

ASTRONOMY

Possible New Northern Light Like Celestial Searchlight

Observation of Mysterious Bluish White Beam Moving From East to West Has Been Reported Three Times

THREE observations of a mysterious beam sweeping across the heavens from east to west, like a celestial searchlight, and probably some form of aurora, or northern lights, have come to the attention of the Harvard College Observatory at Cambridge, Mass. J. L. Dunham reported seeing the phenomenon during August, having observed it from a camp near Greensboro, in northern Vermont.

According to Mr. Dunham, it stretched from the eastern horizon to the western, passing close to the zenith, the point directly overhead. It was about a degree wide, he said, and in about 15 minutes moved a little to the south. He observed it from 9.55 to 10.12, when clouds interfered, and by 10.45, when it cleared, the band of light had disappeared. It was sharply defined, he said, and bright enough to obscure all but the brightest stars behind it. It was not colored, like a rainbow, but appeared bluish white, like the ordinary aurora.

Confirmation of Mr. Dunham's observation is contained in a report to *Science* by Dr. Charles F. Brooks, professor of meteorology at Clark University. Dr. Brooks at the time was near Littleton, N. H., about 27 miles to the east and 15 miles to the south of Mr. Dunham. He saw it at 9.50 the same evening until 10.15. When he first saw it, it extended from east to west, directly overhead, but he states that it slowly moved south, at a speed of about 10 degrees in 10 minutes.

"During the last ten minutes," he said, "the beam was distinctly south of the zenith and during the last five faded rapidly and broadened till it was scarcely noticeable." At this time he found it to be about five degrees wide.

Dr. Brooks also said that he had noticed a beam of the same sort several years ago from Silver Lake, N. H. Another similar beam was seen from Cambridge on the night of August 6, at 1.50 A. M., by L. E. Cunningham and E. M. Lindsay. They also reported that the beam was similar to a searchlight, passed directly overhead from east to west and

had sharply defined edges. They estimated its width at about three degrees.

Whatever the beam was, it was probably very high, for both Dr. Brooks and Mr. Dunham saw it practically overhead, even though one was about fifteen miles farther north than the other. Dr. Brooks suggests that it may have been an auroral arch of the ordinary kind, which lost its arch-like appearance when directly overhead and one looked up inside it. Both Dr. Brooks and Mr. Dunham reported seeing other displays of northern lights the same night. Mr. Cunningham also noticed a number of meteors the same night that he saw the effect, but these were probably merely adventitious.

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GEOLOGY

Mammoth Beryl Crystal Added to Famous Collection

A MAMMOTH crystal of beryl, weighing approximately 1,000 pounds, has been presented to the Field

MINING

U. S. Radium May Compete With Foreign Product

IT WOULD be possible for the U. S. Bureau of Mines to manufacture one gram of radium from vanadium-uranium-radium ores in Colorado and Utah, at a cost comparable to the price for which radium can be purchased from the Belgian Congo.

Dr. G. F. Loughlin of the Geological Survey has made a survey of the mines in these states and has reported to the House Committee on Mines and Mining. This committee expects to have a hearing on a bill introduced by Representative Clyde Kelly of Pennsylvania,



A HUGE EMERALD

Might have been formed had this great crystal of beryl received slightly different treatment during age-long geological processes.

Museum of Natural History, Chicago, by William J. Chalmers, a trustee of the institution. It is three feet two inches long and has a diameter of two feet at the base, the widest part. It was discovered in a quarry at Albany, Me.

The crystal will be the largest specimen in the famous Chalmers crystal collection of the museum, and is a striking illustration of the size to which crystals may grow.

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which directs the Bureau of Mines to produce one gram of radium from domestic sources for use in government hospitals.

Representative Kelly is in favor of increasing this to three or four grams.

In the mines in question, uranium used to be the product sought, but the ores are worked chiefly today for vanadium. Uranium and radium could be extracted from the vanadium ores as by-products, so that the chief cost of mining and exploration could be borne by the vanadium production. Dr.