A Science Service Feature

Released on receipt
but intended for use
Oct. 8, 1926

? WHY THE WEATHER ?

Mailed October 1, 1926

By Dr. Charles F. Brooks
of Clark University

CLIMBING WITH A PSYCHROMETER

A paychrometer, or combination of dry and wet bulb thermometers, may seem superfluous mountain equipment, but it may make interesting the various phases of heat or cold discomfort sure to beset a climber. The dry bulb thermometer will give you some idea of the temperature you feel so long as you are dry; the wet bulb indicates how much cooler you may be in clothing wet by perspiration. The difference between the dry and wet bulb temperatures is also a direct indicator of the rate of evaporation, and indirectly of the humidity and dewpoint.

The type of information immediately obtained from a psychrometer on a mountain climb may be illustrated by data obtained on Mount Washington one clear quiet day last month. At the base in Pinkham Notch and through the woods up to 3600 feet the morning air temperatures were 54 to 55 and the wet bulb temperature 51. Over the ridges at 5500 to 5800 feet the air felt cooler even though of the same temperature 56 to 58, as on the open slopes below. The wet bulb had fallen to 51 and 49. At the summit, nearly 6300 feet above sea-level, the air was still 57 to 58, but the wet bulb had declined to 39 to 43, indicating very much drier air. The peak air and that over the ridges was of distinctly different character. In one observation towards sunset, a whiff of damp air up from the ridges sent the air temperature down from 58 to 55, but the wet bulb temperature up from 43.5 to 49 at the same instant.

SCIENCE SERVICE,
21st and B Sts.,
Washington, D. C.