

SMITH'S  
PLANETARY ALMANAC

AND

WEATHER GUIDE.

1886.



CONTAINING A FORECAST OF THE

WEATHER FOR EACH WEEK,

CALCULATED BY THE MOST APPROVED AND RELIABLE METHODS;

LUNAR INFLUENCE ON VEGETATION,

WITH TABLES FOR SOWING ACCORDING TO IT IN ALL LATITUDES,  
COPIOUS ASTRONOMICAL AND METEOROLOGICAL NOTES,  
ETC., ETC.,

—BY—

WALTER H. SMITH,

PRESIDENT OF THE ASTRO-METEOROLOGICAL ASSOCIATION;

AUTHOR OF *Vennor's Almanac*, 1885;

ASTRONOMICAL EDITOR *Huntingdon Advocate*, ETC.

SMITH'S  
PLANETARY ALMANAC

WEATHER GUIDE

1886

"WITNESS" PRINTING HOUSE, MONTREAL.

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## NINTH ANNUAL ADDRESS.

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In order not to trade on a reputation which might not be considered to belong to me, I this year drop the familiar "Vennor" for the more commonplace "Smith." Having prepared and arranged nearly the whole of the 1884, and all the 1885 issues of Vennor's Almanac, this change should make but little difference in the contents of the book. As a work of this kind to succeed, should improve, I have endeavored to make what I hope will be considered improvements. More copious weather and astronomical notes are given; communications from leading scientists in certain lines of thought obtained specially for the work; and in the face of such improvements,—the price reduced!

Many persons have an idea that there is a mint of money—a sort of gold mine ready to hand—in almanac making and weather forecasting. This is erroneous so far as my experience goes. To disabuse my readers' minds, what do they suppose I have gained from the two last annuals, after making calculations, forecasts, preparing lunar influence and astronomical tables, etc.? *Not fifty dollars.* My scientific work up to the present has been simply undertaken for the love of it, with a hope that I am benefiting others. People imagined that the late Mr. Vennor made a fortune by his publication; I know better. One year he made money, i.e., when the copyright of the annual was purchased by a patent medicine firm. Prof. Mansill, author of an Almanac and other works, writing me recently, said: "I have spent thousands of dollars and years of labor investigating and publishing."

I wish to reiterate the fact that the "Weather Forecasts" are no more the result of guess work than are the Astronomical Calculations; this has been amply proved during the past year by the numerous public and private acknowledgments of their correctness that I have received.

The tables for sowing by Lunar Influence are continued. This is the third year, and, if not as widely practised as they deserve to be, are, I am glad to note, gaining in favor. To those who use them they are proving invaluable.

As a means of gathering the scattered students of Astro-Meteorology together, the Astro-Meteorological Association was founded in 1884, and is now in a flourishing condition. Those desirous of becoming members or forming branches, are requested to write and state their wishes, when prospectuses will be sent.

I still continue my weekly contributions on Astronomy and Meteorology to the *Huntingdon Advocate*, as mentioned last year.

31 Arcade Street, Montreal.

WALTER H. SMITH.

### ASTRONOMICAL AND OTHER NOTES.

#### FIXED AND MOVABLE FESTIVALS, 1886.

New Year's Day—	{	Jan. 1	Pentecost—Whit-	{	June 13
Circumcision.		" 6	Sunday.		
Epiphany		" 6	Trinity Sunday		" 20
Septuagesima Sunday		Feb. 21	Accession of Queen		" 20
Washington's Birthday		Feb. 22	Victoria, Jubilee.		" 20
Quinquagesima—	{	Mar. 7	St. John Baptist—	{	" 24
Shrove Sunday.		" 10	Midsummer Day.		" 24
Ash Wednesday		" 14	Corpus Christi.		" 24
First Sunday in Lent		" 17	St. Peter and St. Paul		" 29
St. Patrick.		" 17	Dominion Day		July 1
Annunciation—Lady Day.		" 25	Independence Day		" 4
Palm Sunday		Apr. 18	Michaelmas		Sept. 29
Good Friday		" 23	All Saints Day		Nov. 1
St. George		" 23	Birth of Prince of Wales		" 9
Easter Sunday		" 25	First Sunday in Advent		" 28
Low Sunday		May 2	St. Andrew		" 30
Birth of Queen Victoria.		" 24	Conception B. V. M.		Dec. 8
Rogation Sunday—Decor-		" 30	St. Thomas		" 21
ation Day		" 30	Christmas Day		" 25
Ascension Day—	{	June 3			
Holy Thursday.		" 3			

#### PRINCIPAL ARTICLES OF THE CALENDAR.

Golden Number	6	Dominical Letter	C
Epact	25	Roman Indiction	14
Solar Cycle	19	Julian Period	6599

#### CHRONOLOGICAL ERAS.

The first day of January of the year 1886 is the 2,409,908th day since the commencement of, and the 6699th year of the Julian Period.

The year 1886 is the 7394-95 of the Byzantine Era, the year 7395 commencing on September 1st.

The year 5646-47 of the Jewish Era, the year 5647 commencing on September 30th, 1886, or, more exactly at sunset on September 29th.

The year 2639 since the Foundation of Rome, according to VARRO.

The year 2633 since the beginning of the Era of NABONASSAR, which has been assigned to Wednesday, the 26th of February of the 3967th year of the Julian Period; corresponding, in the notation of chronologists, to the 747th; and in the notation of astronomers, to the 746th year before the birth of CHRIST.

The year 2662 of the Olympiads, or the second year of the 666th Olympiad, commencing in July, 1886, if we fix the Era of the Olympiads at  $775\frac{1}{2}$  years before CHRIST, or near the beginning of July of the year 3938 of the Julian Period.

The year 2198 of the Grecian Era, or the Era of the Seleucidæ.

The year 1602 of the Era of Diocletian, and the year 2546 of the Japanese Era.

The year 1304 of the Mohammedan Era, or the Era of the Hegira, commences on September 30th, 1886.

Ramadân (Month of Abstinence observed by the Turks) commences on June 3rd, 1886.

The 111th year of the Independence of the United States of America begins on July 4th, 1886.

The 20th year of the Confederation of the Provinces of the Dominion of Canada begins on July 1st, 1886.

#### COMMENCEMENT OF THE SEASONS.

##### *Montreal Mean Time.*

The Sun enters ♈ and SPRING begins March 20th, at 11h. morning.

The Sun enters ♋ and SUMMER begins June 21st, at 8h. morning.

The Sun enters ♌ and AUTUMN begins September 22nd, at 10h. evening.

The Sun enters ♍ and WINTER begins December 21st, at 4h. evening.



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 HOLIDAYS OBSERVED IN THE PUBLIC OFFICES.
 

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QUEBEC.—Circumcision, Jan. 1st; Epiphany, Jan. 6th; Annunciation of the Virgin Mary, March 25th; Good Friday, April 23rd; Ascension Day, June 3rd; Queen's Birthday, May 24th; Corpus Christi, June 24th; St. Peter and St. Paul, June 29th; Dominion Day, July 1st; All Saints' Day, Nov. 1st; Conception of the Blessed Virgin, Dec. 8th, and Christmas Day, Dec. 25th.

ONTARIO.—Sundays, Christmas Day, New Year's Day, Ash Wednesday, Good Friday, Easter Monday, the Queen's Birthday, and each day appointed by Royal Proclamation, as a general Fast or Thanksgiving Day.

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 ECLIPSES.
 

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In the year 1886 there will be two eclipses, both of the Sun.

1.—An annular eclipse of the Sun, March 5th, visible in Western Canada and the United States. Begins on the Earth generally at 2h. 07m. evening, Montreal. Central eclipse at 3h. 14m., Montreal. Ends on the Earth generally at 8h. 15m., Montreal time. The line of central eclipse crosses North America and Mexico near the Twentieth parallel. The centre of this eclipse at noon is in long.  $149^{\circ} 2' W.$ , lat.  $0^{\circ} 0'$ , or over the Pacific Ocean. Greenwich mean time of conjunction, March 5th, 10h. 8m. 57s.

2.—A total eclipse of the Sun, August 29th, invisible in Canada, the Northern line of simple contact crossing the most southerly portion of Nova Scotia. The eclipse will be visible as a partial one at New York, and over the Atlantic States, the West India Islands, Gulf of Mexico, Central and South America; the line of totality or central eclipse crossing the most northerly point of South America, the Central Atlantic, South Africa and Madagascar. Begins on the Earth generally August 29th at 5h. 24m. morning, Montreal. Ends on the Earth generally at 10h. 38m. morning, Montreal. Greenwich mean time of conjunction, 0h. 58m. 34s.



## SIGNIS OF THE ZODIAC.

These are twelve, and given for mean noon at Montreal, in the third column of each calendar page. They are as follows : ♈ Aries, the Ram ; ♉ Taurus, the Bull ; ♊ Gemini, the Twins ; ♋ Cancer, the Crab ; ♌ Leo, the Lion ; ♍ Virgo, the Virgin ; ♎ Libra, the Balance ; ♏ Scorpio, the Scorpion ; ♐ Sagittarius, the Archer ; ♑ Capricornus, the Goat ; ♒ Aquarius, the Water Bearer, and ♓ Pisces, the Fishes.

## GENERAL FORECAST.

"Astro-Meteorology," or as some prefer to term it, "Planetary Meteorology," is the general basis on which the forecasts in this work are built. Regard is also had to the supposed recurrence of similar weather at stated periods—the Vennor system. At present, I am not aware of any successful forecaster of the weather who predicts for lengthy periods but has recourse to the broad rules laid down by Astro-Meteorologists. Such were Kepler, Bacon, and many other clever men. Astro-Meteorology is at present growing in favor, and several earnest, well-educated men at various points on this Continent and in England are busily engaged studying it, forecasting and gaining grand results.

Scientific forecasting is not guessing. Any man that thinks it is should try his hand at guessing the weather. The chances are a million to one that he will come out at the "small end of the horn." This is a fact. Meteorologists, pure and simple, are doing nothing. They pooh-pooh the idea of the forces beyond the earth affecting the weather, but so long as the sun shines, the moon moves in her course, and gravitation exists, Astro-Meteorology is true. Men—including myself—may misinterpret at times, but the broad facts are ever patent to the careful observer.

Meteorologists, with all their observations, I repeat, are doing little or nothing. With all their records, they have not yet overtaken Thales of old, who could predict six months ahead that olives would be plentiful, much less have they caught

up with Joseph as he stood before Pharaoh. Meteorology, divorced from Astronomy, is a lone widow, whose barrenness is manifest in the eyes of a world. It cannot foresee probable changes more than 24 hours ahead.

Few will deny the value of correct forecasts. They are in fact invaluable. Those who had confidence in my skill last spring took note and refrained from sowing Indian corn in Canada and the more northerly of the United States. The results have justified their prudence. My worst enemy must admit that the corn crop here, owing to the cool summer, has been more than a partial failure. Yet I advised ice merchants to lay in a good stock, and my foresight turned out correct, the very hot reactionary spells, of which I spoke, proving one of the features of the summer.

But it is time to leave the past and talk about the future. By the time this work is in the hands of the public, the question "What kind of a winter are we going to have?" will be in everybody's mouth. With three superior planets on the same side of the Sun as the Earth, with the potent inferior Venus near inferior conjunction, the winter of 1885-86 must be pluvial, plenty of precipitation being general. The North American Continent, east of the Rocky Mountains, will likely pass through a very moist term, sleet and rain, with their accompanying concomitants of fog and flood in localities being the rule. A moist winter is of course a mild winter, and a winter "on the warm side," is most probable. A mild winter, with its accompanying "depressions" is naturally a blustery, stormy winter also; with disastrous storms and heavy gales, especially over the oceans and other large bodies of water. Storms will, I expect be frequent, disastrous ones occurring at or about the lunations of the first three months, as well as at the oppositions or conjunctions of the other planets with the Sun. These unsettled terms I have done my best to locate opposite their respective weeks. They will of course be followed by extreme cold. The winter of 1885-6 is going to present a striking contrast to that of 1884-5. One word to the pessimists ere I pass on. The indications are against a "hard winter," although we are going to get a "peculiar winter;" therefore I am not in harmony with those who predict great suffering and calamity among the poorer classes. Even Montreal, I firmly believe, will quickly recuperate,

rallying from her existing calamities—I am writing on Oct. 5th. This, and much more, may be said to hang on the weather question.

On the last page of my last year's ALMANAC I gave a "long range forecast" for the spring of 1886. I then said:

"The positions of the superior planets during the Summer of 1886 favor a somewhat cool time with a few reactionary periods of extreme heat. The Spring will probably be an early one; indications of fine, warm weather, gladdening the hearts of agriculturists, whose hopes are likely to be nipped, late frosts doing considerable damage to crops." As the planets are not likely to change their calculated positions I see no reason to alter my opinion. The warm weather indications at an early period of Spring, perhaps ere the close of March, with recurring terms of Summer-like warmth at intervals during April, are likely to be followed in sections by damaging frosts during May, and perhaps June.

