

A Science Service Feature

Released upon receipt
but intended for use
December 16, 1931

? WHY THE WEATHER ?

Mailed December 9, 1931

By Charles Fitzhugh Talman,
Authority on Meteorology.

TESTING "ATMOSPHERIC COMFORT"

The study of the atmosphere in its relations to human comfort and health has been much to the fore in recent years and has produced a voluminous literature. A summary of current views on the subject, together with a useful bibliography, is given by Prof. C. P. Yaglou, of Harvard, in the "Report to the Committee on Growth and Development, White House Conference on Child Health and Protection." Concerning methods of testing atmospheric conditions the writer says:

"No single instrument has yet been devised to indicate accurately the suitability of the thermal environment for comfort and health. Two arbitrary methods are used at present for measuring approximately atmospheric conditions and their probable effects on people; viz, the katathermometer method and the effective temperature method. The katathermometer is a physical instrument and it is used extensively in Great Britain. The American standard is the effective temperature index. This is a relative index of the degree of warmth or cold felt in response to temperature, humidity and air movement. It combines these three factors into a single value, which is fairly well correlated with physiological responses to heat and cold. An atmospheric condition is said to have an effective temperature of 65 Fahrenheit, for instance, when it induces a sensation of warmth like that experienced in a saturated atmosphere of 65 Fahrenheit in still air."

Charts have been published for obtaining the effective temperature from any combination of figures representing the current air temperature, humidity and air movement. Experiments show, says the same authority, that men can produce twice as much work at an effective temperature of 70 as they can at one of 93.

(All rights reserved by Science Service, Inc.)

SCIENCE SERVICE
21st and Constitution Ave.
Washington, D. C.