The Star Almanac.

1895.

Being the 59th year of the reign of Queen Victoria and the 29th year of the Confederation of the Provinces into the Dominion of Canada.

Fired and Movable Festivals.

New Year's Day (Tuesday)Jan. 1	Pentecost (Whit Sunday)June 2
Epiphany " 6	Trinity Sunday
Septuagesima Sunday	Corpus Christi
Quinquagesima (Shrove) Sunday	Accession of Queen Victoria
Ash Wednesday " 27	Proclamation " 21
St. David	St. John Baptist (Midsummer Day) " 24
Quadragesima (1st Sunday in Lent) " 3	St. Peter and St. Paul " 29
St. Patrick "17	Dominion Day (Monday)July 1
Annunciation (Lady Day) " 25	Labor Day (Monday)Sept. 2
Palm Sunday April 7	St. Michael (Michaelmas Day),
Good Friday 12	Birth of Prince of WalesNov. 9
Easter Sunday " 14	St. Andrew 44 30
Low Sunday	1st Sunday in AdventDec. 1
St. George " 23	Conception
Rogation Sunday	St. Thomas " 21
Ascension Day (Holy Thursday) " 23	Christmas Day (Wednesday) " 25
Birth of Queen Victoria (Friday) " 21	

Bank Holidays.

New Year's Day; Good Friday; Easter Monday; Queen's Birthday; Dominion Day; LABOR DAY; Christmas Day, In Quebec.—New Year's Day; Epiphany; Ash Wednesday; Annunciation; Good Friday; EASTER MONDAY; Queen's Birthday; Dominion Day; Labor Day; All Saints; Conception; CHRISTMAS DAY

Also, throughout the Dominion, any day appointed by Proclamation for a GENERAL FAST or THANKSGIVING. QUEEN'S BIRTHDAY falls on Friday, DOMINION DAY on Monday and CHRISTMAS DAY on Wedne:-

day, in 1895.

The Pear.

The Tropical Year is the interval between two consecutive returns of the Sun to the Vernal Equinox. If this were a fixed point, the Sidereal and Tropical Years would be identical; but in consequence of the disturbing influence of the moon and planets on the spheroidal figure of the earth, the Equinox has a slow retrograde mean motion of 50′.26 annually, so that the Sun returns to the Equinox sooner every year than he otherwise would be 20 minutes, 23.6 seconds; the Tropical Year, therefore, consists of 365 days, 5 hours, 48 minutes and 46 seconds. The Tropical Year is not of uniform length; it is now slowly decreasing at the rate of .595 seconds per century, but this variation will not always continue. continue.

Julius Cæsar, in B.C. 45, was the first to reform the calendar by ordering that every year whose date number is exactly divisible by 4 contain 366 days, and all other years 365 days. The intercalary day was introduced by counting the *sixth* day before the Kalends of March *twice*; hence the name bis-sextile, from bis, twice, and sex, six. He also changed the beginning of the year from 1st of March to the 1st of January, and also changed the name of the fifth month (Quintilis) to July, after himself. The average length of the Julian year is therefore 365} days, which, however, is too long by 11 minutes and 14 seconds, and this would accumulate in 400 years to about three days. The Julian Calendar continued in use until A p. 1582 when the date of the beginning of the sears one gourged 10 days later than in B.C.

14 seconds, and this would accumulate in 400 years to about three days. The Julian Calendar continued in use until A.D. 1582, when the date of the beginning of the seasons occurred 10 days later than in B.C. 45, when this mode of reckoning time was introduced. The Gregorian Year was introduced by Pope Gregory XIII, with the view of keeping the Equinox to the same day of the month. It consists of 365 days, except for every year exactly divisible by 4, and the centurial years, which are exactly divisible by 400, which contain 366 days. The centurial years not divisible by 400 contain only 365 days. The length of the mean Gregorian year may therefore be set down at 365 days, 5 hours, 49 minutes, 12 seconds. The Gregorian Calendar was introduced into England and her colonies in 1752, at which time the Equinox had retrograded 11 days since the Council of Nice in A.D. 325, when the Festival of Easter was established and the Equinox occurred on March 21; and hence Sutembers 3, 1752, was called Sentember 14, and at the same time the commencement of the legal hence September 3, 1752, was called September 14, and at the same time the commencement's of the legal year was changed from March 25 to January 1, so that the year 1751 lost the months of January and February and the first 24 days of March. The difference between the Julian and the Gregorian Calendars is now 12 days. Russia and the Greek Church still employ the Julian Calendar for civil and ecclesiastical purposes.

Epact.

We call Epact the moon's age at the end of the year, or the number of days by which the last new moon has preceded the beginning of the year. The Epact varies every year, for there are twelve lunations and 11 days. Hence, by adding 11 to the Epact of the preceding, we have the Epact of the present year; bur, if the sum would give more than 30, subtract 30, which is a lunation, from that sum, and the number of days remaining will be the Epact required. Now, the age of the moon at any epoch of the year can be obtained by adding together the Epact and the number of months since the first of January or the first of March, if we are after that date, to the date of the month in which we are. If the sum is more than 30, we subtract 30 from it, and the balance is the moon's age. Suppose we wish to find the age of the moon on the 25th of June, 1895, we would add to 4 the Epact of this year, the number of months passed since the 1st of March = 3, and 25 days in June = 4 + 3 + 25 = 32. Now, in 32, we have a lunation of 30 days, so, if we subtract 30 from 32, we have a balance of 2 and 2 will be on the 25th of June, 1895, the approximate age of the moon.

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