Many think that the cool Summer of 1885 cannot have a counterpart for some years, and must necessarily be followed by a heated term, perhaps a very hot Summer in 1886. I do not so read the weather signs. I would not trust too much to the corn crop the coming year, except in the South and South-west. Let the farmers of the Northern and North-western States, as well as those in Canada, sow sparingly of it next spring, turning their attention this fall principally to wheat, and the other small grains in the spring. There is money in this, provided the European yield is no better than it should be, which is probable. It has been said that 1886 will resemble 1816, commonly termed "the year without a summer," and "eighteen hundred and starved to death"; a year when grain would not ripen in the Northern States and ice formed at intervals all summer. I do not go to this length, because the influences at work appear to me to favor a rather warmer summer on the whole than 1885. If somewhat cool and troublesome generally, it will yet give us reactionary periods of extreme heat just as 1885 has done. Frosts will likely be reported during every one of the summer months over the Northern, North-eastern and North-western States and Canada.

MONTREAL, *October 5, 1885.*



1st MONTH.

## JANUARY.

31 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
● N.M.	5	3.03 mo.	2.49 mo.	2.48 mo.	2.35 mo.	1.58 mo.
☽ F.Q.	13	7.44 mo.	7.30 mo.	7.29 mo.	7.16 mo.	6.34 mo.
☾ F.M.	20	3.04 mo.	2.50 mo.	2.49 mo.	2.36 mo.	1.54 mo.
☾ L.Q.	26	8.51 ev.	8.37 ev.	8.36 ev.	8.23 ev.	7.41 ev.

DAYS.		Zodiac.	WEATHER FORECAST.	MONTREAL.						
M.	W.			THE SUN			Moon			
				Slow.	Kises.	Sets.	Souths.			
1	Fri.	♄	<b>CIRCUMCISION</b> ,—NEW YEAR'S DAY.]—Opens moderate, dull and mild in	M.	H	M	H	M	H	M
2	Sat.	♄		4	7	41	4	27	Morn	
				4		41		28	9 43	

(1) Second Sunday after Christmas. Venus in Aquarius.

3	Su.	♄	many sections; changing to bluster in the North West, and general windy, snowy, unsettled weather—Clear, cold and brilliant, with fairly low ther. readings East and West about 6th and 7th—Rains in the South and South-west—Dull and milder—End of week, stormy, with high winds, snow and sleet.	5	7	41	4	29	10 32	
4	Mo.	♃		5		41		30	11 21	
5	Tu.	♃		6		41		31	Eve.	
6	We.	♃		6		41		32	0 55	
7	Th.	♃		6		40		33	1 40	
8	Fri.	♃		7		40		34	2 24	
9	Sat.	♃		7		40		35	3 08	

(2) First Sunday after Epiphany. Mars in Virgo.

10	Su.	♄	Week begins mild—Changing to cold, with hard frost after the 10th—Another sharp term in Northern sections—Snowy, stormy, unsettled 13th and 14th, with heavy drifts and great bluster in the West and North-west—A "dip," probable date of the lowest readings of the month, East and other places—Moderating.	8	7	40	4	36	3 51	
11	Mo.	♄		8		40		37	4 35	
12	Tu.	♄		8		39		38	5 20	
13	We.	♄		9		39		40	6 06	
14	Th.	♄		9		38		41	6 54	
15	Fri.	♄		10		37		42	7 47	
16	Sat.	♄		10		36		43	8 44	

(3) Second Sunday after Epiphany. Jupiter in Virgo.

17	Su.	♃	A mild Sunday, open weather—Cloudy, sleety and rainy—Heavy rains in Western sections and the Missouri Valley around 18th—Windy, colder, abrupt changes, with low ther. readings in sections, and scattered snow falls—End of week, milder, with precipitation.	10	7	36	4	44	9 43	
18	Mo.	♃		11		35		46	10 45	
19	Tu.	♃		11		35		48	11 47	
20	We.	♃		11		34		49	Morn	
21	Th.	♃		12		33		51	0 48	
22	Fri.	♃		12		32		52	1 47	
23	Sat.	♃		12		32		54	2 42	

(4) Third Sunday after Epiphany. Saturn in Gemini.

24	Su.	♄	<b>Conversion of St. Paul.</b> Generally heavy downfall; snow North and rain South—Cold again, high winds, unsettled and gusty—Brilliant winter weather—Very abrupt change this week from extreme cold zero weather to mild and open with rain and sleet.	12	7	31	4	55	3 35	
25	Mo.	♄		12		30		56	4 26	
26	Tu.	♃		13		29		57	5 16	
27	We.	♃		13		28		58	6 04	
28	Th.	♃		13		27		59	6 53	
29	Fri.	♄		13		25	5	01	7 41	
30	Sat.	♄		13		24		03	8 29	

(5) Fourth Sunday after Epiphany. Uranus in Virgo.

31	Su.	♃	Month ends mild—A "thaw."	14	7	23	5	05	9 16	
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**PLANETS IN JANUARY, 1886.**


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**MONTREAL MEAN TIME.**


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After the New Year, the first noticeable position is the conjunction of Mercury and the Moon on the 3rd at 2 a.m. Mars reaches his greatest Hel. Lat. N. a few minutes later. Venus is in her ascending node the same day at 4.15 p.m. Mercury, between the 5th and 9th, will be easily picked up prior to sunrise in the morning sky, he being at "greatest elongation West" of  $23^{\circ} 26'$  at 7.15 a.m. on the 8th. The crescent Moon passes but  $38'$  N. of Venus at 1.20 a.m. on the 9th. Saturn, well placed for observation, occults the star *Mu* in Gemini on the morning of the 10th. Uranus is "stationary" at 7 a.m. on the 13th. On the same day, Venus at greatest brilliancy. At 11.50 a.m. on the 15th, the Moon passes Neptune; and overtakes Saturn on the 18th at 8.13 a.m. Mercury is in his descending node, 9 p.m., 19th. Jupiter "stationary" at 3 a.m., 20th. Mars will be  $3^{\circ}$  N. of the Moon on the evening of the 23rd. A noticeable approach is that of Jupiter to Uranus on the 24th, when Uranus is  $1^{\circ} 51'$  S. E. of his giant brother at 9 a.m. The Moon is with Jupiter the same day at 1 p.m., and overtakes Uranus at 3.20 p.m. At 8 p.m. on the 25th, Mars becomes "stationary;" on the 28th at 7 a.m. Venus "stationary," and on the 29th at 7 a.m. Neptune "stationary." Mercury is farthest from the Sun (Aphelion) at 6 a.m. on the 30th.

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**Public Opinion.**


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"Mr. Walter H. Smith \* \* \* is *facile princeps* of all the weather prophets."—*News*

"The friends of Prof. Smith declare his forecasts to be singularly correct, and predict for him a successful career."—*The People*.

"A month ago our weather seer predicted a cold snap for Jan. 12th, and lo, it has come to pass! The rain and mud of yesterday have given place to a hard and bracing atmosphere."—*Witness*.

"In this locality, Mr. Smith's weather forecast for the two weeks ending Jan. 7th, 1885, was borne out to the letter. Towards evening on Dec. 31st, the wind changed, and justified the prediction that the old year would end cold; and the further prediction that 1885 would enter cold was well endorsed on Jan. 1st."—*Advocate*.

2nd MONTH.

# FEBRUARY.

28 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
● N.M.	3	10.34 ev.	10.20 ev.	10.19 ev.	10.06 ev.	9.24 ev.
☽ F.Q.	11	10.06 ev.	9.52 ev.	9.51 ev.	9.38 ev.	8.56 ev.
☾ F.M.	18	1.34 ev.	1.20 ev.	1.19 ev.	1.06 ev.	0.24 ev.
☾ L.Q.	25	0.31 ev.	0.17 ev.	0.16 ev.	0.03 ev.	11.21 mo.

DAYS.		Zodiac	WEATHER FORECAST.	MONTREAL.						
M.	W.			THE SUN			Moon			
				Slow.	Rises.	Sets.	Souths.			
1	Mo.	♊	Enters mild—Scattered snow falls—	M.	H	M	H	M	H	M
2	Tu.	♋	Changing to windy and unsettled—Cold,	14	7	22	5	06	Morn	
3	We.	♌	a "dip," low readings for February—Wind	14	20		08	10	52	
4	Th.	♍	and snow, moderating with sleet or frozen	14	19		09	11	36	
5	Fri.	♎	rain—Soft weather, dull, mild and foggy.	14	18		11	Eve.		
6	Sat.	♏		14	17		12	1	07	
				14	16		14	1	50	

**(6) Fifth Sunday after Epiphany.**

Venus in Aquarius.

7	Su.	♏	Heavy rains in the South and South-west, mixed with sleet and soft snow in Northern sections—Mild, clammy weather—A colder change, brilliant—Stormy, snow and rain falls—Milder, with rains in the United States and Western Canada—Snow and sleet in Quebec and the Maritime Provinces—Week ends mild.	14	7	14	5	15	2	33
8	Mo.	♐		14	13	17	3	17		
9	Tu.	♑		14	12	18	4	02		
10	We.	♒		14	10	19	4	49		
11	Th.	♓		14	09	21	5	38		
12	Fri.	♊		14	07	22	6	31		
13	Sat.	♋		14	06	24	7	26		

**(7) Sixth Sunday after Epiphany.**

Mars in Virgo.

		ST. VALENTINE.								
14	Su.	♍	Cloudy and snowy—Brilliant, cold weather—Milder, thaw and slush, with abrupt changes to frost—Heavy snow North and rains South—Floods in sections—Windy and rainy—Variable, fine.	14	7	04	5	25	8	25
15	Mo.	♎		14	02	27	9	25		
16	Tu.	♏		14	01	28	10	26		
17	We.	♐		14	6	59	30	11	26	
18	Th.	♑		14	58	31	Morn			
19	Fri.	♒		14	56	33	0	24		
20	Sat.	♓		14	54	34	1	20		

**(8) Septuagesima Sunday.**

Jupiter in Virgo.

21	Su.	♑	Much colder, a "second winter," cloudy and squally—Low temperatures generally; a "dip," fine and brilliant—Stormy,	14	6	53	5	36	2	13
22	Mo.	♒		13	51	37	3	05		
23	Tu.	♓	ST. MATTHIAS. snowy, wintry weather	13	50	39	3	56		
24	We.	♊		13	48	40	4	46		
25	Th.	♋		13	47	41	5	36		
26	Fri.	♌		13	45	43	6	25		
27	Sat.	♍		13	43	45	7	13		

**(9) Sexagesima Sunday.**

Saturn in Gemini.

28	Su.	♊	wintery, with wind and snow.	13	6	41	5	47	8	01
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**PLANETS IN FEBRUARY, 1886.**


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**MONTREAL MEAN TIME.**


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The old Moon is with Mercury at 3.21 p.m. on the 3rd. After becoming "New," the Queen of Night passes  $6^{\circ}$  S. of Venus at 1.42 p.m. on the 5th. Venus is nearest the Sun (Perihelion) on the 6th at 5 a.m.; Mars being at the farthest (Aphelion) point of his orbit at 6 p.m. on the same day. The far away Neptune is  $90^{\circ}$  from the Sun (Quadrature) at 4 a.m. of the 11th, when he is overhead at sunset, and sets at midnight. The Moon is  $3^{\circ} 10'$  S. of him at 7.30 p.m. the same day. Saturn is overtaken by the Moon at 4h. 5m. p.m. on the 14th, the slow moving planet approaching no nearer his "valentine" than some  $4\frac{1}{2}^{\circ}$ . Venus, so long the brilliant of the evening mists, passes between the Earth and Sun on the 18th at 2 p.m., and becomes a "morning star," she is in conjunction with Mercury at 11 the same evening. The Moon when near her full runs by the ruddy Mars at 1.26 a.m. on the 20th, to approach within some 9' space of Jupiter at 8.43 the same evening. An interesting conjunction. Luna is with Uranus at midnight of the 20-21. Mercury the swift footed overtakes the Sun at 10 a.m. on the 24th, when his inferior conjunction is accomplished, and he becomes an "evening star." Venus is at her greatest Heliocentric Lat. N. on the 28th at 4 a.m.

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**Forecasts Verified.**


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"Mr. Smith's forecasts have been watched with interest from week to week, and a very large per cent. of them have been verified. In particular, we remember the storms of January and February (1885), both of which occurred very near the time; his forecast of a cool, backward spring has also come true."—*Worcester Evening Gazette*.

"Had they" (the believers in Wiggins) "glanced at VENNOR'S ALMANAC for 1885, published by Mr. Walter H. Smith, and written in the month of August last, they would have read the following lines relative to the state of the weather from the 17th to the 19th of Jan., 1885: 'Colder weather—probable period of snow blockade—bluster and drifts in Northern, Eastern and Western sections.' Subsequently, that is to say, on the 10th of Dec. last, Mr. Smith warned the public through the newspapers about the storm, and stated that the period of great snow storms accompanied by cold would be the 17th and 18th of Jan. From this it seems very clear that Astronomer Wiggins had nothing whatever to do with Saturday's storm."—Translated from *La Minerve*.



