

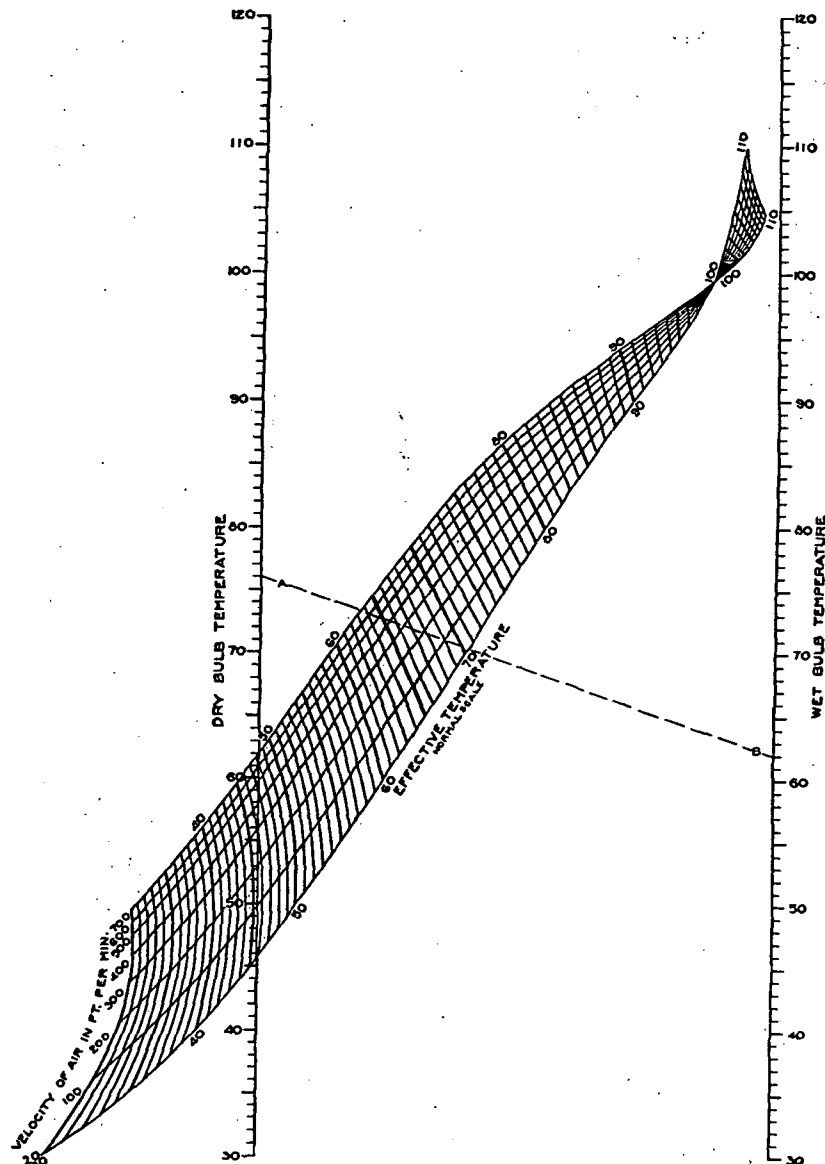


FIG. 8. EFFECTIVE TEMPERATURE CHART SHOWING NORMAL SCALE OF EFFECTIVE TEMPERATURE. APPLICABLE TO INHABITANTS OF THE UNITED STATES UNDER FOLLOWING CONDITIONS:

A. Clothing: Customary indoor clothing. B. Activity: Sedentary or light muscular work. C. Heating Methods: Convection type, i.e. warm air, direct steam or hot water radiators, plenum systems.

of warmth, the temperature in the experimental room should be increased to 74 F. The reverse would hold in rooms with high wall surface temperature; a lower air temperature would be required to compensate for positive radiations to the occupants.

In Fig. 6 is shown the A.S.H.V.E. winter comfort zone which was determined experimentally with large groups of men and women subjects wearing customary indoor winter clothing<sup>30,31</sup>. The extreme comfort zone includes conditions between 60 and 74 deg ET in which one or more of the experimental subjects was comfortable. The average comfort zone includes conditions between 63 and 71 deg ET conducive to comfort

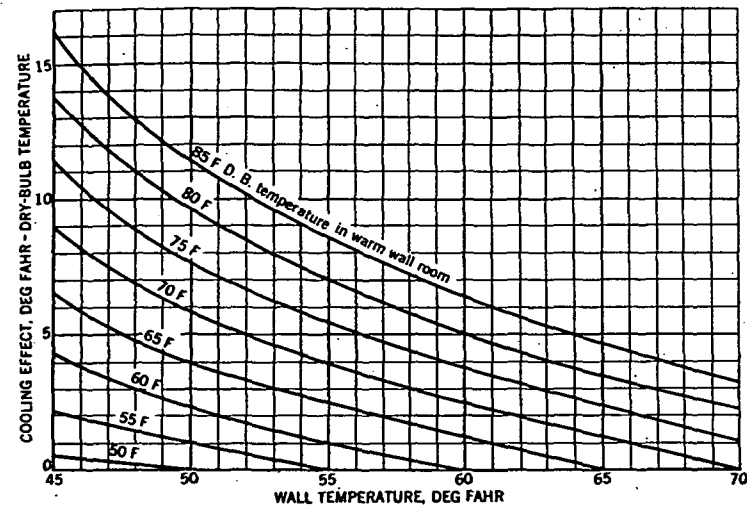


FIG. 9. COOLING EFFECT OF THREE COLD WALLS IN A SMALL EXPERIMENTAL ROOM, AS DETERMINED BY COMPARISON WITH SENSATIONS IN A ROOM OF UNIFORM WALL AND AIR TEMPERATURE

in 50 per cent or more of the experimental subjects. The most popular effective temperature was found to be 66 deg, and was adopted by the Society<sup>32</sup> as the *winter comfort* line for individuals at rest wearing customary winter clothing.

The comfort line separates the cool air conditions to its left from the warm air conditions to its right. Under the air conditions existing along or defined by the comfort line, the body is able to maintain thermal equilibrium with its environment with the least conscious sensation to the individual, or with the minimum physiologic demand on the heat regulating mechanism.

The average winter comfort line (66 deg ET) applies to average American men and women living inside the broad geographic belt across the

<sup>30</sup>Loc. Cit. Note 25.

<sup>31</sup>The Summer Comfort Zone; Climate and Clothing, by C. P. Yaglou and Philip Drinker. (A.S.H.V.E. TRANSACTIONS, Vol. 35, 1929, p. 269).

<sup>32</sup>How to Use the Effective Temperature Index and Comfort Charts (A.S.H.V.E. TRANSACTIONS, Vol. 38, 1932, p. 410).