

will be delivered by Lord Alfred S. Churchill, chairman of the Council.

DR. HINCKS'S "History of the British Marine Polyzoa," upon which he has long been engaged, is nearly ready for publication; it will form two volumes, uniform with the same author's "Hydroid Zoophytes," and will be fully illustrated by drawings of all the known British species and more remarkable varieties of this hitherto almost undescribed class. The work will be published by Mr. Van Voorst.

MESSRS. BUNNY AND DAVIES, of Shrewsbury, have published a "Guide to the Botany, Ornithology, and Geology of Shrewsbury and its Vicinity," edited by Mr. W. Philips, F.L.S.

THE freedom of the Leathersellers' Company has been conferred on Prof. Owen.

ON November 3, at 7.45 P.M., a magnificent meteor was observed at Strassburg, in the vicinity of Jupiter, travelling south-eastwards. The duration was four to five seconds. The meteor was coloured green, and left behind a luminous track.

IN his just published report on the trade of Newchwang, in Southern Manchuria, Mr. Consul Adkins mentions that he has in his possession a specimen of lead ore found in the neighbourhood, which contains about 90 per cent. of metal, and also one of copper from the same locality which is almost equally rich. An attempt is being made to get authority to work these mines with foreign appliances. There is an abundant supply of excellent coal close to the veins of metal, and were the mining industry once fairly started, the prosperity of Newchwang and the whole province would, in Mr. Adkins's opinion, become remarkable.

THE additions to the Zoological Society's Gardens during the past week include a Rhesus Monkey (*Macacus erythraeus*) from India, presented by Mr. Thos. G. Anderson; a Common Barn Owl (*Strix flammea*), British, presented by Mr. F. Bagnall; a Vervet Monkey (*Cercopithecus lalandii*) from South Africa, a Mona Monkey (*Cercopithecus mona*) from West Africa, a Malbrouck Monkey (*Cercopithecus cynosurus*) from East Africa, deposited; two Moustache Monkeys (*Cercopithecus cephus*) from West Africa, an Axis Deer (*Cervus axis*) from India, a Quebec Marmot (*Arctomys monax*) from North America, a Common Weasel (*Mustela vulgaris*), British, two Boatbills (*Cancroma cochlearia*), two Variegated Bitterns (*Ardetta involucris*) from South America, a Common Night Heron (*Nycticorax griseus*). British, purchased.

### METEOROLOGICAL NOTES

IN the *Meteorology of England* for the quarter ending June 30, Mr. Glaisher gives some interesting notes of the cold weather up to that date. The mean temperature of London for the quarter was 49°·5, being the lowest which has occurred during the corresponding period since 1837. The unusually protracted cold weather set in on October 27, 1878, and for the eight months ending June, 1879, the mean temperature was only 41°·6, being lower than any which has occurred in the present century since 1813-14, when the mean temperature of these eight months was only 40°·4. It was during this cold period that the Thames was frozen over and a fair held between London and Blackfriars Bridges. Mr. Glaisher appends a very valuable table showing the mean temperature of the eight months ending June for each year from 1771-72, from which it appears that five colder periods than that of the present year occurred towards the end of last century, viz., 40°·9, in 1794-95, 41°·2 in 1788-89, and 41°·3 in 1783-84, 1784-85, and again in 1796-97. The more frequent occurrence of a higher temperature during the colder half of the year in recent years as compared with what prevailed in the end of last century is pointed out. During the first six months of 1879 the rainfall about London has been exceptionally large, amounting to 17·30 inches, which is larger than has fallen in these months any year since 1815.

IN the *Transactions and Proceedings* of the Philosophical Society of Adelaide, South Australia, for 1877-78, there is an interesting paper by Mr. H. H. Hayter, Government Statist of Victoria, on the infantile mortality of our Australian colonies; based on the statistical returns from 1866 to 1877. During these twelve years the rates per annum of the mortality of infants under one year of age in proportion to 1,000 births were 155 in South Australia, 128 in Queensland, 125 in Victoria, 106 in New South Wales, 101 in New Zealand, and 100 in Tasmania. In each of the years South Australia stood at the top of the list, except in 1877, when the rate of its infantile mortality was slightly exceeded by that of Queensland. From a detailed statement of the causes of deaths of infants in South Australia for the three years 1873-74-75, it appears that of the 3,641 deaths which occurred during these years from all causes, not fewer than 2,249 were occasioned by bowel-complaints and their complications. The whole of this question, which is a vital one as affects the future of such of our colonies as are characterised by high summer temperature, can only be satisfactorily investigated by weekly or monthly statistics of deaths of infants from all causes taken in connection with the mean temperature and humidity of the air during the time. Thus the different summer temperatures and humidities of these colonies explain by far the larger proportion of the differences in the rates of their infantile mortality. All the differences, however, are not to be thus explained, and it is the investigation of these and the tracing of them to their causes which would likely lead to the adoption of improved sanitary and domestic arrangements.