3rd MONTH.

## MARCH.

31 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
● N. M.	5	5.24 ev.	5.10 ev.	5.09 ev.	4.56 ev.	4.14 ev.
☽ F. Q.	13	8.37 mo.	8.23 mo.	8.22 mo.	8.09 mo.	7.27 mo.
☼ F. M.	19	11.56 ev.	11.42 ev.	11.41 ev.	11.28 ev.	10.46 ev.
☾ L. Q.	25	6.04 mo.	5.50 mo.	5.49 mo.	5.36 mo.	4.54 mo.

DAYS.		Zodiac.	WEATHER FORECAST.	MONTREAL.						
M.	W.			—THE SUN— Slow. Rises. Sets.			Moon Souths.			
1	Mo.	♊	<b>ST. DAVID.</b>	M.	H	M	H	M	H	M
2	Tu.	☞	Generally wintry weather, brilliant, with low thermometer readings—Changing to mild and stormy, with rain, wind and slush—A general storm period—Severe storms in the South-west and Gulf States, also along the Atlantic Coast and over the Lake region—Week ends fine and windy.	12	6	40	5	48	Morn	
3	We.	☞		12		38		49	9	35
4	Th.	☞		12		36		50	10	20
5	Fri.	☞		12		34		51	11	04
6	Sat.	☞		11		32		53	11	48
				11		30		54	Eve.	

## (10) Quinquagesima (Shrove) Sunday. Mercury in Pisces.

7	Su.	♊	Heavy rains South—Milder—Stormy again about the 9th and 10th, with heavy snow and rain falls according to locality; bluster, high winds and drifts in the North and North-west—Milder—Cloudy and somewhat unsettled again, with snow at the end of week.	11	6	28	5	55	1	16
8	Mo.	♋		11		26		57	2	01
9	Tu.	♋		11		25		58	2	47
10	We.	♋		10		23	6	00	3	35
11	Th.	♋		10		21		01	4	26
12	Fri.	♋		10		19		02	5	19
13	Sat.	♋		9		17		03	6	15

## (11) Quadragesima Sunday.

Venus in Aquarius.

14	Su.	♋	Week opens mild and fine—Generally stormy about the 15th, with scattered snow, sleet and rainfalls—Fine, cold weather—Variable in places, but	9	6	15	6	05	7	12
15	Mo.	♋		9		13		06	8	11
16	Tu.	♋	<b>ST. PATRICK.</b> generally fine and cold—Cloudy and squally, snow in Northern sections about 19th and 20th—Rains in the Middle States.	9		11		07	9	09
17	We.	♋		8		09		08	10	07
18	Th.	♋		8		07		10	11	02
19	Fri.	♋		8		06		11	11	57
20	Sat.	♋		7		04		13	Morn	

## (12) Second Sunday in Lent.

Mars in Leo.

21	Su.	♌	Milder, with high winds; stormy, with sleet and rain—Heavy gales about the 22nd and 23rd, rough weather on the Atlantic Coast—A milder interval, followed by cold weather, hard frosts and severe storms.	7	6	02	6	14	0	50
22	Mo.	♌		7		00		15	1	43
23	Tu.	♌		6	5	58		16	2	30
24	We.	♌		6		56		18	3	26
25	Th.	♌		6		54		19	4	16
26	Fri.	♌		5		52		20	5	06
27	Sat.	♌		5		50		21	5	56

## (13) Third Sunday in Lent.

Jupiter in Virgo.

28	Su.	♌	Very fine, mild weather; early warmth—Windy and rainy, inclined to stormy along the Atlantic Coast and St. Lawrence Valley—Colder again—Month ends frosty.	5	5	48	6	23	6	44
29	Mo.	♌		4		47		24	7	30
30	Tu.	♌		4		45		26	8	16
31	We.	♌		4		43		27	9	01

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## PLANETS IN MARCH, 1886.

MONTREAL MEAN TIME.

The lordly Saturn is "stationary among the stars" at 1 a.m. on the 3rd. Venus, the brilliant morning star, whose crescent phase may be easily seen in telescopes of moderate power, will be near the Moon on the same day at 5.11 p.m. On the 5th the Sun is eclipsed, visible at Washington; and on the following day the ruddy Mars is  $180^\circ$  from the "god of day," passing his opposition point and becoming an "evening star" at 7 a.m. Mercury is but  $8'$  N. of the new Moon on the 6th at 1 p.m., and his sister inferior Venus reaches her "stationary" position at 8 a.m. of the 10th. Mercury in the ascending node, Mar. 10th at 11 a.m. The Moon overtakes Neptune at 1.55 a.m. of the 11th, and is  $4^\circ 27'$  S. of Saturn at 11.24 p.m. on the 13th. Mercury is at his nearest point to the Sun—Perihelion—at 1 a.m. on the 14th. The Moon passes  $4^\circ 27'$  S. of Mars on the 18th at 8.37 p.m. A close conjunction is that of Jupiter and the Moon, when the orb of night is but  $13'$  S. of the Thunderer at 2.45 a.m. on the 20th. Luna is with Uranus a few hours later. The Sun enters Aries and Spring commences at 11 a.m. on the 20th. Jupiter is at his opposition point on the 21st at 1 p.m., after which he becomes an evening star. He is then overhead at midnight. Mercury will be well seen in the evenings about this time, he being at "greatest elongation East" of the Sun on the 21st at 10 p.m. Saturn reaches his second quadrature— $90^\circ$  from the Sun—on the 22nd at 2 a.m., he is then overhead at 6 p.m. Uranus is the next to swing into line, the planet of Herschel reaching opposition of the Sun on the 26th at 5 a.m. The silvery Venus is at "greatest brilliancy" on the 26th, when she shines in the early morning sky like a second moon. Mercury is "stationary" on the 30th at 1 a.m., and the waning Moon passes some  $2^\circ$  S. of Venus on the 31st at 2.45 p.m.

## The Great Storm on Time.

"Prof. Smith's great March storm arrived on Friday afternoon and continued all day Saturday, the roads becoming badly blocked in all directions."—*Advocate*.

4th MONTH.

APRIL.

30 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
● N.M.	4	9.50 mo.	9.36 mo.	9.35 mo.	9.22 mo.	8.40 mo.
☽ F.Q.	11	4.03 ev.	3.49 ev.	3.48 ev.	3.35 ev.	2.53 ev.
☼ F.M.	18	10.18 mo.	10.04 mo.	10.03 mo.	9.50 mo.	9.08 mo.
☾ L.Q.	25-26	0.35 mo.	0.21 mo.	0.20 mo.	0.07 mo.	11.25 ev.

DAYS.		Zodiac.	WEATHER FORECAST.	MONTREAL.							
M.	W.			THE SUN			Moon				
				Slow.	Rises.	Sets.	Souths.				
1	Th.	♋	The "showery month" is likely to open cool and unsettled—Local snow flurries in the North and North-west—Frosts in Western sections.	M.	H	M	H	M	H	M	
2	Fri.	♋		4	5	41	6	28	Morn		
3	Sat.	♌		4	40		29		10 28		
				3	38		31		11 13		

## (14) Fourth Sunday in Lent.

Saturn in Gemini.

4	Su.	♊	Cool, fair weather, with strong winds—Showery, unsettled and mild—Wind and heavy rains about 8th and 9th—End of week cold and wet in the West, with local snow flurries East, especially in Quebec and the Maritime Provinces.	3	5	36	6	32	11	58
5	Mo.	♊		3	34		33		Eve.	
6	Tu.	♋		2	32		34		1 32	
7	We.	♋		2	30		35		2 23	
8	Th.	♌		2	28		37		3 15	
9	Fri.	♌		2	26		38		4 10	
10	Sat.	♍		1	24		39		5 07	

## (15) Fifth Sunday in Lent.

Uranus in Virgo.

11	Su.	♍	Week may open cool, but will be succeeded by a fine, warm change—Seasonable weather, local hail storms about 14th—Close of week unsettled and mild, with local storms and sudden squalls.	1	5	22	6	40	6	03
12	Mo.	♍		1	20		42		7 00	
13	Tu.	♎		0	19		43		7 56	
14	We.	♎		0	17		45		8 50	
15	Th.	♎		fast	15		46		9 44	
16	Fri.	♏		0	13		47		10 36	
17	Sat.	♏		1	11		48		11 29	

## (16) Palm Sunday.

Neptune in Taurus.

18	Su.	♉	Opens windy and unsettled, changing to summer-like weather, with heat, and a general summery aspect—Sudden change about the 22nd and 23rd, to colder, with high winds and unsettled weather—Heavy showers in sections.	1	5	10	6	50	Morn	
19	Mo.	♉		1	08		51		0 21	
20	Tu.	♉		1	07		52		1 13	
21	We.	♊		1	05		53		2 05	
22	Th.	♊		2	03		54		2 56	
23	Fri.	♊		2	02		56		3 47	
24	Sat.	♋		2	00		57		4 36	

## (17) Easter Sunday.

Mercury in Pisces.

25	Su.	♛	<b>ST. MARK.</b> Rainy and cold, wind storms in the West and North-west—Stormy, unsettled, high winds; tornadoes probable in tornado sections—Cool—Month ends with frequent showers and some heavy rains in localities.	2	4	59	6	58	5	24
26	Mo.	♛		2	57		59		6 10	
27	Tu.	♛		2	56		7 01		6 55	
28	We.	♈		3	54		02		7 40	
29	Th.	♈		3	52		04		8 23	
30	Fri.	♉		3	50		05		9 07	

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## PLANETS IN APRIL, 1886.

MONTREAL MEAN TIME.

The Moon passes Mercury on the 4th at 7.05 p.m., and leaves Neptune behind on the 7th at 8.51 a.m. Mercury passes between the Earth and Sun on the 8th at 11 p.m. Saturn is  $4^{\circ} 26'$  N. of the Moon at 7.10 a.m. on the 10th. The next conjunction of interest is that of Mars and the Moon at 8.11 p.m. on the 14th, followed by a very near approach ( $29'$ ) of the earth's satellite to Jupiter at 6.50 a.m. on the 16th. Mars is "stationary" on the same day at 5 p.m., and Uranus is exceedingly close to the Moon ( $59'$ ) 22 minutes later. Mercury is in the descending node at 4 p.m. on the 18th, and stationary on the 22nd at 11 p.m. Venus is in her descending node on the 25th at 5 a.m., and Mercury is at Aphelion—nearest the Sun—at 1 a.m. on the 28th. The Moon when in her waning phase is alongside Venus on the 30th, the nearest approach of the two planets being within  $20'$  of each other at 0h. 21m. morn. Venus is at her "greatest elongation" West of the Sun of  $46^{\circ} 9'$  at 2 a.m. on the 30th.

## "Singularly Correct."

"Whose storm is it—Perrin's, Wiggin's, or the much more reliable Smith's?"—*Witness*.

"This correspondent's predictions have been singularly correct thus far, he having told to a day the lowest thermometer reading of the winter two months beforehand; forecast the great storms of January and February just as accurately, as well as the cold weather of April, and the backwardness of the fore-part of May."—*Hamilton Evening Times*.

"The probabilities are that the gentlemen who run the weather office will be getting themselves disliked if they do not turn out a more marketable article than they have been doing this season. Round about the first of the year they got up a corner on snow, and the article went up with a run when an ice palace was wanted. Then when the ice palace began to decay with age, and the lion in the square was becoming unrecognizable, Mr. Smith found his elevator glutted, and immediately began to overflow the market with superfluous stock. So much of it has been thrown on the hands of a lamb-like public that it has become positively useless, and level headed people wouldn't give a cent for a bushel of the regular No. 1 Canadian winter white. We don't see why the office of weather prophet should not be made electoral, so that if Mr. Smith won't give the requisite attention to his constituents, we may find out somebody who will look after our interests better."—*Gazette*.



5th MONTH.

MAY.

31 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
● N. M.	3	10.52 ev.	10.48 ev.	10.47 ev.	10.34 ev.	9.52 ev.
☽ F. Q.	10	9.40 ev.	9.26 ev.	9.25 ev.	9.12 ev.	8.30 ev.
☾ F. M.	17	9.06 ev.	8.52 ev.	8.51 ev.	8.38 ev.	7.56 ev.
☾ L. Q.	25	6.55 ev.	6.41 ev.	6.40 ev.	6.27 ev.	5.45 ev.

DAYS.	Zodiac.	WEATHER FORECAST.	MONTREAL.			
			THE SUN		Moon Souths.	
M.	W.		Fast.	Rises.	Sets.	

1 Sat. ♀ **May Day.** Cool and moist. M. H M H M H M  
3 4 49 7 06 Morn

(18) Low Sunday.

Venus in Pisces.

2 Su.	♁		3	4	47	7	07	10	38
3 Mo.	♁	A decided change towards summer-like weather, with rapid advance in vegetation—Fine, local frosts at night—Cool, local wind storms and snow flurries North, rain in the South.	3	46		09	11	26	
4 Tu.	♁		3	44		10	Eve.		
5 We.	♁		3	43		11	1	09	
6 Th.	♁		4	42		12	2	05	
7 Fri.	♁		4	40		13	3	02	
8 Sat.	♁		4	39		14	4	00	

(19) Second Sunday after Easter.

