sir Keith W. Price (chairman), Mr. John Anderson, Mr. J. F. L. Brunner, Dr. Charles Carpenter, Prof. J. G. Lawn, Sir William Pearce, Mr. K. B. Quinan, the Right Hon. J. W. Wilson, and Mr. G. C. Smallwood (secretary). The report of the Committee is here summarised.

It is evident that during the process of reconstruction numerous difficult problems and questions are likely to arise in connection with the chemical trade. The Committee is of opinion that these can be satisfactorily settled only by the closest collaboration between the Minister of Reconstruction and the representatives of the trade, and it appears to be necessary that the Minister should be in a position to obtain the views both of the trade as a whole and, in the case of particular problems, of that branch of the trade directly concerned.

This end could probably be attained in a satisfactory manner if there were in the chemical trade a representative body, which could advise the Minister and act in a consultative capacity on chemical matters. Such a body should be fully representative of the whole of the trade, and the difficulty of the Committee lies in naming an association which could be said completely to fulfil this condition.

The Committee is of opinion that, in dealing with the chemical trade, the Minister of Reconstruction could properly act in collaboration with the Association of British Chemical Manufacturers. It is further of opinion that with a view to convenience of practical working, and in order to establish the permanent link which should exist between the Ministry and the trade in all its branches, a standing committee should be established fully representative of all the interests concerned.

As to points of reference No. 2, the opinion is expressed that whatever may be the functions of the Ministry of Reconstruction, it will be necessary to establish a section of that department which will be in a position to deal with matters which may arise in connection with the chemical trade. The appointment to the Ministry of Reconstruction of a scientific man of good standing, who would command the respect and confidence of the trade, together with the necessary staff, is suggested. This section, working in conjunction with the standing committee previously mentioned, would provide the Minister with an adequate organisation for dealing with such questions connected with the chemical trade. The following would represent some of the duties of this section:—

(1) To ascertain with the assistance of the standing committee the chief problems which are likely to arise in the process of reconstruction after the war, and the best means of dealing with them. (2) To survey generally the chemical trade, both at home and abroad, and in consultation with the standing committee to afford advice for the broadening and improvement of the chemical trade of this country. (3) To collect and disseminate information on, and statistics of, the chemical trade. (4) To collect and collate as much information as is available on the work which has been done during the present war, which would, no doubt, be of great interest and assistance to the chemical trade as a whole.

The Committee states in the report that it has confined its recommendations within the narrow limits defined by the terms of reference, which speak only of "chemical trade." If, however, for that expression were substituted "the National Chemical Industry," a much broader purview would be involved, and specific reference would be necessary to existing organisations other than those specifically founded for "trade" purposes, among which may be mentioned:—The Society of Chemical Industry, the Government Laboratory, the Committee of the Privy Council for Scientific and Industrial Research, the Imperial Institute, the National Physical Laboratory, and the Chemical Society.

#### Summary of Recommendations.

1. That in dealing with the problems of the chemical trade action should be taken so far as possible in the closest collaboration with representatives of the trade.
2. That the Association of British Chemical Manufacturers should be considered as representative of the chemical trade as a whole with certain branches excepted.
3. That a standing committee should be appointed. This committee, which should be fully representative of all the interests concerned, would establish a permanent link between the Ministry and the trade.
4. That a departmental organisation should be set up in the Ministry of Reconstruction to deal with chemical questions.

#### THE PHYSIOLOGY OF LEARNING.<sup>1</sup>

IN the hope of throwing fresh light on the obscure problem of what goes on when animals "learn," Mr. Joseph Peterson has tested the effect of altering the length of culs-de-sac in the mazes which white rats were asked to solve on their way to the food-box. There is no doubt that the animals can learn; the question is, What precisely happens? and it is plain that the answer is not going to be easy. Organisms are very complex creatures, and animal behaviour in

<sup>1</sup> "The Effect of Length of Blind Alleys on Maze Learning. An Experiment on Twenty-four White Rats." By Joseph Peterson. Behaviour Monographs, vol. iii., No. 4. Pp. 53. (1917.)