Maclear & Co.'s AU HILL 1855 FOR THE	<b>Lanadian Almanac,</b> cobie's) <b>126788</b> YEAR 1855.
Dominical Letter 6   Dominical Letter 13   Jewish Letter 16   Lunar Cycle, or Golden Number 16   Jewish Lunar Cycle 10   Jewish Lunar Cycle 10   Solar Cycle 10   Roman Indiction, 11   Solar Cycle 16   Roman Indiction, 13   Julian Period 6568   The year 5610 of the Jewish Era com. Sept. 13 1855   Year of the World (Usher) 5539   Year of the World (Jews) 6615   Year of the World (Jews) 2628   Year of the Fra of Nabonassor 2031   Year of the Fra of Nabonassor 2061   The 12th of He Indep, U. S. begins Juny 20th 1855 The 80th of He Indep, U. S. begins Juny 20th 1855	Septuagesima Sunday
THE SEASONS, 1855.—TORONTO,     Winter Solstice (1854) Dec, 21.   9 43 even,     Vernal Equinox, March 20, 1855   10 51 even,     Summer Solstice, June 21   7 32 even,     Autummal Equinox, September 23   9 43 mor,     Winter Solstice, December 22.   5 41 mor,     Summer Solstice, December 22.   5 41 mor,     Munter Solstice, December 22.   5 41 mor,     Sum in Winter Signs   89 1 8 mor,     MORNING STARS, 1855.   Yenus from Oct, 1st, to July 19th, 1856,     Mars from April 9th, to April 1st, 1856,   Jupiter from Jan. 20th to Aug. 21.     Saturn from June 10 to Dec, 18.   54	THE SEASONS, 1855.—TORONTO,     Sun in Spring Sigus   92 20 41     Sun in Sumuer Signs

## TO THE READER.

SUN'S RISING AND SETTING.—There are two kinds of time used in common Almanacs, for the Sun's Rising as d Setting. One is *Clock* time, and the other is *Apparent* or Sun time. *Clock* time is *always right*, while Sun time varies every day, and is alternately to "Fast" or two "Slow." Hence it is that two almanacs, made by the same calculator, for the same year and place, will give the sun's rising and setting very differently, if a *different* kind of time is used in each. Persons observing this must not think that either is wrong. According to apparent time, the sun will always rise and set at six o'clock, at the time of its crossing the equinoctial; but this is never the case according to Clock time, or *true* time. If the Sun was in the meridian, or at the noon mark, at 12 o'clock every day, then *apparent* time would be true, and the sun would always rise and sot at 6 o'clock, when it was at the equinoxes. People generally suppose it is 12 o'clock when the sun is in mid-heaven, or at the noon mark. In *this* there is a great mistake, for the sun is so irregular, that it does not come to these points at 12 o'clock oftener than four times in a whole year, or about once in overy three months. In *this* almanace we give the time exact to the nearest second, that a correct clock must show, when the sun is in the moridian and shadow at the noou mark, for every day in the year. When the sun is at the noon mark it is *noon*, but not twelve o'clock very often.

This variation of the sun makes a difference between it and all true time-pieces, and produces two kinds b-"Equation of Time," or the difference between clock and sun. Add to apparent time whon Sun is "Slow," and subtract when it is "Fast." Many alimances are calculated in sun or apparent time, for the convortience of these who are accustomed to it. Such alimanaes do not allow for the variation of the sun, lesides this may show the rising an isotiting of the sun's centre, without allowing for the effect of refraction, and are therefore both inconvenient and incorrect according to mean time. Alimanaes in clock time are the best ones, for the give the rising and setting of the sun's upper lind, and duly allow for the effect of refraction, which causes the sun to appear on the horizon a she t time before the has risen, and after he has really set. This almance is in clock time, or mean time.

## TO ASCERTAIN THE LENGTH OF THE DAY AND NIGHT.

At any time of the year, add 12 hours to the time of the San's setting, and from the sum subtract the time of rising, for the length of the day.

Subtract the time of setting from 12 hours, and to the remainder add the time of rising next morning, for the length of the night. These rules are equally true for apparent time.

## EXPLANATION OF THE SIGNS USED IN THIS ALMANAC.

## DIRECTIONS FOR FINDING THE TRUE TIME.

The Sun, as we have stated before, is on the meridian at 12 o'clock on four days only of the year. It is sometimes as much as 16½ minutes before or after twelve when its shadow strikes the neon mark on the sun-dial. On each calendar page of this Almanac is shown the exact time when the sun reaches the meridian, or the shadow the noon mark; and is order to set a clock or watch correctly, it must, when it is noon by the sun dial or noon mark, be set at the time

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