Mars in Sextans.

9 Su.	♁	Heavy rains in the West, rainy and cold in many sections—Favorable, fine and warm, local, thunder and hail storms—Sudden squalls in places notably over the Lakes and Westward—Week ends fine and warm.	4	4	37	7	16	4	56
10 Mo.	♁		4	36		17	5	49	
11 Tu.	♁		4	35		18	6	46	
12 We.	♁		4	34		19	7	38	
13 Th.	♁		4	32		21	8	30	
14 Fri.	♁		4	31		22	9	20	
15 Sat.	♁		4	30		23	10	11	

(20) Third Sunday after Easter.

Jupiter in Virgo.

16 Su.	♁	Cooler—Local wind, rain and hails howlers—Changing to warm weather—Periods of extreme heat in the West and South-west—Week ends fine and warm.	4	4	29	7	24	11	02
17 Mo.	♁		4	28		25	11	54	
18 Tu.	♁		4	27		26	Morn		
19 We.	♁		4	26		27	0	45	
20 Th.	♁		4	25		28	1	37	
21 Fri.	♁		4	24		29	2	27	
22 Sat.	♁		4	23		30	3	16	

(21) Fourth Sunday after Easter.

Saturn in Gemini.

23 Su.	♁	Warm and windy—Very favorable weather— <b>Queen Victoria born 1819.</b> Local thunder storms—Cooler change, with wind and showers—Colder still, rain and hail storms in Canada, the West and the North-west; tornadoes probable in tornado sections.	3	4	22	7	31	4	04
24 Mo.	♁		3	21		32	4	50	
25 Tu.	♁		3	20		33	5	34	
26 We.	♁		3	19		34	6	18	
27 Th.	♁		3	19		35	7	01	
28 Fri.	♁		3	18		36	7	45	
29 Sat.	♁		3	18		37	8	29	

(22) Rogation Sunday.

Uranus in Virgo.

30 Su.	♁	<b>Decoration Day.</b> Month ends variable and breezy; a warmer change.	3	4	17	7	38	9	16
31 Mo.	♁		3	16		39	10	06	



## PLANETS IN MAY, 1886.

MONTREAL MEAN TIME.

The twinkler Mercury is within 6' of the waning Moon on the 1st at 7.50 p.m. The "new" moon overtakes Neptune on the 4th at 5.34 p.m. Mercury is well placed as a "morning" star on the 7th, when his greatest elongation West of  $26^{\circ} 26'$  occurs. Saturn and the Moon are some  $4^{\circ}$  apart at 5 o'clock on the same day. Luna is alongside Mars at 7 a.m. of the 12th, and passes  $25'$  S. of Jupiter at 10.52 a.m. of the 13th. Uranus is  $1^{\circ} 3'$  S. of the Moon at 11.08 p.m. on the 13th. The trident bearer Neptune swings into conjunction with the Sun on the 16th at 1 a.m., after which he becomes a "morning star," this expression is only figurative in Neptune's case however, since he is at all times invisible to the unaided eye. On the 23rd at 8 p.m., Jupiter is "stationary," and on the 29th at 8 a.m. the lovely Venus is at Aphelion—farthest from the Sun. She is in conjunction with the Moon at 8.23 p.m. on the same day, Luna passing  $1^{\circ} 18'$  S. of Venus. The nearest and farthest members of the Sun's family—Mercury and Neptune—are in conjunction on the 31st at 1 a.m.

## A Great Success.

"Prof. W. H. Smith, of Montreal, the successor of the celebrated Vennor, has been most successful in his weather prognostications, certainly since we have been noticing them."—*Citizen, Asheville, N.C.*

"Daring as the above forecast seems, Mr. Smith has made many such in the past, and scored great success; such were his predictions of great storms on Jan. 17 and Feb. 17 last; the cold April just gone and the backwardness of May, all foretold by him."—*Free Press.*

"Mr. Walter H. Smith, President of the Astro-Meteorological Association, is usually pretty correct in his forecasts of coming weather, the mantle of the late Mr. Vennor—with whom Mr. Smith was associated in the production of VENNOR'S ALMANAC—having, as has been wittily said, fallen on the shoulders of the latter. Among his cleverest predictions during the past winter were: the telling to inside of 24 hours of the lowest thermometer reading at Montreal some two months beforehand; predicting for their exact dates the two great storms of Jan. and Feb., the cold backward spring, and the cool first half of May."—*Post, Lindsay.*

6th MONTH.

JUNE.

30 DAYS.

Moon's Phases	Day	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
● N.M.	2	9.15 mo.	9.01 mo.	9.00 mo.	8.47 mo.	8.05 mo.
☽ F.Q.	9	2.46 mo.	2.32 mo.	2.31 mo.	2.18 mo.	1.36 mo.
☾ F.M.	16	8.58 mo.	8.44 mo.	8.43 mo.	8.30 mo.	7.48 mo.
☾ L.Q.	24	11.54 mo.	11.40 mo.	11.39 mo.	11.26 mo.	10.44 mo.

DAYS.	M. W.	Zodiac.	WEATHER FORECAST.	MONTREAL.							
				THE SUN			Moon				
				Fast.	Rises.	Sets.	Souths.				
1 Tu.		♌	Fine and warm, sultry in many sections —Heat in the South and West—Thunder and wind—Storms in the Upper Lake <b>Ascension Day.</b> HOLY THURSDAY. Region, with cooler weather and rains west of Chicago.	M.	H	M	H	M	H	M	
2 We.		♍		2	4	16	7	40	Morn		
3 Th.		♎		2	15				41	11	54
4 Fri.		♏		2	14				42		Eve.
5 Sat.		♐		2	14				43	1	51
				2	13			44	2	50	

(23) Sunday after Ascension.

Neptune in Taurus.

6 Su.		♉	Cold weather for June, with local frosts	2	4	13	7	44	3	47
7 Mo.		♊	—Fine—Cloudy and windy, with rain and	1		12		45	4	42
8 Tu.		♈	HENRY G. VENNOR, Died 1884.	1		12		45	5	36
9 We.		♉	sudden squalls about the 10th—Hot wea-	1		12		46	6	27
10 Th.		♊	ther, oppressive, with disastrous local	1		12		46	7	17
11 Fri.		♈	<b>ST. BARNABAS.</b> storms of	1		11		47	8	07
12 Sat.		♉	rain at the close of week.	0		11		47	8	57

(24) Whit Sunday.—Pentecost.

Mercury in Taurus.

13 Su.		♉	Cooler, local frosts—A rapid change to heat—Muggy, scattered storms—Fine and warm—Week ends windy and unsettled.	0	4	11	7	48	9	47	
14 Mo.		♊		s <sup>w</sup>		11			49	10	38
15 Tu.		♈		0		11			49	11	29
16 We.		♉		0		11			50	Morn	
17 Th.		♊		1		11			50	0	19
18 Fri.		♈		1		11			51	1	09
19 Sat.		♉		1		11			51	1	58

(25) Trinity Sunday.

Venus in Taurus.

20 Su.		♉	<b>Accession of Queen Vic-</b>	1	4	11	7	51	2	44
21 Mo.		♊	<b>torial, (Jubilee).</b>	1		11		51	3	30
22 Tu.		♈	High winds, unsettled and showery—	2		12		52	4	14
23 We.		♉	Fine, cool nights, with local frosts, cold	2		12		52	4	56
24 Th.		♊	<b>ST JOHN BAPTIST.</b> —MID-	2		12		52	5	39
25 Fri.		♈	SUMMER DAY, CORPUS CHRISTI.	2		13		52	6	23
26 Sat.		♉	weather for June—Cloudy, sudden squalls of wind and rain—Windy in Western sect.	3		13		52	7	08

(26) First Sunday after Trinity.

Mars in Virgo.

27 Su.		♍	Opens cool, changing to warm—Hot wea-	3	4	14	7	52	7	55
28 Mo.		♎	ther—Great heat, thunder, wind and hail	3		14		52	8	45
29 Tu.		♏	<b>St. Peter and St. Paul.</b> storms	3		15		52	9	39
30 We.		♐	—Heavy rains South and South-west.	3		15		51	10	36

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**PLANETS IN JUNE, 1886.**


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**MONTREAL MEAN TIME.**


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The "old" Moon is  $3^{\circ} 13'$  S. of Neptune at 4.03 a.m. on the 1st, and reaches Mercury at 8.30 the same morning. The two days old Moon is  $4^{\circ}$  S. of Saturn on the 4th at 4.48 a.m. Mercury is in his ascending node at 10 a.m. on the 6th. Mars is but  $6'$  N. of Luna at 4.22 a.m. on the 9th, but the latter makes a still nearer approach to Jupiter at 4.36 p.m. on the same day, when Jupiter is almost occulted by the growing crescent. This approach will be but just over at sunset in this latitude. Uranus and the Moon are in conjunction at 3.57 a.m. on the 10th, the planet of Herschel being "stationary" at 7 a.m. the same morning. Mars reaches quadrature ( $90^{\circ}$ ) from the Sun on the 11th at 0.15 morn., when he is overhead at 6 p.m., and sets at midnight. Mercury is at Perihelion at the same time, and in superior conjunction of the Sun at 10 p.m. on the 11th. Jupiter's "square aspect" follows that of Mars on the 18th, when the giant planet is  $90^{\circ}$  from the Sun at 5 a.m. The twinkling Mercury and the mighty Saturn are within  $2^{\circ} 18'$  of each other on the 20th at 8 p.m., and on the following day at 8 a.m., the Sun enters the solstitial sign Cancer, and summer in the Northern Hemisphere commences. Uranus reaches his quadrature on the 25th at 4 a.m., when he is overhead at 6 p.m. At 2 a.m. of the 27th Venus passes Neptune, the latter planet being but  $29'$  N. at the time of nearest approach. The next noticeable conjunction is that of Jupiter and Mars on the 28th at 5 a.m., when Jupiter is less than  $1^{\circ}$  N. of Mars. About 10 p.m. on the 27th is a good time to view this approach. The "old" Moon is with Neptune at 3.18 p.m. on the 28th, and Venus at 6.30 the same evening.

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**What Smith is.**


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"Mr. Walter H. Smith, of Montreal, is the compiler and publisher of VENNOR'S ALMANAC for 1885, and the chief of the modern school of Astro-Meteorology. Mr. Smith is a practical scientist and in the new theories which he seeks to establish he appeals to nothing but fixed natural laws. He to-day occupies the positions formerly held by Tice and Vennor, but with a superior command of power and respect among contemporaneous scientists."—*Republican, Omaha.*



7th MONTH.

JULY.

31 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
● N.M.	1	5.36 ev.	5.22 ev.	5.21 ev.	4.58 ev.	4.16 ev.
☽ F.Q.	8	8.37 mo.	8.23 mo.	8.22 mo.	8.09 mo.	7.27 mo.
☾ F.M.	15	10.29 ev.	10.15 ev.	10.14 ev.	10.01 ev.	9.19 ev.
☾ L.Q.	24	2.41 mo.	2.27 mo.	2.26 mo.	2.13 mo.	1.31 mo.
● N.M.	30-31	0.45 mo.	0.31 mo.	0.30 mo.	0.17 mo.	11.35 ev.

DAYS.	Zodiac.
M. W.	

WEATHER FORECAST.

MONTREAL.

THE SUN				Moon	
Slow.	Rises.	Sets.	Souths.		
M.	H	M	H	M	H

1 Th.	♉
2 Fri.	♉
3 Sat.	♉

**DOMINION DAY.**

Fine, hot weather—Hail, rain and thunder storms.

4	4	16	7	51	11	35
4	4	16	51	Eve.		
4	4	17	51	1	36	

**(27) Second Sunday after Trinity.**

Jupiter in Virgo.

4 Su.	♍
5 Mo.	♍
6 Tu.	♍
7 We.	♍
8 Th.	♍
9 Fri.	♍
10 Sat.	♍

**Independence Day.**

Sultry—Fine, hot weather, with local storms—Heat and heavy thunder, damaging floods of rains in sections.

4	4	17	7	50	2	34
4	4	18	50	3	30	
4	4	19	49	4	23	
5	5	19	49	5	15	
5	5	20	48	6	05	
5	5	21	48	6	55	
5	5	22	48	7	44	

**(28) Third Sunday after Trinity.**

Saturn in Gemini.

11 Su.	♊
12 Mo.	♊
13 Tu.	♊
14 We.	♊
15 Th.	♊
16 Fri.	♊
17 Sat.	♊

Cool to cold weather for July; a reaction, with scattered showers and local frosts—Breezy, changing towards heat again—Thunder, wet and unsettled.

5	4	23	7	47	8	34
5	5	23	46	9	25	
5	5	24	45	10	14	
6	6	25	44	11	04	
6	6	26	44	11	53	
6	6	27	43	Morn		
6	6	28	42	0	40	

**(29) Fourth Sunday after Trinity.**

Uranus in Virgo.

