

A Science Service Feature

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? WHY THE WEATHER ? Mailed April 23, 1930.

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PSEUDO-AURORAS

Tabular crystals of light floating in the atmosphere sometimes produce, by reflection, the well-known phenomena of sun-pillars and moon-pillars--shafts of light extending above or below the sun or moon--which are discussed in works on atmospheric optics. Occasionally similar beams are seen extending upward from artificial lights, and a number of such lights along the horizon provides a good imitation of the aurora borealis. Such displays have been called "pseudo-auroras." Prof. J. Paul Goode wrote of this phenomenon in Science for January 29, 1897:

"My attention was first called to it some years ago in Moorehead, Minn. Over each arc lamp used in street lighting appears a strange column of pure white light, seeming to extend vertically to a great height; a peculiar transparent shaft like the brightest bars of the aurora borealis, yet standing very still and always vertical over the lamp from whatever point viewed. On an evening of special beauty these columns seem to reach almost to the zenith, and other sources of light add their shafts to the display. The evening star gives a shaft below as well as above, and the late rising moon stands <sup>right</sup> in a broad column of light."

A photograph of a pseudo-aurora was taken at Grand Forks, North Dakota, in December, 1902, by Herbert Goodall, a student at the University of North Dakota, and is included in the set of lantern slides for the teaching of meteorology prepared by the Geographical Society of Chicago in 1906. Another fine picture, taken by Prof. B.W. Currie, of the University of Saskatchewan, last February, is published in a recent number of Nature.

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