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? WHY THE WEATHER ? Mailed January 4, 1933

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ARCHDEACON STUCK'S THERMOMETER

The historic thermometer that the late Archdeacon Stuck, as related in his book "The Ascent of Denali," cached on Parker Pass, 15,000 feet above sea level, when he climbed Mount McKinley, in Alaska, in the summer of 1913, and that was found last May by Messrs. Lindley, Liek, Strom and Pearson, has lately been tested in Washington by the U.S. Weather Bureau and found to be an excellent instrument. It is an alcohol thermometer of the type commonly employed for registering the lowest temperature that occurs after its index is once set and the instrument is placed where the measurement is to be made, but it is graduated down to 93 degrees Fahrenheit below zero, which is much lower than usual in such instruments. Such a thermometer is exposed in a horizontal position, and this one was enclosed in a small wooden box to shelter it from sunshine and breakage. As the liquid shrinks with falling temperature, a little index rod is carried toward the bulb and is left at a point corresponding to the lowest temperature reached.

When the instrument was recovered last spring, the index was not only considerably beyond the lowest graduation of the scale but was projecting into the bulb, in such a position that it could go no farther. On the face of it, this position denotes a minimum temperature, some time during the 19 years the thermometer lay on the mountain, of at least 100 degrees below zero and perhaps several degrees lower.

Meteorologists believe that such a temperature is not impossible in winter 15,000 feet up the slope of an Alaskan mountain, but the evidence of its actual occurrence furnished by the thermometer is by no means conclusive. Wind-jarring often causes such thermometers to read too low, and another common source of error is the transfer of part of the alcohol to the upper end of the tube by a process of evaporation and recondensation.

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