18 Su.	♍
19 Mo.	♍
20 Tu.	♍
21 We.	♍
22 Th.	♍
23 Fri.	♍
24 Sat.	♍

Fine and favorable—Heat, local thunder showers—Unsettled, wind and hail storms—Hot, sultry weather toward the close. **Canada visited by Cartier, 1534.**

6	4	29	7	41	1	26
6	6	30	40	2	10	
6	6	31	39	2	53	
6	6	32	38	3	36	
6	6	33	37	4	19	
6	6	34	36	5	02	
6	6	35	35	5	47	

**(30) Fifth Sunday after Trinity.**

Neptune in Taurus.

25 Su.	♉
26 Mo.	♉
27 Tu.	♉
28 We.	♉
29 Th.	♉
30 Fri.	♉
31 Sat.	♉

**ST. JAMES.** Showers and wind storms—Cooler—Fine and breezy—Showery, cool rains—End of month sultry, with storms in the West.

6	4	36	7	34	6	35
6	6	37	33	7	25	
6	6	38	32	8	20	
6	6	39	31	9	17	
6	6	40	30	10	17	
6	6	41	29	Eve.		
6	6	42	29	0	19	

## PLANETS IN JULY, 1886.

## MONTREAL MEAN TIME.

On the first day of the month Saturn is  $4^{\circ}$  N. of the Moon at 8.43 p.m. The Sun is in Apogee (farthest from the earth) at noon on the 2nd. Mercury is  $4\frac{1}{2}^{\circ}$  N. of the Moon on the 3rd at 8.10 a.m., and Saturn comes into conjunction with the Sun on the same day at 9 p.m. He is a "morning star" after this to the year's close. Jupiter is again in close proximity to the Moon at 2 a.m. on the 7th, when the crescent orb passes  $33'$  N. Well seen about 9 p.m. at Montreal and Washington. Mars is  $2^{\circ}$  S. of Luna on the same morning at 8.17, and the Moon sweeps past Uranus about an hour later. Jupiter is at his greatest Heliocentric Latitude N. the same day at 3 p.m. A noticeable conjunction is that of Uranus and Mars, which occurs at 9 a.m. on the 9th, when Mars is but  $34' 33''$  S. of his far away brother. Best time for observation 9 to 10 p.m. the previous evening. Mercury is in his "descending node" on the 14th at 7 p.m.; reaches his "greatest elongation east" of the Sun of  $26^{\circ} 54'$  on the 19th, when he is well seen in the evening twilight—and comes to his Aphelion point on the 24-25th at midnight. Neptune and the Moon are but  $3^{\circ} 31'$  separated at 1.45 a.m. on the 26th, the Moon on the 28th paying her respects to Venus at 5.40 p.m., and on the 29th passing the place of Saturn at 1 p.m.

## Farmers Take Note.

"Prof. Walter H. Smith's forecast of a cool ending to June, and the opening day of July was also exactly verified, ice having formed on the morning of July 1st as far South as Virginia, for the first time—so late in the season—in the memory of man; with snow flurries in portions of the Eastern States and cold weather generally."—*Citizen, N. C.*

"Crops generally are looking well. Corn must be excepted, however, the indications being unfavorable. This reminds us that while the snow yet lingered, Prof. Smith through the *Advocate* advised farmers to relinquish corn planting this season, as the weather would prove too cold for its successful growth."—*Advocate.*

"The Almanac contains predictions for each of the months as usual, and a large amount of interesting meteorological and astronomical information."—*Post Dispatch, St. Louis.*

8th MONTH.

## AUGUST.

31 DAYS.

Moon's Phase	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
☽ F.Q.	6	4.26 ev.	4.12 ev.	4.11 ev.	3.58 ev.	2.16 ev.
☾ F.M.	14	1.44 ev.	1.30 ev.	1.29 ev.	1.16 ev.	0.34 ev.
☾ L.Q.	22	3.01 ev.	2.47 ev.	2.46 ev.	2.33 ev.	1.41 ev.
☾ N.M.	29	8.14 mo.	8.00 mo.	7.59 mo.	7.46 mo.	7.04 mo.

DAYS.  
M. | W. | Zodiac.

## WEATHER FORECAST.

## MONTREAL.

—THE SUN— Moon  
Slow. Rises. Sets. Souths.

## (31) Sixth Sunday after Trinity.

Mercury in Leo.

			M.	H	M	H	M	H	M
1 Su.	♊	<b>LAMMAS DAY.</b> Opens fine—Heat, followed by thunder storms in the West and over most of the rest of the United States and Canada—Cloudy and rainy in many sections.	6	4	43	7	28	Eve.	
2 Mo.	♊		6		45		26	2	13
3 Tu.	♋		6		46		25	3	07
4 We.	♋		6		47		24	4	00
5 Th.	♌		6		48		23	4	49
6 Fri.	♌		6		50		21	5	41
7 Sat.	♌		5		51		19	6	31

## (32) Seventh Sunday after Trinity.

Venus in Gemini.

8 Su.	♊	<b>ST. LAWRENCE.</b> Sudden, dashing rains about the 8th, followed by a cool change—Damage by local frosts probable in the North and North-west—Cool weather for August—Close of week variable and gusty, with local showers.	5	4	52	7	18	7	22
9 Mo.	♊		5		53		16	8	11
10 Tu.	♋		5		54		14	9	01
11 We.	♋		5		56		13	9	50
12 Th.	♌		5		57		11	10	37
13 Fri.	♌		5		58		09	11	23
14 Sat.	♌		4		59		08		Morn

## (33) Eighth Sunday after Trinity.

Mars in Virgo.

15 Su.	♋	<b>Assumption B. V. M.</b> Warmer, heat and storms, considerable damage by lightning reported—Cool and fine—Chilly, with wind and rain about the 20th and 21st.	4	5	00	7	07	0	08	
16 Mo.	♋		4		02		06	0	52	
17 Tu.	♌		4		03		04	1	34	
18 We.	♌		4		04		02	2	17	
19 Th.	♍		4		05		00	3	00	
20 Fri.	♍		3		06		6	58	3	44
21 Sat.	♍		3		08		56	4	30	

## (34) Ninth Sunday after Trinity.

Jupiter in Virgo.

22 Su.	♍	<b>ST. BARTHOLOMEW.</b> Fine—Hot weather again, with destructive thunder storms—Showers and high winds—Variable and gusty—Week ends cool and windy, with storms on the Atlantic Coast and in the gulf of St. Lawrence.	3	5	09	6	54	5	18
23 Mo.	♍		2		10		52	6	09
24 Tu.	♎		2		11		51	7	03
25 We.	♎		2		12		49	8	00
26 Th.	♏		2		14		48	9	00
27 Fri.	♏		1		15		46	10	00
28 Sat.	♏		1		16		44	10	58

## (35) Tenth Sunday after Trinity.

Saturn in Gemini.

29 Su.	♊	Showery, heavy rains in the South—Month ends cloudy and cold.	1	5	17	6	42	11	56
30 Mo.	♊		0		18		41	Eve.	
31 Tu.	♋		0		20		40	1	48

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 PLANETS IN AUGUST, 1886.
 

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 MONTREAL MEAN TIME.
 

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Mercury is  $3^{\circ} 5'$  S. of the "New" Moon at 11.10 a.m. on the 1st, and "stationary" on the following day at noon. At 4.11 p.m. on the 3rd Jupiter is  $1^{\circ} 8'$  S. of the crescent Moon, the two planets forming a pretty picture in the evening sky. Uranus is near the Moon at 6.53 the same evening. On the 4th at 5.54 p.m. the Moon approaches Mars within  $4^{\circ}$ . Lustrous Venus and stolid Saturn are in close conjunction on the 8th at 10 a.m., Venus passing but  $1'$  S. of her ringed companion. On the 16th at 3 a.m. Mercury reaches inferior conjunction with the Sun and becomes a "morning star." Venus is in her "ascending node" the same day at 9 a.m., and three hours later, when the Sun reaches the noon mark, Jupiter swings into line with Uranus, passing the planet of Herschel  $32'$  to the N. On the 20th at 6 p.m., Neptune is  $90^{\circ}$  from the Sun, and on the 23rd at 3 p.m. the giant of the system, Jupiter, is at his Aphelion point,—a position only reached once in about twelve years. Mercury is again "stationary" on the 25th at 11 p.m. The waning Moon, prior to her conjunction with the Sun on the 29th, is near Saturn on the 26th at 4.37 a.m. (passing  $3^{\circ} 40'$  S.); Venus on the 27th at 3.35 p.m. (passing  $3^{\circ} 10'$  S.) and Mercury on the 28th at 4.23 a.m. (passing  $0^{\circ} 14'$  S). Neptune is "stationary" at 7 a.m. on the 29th, and the Sun is eclipsed the same day. The "new" Moon is alongside Uranus on the 31st at 6.45 a.m., and passes  $1^{\circ} 41'$  N. of Jupiter at 9.58 the same morning.

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 "Hits it every time."
 

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"The *Almanac* contains a mass of useful information."—*Times*.

"Mr. J. C. Freeman, one of our best farmers says, 'continue to publish Prof. Smith's weather forecast; he hits it every time.' We will continue it, and do so because we can endorse what Mr. Freeman says."—*Citizen*.

"The weather forecast of "cold, with probable frost" for the latter part of the week ending August 26 was fulfilled to the letter in this section." "The weather may be expected to resume the 'even terror of its way,' now that Prof. Smith has returned from his summer holiday."—*Huntingdon Advocate*.

9th MONTH.

# SEPTEMBER.

30 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
☽ F.Q.	5	3.15 mo.	3.01 mo.	3.00 mo.	2.47 mo.	2.05 mo.
☾ F.M.	13	6.10 mo.	5.56 mo.	5.55 mo.	5.42 mo.	5.00 mo.
☾ L.Q.	21	1.15 mo.	1.01 mo.	1.00 mo.	0.47 mo.	0.05 mo.
☾ N.M.	27	4.38 ev.	4.24 ev.	4.23 ev.	4.10 ev.	3.28 ev.

DAYS.	M. W.	Zodiac.	WEATHER FORECAST.	MONTREAL.							
				—THE SUN—			Moon				
				Fast.	Rises.	Sets.	Souths.				
1 We.	☾	♈	<b>ST. GILES.</b> Cool, with some sharp frosts in Canada and the Northern United States—Showery and windy, local thunder storms.	0	5 21	6 39	Eve.				
2 Th.	☾	♈		0	22	37	3 33				
3 Fri.	☾	♈		1	23	35	4 25				
4 Sat.	♄	♈		1	24	33	5 17				

**(36) Eleventh Sunday after Trinity.** Uranus in Virgo.

5 Su.	♄	♍	Hot weather for the time of year, followed by—heavy storms of rain and wind and some heavy rains in Northern sections. A reactionary period of cool to cold weather, with local frosts reaching down to the more northerly of the Southern States.	1	5 26	6 31	6 08
6 Mo.	♃	♍		2	27	29	6 58
7 Tu.	♃	♍		2	28	27	7 47
8 We.	♃	♍		2	29	25	8 34
9 Th.	♃	♍		3	30	23	9 21
10 Fri.	♃	♍		3	32	22	10 06
11 Sat.	♃	♍		4	33	20 10 50	

**(37) Twelfth Sunday after Trinity.** Neptune in Taurus.

12 Su.	♃	♉	Warmer—Rains in the West—Fine and pleasant during the middle of the week—Rainy and windy, with severe storms in sections at the close.	4	5 34	6 18	11 33
13 Mo.	♃	♉		4	35	16	Morn
14 Tu.	♃	♉		5	36	14	0 16
15 We.	♃	♉		5	38	12	1 00
16 Th.	♃	♉		5	39	10	1 42
17 Fri.	♃	♉		6	40	08	2 27
18 Sat.	♃	♉		6	41	06	3 14

**(38) Thirteenth Sunday after Trinity.** Mercury in Leo.

19 Su.	♁	♌	High winds and storms; damage reported on Lakes and Atlantic Coasts—Cold and fall-like—Cloudy and windy, cool nights—Week ends with rain and wind.	6	5 42	6 04	4 03
20 Mo.	♁	♌		7	44	02	4 55
21 Tu.	♁	♌		7	45	00	5 49
22 We.	♁	♌		7	46	5 58	6 46
23 Th.	♁	♌		8	47	56	7 33
24 Fri.	♁	♌		8	48	54	8 41
25 Sat.	♁	♌		8	50	53	9 39

**(39) Fourteenth Sunday after Trinity.** Venus in Leo.

26 Su.	♁	♌	Heavy rains in the N. W. and W.—Cloudy and stormy, with sudden squalls; rough weather on the Atlantic Coast, Equinoctial gales—Month ends with rough, windy weather and hail storms.	9	5 51	5 51	10 35
27 Mo.	♁	♌		9	52	49	11 30
28 Tu.	♁	♌		9	53	47	Eve.
29 We.	♁	♌		10	55	45	1 20
30 Th.	♁	♌		10	56	43	2 13

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 PLANETS IN SEPTEMBER, 1886.
 

