

THE CANADIAN ALMANAC, FOR THE YEAR 1863.

Chronological Cycles.

Golden Number.....	2	Dominical Letter	63
Epact	11	Roman Indiction	
Solar Cycle	24	Julian Period	

Epochs.

The year 5624 of the Jewish Era com. Sept. 14th	1863	The 27th of Queen Victoria's Reign beg. June 20th...	18
The year 1280 of the Mahom. Era com. June 18.....	1863	The 88th of the Indep. of the U. S. begins July 4th...	18

Fixed and Moveable Festivals and Anniversaries.

Ash Wednesday	Feb. 18	Birth of Queen Victoria.....	May
St. David	March 1	Whitsunday.....	May
St. Patrick	Mar. 17	Midsummer Day.....	June
Lady Day	Mar. 25	Michaelmas Day.....	Sept.
EASTER SUNDAY	April 6	Birth of Prince of Wales	Nov.
St. George	April 23	St. Andrew	Nov.
Holy Thursday	May 14	CHRISTMAS.....	Dec.

Explanation of the Articles of the Calendar.

These pages are calculated for Toronto and Quebec, and for ordinary purposes will serve with sufficient accuracy for every city in Canada.

MOON'S PHASES.—This Table gives the times for the two meridians when the moon passes the geocentric longitude of 0°, 90°, 180° and 270° east of the sun. It gives also the times of her greatest and least distance from the earth.

TWILIGHT.—In this table are given the times at which twilight begins in the morning and ends in the evening, &c. the times when the sun's centre is 18° below the horizon.

GREATEST ELONGATION OF THE POLE STAR.—This column gives the greatest azimuth of the Pole Star east or west from the meridian as observed at a place in latitude 45°. When the greatest elongation corresponding to any other latitude is required, the number given in the column should be corrected by means of the following table.

Degrees of Latitude.....	42°	43°	44°	45°	46°	47°	48°	49°	50°
1st Correction for Degrees.....	-5' 58"	-4' 5"	-2' 5"	0' 0"	+2' 12"	+4' 32"	+6' 59"	+9' 34"	+12' 11"
2nd Correction for each minute of latitude.....	+ 1.9"	+ 2.0"	+ 2.1"	+ 2.2"	+ 2.3"	+ 2.5"	+ 2.6"	+ 2.7"	

The 1st correction for the degrees of latitude is to be subtracted from the greatest elongation given in the calendar or added to it, according as the degrees of latitude are less or greater than 45°.

The 2nd correction, which is always additive, is found by multiplying the number given in the third line of the table by the number of minutes in the latitude.

Thus for latitude 45° 20'...1st correction = -4' 5" 2nd correction + 2.0 × 20 = + 40"
 " " 47° 40'... " " + 4' 32" " " + 2.5 × 40 = + 1' 40"
 " " 45° 10'... " " + 0' 0" " " + 2.2 × 10 = 0' 22"

THE PLANETS.—The times of rising and setting of the five chief planets are calculated for Toronto, and are corrected for refraction. The times of culmination, although computed for the meridian of Toronto, will serve approximately for the whole of Canada. The meridian zenith distances, being designed merely to aid in finding the planets, have been given only to the nearest tenth of a degree, as seen from the latitude of Toronto.

When the planetary day is shorter than the mean solar day, and commences soon after the midnight of the preceding day, the planet will sometimes arrive a second time on the meridian before the expiration of the actual day. From analogous causes a planet will sometimes rise twice or set twice in the same civil day. When two culminations occur in the same day, or two risings or settings, the times of both are registered.

The times of the SUN'S RISING AND SETTING are given for the upper limb, and are corrected for refraction both at Toronto and Quebec.

The civil times both for the rising and setting of the Moon's centre are given for every day for Toronto and Quebec.

The MOON'S MERIDIAN ZENITH DISTANCES are given to the nearest tenth of a degree for Toronto. They are not corrected for parallax or refraction.

The column SUN ON MERIDIAN gives the time that a watch should shew when the shadow of a sun dial is on the noon mark.

MOON'S AGE.—This column shews to the nearest tenth of a day the Moon's age at Toronto Noon.

The column, MOON ON THE MERIDIAN, gives the mean time at which the moon's centre passes the meridian of Toronto. When in the column headed Moon's rising or setting or Moon on meridian the letters A.M. occur, unaccompanied by any number, they denote that the numbers given for the succeeding days relate to the morning, and those for the preceding days to the afternoon, but that the Moon does not rise or set or cross the meridian (as the case may be) that day.

The column, UPPER TRANSIT OF POLE STAR shews for every day the mean time at which the Pole Star makes its upper transit across the meridian of Toronto. It passes in the morning from April 9 to October 9, and in the afternoon the rest of the year, excepting on October 10, when it does not cross the meridian.

The four last columns, although computed for Toronto, will serve with sufficient accuracy for the whole of Canada. The time at which the lower transit of the Pole Star occurs may be found by adding 11 h. 58 m. 2 s. to the time of the preceding upper transit.

From the time of the upper transit of the pole star may be found the time of its greatest western or eastern elongation, by adding or subtracting the constants given in the annexed Table.

Latitude.....	42°	43°	44°	45°	46°	47°	48°	49°	50°
Constant.....	h m s 5 53 49	5 53 38	5 53 26	5 53 14	5 53 2	5 52 49	5 52 36	5 52 22	5 52

The first constant and the last constant