point is of paramount importance, especially since temperature observations are not merely the most important popularly, but they form besides the very groundwork of meteorology.

It is a remarkable circumstance that no country in Western Europe could be named, with perhaps the single exception of Ireland, of the meteorology of which so little is known as of England. The meteorological institutes and societies of Scotland, Norway, Denmark, Italy, Austria, Holland, Belgium, &c., have published discussions of atmospheric pressure, temperature, rain, and other of the meteorological elements based on the observations of many years, but we look in vain through the pages of the Journal of the English Society for the discussion of a single one of these elements for England. For any information which is to be had on these matters we must have recourse to the Journal of the Scottish Meteorological Society, in which the barometric and thermometric observations for England have been partly discussed. It is scarcely necessary to say that this essential part of the work of a meteorological society can only be properly performed by its paid officials. Viewed in this connection, it may be worth the consideration of the Council of the Society whether the tendency of the arrangement entered into with the Meteorological Office to supply that office with copies of observations, thus constantly throwing on their officials an enormous amount of mere copying, be not to preclude the Society from properly discharging this part of its work and taking a position among kindred societies which it ought to occupy.

We dissent from the position assumed by Dr. Mann when he states that "the practical outcome of the recent Conference of Meteorologists at Leipsig, of the Meteorological Congress at Vienna, and of the Maritime Conference in London, is an unmistakable and most satisfactory movement on the part of the leading authorities of meteorological science towards concerted and uniform action in the prosecution of their favourite pursuit." We have already stated (vol. x. p. 56) that the Vienna Congress did good work in the treatment of certain details which lie on the outskirts of meteorology, but it would be a mistake to suppose that at these international assemblies of meteorologists any concerted action was taken which would lead to uniformity of observation of atmospheric temperature, pressure, humidity, or rainfall—anything, in short, that would place the observation of these phenomena on an international basis for the subservience of international objects ; in truth, the Congress can scarcely be said to have got the length even of attempting any concerted action towards uniformity of observation of these elements which are the very life-blood of the science.

*DR. BECCARI'S DISCOVERIES IN HERPETOLOGY**

NOT long ago we called the attention of our readers to the herpetological discoveries of a German naturalist and traveller in New Guinea and the adjoining islands. We are now indebted to the Marchese G. Doria, of Genoa, for an account of the investigations of an Italian explorer, Dr. O. Beccari, in the same countries, although not quite in the same localities. The memoir before us treats of a collection of Reptiles and Batrachians made by Dr. Beccari in Amboyna, the Aru Islands, and the Ké Islands, in 1872 and 1873, which contained altogether 670 examples referable to fifty-three species. As regards Amboyna, not much novelty could be expected, this island having been thoroughly explored years ago by the Dutch naturalists. But the two other groups of Papuan islands to which Dr. Beccari devoted his attention were almost *terræ incognitæ* as regards herpetology; Mr. Wallace, their previous explorer, having devoted himself mainly to birds and insects. Here, therefore, Dr. Beccari's collections prove to have contained much interesting material, of which our author gives us an excellent account, illustrated by some carefully executed plates.

The species actually new to science in Dr. Beccari's collection are not numerous, but it is of interest to find that the general character of the reptilian fauna of the Aru and Ké Islands is, like that of their birds, essentially Papuan. In the latter group, however, there is rather a stronger infusion of Indo-Malayan forms. In the Ké Islands the Australian Death-adder, *Acanthophis antarcticus*, which spreads over the whole of the Papuan region, is very abundant. In Aru the Saurians are more numerous in species than the Ophidians, but in the Ké Islands the contrary is the case. No Batrachian was met with by Dr. Beccari in the latter group of islands, whereas three were found in Wokan, the northernmost of the Aru group, one of which was the widely-spread *Pelodryas cæruleus* of Australia.

This memoir forms part of the sixth volume of the "Annals" of that young and flourishing institution, the Museo Civico of Genoa, of which its author is the originator and director ; and, like most of the papers published in the five preceding volumes, contains much matter that is interesting to the naturalist.

* "Enumerazione dei Rettili raccolti dal Dott. O. Beccari in Amboina, alle Isole Aru ed alle Isole Kei durante gli anni 1872–73," per G. Doria. Estratto dagli Ann. del Mus. Civ. di St. Nat. di Genova. Vol. vi. 1874.

ARCTIC GEOLOGY

THE following notes on this subject will be of some interest at the present time.

Greenland.—Glacial Phenomena.—An examination of the Chart of the North Polar Sea lately issued by the Government,* shows that Cape Bismarck, the most northern point reached by the German Expedition of 1870, on the east coast of Greenland, is in 77° N. lat., and about 2° south of land seen in 1690. On the west coast, the results of the American Expeditions, 1859—73, prove the continuation of Smith's Sound, through Kennedy Channel, Hall Basin, Robeson Channel, into Lincoln Sea, the broken and indented coasts of which in 84° N. lat. are only 40 degrees north-west of the land seen on the east coast in 1690, giving evidence of a series of islets forming the northern frontier ot Greenland ; the entire western coast is surrounded by a circlet of bare bleak islets 2,000 feet in height, separated from each other by fjords, through which passes the overflow of the great *mer de glace* which covers the country to an unknown depth, and covers up all sight of the rocks of the inland districts. Here and there this "inlands iis" of the Danes reaches the sea, and terminates in a steep cliff, *Sermik Soak* (ice-wall), of the Esquimaux, reaching 3,000 feet in height, where deep glens and fjords penetrate into the country. From the top of these ice-streams Dr. Rink found the surface rising by a series of steps, to the general level of the ice-field, which Dr. Kane describes as the "escaladed structure" of the Greenland Glacier. Once on the ice-field, and leaving the coast, the effect has been described as being similar to that of the land fading away when sailing out to sea—the ice rises gently and almost imperceptibly inland ; Prof. Nordenskjöld, who travelled thirty miles inland, found its surface there to be 2,000 feet above the sea. Thus the surface of Greenland beneath the ice must be considerably lower than the islands surrounding it, between which and the ice-wall is the narrow strip of ground on which, and on the islands, the Danish settlements are situated. In summer the snow which covers the great ice-desert melts, and rivers of icy-cold water flow over the surface and fall into the crevasses of unknown depth. These are exceedingly numerous, and apparently increase in number, on penetrating into the

* Chart to accompany Paper and Correspondence relating to the equipment and fitting out of the Arctic Expedition of 1875.