

GLAZE; "GLAZED ROADS"; "AMMIL."

The "Observer's Handbook" of the Meteorological Office of Great Britain applies the name "glazed frost" to the smooth coating of ice formed by rain freezing as it falls. This is the English equivalent for the French "verglas," the German "Glatteis"; and in 1916 the United States Weather Bureau, after discussing various known usages, adopted the name "glaze" for the phenomenon. (This REVIEW, May, 1916, 44:286.) The word "glaze" was chosen finally on the basis of its use in this precise sense by Morse in 1796.

It is interesting to read in the (Gr. Br.) Meteorological Office Circular No. 9, January 29, 1917, the following suggestion:

GLAZED ROADS.

In the Observer's Handbook the term "Glazed frost" is used to describe the smooth coating of ice which is formed by rain freezing as it falls, and no special name is given to the state of things which exists when frost sets in suddenly after a partial thaw¹ of snow. It is desirable that the circumstances, which are of importance owing to the danger to traffic, should not pass unrecorded. The term "glazed roads" has been suggested as indicating the state of the roads without reference to the precise cause.

The Meteorological Office seems here tacitly to recognize some advantage in the American proposal; but the "glazed roads" seem to be quite adequately covered by the comprehensive American term "ice storm" which, to an American, at once suggests not only ice-loaded wires and trees but roads and walks rendered impassable by "glaze."

"AMMIL."

Related to these frozen hydrometeors is the phenomenon known in Dartmoor as "ammil." The issue of the Meteorological Office Circular, January 29, 1917, cited above, contains the following communication from Rev. H. H. Breton:

This is not the glazed frost [glaze] you are accustomed to, but due to damp air which deposits a lot of moisture on the frozen objects. All Dartmoor folk call it "the Ammil," probably derived from "enamel." Slight ammil is not uncommon on Dartmoor; good displays are rare.

The following from Wright's English Dialect Dictionary, Vol. I (Oxford University Press, London [1898]), is here pertinent:

Ammil (a pronounced as in bat). A kind of hoarfrost. Devonshire. There is one peculiar atmospheric phenomenon seen upon Dartmoor which is of rare occurrence, . . . known to the moorfolk as the "ammil." . . . Under certain conditions a body of thin, transparent ice incloses every tree, twig, leaf, or blade of grass.—*P'age*, Explorations in Dartmoor, 1889, v. 1.

Do look; the trees be looking beautiful this morning. Looks as if they was covered with diamonds.—*Hewett*, Peasant Sp. 1892.

The exact conditions of formation of "ammil" are not altogether cleared up by these last two quotations. Certainly the descriptions and the definition quoted from Wright seem to place "ammil" with Glatteis (glaze); but the present explicit statement by Breton that "ammil" is not the "glaze" we are accustomed to, and the manner of its formation as stated by him, induce the writer to believe that it resembles the delicate deposit described by Friederich Ratzel² in 1889, viz, a very fine-grained botryoidal deposit forming on glacier ice, on stones, and ledges in the higher Alps during cool, clear nights leading to mornings with sunrise temperatures of 2° or 3°C. Hellman³ seemed inclined to group the deposit described by Ratzel under a kind of "frostbeschlag."

FROZEN DEW.

The director of the Chilean Meteorological Service, W. Knoche, described in 1911 a phenomenon of Chile not altogether unrelated to these two forms. He remarks⁴ that during June, July, and August (i. e., rainy season) the evening hours often bring a rapid rise in the relative humidity to a degree higher than 90 per cent, as a result of the rapid fall in temperature after sunset and particularly on days of cloudless skies. There results a very heavy deposition of dew which is converted into ice as the radiation of heat increases. This deposit of frozen dew (called "helada" at Santiago, Chile) still covers the ground at 9 a. m. to an extent that makes it quite possible to lose one's footing; it forms icicles as much as 1 cm. in length on exposed thermometers and has been known to contribute to the interruption of anemometers.—C. A. jr.

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GREAT THUNDERSTORM OF AUGUST 1, 1917, IN TRINITY COUNTY, CAL.

The Weaverville, Cal., correspondent of the Humboldt Standard, Eureka, Cal., writes as follows in the issue for September 27, 1917:

WEAVERVILLE, CAL., September 27, 1917.

The first day of August will long be remembered by residents of a part of Trinity County as the day of the most severe electrical storm ever known here. Old-timers compare it with the terrible lightning of the Eastern States. The Forest Service, however, had the greatest occasion to remember this storm, as for almost the whole month one-half of its force was engaged in fighting the many fires resulting from this one storm. The fact that no rain accompanied the electrical display and that the entire country was in the most inflammable state known because of the great shortage in rainfall, explains the multitude of trees which took fire immediately on being struck. No one will ever know just how many fires were started, but 80 were reported. Undoubtedly not all the fires that ensued were seen. Lookout Hoffman, on Hayfork Bally, states that on Chapparral Mountain and on Eltapome Creek, on an area of approximately 5 miles square, the lightning struck 150 times. Although Mr. Hoffman has witnessed the fierce tropical storms in South America, he says that the Trinity County storm beats them all. Lookout Higgins, on Ironsides, says that to him the country looked like one vast Christmas tree as various trees blazed into light on being struck. From McDonald's home at Burnt ranch, which has a comparatively restricted view, eight fires were counted. From Willow Creek to the Lassic Peaks all observers unite in stating that from 7 to 12 o'clock the heavens were ablaze with one big light, so continuous and intense as to create the impression that the universe was being lighted by one all-powerful and wide-reaching electric light.

Mr. James Jones, Weather Bureau observer at Eureka, Cal., who has submitted the above clipping, writes that this was undoubtedly a remarkable thunderstorm.

Thunderstorms in this vicinity are rare, especially during the summer months, and those that do occur are usually of slight intensity and short duration.

This storm apparently covered an area at least 30 miles square and was active for at least five hours. It extended as far west as Eureka, where lightning was observed from 8 p. m. to midnight and where 0.02 inch of rain occurred between 11 p. m. and midnight. The lightning, as observed here, was the most prolonged and vivid within the recollection of any living man.

Coming, as this great storm did, after the driest Spring and Summer ever known in this section, it seems probable that the published reports of fire damage resulting from the lightning are not exaggerated.

The regions referred to in the article are comparatively inaccessible, and full details have just become available [Sept. 28, 1917], though every person coming out of the mountains since the first part of August has brought tales of the great "electric storm."

¹ French "verglas de neige"; American "snow-formed glaze."—C. A. jr.
² Letter from Ratzel to the "Briefkasten" in Das Wetter, Braunschweig, 1899, 6: 218.
³ Hellman: Classification of the hydrometeors. MONTHLY WEATHER REVIEW, July, 1916, 44: 386, column 2.

⁴ Knoche, W. Glatteisbildung. Meteorol. Ztschr., Feb., 1911, 28: 93.