

Many as are the important facts from almost every part of the globe which the present number contains, it must suffice to notice only the chapter on the causes of variation in glaciers. The data there cited show that, at any rate under certain conditions, the winds are factors, especially in the removal of snow, more potent than has been hitherto supposed. In regions of low temperature, but of high winds, these drive the snow before them, like sand in the desert, and thus check the formation of glaciers. The volume of an ice-stream, speaking in general terms, is a function of two variables, the one alimentation, the other ablation. Hitherto the effect of the latter has been underestimated, the advance or retreat of a glacier having been supposed to be mainly dependent on the amount of the snow which falls on the upper part of its basin.

M. Rabot classifies the years from 1826 to 1906 in groups, according as the rainfall or the summer temperature at Geneva was above or below the average, and states that in the former case the Swiss glaciers, as a rule, retreated, and in the latter advanced. Similar, though less precise, evidence is obtained from other regions, so that it is very probable, to quote Prof. Forel's words, that the variations in summer temperature produce more effects upon glaciers than has hitherto been supposed. On the latter subject, and especially on the changes during the last few years, a very large amount of information is given. In short, its editor has made the *Revue* indispensable to all interested in the study of glaciers.

(2) The Commission Internationale des Glaciers decided at Stockholm last August that this report should appear at an earlier date. Hence a supplement will be necessary to contain documents which have not yet been received. Still, this number includes Europe, with Russian Asia and the United States of North America. The results show a general but slow decrease of the glaciers. To this rule there are local exceptions, which, however, are few except in Scandinavia; and even here they are in a minority. It is suggested that in Norway changes in the humidity of the air, due to the shifting of ocean currents, produce more effect on climate and glacial oscillation than those in temperature. Some sets of observations in the French Alps are more than usually systematic, for the investigators take account of avalanches and calculate the rate of flow and of ablation at the surface of glaciers between two stations. They note that 683 out of 740 avalanches followed a customary course, and estimate the amount of débris brought down by them at 2243 cubic metres. Altogether the number contains not a little interesting information.

THE ASSOCIATION OF ECONOMIC BIOLOGISTS.

THE tenth general meeting was held in the University of Birmingham, under the presidency of Prof. G. H. Carpenter, on April 6 and 7. There was a good attendance.

The president communicated a paper on some dipterous larvæ which last year caused considerable damage to crops of swedes near Dundalk, Ireland. These belonged to an apparently new species of gall-midge and to *Scaptomyza flaveola*. In connection with this species, several points of interest in the structure of the larva were demonstrated by means of photographs and drawings shown in the lantern.

Mr. H. Maxwell Lefroy, in a very interesting address, spoke on the training of economic entomologists. Not the least difficulty in making economic zoologists in England was the preponderance of the academic view and the total absence of the economic view based on experience. He pointed out that, in addition to a training in zoology, botany, and chemistry, a course in agriculture should be taken, and a knowledge of field work in entomology was useful.

Mr. Walter E. Collinge read a paper on house-flies and public health, in which it was pointed out that there was now no longer any doubt that cholera and typhoid fever were both spread by these insects, and that there was accumulating evidence that infantile diarrhoea, dysentery, and tuberculosis were also. Mr. Collinge contended that

a proper system of control and prevention were essential on the part of every corporate body having anything to do with the health of the general public. After briefly referring to the ordinances and regulations in force in other countries, he commented upon the inadequate conditions for the keeping of food in the modern dwelling house, and the necessary regulations for the disposal and storage of manure, &c. In concluding, he pointed out that it remained with the general public to educate the authorities in these and like matters if we have to remove from our midst a danger full of potentialities to ourselves and our children, and detrimental to the public at large.

An interesting discussion on the standardisation of economic nomenclature was opened by Mr. H. Maxwell Lefroy, and a committee was appointed to deal with the matter.

Dr. G. H. Pethybridge gave an account of some recent work on diseases of the potato plant in Ireland, where the potato crop is peculiarly liable to suffer. Great advances have been made in recent years in checking the ravages of different diseases, but there are still many that have not yielded to treatment. A considerable amount of attention has been given by the author to these, and the results were very fully described and illustrated.

Mr. W. B. Grove described four little known British fungi, viz. *Mucor spinosus*, *Monilia lupuli*, n.sp., long known to brewers as occurring on spent hops, but hitherto undescribed. *Rhopalocystis nigra* was a new name proposed for *Aspergillus niger*, and *Homodendron cladosporeoides*, a species often confounded with *Cladosporium herbarum*.

Mr. Walter E. Collinge directed attention to the extremely serious nature of the plague of eelworms and white worms which are at present attacking different crops throughout the country, and to the scanty nature of our knowledge of their life-histories and bionomics. Dr. J. H. Priestley initiated a discussion on the systematic recording of diseases of economic plants. The occurrence of the beetle *Necrobia rufipes* in cotton bales formed the subject of an interesting communication by Mr. Joseph Mangan. Mr. G. E. Johnson demonstrated some stages in the life of the nematode living in the nephridia of the earthworm. The association accepted the invitation of Prof. Carpenter to meet in Dublin in 1912 at a date to be fixed later.

THE CONSERVATION OF OUR NATIONAL WATER RESOURCES.

AN interesting paper on the above subject was read by Mr. W. R. Baldwin-Wiseman before the Surveyors' Institution on January 27. This may be considered as the complement to the paper read by the author before the Royal Statistical Society in 1909 on the increase in the national consumption of water. In the earlier paper Mr. Baldwin-Wiseman dealt with the enormous increase in the consumption of water, and the reasons for such increase, and he referred very shortly to the necessity for the creation of a central authority which should be charged with the duty of water conservancy in its widest application, and, for that purpose, should engage in a close and exact study of the water resources of the country. He now deals with some of the methods adopted by different countries to conserve and use in a systematic way the water which they possess. It is rightly pointed out that the particular use of water to which greatest attention is required varies in different countries. In the United Kingdom the water supply for domestic purposes and trade uses is all-important, and with it must be coupled the prevention of stream pollution. In Italy, Switzerland, Norway, and Canada water-power development is predominant. In Egypt, India, parts of Australia, and certain regions of the United States and Canada irrigation claims first place. In Germany and Belgium inland navigation is of extreme importance, while Holland devotes attention to drainage and reclamation.

The author's researches as regards what has been done by various countries for the conservation of water for the different purposes mentioned are of a careful and exhaustive character, and it must have taken considerable time and