WE have received from the Scottish Meteorological Society a communication from Mr. Thorlacius, their observer in the north-west of Iceland, in which he states that the spring there was stormy and cold, but that, in direct contrast to what has prevailed in the British Islands, the summer had been very fine and warm up to the date of writing (September 23), and the rainfall very small during June, July, and August. Pastures had, in consequence, suffered much, and the hay crop turned out to be generally a very poor one. This has, however, been to some extent counterbalanced by the admirable state in which the hay harvest has been secured, so that most can look forward to the coming winter without uneasiness, even though it should prove severe. Since April they have heard nothing of the Greenland ice, always a subject of no little anxiety in these parts, the ice having fortunately kept away from the coast of Iceland. The Danish man-of-war schooner *Ingolf*, Capt. Mourier, cruised this summer close to the coasts of Greenland, but could effect no landing, owing to a belt of ice he could not force his way through, which lay along the shore for a distance of from twelve to sixteen miles. The Captain sailed along the coast, taking several bearings by the way, from Stewart's Island to Cape Dow, or from 69° to 65° 30' lat. N., thus sailing in a south-westerly direction along the coast of Greenland, which lies opposite the north-west of Iceland, at a distance of about 120 nautical miles. This shore has not been previously explored, no one having probably ever had an opportunity of getting so close in shore before. The strait between Iceland and Greenland was this summer, which very rarely happens, quite open for navigation, except the inconsiderable belt of ice immediately outside the coast of Greenland. Capt. Mourier had special instructions from the Danish government in regard to this exploration, and it is considered likely that the explorations on this little-known coast will be resumed. These meteorological and geographical facts are important in relation to the more southerly course than usual recently taken by our European storms, and the easterly and northerly winds resulting therefrom, to which we owe the all but unexampled cold dull weather of the past twelve months.

THE "Results of Observations in Meteorology, Terrestrial Magnetism, &c., made in Victoria during 1876," under the superintendence of R. L. J. Ellery, have been received. The methods of making and reducing the observations are detailed at length in the preface. The chief feature of the Report is its purely statistical character, there being no attempt to state the outstanding points of interest in the meteorology of the year in this part of Australia. To some extent, however, this want is compensated for by there being given with each month's detailed results the averages for that month of pressure, temperature, humidity, and rainfall, calculated from all previous observations in the office—together with particularly full data of electrical phenomena, hail, snow, frost, fogs, hot winds, storms of winds, and heavy rainfalls of half an inch and upwards within the twenty-four hours at the thirty eight rain stations over the colony.

These hot winds are not merely of local interest to the colonists, but of general interest in matters affecting the atmospheric circulation of the continent of Australia, and as affording facilities to the meteorologists of that region in the study of whirlwinds and other cyclonic movements, the correct theory of which science has still to propound. The frequency of these hot winds at Wilson's Promontory, the most southern point in Victoria and completely enveloped by the sea, is noteworthy, as also the instance which occurred on March 14, when on the surface the wind was cool and damp, whereas a hot wind was blowing 50 feet high on the lighthouse balcony. The discussion of the wind observations is a valuable piece of work. These show an excess of atmospheric movement in the warmer months and during the hottest hours of the day, the velocity of the wind in summer increasing from 7.13 miles an hour from 2 to 3 A.M. to 15.97 miles from 2 to 3 P.M. During 1876, which was remarkable for the absence of sun-spots, the aurora australis was only seen once, viz., between 3 and 4 A.M. of April 26 at Kyneton.

### GEOGRAPHICAL NOTES

THE Germans have so deservedly earned a distinguished reputation as scientific geographers, that it is quite pleasing to catch one very serciously tripping in geographical matters. In Philip Leopold Martius's "Das Leben der Hauskatze und ihrer Verwandten" (Weimar: B. F. Voigt, 1877), in the part of the work treating of the varieties of the domestic cat, appears (s. 61) the following extraordinary statement: "Die schwanzlose Katze von der Insel Man im stillen Ocean wenn nicht das Kap Man auf Borneo darunter zu verstehen, ist wohl noch nie zu uns nach Deutschland gekommen, obgleich sie auf der Katzenausstellung in London einst vertreten war." The author goes on to express his earnest wish that a pair of these great rarities, Manx cats, may be procured and exhibited at some zoological garden. Manxmen will hardly thank him for placing their native isle in the Pacific Ocean and confounding them with Polynesians, but the suggestion as the result of ponderous research that after all perhaps such a place as the Isle of Man does not exist, but that its mythical development has arisen from a mistake as to a cape of the same name in Borneo is too delicious altogether, and so ingenious and thoroughly German that it must needs be recorded for the benefit of the readers of NATURE.

DR. NACHTIGAL, has communicated to the Berlin Geographical Society full particulars as to the misfortune lately suffered by Gerhard Rohlfs' expedition in North Africa. Rohlfs and his companions, who were plundered and detained while exploring the Kufara Oasis, and compelled to return to Bengazi, were relieved by the intervention of the Foreign Office under assurance that complete reparation would be made them. The explorers' travelling effects, along with gifts sent by the German Emperor for the Sultan of Wadai, require to be supplemented and renewed, though it is almost certain the expedition will still be able to proceed in accordance with its previous plan. Dr. Lenz, it was announced at the same meeting, had lately gone to Morocco on a geological survey, which he would subsequently extend eastwards into the Sahara.

