THE MAN IN THE MOON.

In the *Correspondenz-Blatt* for July, of the German Anthropological Society, R. Behla has a curious study on the notions of various peoples as to what we see in the moon. These notions are strangely divergent. In most European nations there is a fancy that in the full moon there are the features of a human face, and hence the tales about 'the man in the moon.'

On the other hand, very widely throughout Asia, in both Aryan and Mongolian folklore, not a human being, but a hare, or rabbit, is believed to be seen, sitting on his haunches, in the orb of the moon. This also recurs among the Mexican Aztecs, though in South America again, among some Brazilian tribes, the man in the moon reappears.

In English and the Romance languages the moon is regarded as feminine, as was also the case among the Semites; but in German it is a masculine noun. This is usually the case among savage tribes, and often with them the sun is female, the wife or sister of the moon, and his inferior.

Behla adds some words on the importance of a more thorough comparative study of superstitions regarding the moon than we have at present.

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CURRENT NOTES ON METEOROLOGY.

ATMOSPHERIC ELECTRICITY AND TELEPHONES.

An interesting paper by Trabert, on the crackling of the telephone on the Sonnblick, appears in the Fourth Report of the Sonnblick Verein. The Sonnblick, it may be stated, is one of the best known mountain observatories in the world, by reason of its height (10,154 ft.), and especially by reason of the valuable results which have been derived by Hann and others from the observations there made. For six years five observations a day have been made of the intensity of the crackling in the telephone at the summit. It appears from these data that in December the minimum crackling is at noon, with the maximum at 9 p. m., and a secondary maximum at 7 a. m., while in June there is a steady increase in the intensity of the noise from 7 a. m. to 9 p. m., without a noon minimum. The other months of winter and summer follow respectively the same rule as December and June, while the intermediate months, as expected, present the intermediate conditions. Further, the noise is greater in summer than in winter. Regarding the explanation of these phenomena, the author finds it chiefly in the presence of atmospheric electricity in the clouds over the Sonnblick, for there is a very striking correspondence between the crackling and the cloudiness on the summit, not only in the diurnal period, but in the annual as well. The days on which there is the greatest intensity of crackling are almost invariably distinguished by cloudiness, rain, snow or thunderstorms. The part played by earth currents must not be overlooked, for on one cloudless anticyclonic day there was a very well marked crackling, which could not be explained as being due to atmospheric electricity.

WEATHER FORECASTS SEVERAL DAYS IN ADVANCE.

An elementary discussion of the controls of the weather of central Europe, with suggestions as to weather forecasts for several days in advance, has recently been issued by Dr. van Bebber. It is entitled *Die Beurtheilung des Wetters auf mehrere Tage im Voraus* (Stuttgart, Enke, 1896). Five principal weather types are considered, depending chiefly on the position of the areas of high pressure. The weather conditions which these types usually bring are described, and the increased or decreased frequency of the types at different seasons is noted. The

position of the cyclonic tracks and their dependence on the general (seasonal) distribution of pressure and of temperature over Europe and the Atlantic Ocean are seen to be controlling factors in the production of the different weather types.

THE FIRST DAILY WEATHER MAP.

ONE of the important dates in meteorology, about which there has been a good deal of dispute lately, is that which marks the issue of the first daily weather map. The credit of having been the first to publish such a map has been generally given to Le Verrier, who, on September 16, 1863, began the issue of a daily weather map in Paris. It is a fact, however, that twelve years before that, in 1851, a weather map based on observations made on the day of its publication was issued and sold in the Great Exhibition in England. The data for the map were collected by telegraph, and its publication was continued from August 8 to October 11, 1851, Sundays excepted. This was without doubt the first daily weather map. The September number of *Symons' Meteorological Magazine* contains a reproduction, about one-quarter the size of the original, of the Great Exhibition map of August 8, 1851.

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NOTES ON INORGANIC CHEMISTRY.

A NEW element appears to have been discovered in monazite, to which the discoverer, P. Barrière gives the name *Lucium*. It is closely akin to the rare earths, perhaps most resembling erbium, though with quite different spectral rays. Its atomic weight is calculated as 104. The elementary nature of the substance is reported to have been confirmed by Schützenberger, Cleve, Fresenius and Boisbaudran. The only thing which seems to render the discovery questionable is that Barrière proposes to use the substance for the production of incandescent gas light in competition with the Welsbach burner and without infringing upon the patents which practically cover the use of all the rare earths now known.

IN a recent number of the Comptes Rendue, Moissan has summed up his researches on metallic carbids. In the electrical furnace no compounds with carbon could be formed with gold, bismuth or tin. Silver and the platinum metals take up carbon, but all separates out as graphite on cooling. No crystallized iron carbid could be formed. Copper takes up a trace of carbon only, but it materially effects its properties. The metals of the alkalies and alkaline earths form crystalline carbids which are decomposed by cold water with the evolution of acetylene. The carbids of aluminum and glucinum with water give off methane; the carbid of cerium, acetylene and methane; the carbid of manganese, methane and hydrogen; the carbid of uranium, methane, hydrogen and ethylene. The latter also gives off liquid and solid hydrocarbons in considerable quantity, as do in smaller quantities, the carbids of cerium and lanthanum. The carbids of molybdenum, tungsten and chromium fuse only at high temperature and are not acted on by water in the cold. In addition the carbids of silicon (carborundum), titanium, zirconium and vanadium, formed only at very high temperature are known. The fact of the formation of different hydrocarbons by the action of water upon the metallic carbids may have a decided bearing on the formation of petroleum and natural gas, and other hydrocarbons occurring in nature.

ROSSEL has followed up the researches in which Moissan found that the carbon of iron which had been saturated at 3000° and cooled under great pressure, crystallized out in small diamonds. Examining very hard steel, formed under similar conditions, Rossel finds a considerable quantity of crystallized carbon, which resembles Moissan's