

pared at the Canadian Central Office before they are issued, and should be compared afterwards from time to time to provide against the changes to which they may be subsequently liable.

When the true temperature of a thermometer is higher than the reading, the correction is marked + (plus); and if the true temperature is lower than the reading, the correction is marked — (minus).

The rule for applying index corrections, which covers all cases, is the following :

If the reading of the thermometer and the index correction have the *same* sign*, either both + or both —, *add* the two together, and the corrected reading will be the sum with the common sign.

If the reading and the index correction have *contrary* signs, one being + and the other —, subtract the smaller number of the two from the greater, and the corrected reading will be the difference obtained by the subtraction, with the same sign as that of the greater.

Examples :

Observed thermometer readings	+	50°.4	—	10°.3	46°.6	—	12°.5	0°.8	—	1°.2
Index corrections		+ 1°.2	—	0°.5	—	0°.8	+ 1°.0	—	1°.4	+ 2°.0
Corrected thermometer readings	..	51°.6	—	10°.8	45°.8	—	11°.5	—	0°.6	0°.8

Index correction papers are made up for temperatures at longer or shorter intervals, according as the change in the correction, in proceeding from temperature to temperature, is slow or fast. If the index corrections for two temperatures consecutively placed in the table should differ by more than 0°.1, the correction for any intermediate temperature must be made by estimation. If the thermometer reading should lie between two temperatures for which the index corrections only differ 0°.1, that correction must be used which corresponds to the temperature in the table which is nearest to the thermometer reading.

Sundry Properties of Bodies with Respect to Heat.

(67) Expansion or Dilatation.—It is for the most part true, although not true universally, that when the temperature of a body increases, it expands, or its dimensions increase; when its temperature decreases, its dimensions also decrease; and when it returns to its former temperature, it returns also to its original dimensions.

* The reading is understood to be above zero, and to have the sign +, unless otherwise stated. It is not the practice to prefix the positive or plus sign (+) to a thermometer reading.

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