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 MONTREAL MEAN TIME.
 

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Mercury heads the list again this month by reaching his greatest elongation West of  $18^{\circ} 5'$  on the 2nd at 4 a.m. He is then well seen in the morning ere sunrise. On the same day at 8 a.m. he is in his "ascending node." Mars 48 min. later is in conjunction with the Moon. Mercury at Perihelion, 11 p.m. on the 6th. Venus is alongside *Alpha Leonis* (Regulus) on the 11th at 2 p.m., and is in Perihelion on the 18th at 4 p.m. Luna overtakes Saturn on the 22nd, leaving the latter  $3\frac{1}{2}^{\circ}$  N. at 5.33 p.m. The Sun enters the equinoctial sign Libra at 10 p.m. the same evening, and Autumn commences. On the 26th at 11.40 a.m. Venus is in conjunction with the Moon, Mercury being  $1^{\circ} 6'$  S. of the earth's satellite on the day following at 3.14 p.m. The 27th sees Uranus close to the Moon at 8.14 p.m., and Mercury in superior conjunction with the Sun at 11 p.m. The Moon directly after becoming "new" passes Jupiter on the 28th at 5.43 morn. The far away Uranus is close to the wandering Mercury at 1 p.m. on Sept. 29th.

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 "Boldly at the Front."
 

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"The writer generally knows what he is talking about on the subject of meteorology."—*Post*.

"The weather prophets should be merry over having their opinions verified. All seemed to converge to a storm this day—first, Mr. Walter Smith, later, Prof. Wiggins, and finally 'in at the death,' J. Perrin"—*Witness*.

"The weather for the past week assumed a cold, wintry aspect; on Friday, Prof. Smith's snowstorm arrived, followed by terrific gales."—*Advocate*.

"It is only in recent years that anything like a systematic attempt has been made to forecast our weather changes. \* \* There have always been many guessers, but in dry weather all signs fail. When Vennor, a few years ago, so accurately foretold the general character of our seasons months ahead, the weather seers took a new and advanced step. Now Prof. Walter H. Smith, Vennor's successor, is boldly at the front, not only with his predictions, but his reasons for them, as well as the basis of his calculations. In a recent issue he presented *The People* with a general forecast for the summer. To-day our readers will find in a special article prepared for them, the tornado period, accounted for and located, on the astro-meteorological theories. Prof. Smith writes in a candid and thoughtful way, and seems ready to abide the results of his work."—*The People*.



10th MONTH.

# OCTOBER.

31 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
D F. Q.	4	5.53 ev.	5.39 ev.	5.38 ev.	5.25 ev.	4.43 ev.
☾ F. M.	12	10.43 ev.	10.29 ev.	10.28 ev.	10.15 ev.	9.33 ev.
☾ L. Q.	20	10.00 mo.	9.46 mo.	9.45 mo.	9.32 mo.	8.50 mo.
● N. M.	27	2.35 mo.	2.21 mo.	2.20 mo.	2.07 mo.	1.25 mo.

DAYS.		Zodiac	WEATHER FORECAST.	MONTREAL.			
M.	W.			THE SUN		Moon	
				Fast.	Rises.	Sets.	Souths.
1	Fri.	♏	Enters gusty and cold—Local frosts.	M.	H	M	H
2	Sat.	♏		10	5	57	5
				11	59	39	3
							Eve.
							3

**(40) Fifteenth Sunday after Trinity.** Mars in Scorpio.

3	Su.	♏		11	6	00	5	37	4	50
4	Mo.	♏	Windy weather, with local storms—	11	01		35	5	41	
5	Tu.	♏	Cool and frosty, end of week warmer with	12	03		34	6	30	
6	We.	♏	wind.	12	04		32	7	17	
7	Th.	♏		12	05		30	8	03	
8	Fri.	♏		12	06		28	8	47	
9	Sat.	♏	<b>ST. DENIS.</b>	13	08		26	9	31	

**(41) Sixteenth Sunday after Trinity.** Jupiter in Virgo.

10	Su.	♏	Rainy and unsettled, windy and cold,	13	6	09	5	25	10	13
11	Mo.	♏	<b>Columbus discov'd America, 1492.</b>	13	11		23	10	57	
12	Tu.	♏		13	12		21	11	40	
13	We.	♏	sleet in sections—A fine, milder interval	14	13		19	Morn		
14	Th.	♏	—Cloudy, wet and windy, with dashing	14	15		17	0	25	
15	Fri.	♏	rains, heavy in Western States and West-	14	16		16	1	12	
16	Sat.	♏	ern Canada—Week ends cold sleety and	14	18		14	2	01	
			rainy.							

**(42) Seventeenth Sunday after Trinity.** Saturn in Gemini.

17	Su.	♏		15	6	19	5	12	2	52
18	Mo.	♏	Cloudy and fine—Cool, local frosts—	15	20		10	3	45	
19	Tu.	♏	Scattered showers in sections—Generally	15	21		08	4	40	
20	We.	♏		15	23		07	5	35	
21	Th.	♏	fine weather towards the end of the week;	15	24		05	6	31	
22	Fri.	♏	fine and warm for the season.	15	25		03	7	27	
23	Sat.	♏		16	26		01	8	22	

**(43) Eighteenth Sunday after Trinity.** Uranus in Virgo.

24	Su.	♏		16	6	28	5	00	9	16
25	Mo.	♏	Opens fine—Fall-like change, with wind	16	29		4	58	10	10
26	Tu.	♏	and clouds, cold weather and snow flurries	16	31		57	11	03	
27	We.	♏	about the 25th, 26th and 27th—A season-	16	32		55	11	57	
28	Th.	♏	<b>St. Simon and St. Jude.</b>	16	33		53	Eve.		
29	Fri.	♏	able interval—Mild at close.	16	35		52	1	46	
30	Sat.	♏		16	36		50	2	39	

**(44) Nineteenth Sunday after Trinity.** Neptune in Taurus.

31	Su.	♏	<b>All Hallow's Eve.</b> Local storms.	16	6	38	4	49	3	32
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 PLANETS IN OCTOBER, 1886.
 

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 MONTREAL MEAN TIME.
 

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One of the notable events of the month occurs on the 1st at 4 a.m., when Uranus is in conjunction with the Sun and becomes a "morning star." Mars is S. of the Moon 46 minutes later. Mercury and Jupiter—both away behind the Sun and invisible—are in conjunction on the 3rd at 9 p.m., Jupiter reaching his conjunction with the 'god of day' on the 9th at noon. He then takes his station among the "morning stars." Venus and Uranus are together on the 14th at 6.15 morn., Uranus being less than 1° S. of Venus. This near approach is unfortunately invisible, the planets being too near the Sun for observation. The slow moving Saturn arrives at "quadrature" on the 15th at 10 a.m. He is then 90° from the Sun, and is directly overhead at 6 a.m. The Moon passes near the place of the invisible Neptune the same evening at 8.50, and leaves Saturn behind on the 20th at 2.21 morn; Mercury is at his Aphelion point the same evening at 11. Their nearness to the Sun will prevent a view being obtained of a very near conjunction of the lordly Jupiter and the brilliant Venus, which occurs on the 22nd at 4 p.m. Venus is then but 18' N. of Jupiter. The Moon, in her decrease, is near Uranus at 9.10 a.m. on the 25th; Jupiter at 1.53 a.m. on the 26th, and Venus at 8.5 a.m. the same day. The "new" Moon is with Mercury at 7.55 a.m. on the 28th, and passes 6° N. of Mars on the 30th at 5.15 a.m.

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 The First Frost Located.
 

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"Your forecast of the weather for the week beginning Sept. 25th and ending Oct. 1st has been very correct, if we may judge by the telegraphic reports."—*Com.*

"The probable date of the first severe frost of the season, as forecast by Mr. Walter H. Smith—which appeared on Oct. 1st, having been mentioned by him in a letter to a scientific gentleman in North Carolina, as likely to find its way as far South as that State, the probability found its way into the *Citizen of Asheville, N.C.*, and other local papers. Mr. Smith received information yesterday in the shape of signal office reports and newspaper paragraphs, showing that the forecast proved a 'decided hit,' a severe frost having visited North Carolina, doing considerable damage to outstanding crops, some of which were frozen."—*Witness*

11th MONTH.

# NOVEMBER.

30 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
☾ F. Q.	3	0.15 ev.	0.01 ev.	0.00 ev.	11.57 mo.	11.15 mo.
☽ F. M.	11	2.26 ev.	2.12 ev.	2.11 ev.	1.58 ev.	1.16 ev.
☾ L. Q.	18	6.00 ev.	5.46 ev.	5.45 ev.	5.32 ev.	4.50 ev.
☉ N. M.	25	2.38 ev.	2.24 ev.	2.23 ev.	2.10 ev.	1.28 ev.

DAYS.	M.   W.	Zodiac	WEATHER FORECAST.	MONTREAL.						
				THE SUN—			Moon			
				Fast.	Rises.	Sets.	Souths.			
1 Mo.	☽	♏	<b>ALL SAINTS.</b> Opens fine—Cold and windy, with severe storms of snow and rain according to latitude about 4th and 5th—Heavy gales on the Atlantic Seaboard—Week ends fine.	M.	H	M	H	M	H	M
2 Tu.	☽	♏		16	6	39	4	47	Eve.	
3 We.	☽	♏		16		41		46	5	11
4 Th.	☽	♏		16		42		44	5	58
5 Fri.	☽	♏		16		44		43	6	43
6 Sat.	☽	♏		16		45		41	7	27
				16		47		40	8	10

(45) Twentieth Sunday after Trinity. Mercury in Scorpio.

7 Su.	☽	♏	First part of week fine and seasonable	16	6	48	4	39	8	52
8 Mo.	☽	♏		16		50		38	9	36
9 Tu.	☽	♏	<b>Prince of Wales born 1841.</b>	16		51		37	10	20
10 We.	☽	♏	<b>MARTINMAS.</b> —Last half variable, with snow, rain and wind—Mist and fog probable on the last day of the week.	16		53		35	11	07
11 Th.	☽	♏		16		54		34	11	56
12 Fri.	☽	♏		16		55		33	Morn	
13 Sat.	☽	♏		15		57		32	0	47

(46) Twenty-first Sunday after Trinity. Venus in Libra.

14 Su.	☽	♏	Fine — Cloudy, warm and unsettled, with thunder storms in places about the 16th—Colder, wind, snow, sleet or rain, according to location.	15	6	58	4	31	1	40	
15 Mo.	☽	♏		15		7	00		30	2	36
16 Tu.	☽	♏		15		01		29	3	32	
17 We.	☽	♏		15		02		28	4	28	
18 Th.	☽	♏		15		03		27	5	22	
19 Fri.	☽	♏		14		04		26	6	16	
20 Sat.	☽	♏	14		06		25	7	09		

(47) Twenty-second Sun. aft. Trinity. Mars in Sagittarius.

21 Su.	☽	♏	Windy, with sudden squalls—Stormy, with snow—Rain, snow and wind about <b>ST. CATHERINE.</b> the 25th and 26th—A stormy week.	14	7	08	4	24	8	01
22 Mo.	☽	♏		13		09		23	8	53
23 Tu.	☽	♏		13		10		22	9	45
24 We.	☽	♏		13		12		21	10	38
25 Th.	☽	♏		12		13		21	11	32
26 Fri.	☽	♏		12		14		20	Eve.	
27 Sat.	☽	♏	12		15		20	1	19	

(48) First Sunday in Advent.

			Jupiter in Virgo.							
28 Su.	☽	♏	Variable, unsettled, snow or rain. <b>ST. ANDREW.</b>	11	7	16	4	19	2	12
29 Mo.	☽	♏		11		18		19	3	02
30 Tu.	☽	♏		11		19		18	3	51



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**PLANETS IN NOVEMBER, 1886.**


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MONTREAL MEAN TIME.

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Saturn, rising earlier each night, is "stationary among the stars" on the 4th at 1 a.m.; after which he commences to "retrograde." The Moon passes below Neptune at 2.10 on the morning of the 12th. Mercury is "evening star" at "greatest elongation" East of  $22^{\circ} 38'$  on the 13th at 7 p.m. The Moon is S. of Saturn at 7.45 on the morning of the 16th; Neptune is at opposition of the Sun on the 18th at 2 p.m., when he enters the ranks of "evening stars." Uranus will be found  $2^{\circ} 33'$  S. of the Moon on the 21st, and Jupiter is some  $3^{\circ}$  S. at 7.51 p.m., a few minutes later. Mercury is "stationary" on the 23rd at 3 a.m. The "old" Moon is alongside Venus at 9.07 on the 25th, and after becoming "new" passes Mercury at 4.10 on the 26th, and Mars at 8.54 on the 28th. Mercury is in his "ascending node" on the 29th at 9 a.m.

