

CENTRAL PACIFIC RAILROAD.

METEOROLOGICAL OBSERVATIONS.

Instructions for Setting Up and Reading the Rain Guages.

The Rain Gauge is composed of two cylinders of brass, of different diameters, screwed together, one cylinder of wood, a guage stick and a scale of metal.

Place the cylindrical piece of wood in the ground, in a vertical position, leaving about four inches above, and in this insert the guage.

The place chosen for the Rain Gauge should be at least 100 feet from any building, so that the currents of air may not carry into it more or less rain than the actual fall.

The top of an isolated post is not objectionable, nor the top of a house, where an eddy of wind will not be formed.

The Guage Stick and Scale should be kept dry.

In measuring the rain fall, insert the Guage Stick carefully, touching the bottom, and measure the wetted portion with the Scale.

The numbers on the Scale stand for or represent tenths and the smaller divisions hundredths of an inch.

Should the water rise above the top of the smaller cylinder, pour the surplus into a vessel and measure the remaining portion, after which throw out the measured water, and pour the water from the vessel holding the surplus, and measure it also; repeating the operation until it is all measured.

When snow falls, measure carefully each day, with an ordinary carpenter's rule, the amount fallen during the day, and enter it in its appropriate column.

Be careful to select a place where the snow has not drifted.

If the snow melts as it falls, the Guage will show the amount of water, which you will enter in your book as rain fall, making a side note stating that fact.

Instructions for Setting Up and Observing the Thermometer.

The Instrument should be suspended in the center of a small box, having apertures in its sides to admit the air freely, which should be placed where it will not be subjected to the direct or reflected rays of the sun at any hour of the day.

An awning or porch, on the north side of a building, affords the most suitable location for the thermometer, and it should be so placed as not to be affected by currents of warm air issuing from a door or window.

The observations **MUST BE** made regularly and promptly at the hours indicated in the Record Book, and the temperature entered in the book at the time. Any variation in the time of observing should be noted in the proper column.

Observations of the direction and force of the wind (especially in stormy weather) should be made frequently during the day, and any sudden changes noted.

The value of these observations depends upon the regularity and care with which they are taken, and it is expected that all Agents, or others, to whom they are entrusted, will attend to them promptly.

All entries in the Record Book should be made with ink.

At the end of each month, copy carefully on the blanks furnished herewith, the records of all observations made during the month, and send the same to the Chief Engineer's Office, Sacramento.

NOTE.—Paste this inside the cover of Record Book.