

climates, wet and dry climates, cold and warm climates, but we shall also have to characterise a climate by its electrification and define with greater exactness the terms "relaxing" and "bracing."

Perhaps we shall also be able to speak of a "spending" and a "saving" climate. We must not separate one characteristic of the climate from another and prefer it; in nature all phenomena work more or less together, they depend on one another and exercise mutual influences on one another. The electric conditions of the air are indicated by other meteorologic records, and hence we have important sources of information which ought not to be neglected, as our methods of making direct electric observations are not yet satisfactory. One can, from the daily increase or diminution of pressure, warmth and moisture of the air, say something of its electrification.

In this connection it is of no importance whether the barometer is high or low, but whether it rises or falls. It is not important to know whether the moisture of the air is great or not; it is important to know whether the moisture decreases or increases, whether the process of condensation or of evaporation prevails.

Dr. Schliep here described at length the meaning of dew-point in hygrometric observations. He exhibited also a reduction disc made by Lambrecht, of Göttingen, a sort of circular slide rule, to facilitate the reduction of observations. He showed that the atmospheric electrification becomes negative if the average temperature and dew-point rise and if the barometer falls at the same time. If, however, the temperature and dew-point fall whilst the barometer rises, one may assume a positive electrification. He pointed out on the curves which represent his registrations at Baden during the previous ten years, that the air-pressure on one hand, and the temperature and moisture on the other, altered mostly in opposite directions. It was noticeable also that an exceptional steadiness for a few days was accompanied by the reverse of these movements as soon as the lines went far asunder. The graphic representations of meteorological phenomena show more than one would think at first sight. More plainly than lists of numbers, they allow a comparison of climatic conditions of different years or of certain periods with the statistics of the prevalent diseases during those periods.

Without a good graphic representation such statistics are never complete, however valuable the material which has been collected may be. Thus, for example, consider the work of Hippius, published in the *Archives for Clin. Medic.* vol. xl., about dysentery and meteorological influences upon it, in which there was an inquiry about the relation between meteorological changes and bleedings of the lungs with no apparent result. May not the failure of this inquiry be due to the fact that the meteorologic information was incomplete?

Dr. Schliep finishes his paper by pointing out the importance of the general meteorological observations at watering-places being under a central governmental control. The health resorts ought not to rest until they have obtained this aid from Government. But he distinguishes general meteorology from the simple kind of observation which it is in the power, and ought to be the duty, of every medical man to make for himself.

JOHN PERRY.

PROFESSOR ÉMILE BLANCHARD.

BY the death on February 11, at the ripe age of 84 years, of Prof. Émile Blanchard, France has lost the *doyen* of its zoologists, the French Academy one of its oldest and most esteemed members, and the Paris Museum a famous entomologist. Blanchard's career was a somewhat remarkable one, and at the same time a noble example to others; for he rose to distinction from the ranks, and, when stricken by one of the most terrible

of all afflictions, never swerved for an instant from the course he had to run.

Entering, at the age of fourteen, the department of entomology of the Paris Museum, in the humble capacity of what would be termed an "attendant" in our own Museum, Blanchard soon developed such a capacity for zoological work that he was transferred to the scientific staff. His first great chance of distinguishing himself occurred when he accompanied, in 1844, Prof. H. Milne-Edwards on his celebrated expedition in the *Santa Rosalia* to Sicily, for the purpose of studying the marine fauna of the coasts. Shortly after this he was appointed Professor of Entomology to the Museum; and in 1862 received the honour of election to the French Academy of Sciences. Throughout life his chief study was entomology, the Coleoptera being his especial favourites; but he also devoted a considerable amount of attention to other branches of zoology, as well as to comparative anatomy, and in his latter years entered on the study of the geographical distribution of animals, both in past and present times. His works on Madagascar and New Zealand are well-known examples of his devotion to the latter branch of science. As a token of the esteem in which his labours were held by his fellow-workers, it may be mentioned that a genus of Carboniferous Neuroptera was named *Blanchardia* in his honour; while several of the fossil birds from the Miocene of France described by Milne-Edwards, such as *Anas blanchardi* and *Palaearctyx blanchardi*, received their specific titles after the subject of this notice. In addition to purely scientific memoirs (of which a long roll stands against his name) Prof. Blanchard was a frequent and admired contributor to the *Revue des Deux Mondes* on general subjects.

But the most remarkable circumstance connected with a large portion of his work yet remains to be told. In early life Blanchard was gifted with extraordinary acuteness of vision, and was thus enabled to make dissections of extreme delicacy (of which he has left numerous drawings and sketches) without the aid of lenses. In fact, his eyes were described by one of his early contemporaries as veritable microscopes. At the age of forty his visual powers showed serious signs of weakening. Year by year the failure of power increased, with the result that at 45 he became nearly, and at 50 totally blind. In the words of Professor Gaudry, "What more frightful affliction could have befallen a man whose life was passed in the investigation of Nature's secrets? The existence of a naturalist, who seemed specially favoured by his natural gifts and by the honours received at an age when they are obtained by few, was delivered over to the misery of darkness. If only Blanchard could have still enjoyed the delights of family life, if, while unable to see them, he could have listened to the voices of a devoted wife and beloved children! But all was gone; he no longer saw, no longer heard anything! The visits of a few friends could alone, from time to time, afford solace to his lonely existence."

Amid the unfeigned sorrow of his *confrères*, his remains, on February 14, were consigned to their last resting place.

Perhaps his best-known works are "Histoire des Insectes," 1845; "Catalogue des Coléoptères du Muséum d'Histoire Naturelle de Paris," 1850; and "Metamorphoses des Insectes," 1868.

R. L.

DRS. C. T. R. LUTHER AND G. RUMKER.

WITHIN a few weeks, two observatories which have played a worthy part in the past history of astronomy have, by the death of their respective directors, suffered a notable loss, and science will deplore the removal of two well-known names from the roll of worthies, who are remembered with gratitude for much indefatigable, if not brilliant, work.