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**THE NOVEMBER METEORS.**


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Those radiating from "the sickle," above Regulus in Leo, (Cluster B., Leonids) which follow in the wake of Temple's Comet, are likely to be seen this year and next (1886-7) during the early mornings of Nov. 13th, 14th and 15th. The radiant point is overhead just prior to sunrise at Montreal. The star cluster that follows in the orbit of Biela's Comet is also due in 1886. Its radiant point is overhead in the constellation Andromeda about 8 p.m. on Nov. 27th, on which date in 1872 the great display occurred.

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**Correct Again.**


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"Your weather forecasts are very correct in this section."—*W. B., Utah.*

"Its main feature is a forecast of the weather based on astrometeorological calculations, and the planetary influence on crops."—*Watchman.*

"The astronomical calculations in this *Almanac* are carefully made, its make up and general appearance are very good, and we can cordially recommend it to our readers as being in all respects one of the best we have ever seen."—*Advocate.*

12th MONTH.

# DECEMBER.

31 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
☽ F.Q.	3	9.44 mo.	9.30 mo.	9.29 mo.	9.16 mo.	8.34 mo.
☾ F.M.	11	4.50 mo.	4.36 mo.	4.35 mo.	4.22 mo.	3.40 mo.
☾ L.Q.	18	1.58 mo.	1.44 mo.	1.43 mo.	1.30 mo.	0.28 mo.
☾ N.M.	25	5.14 mo.	5.00 mo.	4.59 mo.	4.46 mo.	4.04 mo.

DAYS.		Zodiac.	WEATHER FORECAST.	MONTREAL.					
M.	W.			THE SUN			Moon		
				Fast.	Rises.	Sets.	Souths.		
1	We.	♊	Opens mild, with fog and rain—Generally stormy, with heavy downfall and floods in sections.	M.	H	M	H	M	M
2	Th.	♋		11	7	20	4	18	Eve.
3	Fri.	♌		10	21	18	5	21	
4	Sat.	♍		10	22	17	6	04	
				9	23	17	6	47	

(49) Second Sunday in Advent.

Saturn in Gemini.

5	Su.	♊	Continued storms of snow or rain, according to locality—Colder, possibly a <b>Conception B.V.M.</b> sharp term in the North West—Milder about 9th and 10th—Colder close of week.	9	7	24	4	16	7	30
6	Mo.	♋		9	25	16	8	13		
7	Tu.	♌		8	26	16	8	59		
8	We.	♍		8	27	16	9	46		
9	Th.	♎		7	28	16	10	37		
10	Fri.	♏		7	29	16	11	30		
11	Sat.	♐	6	30	16		Morn			

(50) Third Sunday in Advent.

Uranus in Virgo.

12	Su.	♍	<b>ST. LUCY.</b> Stormy, with snow and heavy clouds—Dull and cold—Snowy and blustry—Indications of the approach of much colder weather by the close.	6	7	31	4	16	0	26
13	Mo.	♎		5	32	17	1	24		
14	Tu.	♏		5	33	17	2	22		
15	We.	♐		5	34	17	3	18		
16	Th.	♑		4	35	17	4	13		
17	Fri.	♒		4	36	18	5	06		
18	Sat.	♓		3	37	18	5	58		

(51) Fourth Sunday in Advent.

Neptune in Taurus.

19	Su.	♉	Very cold weather over the major portion of the continent—"Dip" about the 19th, 20th and 21st—Moderating, milder, rain or snow—Stormy, high winds, drifts and very cold weather again at the close.	3	7	37	4	19	6	49	
20	Mo.	♊		2	38	19	7	40			
21	Tu.	♋		<b>ST. THOMAS.</b> 21st—Moderating, milder, rain or snow—Stormy, high winds, drifts and very cold weather again at the close.	2	38	20	8	31		
22	We.	♌		1	39	20	9	23			
23	Th.	♍		1	39	21	10	15			
24	Fri.	♎	0	40	21	11	08				
25	Sat.	♏	<b>CHRISTMAS DAY.</b>	sl'w	40	22	Eve.				

(48) First Sunday after Christmas. Mercury in Ophiuchus.

26	Su.	♏	<b>ST. STEPHEN.</b>	1	7	40	4	23	0	53
27	Mo.	♐	<b>ST. JOHN EVANGELIST.</b>	1	40	23	1	43		
28	Tu.	♑	<b>INNOCENTS.</b> Week begins cold, with extreme temperatures—Moderating—Thawing, variable—Rain and slush, year ends mild.	2	41	24	2	30		
29	We.	♒		2	41	25	3	16		
30	Th.	♓		3	41	25	4	00		
31	Fri.	♊		3	41	26	4	42		

## PLANETS IN DECEMBER, 1886.

## MONTREAL MEAN TIME.

The final month of the year is ushered in on the 2nd with the superior conjunction of Venus and the Sun at 11 p.m. The following morning, Mercury passes inferior conjunction at 7 a.m., and is  $1^{\circ} 14'$  N. of a direct occultation of Venus one hour later. He is in Perihelion at 11 p.m. on the 3rd, and his sister inferior Venus reaches her "descending node" at 10 p.m. on the 5th. The Moon is near Neptune on the 9th at 9.20 a.m. Mercury is "stationary" on the 13th at 1 a.m. The Moon, after becoming "full" passes  $3^{\circ}$  S. of Saturn at noon on the 13th; leaves Uranus behind at 2.50 a.m. on the 19th, and is some  $3^{\circ} 24'$  N. of Jupiter at 10.35 a.m. on the 20th. On the 21st at 4 p.m., the Sun enters the tropical sign Capricorn and winter begins. Mercury is at his "greatest elongation" West of  $22^{\circ} 6'$  at 2 a.m. on the 15th, and a little S. of the Moon at the same time. The two planets will be easily seen before daybreak in the eastern sky. Mars is at "greatest Heliocentric Latitude South" at 10 a.m. on the 23rd. Venus is S. of the Moon on the 25th at 4.45 p.m., and Mars is in a similar position at 1.50 p.m. on the 27th.

## Read and Mark.

"People in New York last winter often wished they could get their hands in Vennor's wool. If the New York *Times* is to be believed, they would rather lay their hands on Vennor's heir."—*Witness*.

"The weather forecast of Mr. Walter H. Smith for the week ending yesterday, (Dec. 10th) proved singularly correct in this section. Generally speaking, Mr. Smith hits the mark pretty nearly. Read his forecasts and then note the weather."—*Advocate*.

"Mr. Smith, who is yearly increasing his well earned reputation of being a reliable authority on astronomical subjects, contributes (to the *Almanac*) a host of essays, including one on 'Ruddy Sunsets.' \* \* \* The same gentleman has also written a long paper on 'Lunar Influence on Vegetation,' as a help to farmers. A table for sowing of seeds according to the latest theories is added."—*Star*.

"The chapters in this *Almanac* devoted to 'Lunar Influence on Vegetation' are curious and interesting, and should not be too hastily passed over. The author does not profess to have reduced 'moon farming' to an exact science, but he gives facts and testimonials from widely separated parts of the country, which go far to induce further experiment and investigation."—*Dispatch, Fla.*



## LUNAR INFLUENCE ON VEGETATION.

In my last Annual, as well as in the *VENNOR'S ALMANAC* of 1884, I gave several reasons for adhering to the theory of Lunar Influence on Vegetation, and in my then published remarks attempted to show by my own and others experience that a belief in such is founded on actual observation and fact. To the sceptic, to the quibbler, "the man who knows all about it, and is not fool enough to experiment," I have nothing to say, it is to the honest investigator that these pages are addressed. All new theories at the outset, especially when an attempt is made to carry them into action, bring the theorist into contempt. But what is heresy to-day may be scientific orthodoxy to-morrow, and as "nothing succeeds like success" I have nought to fear.

Planting and sowing, I know from my own experiments, if properly conducted, and the times given in this annual properly attended to, will prove successful in a marked degree, 19 times out of 20. A few testimonials follow from persons "who know what they are talking about."

The following is from a practical, unbiassed man of science on the results obtained by planting according to my instructions, and is conclusive proof of the truth and usefulness to agriculturists of my system. It should set all farmers and gardeners thinking:—

PROF. WALTER H. SMITH,

DEAR SIR, -In April I planted two small parcels of ground in potatoes, and with the view of testing your theory. The one I planted according to your instructions and the other not. As a result, those planted according to directions produced a crop at the rate of 100 bushels to the acre, and on those not so planted according to directions the yield was only 40 bushels per acre. The same variety of potatoes were used, both pieces of ground lay near each other, were of the same quality of land, and I made it a point to give each exactly the same treatment.

This I consider a fair and impartial verdict in favor of the "Lunar Influence" theory.

Respectfully,

L. J. HEATWOLE.

DALE-ENTERPRISE, VA., Aug. 15th, 1885.

SIR,—The time of year is approaching for sowing fall wheat. In this latitude we sow from Sept. 20th up to Nov. 1st. What signs and dates are best to sow in? Our wheat seeding generally takes from five

to ten days. The corn I planted as per your suggestion last spring came up and grew splendidly until checked by an unprecedented drouth. We are now having rains that will help our yield.

CHARLESTON, JEFF. CO., W. VA.

J. H. S.

PROF. WALTER H. SMITH,

DEAR SIR,—I planted early bush scollop squash on your sign, and never had larger, better flavored, or more constant bearers; in fact they are bearing yet. I had so many from eight hills of one plant each, after giving neighbors all they wanted, I sent a lot to town every third day, and they were the best and outsold any in the Asheville market. I had the same success with lettuce, but did not sell any. The above plantings were on April 15th and 16th, 1885, from 4.30 to 6.30 p.m., as given in your ALMANAC. On April 27th, 8.30 to 10.15 a.m., I planted corn, and never had better stocks or better ears. May 30th, 10 a.m., planted pine apple squash. They have been splendid, and good bearers.

Respectfully,

N. PLUMADORE.

ASHEVILLE, N.C., Oct. 1st, 1885.

SIR,—Lunar influence is exerted less or more over all timber; therefore farmers should take note and cut their building and fence timber during the decline of the moon, and the last quarter is the best time to cut for durability. The time for killing animals for food, so that they will weigh the most and the flesh shrink the least, is when the moon is between seven and thirteen days old, and the best hours generally between eight and ten a.m. The housewife, if she bakes, when the moon is in Aries ( $\Upsilon$ ), Libra ( $\text{♎}$ ), Cancer ( $\text{♋}$ ), or Capricorn ( $\text{♑}$ ) [See Calendar pages for these dates—ED.] will have better results than at any other times. I wish people would observe, and convince themselves, of important truths. Those who are interested in, and desire useful hints on Lunar Influence at seed sowing, will certainly find much valuable information in your ALMANAC.

MONTREAL, Jan. 1885.

J. H. FULTON, M.D., C.M.

SIR,—I planted nearly all my seeds by the moon last season from directions in your ALMANAC. Cucumbers, squash, melons, etc., could not have done better. Eight kinds of corn, and a small variety of popcorn, all did unusually well. Beets, carrots, lettuce, cabbage, radish, parsnip and celery did well. I cultivated over thirty varieties of vegetables, and had an excellent garden. Next season, with your promised directions, I intend to make a more valuable test in the interest of science, and to gratify my own curiosity as to moon influence.

SHAWANO, WIS., Jan. 1885.

W. S. WOOD.

SIR,—Is not the vast expanse of water moved by lunar influence, and even the mind of man—the most perfect of God's works—in some instances also influenced? Then why should not this influence work on vegetation? Why be looked upon as a mere superstition? I followed your dates and carefully marked results. I planted a small bed of mignonette, carefully selecting the soil and place, following your date and hour, and the result was a vigorous growth, short and bushy, with an abundance of blossoms and a strong perfume. Three weeks

later, a date given for trailing plants and creepers, I put down another bed of mignonette, also three rows of dwarf peas, selecting a similar soil and place. The result was remarkable, the mignonette growing vine-like with scarcely any blossoms or perfume; the peas also grew vine-like, the fruit very irregular, small and watery.

MONTREAL, Jan. 1885.

W. FANNING.

SIR,—Your ALMANAC for January, February and March, 1885, promised us very hard weather. It came as you predicted. Accordingly the weather was too cold to follow the earliest dates for sowing by Lunar Influence in this section. I sowed on March 19th (moon in Taurus) as you directed, carrots, parsnips, salsify and onion seeds. These crops are the best I have had. I sowed tomato seeds on Feb. 20th, at 10 a.m. (moon in Taurus), and some of the fruit weigh one pound. I transplanted sweet potatoes on April 20th (moon in Cancer), and had potatoes on the 18th weighing from half a pound to one pound.

NASHVILLE, TENN., July, 1885.

W. M. HOWLETT.

Another writes:—

Up to the very row where I began planting, according to the time given in the ALMANAC, I can see the corn is not as regular, and not as tall as that planted at the proper time. A finer stand of bean, pumpkin and cucumber stalks I never had before, while my neighbors complain that they have had very poor "luck" this season. It is readily seen that there is a difference in the result of planting by your directions.

