equal 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, both for still and moving air and the detailed data obtained is to be found in the Society's TRANSACTIONS, Vol. 27-32 inclusive, and in the JOURNALS for 1926 and 1927.

The relation of temperature and humidity to comfort, in still air, for persons normally clothed, is given in Fig. 1 while the effect of air motion upon comfort or effective temperatures for persons normally clothed are given in the Tables 1 to 7, which cover still and various moving air conditions.

HOW TO USE THE COMFORT CHART AND TABLES

In the Psychrometric Chart, dry bulb temperature is plotted as abscissae and grains of moisture per pound of dry air as ordinates. The maximum moisture which the air can hold at any temperature gives the saturation or 100 per cent relative humidity curve. Relative humidities between 0 and 100 per cent are given by a series of curved lines similar to the saturation curve. The wet bulb temperatures for all atmospheric conditions are given by a series of nearly parallel oblique lines. Effective temperature is given by a series of oblique but not parallel lines which approach being parallel to the wet bulb lines at high temperatures and humidities, and dry bulb lines at low temperatures. The numerical value of the wet and effective temperature lines is given by the dry bulb temperature of their intersection with the saturation curve.

Dry bulb temperature is the true temperature of the air as determined by an ordinary thermometer. It does not, however, accurately indicate a person's feeling of warmth. If the humidity is high a person will feel warmer at the same dry bulb temperature than he will if the humidity is low.

Wet bulb temperature is not the temperature of the air but that which a thoroughly wet body will attain if the air passes over it for a sufficient length of time and with a high enough velocity. A person is not thoroughly wet and hence does not react entirely in accordance with the wet bulb temperature. At high temperatures when the body is wet with perspiration, it reacts more nearly to wet bulb temperature while at low temperatures the body is comparatively dry and reacts more nearly in accordance with the dry bulb temperature.

Effective temperature is an experimentally determined scale which unlike the dry bulb and wet bulb scales is a true measure or index of a person's feeling of warmth in all combinations of temperature and humidity. In other words with any given effective temperature a person will feel the same degree of warmth or coldness regardless of the dry bulb or wet bulb temperature.