

that is, in the morning. A general survey of meteorological conditions over the hunting season undoubtedly resulted in better sport, scenting conditions being predicted with fair accuracy for particular days. It is suggested that, from a study of the meteorological elements in relation to scent, a Master of Hounds will be able to frame suitable questions, the replies to which will give him a good idea how he can benefit by the information.

Micro-Climatology

A NEW quarterly journal entitled *Bioklimatische Beiblätter der Meteorologischen Zeitschrift* made its appearance last year. It is a joint production of the German and Austrian Meteorological Societies, and is edited by Drs. W. Schmidt of Vienna and F. Linke of Frankfurt a. M. A specimen number (Band 1, Heft 3) has been received from Dr. Schmidt. It sets out to deal with observations made in such a way as to represent the climates actually experienced by various living organisms; in other words, to portray the so-called micro-climates. Micro-climatology is a comparatively new subject, and one which has a scope that is great in proportion as there are innumerable problems of a biological nature to which it has some application. Among the papers in this specimen copy is one by F. Steinhauser which is a good example of micro-climatology: it is a study of the special temperature conditions which the dwellers in large towns experience out of doors, conditions which are different from those prevailing in neighbouring open country, and which are of biological importance to the people concerned. Another paper, by W. Kühnelt, deals with the general significance of climate for the animal kingdom. These are both largely surveys of work done by those engaged on those special questions; in another, by Dr. Linke, one of the editors, a brief survey is given of the pioneer work of W. F. Tyler on the psychological effects of various degrees of relative humidity combined with high temperature, founded on studies made in Shanghai, from which Tyler drew lines of equal discomfort termed 'hythers' on a temperature and relative humidity diagram.

Chemical Industry in the United States

THREE hundred years ago, there was established in Boston "a strange combination of druggist's shop, metallurgist's workroom, chemist's laboratory, and alchemist's den" which may fairly claim to have given birth to the American chemical industry. It was the enterprise of John Winthrop the younger, who at the age of twenty-five years had gone from Suffolk to Massachusetts as assistant to his father, an important Puritan leader, and governor of the Company of the Massachusetts Bay. Becoming Governor of Connecticut for a time, the son later returned to England and renewed contacts with British men of science, returning afterwards to America and resuming his public service. His medicinal prescriptions became famous; he mined for lead, tin and copper; he manufactured salt, glass and iron; he produced potash, saltpetre, alum,

wood pitch and tar, and indigo; he built up the first scientific library in America; and he promoted the first American chemical stock company. In celebration of the tercentenary, the American journal *Chemical Industries* has published a supplement entitled "Chemical Industry's Contribution to the Nation: 1635-1935", a pleasantly presented and lavishly illustrated issue of 176 pages, which surveys the progress of chemical industry in the United States and includes a list of important commercial chemicals manufactured in that country. The chapter describing the *raison d'être* and public service of the Chemical Foundation opens with the following statement: "The establishment of a self-contained synthetic organic chemical industry in the United States is the only thing of substantial value which we got out of the war. Its establishment meant more to the American people than reparations or territory. . . . The value of this industry to the American people is inestimable."

International Broadcasting Union

ACCORDING to a report in *World Radio* for July 5, the International Broadcasting Union concluded its annual meeting on June 26, at Warsaw. Representatives of broadcasting organisations in twenty European States and in the United States of America were present. It was stated during the course of the session that the potential audience of listeners at the beginning of June has reached at least 200 millions. Among the more important business of the conference was the decision to organise a limited number of international programmes each year, in the form of discourses in which direct contact will be established between the greatest contemporary leaders in science and art, and listeners in the various countries of the Union. The progress in technical precision in broadcasting stations in recent years is illustrated by the results obtained at the Union's central observation laboratory in Brussels. Whereas ten years ago stations were known to fluctuate a few thousand cycles per second from their normal frequency during the course of a few hours, to-day the principal European stations do not fluctuate more than one or two cycles in a month from their established frequency, which in many cases is of the order of one million cycles per second. This meeting formally marked the conclusion of the first ten years of the Union's activities; and it witnessed also the passing from the office of president of Vice-Admiral Sir Charles Carpendale (a controller of the B.B.C.) who has been president of the Union since its foundation. Very warm tributes were paid to Sir Charles for his services in the cause of international broadcasting. The new president of the Union is M. Maurice Rambert, administrateur-délégué of the Société Suisse de Radiodiffusion.

Television in Germany

THE Berlin correspondent of *World Radio* states that although the German Broadcasting Company inaugurated its experimental high-definition television service on March 22 last, suitable receivers are not