## QUOTATIONS.

### THE GERMAN YELLOW-FEVER EXPEDITION.

We recently referred in our news columns to the fact that not long ago the Institute for Ship and Tropical Diseases in Hamburg sent a fully equipped expedition to South America to study yellow fever in particular. The results already obtained by American, English and French observers will now be subjected to thorough tests, and further reports from the expedition will be awaited with much interest. We see in expeditions of this kind the strongest evidence of the great interest now felt in tropical diseases and hygiene. This movement seems to date back only a few years. The epochal discoveries of Patrick Manson and Ronald Ross were followed by the establishment in Liverpool of a school for tropical medicine by means of funds contributed by wide-awake and philanthropic business men. This school has sent out several investigative expeditions, the results of which have been important in the fight against malaria, and more recently in clearing up the etiology of sleeping sickness. In addition, this school gives courses in tropical medicine. Other seaports have followed the example of Liverpool, and similar institutions have been started in London, Hamburg, Bordeaux and elsewhere for teaching and research, location in seaport towns being necessary in order to gain access to the proper clinical material. The German expedition, which also is to study and report on sanitary conditions in South American harbors, is supported financially by the merchants of Hamburg. Whether viewed from the philanthropic or commercial point of view, the study of tropical diseases and maritime sanitation is so important that we can only rejoice because it is fast becoming a matter of international competition. It may not be out of order to ask what is being done in this field in the great seaports of the United States, in addition to guarding against the importation of infectious diseases. So far as we know there is now no place in America where a physician may receive special instruction of the proper kind in tropical diseases and allied subjects. We look for the establishment of an institution of this kind in Manila before long, but it is quite evident that there is room and need for one or more such institutes in the United States proper.—*Journal of the American Medical Association.*

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## CURRENT NOTES ON METEOROLOGY.

### MONTHLY WEATHER REVIEW.

*The Monthly Weather Review* for March, 1904 (dated May 23), contains the following, among other articles: Professor R. F. Stupart, of the Canadian Meteorological Service, writes on the 'Origin of American Cold Waves,' stating his belief that cold waves may originate almost anywhere over the more northern portions of the continent, and also expressing a doubt in regard to the cold being due entirely to radiation. Rev. Chas. H. Lee, of Racine, Wis., reports that in winter clouds may often be observed gathering on the eastern horizon over Lake Michigan, and moving landward. These clouds are usually seen about noon, after a clear, cold morning, with a temperature of about 0° F. At first the surface of the lake steams 'like a boiling kettle.' Later the steaming ceases, and clouds break off and slowly float shoreward from a great mass of accumulated vapor over the lake to the east. A paper on 'Precipitation for Twenty-nine Years at Dodge City, Kansas,' by E. D. Emigh, leads to the conclusion that there is no foundation for the assertion that the rainfall in western Kansas is increasing from year to year. Rev. Marc Dechevrens, of the Observatory of St. Louis, Island of Jersey, contributes a description of the observations made by him on 'The Vertical Component of the Wind' on the island of Jersey, by means of the Dechevrens universal anemometer. To this article are appended notes by Professors Abbe and Marvin. H. H. Clayton, of the Blue Hill Observatory, contributes 'A Study of Some Errors of Kite Meteorographs and Observations on Mountains,' this being the result of the careful kite work done at Blue Hill since 1894. 'The Winter of 1903–04,' which was characterized by unusual cold east of the Mississippi River, is discussed by W. B. Stockman. The editor of the *Review* considers 'Uniformity in Meth-

ods and Standards of Instruction in Meteorology,' 'Weather Forecasts by Local Observers,' 'Polarization of the Light of the Sky' and other matters.

OCEAN METEOROLOGY.

CAPTAIN D. WILSON-BARKER, in his presidential address before the Royal Meteorological Society (*Quart. Journ. Roy. Met. Soc.*, XXX., April, 1904), believes that the solution of many meteorological problems should be sought in a closer study of the atmospheric conditions over the oceans. The work of Maury and Fitz Roy is appreciatively referred to, and the present state of our knowledge of marine meteorology is sketched. The author says: "In taking note of the meteorological work accomplished in different countries, we find the United States of America well to the fore. . . . The United States government is indefatigable in collecting knowledge beneficial to seamen." The opinion is expressed that we have reached the limits to which it is possible for us to go in weather forecasting with the meteorological knowledge at present within our reach. What is now required is a 'liberal infusion of scientific imagination into our midst.' There is appended to this paper a list of some of the publications bearing on marine meteorology issued between 1886 and 1903, and the illustrations comprise a series of charts of temperature, pressure, winds, rainfall and cloudiness over the oceans.

WHEAT IN CANADA.

IN the *Canadian Magazine* for April, Dr. Wm. Saunders, in discussing wheat-growing in Canada, states that he has received from Dunvegan, on the Peace River, 414 miles north of Winnipeg, samples of wheat weighing 64 pounds to the bushel, and from Fort Simpson, 818 miles north of Winnipeg, Ladoga wheat weighing 62½ pounds to the bushel has been obtained. Between sowing and harvesting the time varied between 101 and 108 days. The quick ripening of cereals in far northern latitudes is well known, and the successful cultivation of wheat in northern Canada means that the agricultural future of those northern territories is much brighter than was at one time supposed.

