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? WHY THE WEATHER ?

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THE HIGH ATMOSPHERE

Several months ago, it was suggested by Dr. L. Vegard, a Norwegian physicist, that the highest levels of the atmosphere were composed largely of frozen nitrogen. He compared the spectrum of the aurora with that of frozen nitrogen electrically excited, and found them apparently identical, as a green band in the frozen nitrogen covered the region of the principal green line of the aurora. Vegard felt safe in erecting an elaborate hypothesis on this close similarity. He postulated also that this high, rare, nitrogen frost cloud was in large part responsible for the blue color of the sky. This hypothesis, requiring such a low temperature for the auroral region, as against a moderately high one computed from meteor observations, was received incredulously.

At the recent British Association meetings in Toronto, Prof. J. C. McLennon presented evidence on this question, showing that Vegard's hypothesis is apparently without foundation. A very careful study of the frozen nitrogen spectrum revealed that the green band Vegard had observed was made of three distinct green lines no one of which coincided with the principal line of the auroral spectrum. There is no reason, then, for believing that our atmosphere is frozen at a great elevation, We still do not know and have not even a good guess as to what makes that green line in the aurora's spectrum.

(Tomorrow: Tropical Cyclones as Moisture Engines)

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