1844.

LOVELL & GIBSON'S
CANADA ALMANAC.

Explanation of the Calendar Pages.

PAGE I.—(EACH MONTH).

AT the head of these pages are given the true *mean times* of the southing of each of the six visible Planets, together with their corresponding North or South declinations, respectively.

The first three vertical columns (in each of the pages) it is presumed, need no explanation.

The fourth and fifth columns contain the Sun's declination and semidiameter for the *apparent* noon of each day at Montreal, the quantities in the fifth column being given to the nearest *tenth* of a second for the convenience of such as may require them in reducing Astronomical observations of the Sun.

The sixth column contains the Equation of time, also adapted to the instant of apparent noon at Montreal, and calculated to the nearest second of time.

The *mean time* of the Sun's southing is readily found by *adding* the amount of this Equation, when it is marked "*slow*," to 12h 0m 0s, or by *subtracting* it from the same when it is marked "*fast*."

For example :—On the 16th day of January the Equation of time is 9m 57s *slow*. This added to 12h 0m 0s gives 12h 9m 57s for the time of the Sun's southing on that day. Again, on the 27th day of October the Equation of time is 16m 3s *fast*, which being *subtracted* from 12h 0m 0s will leave 11h 43m 57s for the time of the Sun's southing on that day; and the times so found are those which should be shewn by a good clock or watch adjusted to Mean Solar Time.

The seventh and eighth column shew, to the nearest minute, the mean times of the rising and setting of the Sun. These are the times when the Sun's *first* or *Western* Limb in rising, or his *second* or *Eastern* Limb in setting, will just touch the visible horizon of the place—allowance having been made in the computations for the Sun's semidiameter and the effects of horizontal refraction and parallax.

PAGE II.—(EACH MONTH).

At the head of each page, in addition to the ordinary Tables of the changes and quadratures of the Moon, are Equations for adapting the times of the rising and setting of the Sun, to the latitudes of Kingston and Quebec, at the times of the Sun's entrance into the first and fifteenth degrees of each sign of the Zodiac, and which, by interpolation, can be used for any intervening periods and adjacent parallels of latitude. The variability of the amount of horizontal refraction in different states of the atmosphere, and the general liability to the intervention of terrestrial objects in observations depending on the visible horizon of places on land, render the *actually visible* times of the rising or setting of the heavenly bodies so uncertain that those given in the calendar are only set down to the nearest minute, though cal-

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