

combinations of temperatures and humidities, which produce the same total body heat loss by radiation, convection, and evaporation and therefore the same feeling of comfort or discomfort. Lines passing through such air conditions plotted as a psychrometric chart may be called equal

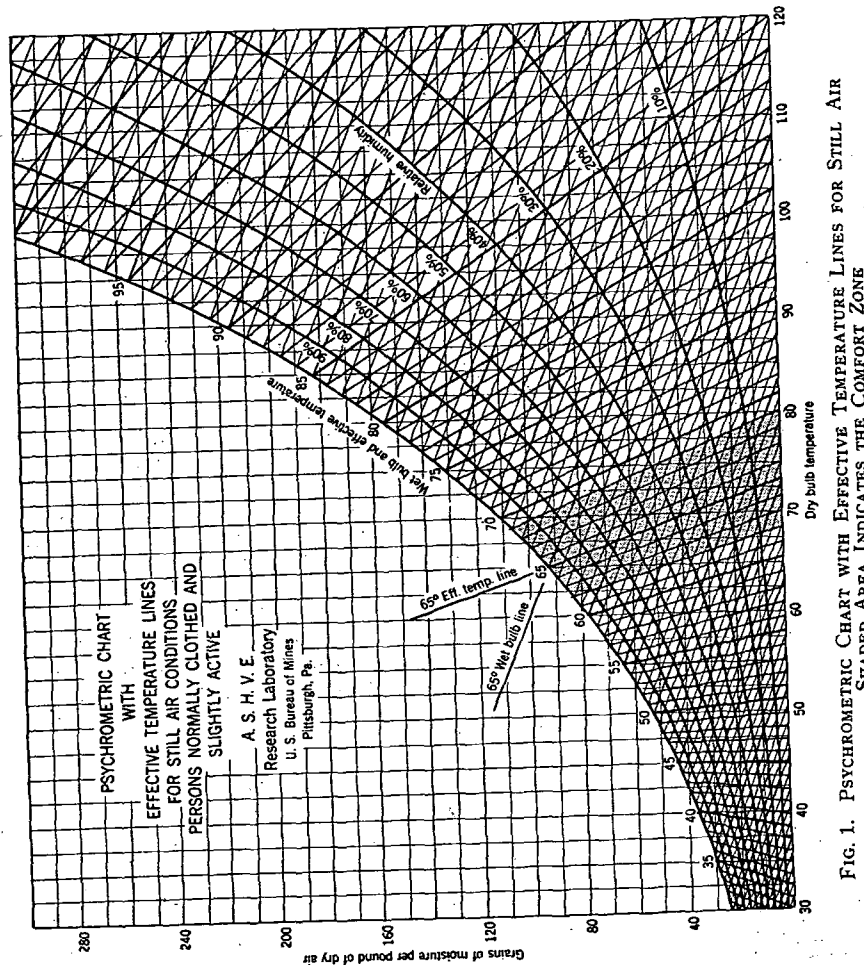


FIG. 1. PSYCHROMETRIC CHART WITH EFFECTIVE TEMPERATURE LINES FOR STILL AIR. SHADED AREA INDICATES THE COMFORT ZONE

comfort lines. The fact is further substantiated by the general experience of heating engineers in observing that the lower the humidity the higher the dry bulb temperature required for the same degree of comfort.

A series of tests have been made in the two psychrometric rooms of the Research Laboratory of the AMERICAN SOCIETY OF HEATING AND

VENTILATING ENGINEERS, in order to locate these lines on the psychrometric chart. Complete reports of these studies for both still and moving air are reported in the Society's TRANSACTIONS, Vol. 27-32 inclusive, and in the JOURNALS for 1926 and 1928.

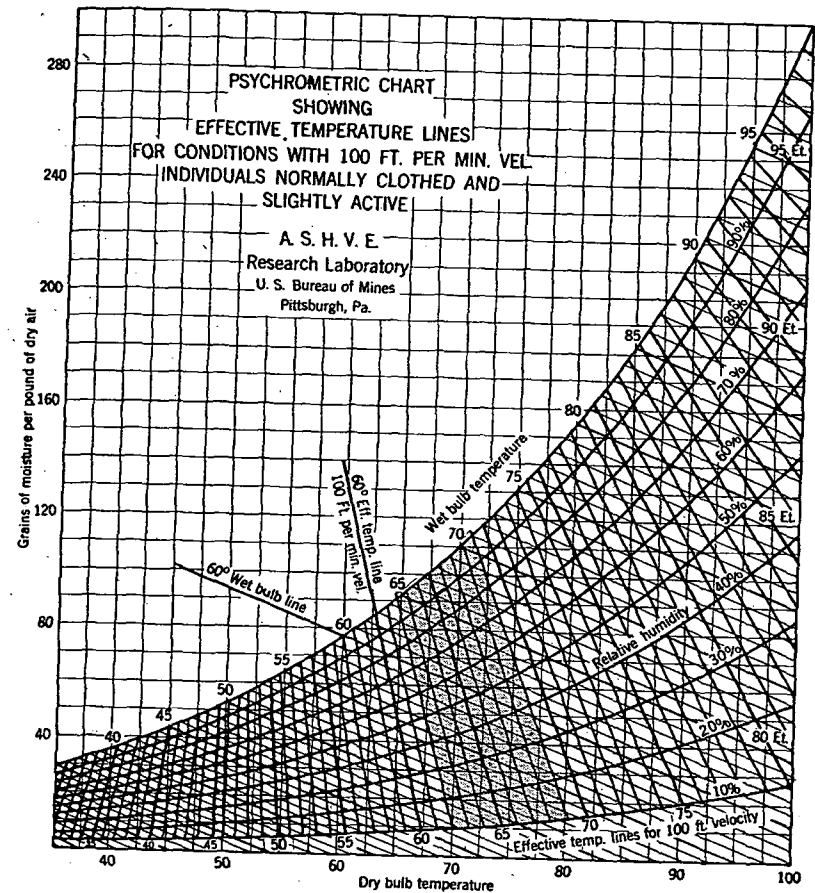


FIG. 2. PSYCHROMETRIC CHART WITH EFFECTIVE TEMPERATURE LINES FOR 100 FT. AIR VELOCITY. SHADED AREA INDICATES THE COMFORT ZONE

The relation of temperature and humidity to comfort for persons normally clothed and at rest in still air, is given in Fig. 1, while the effect of air motion upon comfort or effective temperature for persons normally clothed is given in Figs. 2, 3 and 4.