

The "minimum" is usually an alcohol thermometer in which is a small float to serve as an index. The alcohol, by contraction, pushes the float with it, but on expansion it passes it, leaving it stationary, thus indicating the lowest temperature reached in the 24 hours. I always set my thermometers at 9 p.m. I consider both "maximum" and "minimum" to be of vital importance to meteorology, as well as indicating the mortality of man. For it is recorded that there are more deaths and more persons sick when these instruments have wide divergence.

Barometers are of various manufacture, and vary with the maker. The one having a mercurial column and cistern is, perhaps, the instrument in most general use. The bore should be uniform throughout, and the tube should be made from well seasoned glass, for glass, when first made, is liable to a system of shrinkage and twisting very much like unseasoned wood. The bore should not be less than one-quarter of an inch in diameter, and the mercury should be pure and boiled in the tube to expel air bubbles. A very good and serviceable instrument can be made at very little expense. Obtain a barometer tube with a slight elbow at bottom to serve as a cistern, fill it with pure mercury, place a cork at the short end, and your instrument is made. Fasten it securely to a board, with a slight chamber to receive the column and the cistern below. This cistern should be covered by a thin hinged cap. Take it to some friend having a standard and mark the height of the mercurial column, with similar markings as are on the standard. A neat dollar clock might be placed at the head of the column to give it a finish.

Of course, you can buy one if you prefer it. There are some splendid instruments manufactured, costing upwards of \$200, but, for all ordinary purposes, the one described would answer and would not cost more than five dollars, perhaps less, if you can fill the tube and fit it to the board. The barometers I use are aneroids, I prefer them to mercurial, as they are much more sensitive, but much more liable to get out of order.

Now, as regards the method of using a barometer. The instrument should be hung where it can be easily read in a room of as even temperature as possible. To it should be attached a thermometer, to enable you to ascertain the temperature of the column at the time you record its readings. My records are kept thus:—

Date.	Ther.	Bar.	Attached Ther.
26	80	29.56	74.10

These records should also be kept at fixed hours, 7 a. m. and 9 p. m. being very good hours for the purpose.

The barometer always falls suddenly before a storm, especially if strong wind accompanies it. A slowly falling column, especially after a heated term, indicates a long period of wet weather should the column remain stationary. A rapidly rising column, an unsettled state, especially if, after reaching its maximum, it afterwards commences falling.

These instruments I have tried to describe, meteorologists consider the main ones to a study of meteorology. With the records that can be made with them, with intelligent and judicious use, combined with observations of the winds, clouds, auroras, and other electrical phenomena, there must, in the very near future, be opened up to our race a thorough knowledge of the vast scheme of which meteorology is but a minor part.