

numbers refer) was 2,755,000, with a total weight of 51,862,000 lbs. The number of sealskins obtained was 155,718, valued at 1,540,912 dollars.

M. FERRY has ordered the teachers of elementary classes of the colleges to conduct their pupils into the galleries of the Museum of Natural History at Paris, to explain to them the differences of the several kinds of animals, plants, and minerals, and to incite young pupils to collect specimens during their walks in the country round Paris.

AN attempt at silk cultivation is to be made at Akaron, New Zealand, the valleys and bays of Banks' Peninsula being considered well suited for that purpose. The Colonial Government are sending to California and Japan for silkworms' eggs and mulberry trees of the best kinds, with the view of encouraging the industry.

THE *Colonies and India* reprints from a New Zealand paper some notes on a discussion at the Otago Institute, when Prof. Parker exhibited the skin and body of the extremely rare and remarkable bird, *Notornis Mantelli*. The specimen in question is only the third which has ever been captured, was caught low down on the ranges, and it is probable that an expedition will be fitted out to search for more of the species.

A POPULAR explanation of Kant's "Kritik der reinen Vernunft," by Albrecht Krause, has just been published by Moritz Schauenburg of Lahr (Germany), "in celebration of the centenary of the publication of the great work."

AN important invention relating to railway signals has recently been made in Germany, and the model apparatus has just been completed at the central works of the Bergisch-Märkische Railway Company at Witten. The model will be exhibited at the Electro-Technical Exhibition at Paris.

THE additions to the Zoological Society's Gardens during the past week include a Red-handed Tamarin (*Midas rufimanus*) from Surinam, presented by Mr. Keiser; an American Black Bear (*Ursus americanus*) from Nova Scotia, presented by the Earl of Caledon, F.Z.S., and the Hon. Charles Alexander; two Grey Ichneumons (*Herpestes griseus*) from India, presented respectively by Mr. C. R. Smith and Mrs. C. Hassell; a Common Raven (*Corvus corax*), British, presented by Major Botts; a Carrion Crow (*Corvus corone*), European, presented by Miss Mortimer; a — Monitor (*Monitor*, sp. inc.) from Ceylon, presented by Mr. E. Lindstedt; a Sykes' Monkey (*Cercopithecus albogularis*), three Vulturine Guinea Fowl (*Nunida vulturina*) from East Africa, deposited; three Common Peafowl (*Pavo cristatus*), two Cheer Pheasants (*Phasianus wallichii*), two Horned Tragopans (*Cerionis satyra*), a Siamese Pheasant (*Euplocamus pralatus*), bred in the Gardens.

METEOROLOGICAL NOTES

FROM a discussion by Dr. Hann of a series of hourly summer observations of air-pressure, temperature, moisture, cloudiness, and force of wind made by the U.S. Engineer Corps on the plateaux of the Rocky Mountains (the stations lying between 3500 and 8500 feet above the sea), it appears that in valleys and wide basins, even at the greatest height, the influence of the daily barometer oscillation in summer is still very great, and no decrease with the height is noticed. The course of the curve is of the continental type, a comparatively large afternoon minimum, a slightly marked morning minimum, and an earlier occurrence (7 to 8h.) of the morning maximum. In the temperature-curve the most notable point is that the maximum is very near midday, or little behind the culmination of the sun. The maximum of absolute moisture occurs about 8 a.m., and a second smaller maximum in the afternoon or evening. The maximum of cloudiness and wind-force occurs between 3 and 4 p.m., the minimum between 3 and 4 a.m.

IN a letter dated April 14, Mr. Russell of the Sydney Observatory remarks that the rain return for 1880 shows it to have been a dry year in New South Wales, as in many other parts of the world; but the want of rain was not severely felt because it

came at favourable times for grass. Perhaps the most curious consequence of the short supply of rain was the stoppage of the river navigation for a considerable part of the year, thus preventing the wool from going by steamer to market, and increasing the cost of all stores consumed: the river curves show, for instance, that at Bourke the water was at summer level from June to October, thus preventing navigation. Mr. Russell hopes, by the combination of the rain and river observations, to find an answer to a local question of very great importance, viz. the amount and source of the water found in wells which are being sunk by the hundred in the inland parts of the colony. There can be no doubt that all, or nearly all, the water brought down in such abundance from Tropical Queensland by the Culgoa, Warego, and Paroo Rivers sinks into the ground before it reaches New South Wales, and there is good reason for thinking that much of the water brought down by the heads of the Darling sinks into the ground before it reaches Bourke. If this can be proved, which he thinks can be done in the course of a few years, there will be no fear for the abundance and permanence of the well-water. And when it is remembered that in most cases the water rises to within thirty or forty feet of the surface, in many instances to the surface, and in one case twenty-six feet above the surface, the local importance of the question will be obvious.

IN studying the conditions of temperature of the Russian Empire some time ago, M. Wild found that the irregular distribution of temperature revealed by the isotherms might be elucidated by means of "isonomals" (or lines of equal temperature-anomalies). Among the causes of the isonomals special regard must be had to the wind, which again immediately depends on the distribution of air-pressure, as shown by the isobars. A comparison of the lines of equal pressure with the lines of temperature-anomalies thus suggested, led M. Wild to recognise an intimate relation between the two systems. Reasoning from the results arrived at, he has attempted with some success to rectify the isobars over certain regions, where from want of observations their course was somewhat uncertain; and further has even suggested the probable existence of a pressure-maximum in Northern Siberia, of which region however little if anything is positively known, owing to the want of barometric observations. M. Wild's paper, which is of a provisional nature, appears in the *Bulletin* of the St. Petersburg Academy. (It is noted that M. Teisserene de Bort, in the Paris Academy, has to a certain extent been prosecuting the same subject.)

AS an evidence of the great cold of last winter Mr. Angus M'Intosh, Schoolhouse, Laggan, states in the *Scotsman*, that on June 20 the Balgown peat moss in that parish was still frozen at the depth of 2½ feet beneath the surface.

THE aurora has been remarkably frequent at Stykkisholm, Iceland, last winter. From September 5, when the first aurora of the season was observed, to February 28, to which date the observations have been received, auroras were seen on forty-five nights, viz., five in September, eleven in October, four in November, eight in December, twelve in January, and five in February, the phenomena being very brilliant on September 29, December 23, January 31, and February 5.

FOR some time the Registrar-General has been printing in his weekly returns the deaths from small-pox in London under three heads, viz., the vaccinated, the unvaccinated, and those regarding whom no statement is returned. The results show for the whole mortality from small-pox substantially the small-pox curve as given in NATURE (vol. xxiv. p. 144), with its characteristic saddle-shaped maximum, the dip between the two heights of the curve being towards the end of March. On projecting curves of the death-rates for the vaccinated and the unvaccinated, it is seen that the dip in the curve for the whole mortality is due to a diminution of the deaths of the unvaccinated during March as compared with what occurred before and after. In other words, those climatic influences which raise the mortality from small-pox to the annual maxima, first in January-February, when the weather is coldest, and again in May when driest, bear with more fatal effect on the unvaccinated than the vaccinated. As fatal terminations in small-pox cases arise chiefly from complications with other diseases, and as the times of maxima of the curve point to diseases of the nervous system and the respiratory organs as those mostly concerned, even one year's results, particularly a year with cold and dryness so unusually pronounced, may be pointed to as warranting an inquiry of some importance into the relations of the vaccinated and unvaccinated to attacks of small-pox.