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A Science Service Feature

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? WHY THE WEATHER ?

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HELIUM HIGH UP

What is the atmosphere like 60 miles above the earth's surface? Meteors and the aurora give us our only information about the air at this great height. By studying the spectra of meteors and the auroral light it is possible to ascertain something about the gases in which meteors become luminous and the auroral discharge takes place. If the spectrum of a trail should show lines coinciding with those of hydrogen or helium it would prove nothing for these elements might belong to the meteor itself. The case is different with the aurora, however. Two Canadian investigators have recently found how to produce a spectral line identical to the auroral green line. They observed this line in the spectrum of a much rarefied mixture of oxygen and helium or air and helium with the latter in excess. Apparently hydrogen, the lightest gas, may not be so important a constituent of the upper air as was once thought, while helium, the next lightest, seems relatively abundant. Perhaps hydrogen is lacking because it enters into combination with other substances too easily.

(Tomorrow: Rain Breaks Fruit Trees)

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