AT the opening of the Geographical Society's Session on Monday last, the Earl of Northbrook, the president, briefly reviewed the work of travellers and geographers during the past few months, and spoke in very eulogistic terms of Prof. Norden-skjöld's great achievement. The most noteworthy feature, however, in the address, was the statement that news had been received that morning from the expedition despatched by the African Exploration Fund Committee to the head of Lake Nyassa. Nothing had been heard of its whereabouts since the death of Mr. Johnston, except a rumour as to its progress, gathered by an Arab from native sources, and lately communicated by Dr. Kirk through the Foreign Office. Mr. Thomson reports that he has arrived, within comparatively few days' march of the lake, in the country of Uebehe. Lord Northbrook read some interesting extracts from Mr. Thomson's journal which will, no doubt, soon be published by the Society. Mr. Clements R. Markham then read a summary which he had drawn up of a paper on the exploration of Central Sumatra, prepared by Prof. P. J. Veth, President of the Dutch Geographical Society. One of the main results of the late Dutch expedition, was the discovery that the Jambi River, which should be known by its native name of Batang Hari, was navigable for nearly 400 miles. It was announced that at the next meeting a paper would be read which had been written by

Captain A. H. Markham, descriptive of his Arctic cruise during the summer in the *Isbjörn* and of the work of the Dutch Expedition in the *Willem Barents*. Captain Bruijne, its commander, has kindly promised to attend the meeting. Lord Northbrook also stated that hopes were entertained of Dr. Emil Holub being able to give an account of his remarkable journeys in South Central Africa on January 12.

IN an account which he has sent home to the Church Missionary Society, of the tribes on the road to Mpwapwa, Mr. J. E. Last tells us that the third tribe from the coast is that of the Wanguru. In going from Saadani to Mpwapwa caravans pass through the southern limits of their country. These Wanguru seem to be a scattered people, but they are found in great numbers living among the mountains north of Kwa Masengo, one of their chief villages. There they cultivate the ground on a large scale, growing rice plentifully and all the common native produce; ginger is found in great abundance. They also grow a great deal of tobacco, and three native medicines not known among other tribes. One is the seed-pod of the *mdaha*, in form very like a piece of rough stick, and when ground it is very hot to the palate. The other two are vegetable fats produced from seeds, and are much in vogue as medicines at Zanzibar, as well as on the coast and inland. The French Roman Catholic mission have had a station among this tribe for some little time.

NEWS has been received from Zanzibar that another expedition has started from Bagamoyo for the interior. It is despatched by M. Lavigerie, Archbishop of Algiers, and consists of eighteen Europeans, of whom six are laymen. Their object is to reinforce the Algerian missionary stations at Ujiji and at King Mtesa's capital. The expedition is under the leadership of the Abbe Guyon.

THE new number of *Les Annales de l'Extrême Orient* contains papers on the Belep group and the fauna of the Indian Archipelago, the former of which is illustrated by a map.

THE fame of the newly discovered sapphire mines in Siam is so great that great numbers of Burmese and Shans are said to be flocking thither. The mania appears also to have attacked part of the European community in Rangoon.

THE November number of *Petermann's Mittheilungen* contains a reduced copy of the geological map of India from Medlicott and Blanford's "Preliminary Sketch." The narrative of Dr. Regel's journeys in Central Asia is concluded, and is followed by an interesting account of the trade and industry of Werchojansk and Kolymsk circles, in North-East Siberia, and an eclectic article on the region about the sources of the Santa-Cruz, in Patagonia, with a map illustrating Moreno's journeys in 1876-7. There is also a map accompanying the paper on Dr. Regel's journeys.

AMONG the papers in the September number of the *Bulletin* of the Paris Geographical Society, the one of most scientific value is Commander Perrier's lecture on the measurement of longitudes in France. M. Ed. Cinere describes his journey in South America, mainly the United States of Columbia, in 1875-6. There are two interesting letters on the Oxus question, by M. Woeikoff, with a note by M. Vivien de St. Martin, and a paper by the Abbe Durand on Pere Dupuyret's journeys in South Africa. There is also an interesting unpublished letter of Dagelet, the astronomer attached to the expedition of La Perouse.

THE general council of Constantine (Algeria) has appointed a commission for determining the *trace* of the Transaharian railway. It has been already determined by the commission to publish a *projet*, by M. Peltreau, on the section from Constantine to Juggurt by Biskra and Oued Birh.

IN the last session of the Geographical Society of Paris a very interesting discussion took place on the possibility of using elephants from India in South African exploration. It was considered more advantageous to try to use the native elephants after being trained on the Indian method. It was stated that a number of African elephants had been also sent to India in order to be tamed there. M. Soleillet remarked that elephants can nowhere be met in India except in well-watered places, so that they must be used in Africa, in countries offering some analogy with such regions where they can live without difficulty.

M. PAUL SOLEILLET will leave very shortly for St. Louis (Senegal) in order to proceed on his intended journey to Segou-Sokkoro and thence to Timbuctoo. He has received funds from