INTERNATIONAL CLOUD ATLAS.

A NEW edition of the 'International Cloud Atlas,' published in 1896 under the direction of de Bort, Hildebrandsson and Riggenbach, is to be undertaken, provided sufficient interest is shown in the matter by scientific men. The 'Atlas,' as is well known to readers of SCIENCE, presents views of cloud forms classified in accordance with the so-called international classification of clouds, which was officially adopted and recommended by the International Cloud Committee in 1891. The illustrations are beautifully colored, and quite apart from its great value to meteorology, the 'Cloud Atlas' is well worth owning for the beauty of the illustrations alone. It is to be hoped that all those who have found the atlas useful in their work will communicate with the committee in charge of the publication of the new edition.

BRITISH METEOROLOGICAL COUNCIL.

THE committee appointed by the British treasury in December, 1902, 'to inquire and report as to the administration by the meteorological council of the existing parliamentary grant, and as to whether any changes in its apportionment are desirable in the interest of meteorological science, and to make any further recommendations which may occur to them, with a view to increasing the utility of the grant,' has made its recommendations. These include the reconstitution of the meteorological office as a department under the control of the board of agriculture and fisheries; the appointment of 'a man of science as a director of meteorology, appointed after consultation with the Royal Society'; the appointment of an advisory board of five members, two being nominated by the Royal Society, one being the hydrographer to the Admiralty, one being a representative of the Board of Trade, and one of the Board of Agriculture and Fisheries; and the appointment of a second officer as scientific assistant to the director. The other recommendations relate

to the transmission of daily weather reports by telegraph; the use of wireless telegraphy 'in providing advance news of weather on the Atlantic'; an increase of the office staff, and the provision of new quarters for the central office.

ANTARCTIC WINDS.

Dr. Erich von Drygalski, in a paper read before the Royal Geographical Society on April 25 last, on the German South Polar Expedition, calls special attention to the winds noted during the *Gauss* voyage to the far south. The zone of prevailing westerlies was left behind and a trough of low pressure was crossed, the ship remaining on the southern slope of this trough, where the pressure rises again to a maximum over the continent. Here the winds were found to be prevailingly easterly, 'which sweep down from the south over the vast uniform and but slightly inclined surfaces of the inland ice, and appear on the sea-board as easterly, foehn-like gales.' These gales, according to Dr. von Drygalski, give this south polar region its distinctive character, and also its limits, and by their frequency and uniformity 'they reveal the immensity and the homogeneous nature of those Antarctic lands.'

NOTES.

A. B. MacDowall (*Met. Zeitschr.*, XXI., 1904, 77–78) believes that during the last sixty years sunspot maxima have been accompanied in England by higher temperatures. He thus takes a view directly opposed to that of Köppen and Nordmann, who believe that the temperatures are higher (in the tropics) during sunspot minima. MacDowall also publishes curves of pressure at Ben Nevis Observatory and of the moon's phases, in which he considers the coincidence sufficiently marked to lead to a belief of cause and effect, and curves of relative humidity at Greenwich and of the moon's phases, which seem to him similarly related.

The Deutsche Seewarte (Hamburg) has begun the publication of a pilot chart, to be issued quarterly, of the North and Baltic Seas. The same institution has also lately begun to issue charts showing for 8 A.M. each day the distribution of pressure over the North Atlantic between Europe and North America, and also the force and direction of the wind. These charts are published as soon as possible after date.

Sir John Eliot, lately at the head of the Indian Meteorological Department, gives it as his opinion, as quoted in *Nature*, Vol. 69, 538, that 'the next development of weather study will almost certainly be in the direction of international or world meteorology, and its relation to the phenomena of sunspots and terrestrial magnetism.'

Two recent studies on the vertical distribution of temperature in the free air are the following: R. Assmann, 'The Temperature of the Air above Berlin,' translated in *Monthly Weather Review*, XXXII., 1904, 177–180; L. T. de Bort, 'Décroissance de la Température avec la Hauteur dans la Région de Paris,' *Ciel et Terre*, XXIV., 1904, 579–583.

The Prussian Meteorological Institute has issued a new (second) revised edition of its 'Anleitung zur Anstellung und Berechnung meteorologischer Beobachtungen.' The first part deals with observations at second and third order stations.

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*STOMACH STONES AND FOOD OF PLESIOSAURS.*

In a recent paper* on North American Plesiosaurs, Dr. S. W. Williston, in discussing the probable significance of the pebbles so often found associated with plesiosaur remains, says: "What the use of these pebbles was I will not venture to say. They may have served as a sort of weight to regulate the specific gravity of the animals or they may have been swallowed accidentally. If, as I believe probable, the plesiosaurs were in the habit of feeding upon invertebrate animals, seeking such in the shallow muddy bottoms, the pebbles may have been taken with the food unintentionally. I doubt this, however. I may add that all specimens do not reveal similar pebbles."

* Field Columbian Museum Publication number 73, page 75.