

the column above. The reading of the upper extremity of the column will then be the maximum temperature that has occurred during the interval which commenced with the time of setting and ended with the time of reading.

To set the instrument, which should be done as soon as it has been read, it is to be held by the upper end with the bulb down, and swung gently, or jerked in the direction of its length, till the continuity of the column has been restored. Care must be taken to raise the temperature of the thermometer as little as possible by the heat of the hand, as the thermometer will continue to indicate the temperature thus acquired, until its temperature has been exceeded by the increasing temperature of the air. If the temperature of the air should not attain to the temperature thus artificially given, the instrument will obviously give a false maximum which is higher than the true one.

The maximum thermometer should be suspended in a nearly horizontal position, but with the bulb end slightly depressed to prevent the mercury from sliding towards the further end of the tube, which might happen if that end were lower than the contracted part of the tube.

(79) Self-Registering Minimum Thermometer.—A minimum thermometer is designed to shew the lowest temperature that has occurred within a given interval of time.

The minimum thermometer commonly used is a spirit thermometer, containing in the tube a small index, which consists of two minute spheres connected by a fine short stem, and which slides within the body of the spirit, by which it should be always perfectly enveloped. The thermometer is suspended in a horizontal position.

When the column is unbroken, and the end of the index furthest from the bulb (and which may be called the upper end of the index) coincides with the end of the column of spirit, the index is said to be *set*. If the temperature becomes lower the column contracts and draws the index with it, the upper end of the index still coinciding with the end of the column. If the temperature afterwards becomes higher, the index will remain stationary, and the spirit will expand beyond it. The upper end of the index will then shew the lowest temperature that has occurred since the index was set.

To set the index, the bulb should be raised and the index allowed to slide to the upper end of the column, the motion being aided, if necessary, by gently tapping the tube.