presented below. The two Parts have been combined in a reprint that may be obtained by applying to the Meteorological Division, Department of Transport, Toronto, Ont.

Explanation of the Tables.—The thirty-five meteorological stations for which data are listed are mostly well-known or populous places with climates fairly representative of a considerable area. Under Temperature "Average Daily" refers to figures derived during the period of observation (in most cases 50 years) by adding together the mean temperatures for all the days of the period and striking the average. The average high and low daily temperatures are obtained in the same way. The average high and low extremes are struck from the extreme high and low temperatures for 50 Januaries. Under "Record High and Low" are shown the temperature that is above and the temperature that is below all others for the 50-year period.

Under Precipitation "Rain, Inches" shows the total depth of water accumulated on a hypothetical horizontal impervious surface without evaporation, one inch of rainfall representing approximately 113 short tons of water per acre. Similarly, the depth of snow given is that which falls on a horizontal surface, without settling, melting or sublimation but with its density as determined immediately after each snowfall.

Since it has been shown that the depth of water obtained from melting newly-fallen snow is roughly one-tenth of the depth of the snow, the total precipitation for any month is obtained by adding together the total rainfall and one-tenth of the depth of newly-fallen snow. A day with rain is, for the purpose of these tables, one on which 1/100 of an inch or more has fallen and a day with snow is one with at least 1/10 of an inch of newly-fallen snow.

Under Heating Factor the "Day Degrees" represent, for a given month, the sum of the deficits of outside temperature which have to be made up by fuel consumption to raise the inside temperature of a building to a constant 65°F. level. The totals measure, approximately, the difficulty of maintaining a given temperature in various parts of Canada.

The average number of days in each month when "Thunder" has been heard at least once in twenty-four hours is listed.

The number of Hours of Bright Sunshine is determined by a Campbell-Stokes recorder—a spherical lens exposed to the sky, which focuses the sun's rays to a burning-point. Sometimes a veil of cloud weakens the trace on the recording paper but the length of these traces is recorded as bright sunshine. On the other hand, the recorder does not function well until the whole disc of the sun is visible above the horizon: the day's recorded total, therefore, tends to be diminished by a slight amount of sunshine at sunrise and sunset.

Whenever the temperature four feet above the ground falls to 32°F. or lower, the day is counted as a day with "Frost". The average date of the last spring frost and of the first frost in the autumn, appended in footnotes, approximates the average period *continuously* free from frost.

"Humidity" is given for a height of approximately four feet above the ground. The weight of the water-vapour mixed with one thousand parts by weight of absolutely dry air is given under the heading "Water-vapour" and is an average for each month determined from several years of daily observations. For every temperature there is a maximum amount of water-vapour that can exist in a given volume of air. When the temperature falls to where the water-vapour becomes visible, the temperature is said to have reached the *dew-point*, the air is saturated and the relative humidity is 100 p.c. The relative humidity is ordinarily least in the early afternoon and greatest about dawn.