One more testimony and I close:—

As to vegetables, we had potatoes planted the last week in May (the right time of the moon), which yielded much better than at any other time, one bushel in eight hills; fifty-six potatoes in one hill, thirty of which were good sized ones. One cabbage measured fifty-two inches, and one tomato 15½ inches.

## SEED SOWING,—1886.

### LATITUDE 35°.—FAVORABLE TIMES

According to the theory of Lunar Influence on Vegetation for sowing and transplanting in Virginia, West Virginia, North and South Carolina, Georgia, Kentucky, Tennessee, Arkansas, Southern Missouri, Northern Texas, Arizona, Indian Territory, New Mexico, California, and all places in North America at or near 35° North Latitude.

*January.*—The 9th from 9.35 to 10.50 a.m., when the Moon is rising in Pisces. The same day from 12.10 noon to 1.35 aft. is also excellent for everything except root crops,



potatoes and the like. For roots and early potatoes choose the 14th and 15th from 9.15 to 10.30 a.m., when Pisces is rising and the Moon is in Taurus below the horizon. For other things, the same dates are good from 11.45 a.m. to 1.10 p.m. Other favorable dates in January are the 18th and 19th from 9.00 to 10.15 a.m.; 11.30 a.m. to 1.00 p.m. and 3.00 to 5.10 p.m.

*February.*—The 5th and 6th from 7.50 to 9.05 a.m.; 10.25 to 11.50 a.m. and 1.50 to 4.00 p.m. are good. For roots, take the 10th, 11th and 12th from 7.20 to 8.35 a.m. Other things, the 10th and 11th from 9.55 to 11.20 a.m., and 1.20 to 3.30 p.m. Root crops and early potatoes should be sown on the 15th and 16th between 7.10 and 8.25 a.m. and 9.45 and 10.10 a.m. Things requiring top growth should be put in on the 15th, between 12.10 noon and 2.20 p.m.

*March.*—The first favorable date this month is the 9th, from 11.50 a.m. to 2.00 p.m. for grain and vegetables, the same hours are suitable on the 10th and 11th. For root crops, sow between 8.10 and 9.35 a.m. on the 10th and 11th. The 15th has the Moon in Cancer, and root crops should be put in from 5.20 to 6.35 a.m. and 7.55 to 9.20 a.m. Corn, wheat, other grain and vegetables, 11.20 a.m. to 1.30 p.m. The 20th is a splendid date for root crops and the like, between the hours of 5.00 and 6.10 a.m.; 7.30 and 9.00 a.m., and 11.15 to 1.20 p.m.

*April.*—Root crops on the 6th and 7th, with the moon in Taurus and Pisces rising from 4.00 to 5.05 a.m.; other crops, grain, vines, etc., 6.25 to 7.50 a.m.; 9.50 a.m. to 12.00 noon; and 5.05 to 7.30 p.m. The 10th will see the moon in Cancer, when roots, potatoes and the like should be sown from 6.10 to 7.35 a.m., with Taurus rising. Other crops, grains, etc., 9.35 to 11.45 a.m., and 4.50 to 7.15 p.m. The 16th and 17th has the moon in Libra, and root crops should be put in between 9.20 and 11.20 a.m.; grains, vines, etc., between 4.25 and 6.50 p.m.

*May.*—The moon is in Cancer on the 7th and 8th, rising from 8.00 to 10.00 a.m., when most kinds of seeds should be sown. A favorable time for all grains and succulent vegetables is from 3.05 to 5.30 p.m. on the same days.

The Moon is in Libra on the 14th and 15th, and Cancer rises from 7.20 to 9.30 a.m., sow root crops. From 2.35 to 5.00 p.m., when Libra rises, sow vines, melons, squashes, grains, etc.

*June.*—The 4th and 5th, from 6.00 to 8.10 a.m., and the 4th, from 1.15 to 3.40 p.m. Again, the 10th and 11th, from 5.35 to 7.45 a.m. for roots, and 12.50 to 3.15 aft. for other things.

*July.*—The Moon is in Libra, rising from 11.05 a.m. to 1.30 p.m. on the 7th and 8th.

*August.*—The 4th and 5th sees the Moon in Libra, rising from 9.15 to 11.40 a.m. A similar position obtains again on the 31st, between 7.30 and 9.55 a.m.

*September.*—The best hours during the month are from 7.30 to 9.55 on the morning of the 1st; from 6.50 to 9.15 a.m., and 5.30 to 6.45 p.m. on the 11th.

*October.*—The 8th and 9th, from 3.40 to 4.55 p.m., with the Moon in Pisces rising.

*November.*—The 5th and 6th, 1.50 to 3.05 p.m., Pisces rising.

*December.*—The 2nd, 3rd and 4th, from 12.00 noon to 1.15 p.m., and the 30th and 31st, from 10.55 a.m. to 12.10 noon.

#### LATITUDE 40°.

Favorable times for sowing in Maryland, Pennsylvania, Delaware, New Jersey, Southern New York, Rhode Island, Connecticut, Ohio, Indiana, Southern Illinois, Northern Missouri, Iowa, Kansas, Nebraska, Utah Territory, Nevada, Colorado, Kansas, and all places on or near the latitude of 40° North.

*March.*—The 9th, 10th and 11th from 11.40 a.m. to 1.50 p.m., also the 10th and 11th from 8.05 to 9.25 a.m. The 15th from 5.25 to 6.35 a.m., 7.50 to 9.10 a.m., and 11.10 a.m. to 1.20 p.m. On the 20th the Moon is in Libra, and Pisces rises from 5.05 to 6.10 a.m.; Taurus from 7.25 to 8.50 a.m., and Cancer 11.05 a.m. to 1.10 p.m. These dates are all good for root crops.

*April.*—The Moon is in Taurus and Pisces rising on the 6th and 7th from 4.05 to 5.05 a.m., this is good for roots; Taurus rises from 6.20 to 7.40 a.m.; Cancer from 9.40 to

11.50 a.m., and Libra from 5.05 to 7.35 p.m., these times are all good for things needing top growth, grain, etc. On the 10th, the Moon reaches Cancer, and Taurus rises from 6.05 to 7.25 a.m.,—good for root crops; Cancer rising from 9.25 to 11.35 a.m., and Libra from 4.50 to 7.20 p.m. The 16th and 17th from 9.10 to 11.10 a.m. are good, also the same days from 4.25 to 7.00 p.m.

*May.*—The Moon is in Cancer, rising from 7.50 to 9.50 a.m. on the 7th and 8th; Libra rising the same days from 3.05 to 5.35 p.m. The latter times are excellent for squash, cucumbers, tomatoes, vines, etc. The 14th and 15th when the Moon is rising in Libra from 2.35 to 5.05 is one of the best in the year for similar things. The same days from 7.10 to 9.20 a.m. are good for things needing a downward growth.

*June.*—The 4th from 1.15 to 3.45 p.m. is good; also the 4th and 5th from 5.50 to 8.00 a.m. The 10th and 11th are the other best dates in the month from 5.25 to 7.35 a.m., and 12.50 to 3.20 p.m.

*July.*—The 7th and 8th from 11.05 to 1.35 p.m. The Moon is in Libra, rising.

*August.*—The 4th and 5th from 9.15 to 11.45 a.m. Also the 31st from 7.30 to 10.00 a.m., when the Moon is again in Libra, rising.

*September.*—The 1st from 7.30 to 10.00 a.m.; the 11th from 6.50 to 9.20 a.m., and 5.35 to 6.45 p.m. The latter is good for grain.

*October.*—The 8th and 9th, from 3.45 to 4.55 p.m., when the Moon is in Pisces, rising.

*November.*—The 5th and 6th, from 1.55 to 3.05 p.m.

#### LATITUDE 45°.

Favorable times for sowing in Massachusetts, New Hampshire, Vermont, Maine, Nova Scotia, New Brunswick, Quebec, Ontario, Northern New York, Michigan, Northern Illinois, Wisconsin, Southern Minnesota, Southern Dakota, Southern Idaho, Wyoming, Southern Montana, Oregon, Southern Washington Territory, and all places in North America on or near latitude 45° North.



- April.*—The 6th and 7th are good for roots, from 4.15 to 5.05 a.m.; also for other things the same days, from 6.15 to 7.35 a.m.; 9.25 to 11.35 a.m.; and 5.05 to 7.45 p.m. The 10th is another good date, and root seeds may be sown from 6.00 to 7.15 a.m.; other things, spring wheat, etc., from 9.10 to 11.25 a.m., and 4.50 to 7.25 p.m. The 16th and 17th sees the Moon in Libra, and root crops should be put in from 8.55 to 11.00 a.m.; and other things sown or transplanted from 4.25 to 7.10 p.m.
- May.*—The 7th and 8th, from 7.35 to 9.40 a.m. are good for all things except root crops, when the Moon is in Cancer, rising. The same dates are also good when Libra is rising, between 3.05 and 5.45 p.m. Cancer is rising, and the Moon in Libra on the 14th and 15th, from 6.55 to 9.10 a.m. These times are good for roots. The same dates for other things are excellent, between 2.35 and 5.15 p.m. Libra is then rising, with the Moon therein. This is the grand time for sowing melons, cucumbers, squash, and transplanting vines, hops, etc.
- June.*—The 4th, from 1.15 to 3.50 p.m., with the Moon in Cancer, and Libra rising; also the 4th and 5th, from 5.35 to 7.50 a.m., with the Moon rising in Cancer. The last-mentioned are best for sowing turnips. The 10th and 11th sees the Moon in Libra, and from 5.10 to 7.25 a.m. is good for root crops, when Cancer is rising. For other things and transplanting, take from 12.50 to 3.30 aft., when the Moon is rising in Libra.
- July.*—The 7th and 8th, from 11.05 a.m. to 1.45 p.m. are good.
- August.*—The 4th and 5th, from 9.15 to 11.55 a.m., and the 31st, from 7.30 to 10.10 a.m. The Moon is in Libra, rising, on the above dates.
- September.*—The 1st, from 7.30 to 10.10 a.m.; the 11th, from 6.50 to 9.30 a.m., and 5.45 to 6.45 p.m. are good, the last-named being splendid for fall grain, when the Moon is rising in Pisces.
- October.*—The 8th and 9th, from 3.55 to 4.55 p.m., are excellent for wheat, when the Moon is rising in Pisces.

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## LATITUDE 50°.

Favorable times for sowing in Newfoundland, Manitoba and the North-West Territories, Northern Dakota, Northern Montana, Northern Minnesota, Northern Washington Territory, Northern Idaho, British Columbia, and all places in North America, at or near latitude 50° North.

*May.*—The best dates are the 7th and 8th, from 7.15 to 9.20 a.m., with the Moon rising in Cancer; also from 3.05 to 5.55 p.m. on the same days, when Libra is ascending. The 14th and 15th are good, especially for vines, cucumbers, squash, etc., from 2.35 to 5.25 p.m. The mornings of the same days are also good for roots, from 6.35 to 8.50.

*June.*—The times most favorable this month are the 4th, from 1.15 to 4.00 p.m.; the 4th and 5th, from 5.15 to 7.30 a.m.; the 10th and 11th, from 4.50 to 7.05 a.m.; and the same dates, from 12.50 to 3.40 p.m.

*July.*—The 7th and 8th, 11.05 a.m. to 1.55 p.m. The Moon is in Libra, rising.

*August.*—The 4th and 5th, from 9.15 a.m. to 12.05 noon; also the 31st, from 7.30 to 10.20 a.m., when Libra is rising.

*September.*—The 1st, from 7.30 to 10.20 a.m., when the Moon is in Libra, rising; and again, on the 11th, from 6.50 to 9.40 a.m., and 5.55 to 6.45 p.m. All these dates are good for fall grain.

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NOTE.—Work your ground most from after the "last quarter" of the Moon until she becomes new; this is also the best time to destroy weeds, etc. Things requiring a level growth and yield are best set or sown, with Libra rising, in the spring. In the fall, the most productive sign seems to be Pisces, which rises in the afternoon. Nothing can exceed the productiveness of all kinds of running plants, sown or set, with Libra rising, during the afternoons of spring. I have attained some wonderful results from this very prolific sign. A good many write to me for "special times for special things." These I am always glad to answer, but would remind them that a stamp should always be enclosed for reply.

## THE CROP PRODUCING SEASON, 1886.

BY RICHARD MANSILL,

*Vice-President of the Astro-Meteorological Association.*

The prospective appearance of the crop producing season of 1886, as pointed out by the theory of the influences exercised on this earth by the positions of the other planets:—

I am pleased to say that 1886 appears to be the last of the current series of cool and generally poor crop producing seasons, occurring since 1878—with the exception of 1884. The year 1886, I expect, will be somewhat better than several of the summer seasons experienced since 1878. I expect a mild Winter, followed by an early and rather long continued Spring—or say running into May.

June and July, I anticipate, will be cool and slow growing months; as they were in 1885—excepting the last half of July—both in Canada, the United States and Northern Europe. This would indicate that the corn belt—for planting this cereal—should be moved several degrees further South again. As the season will be unusually early in Southern districts; and continue early until rather late in the spring, this will give the corn a better opportunity to grow and mature in such latitudes than it will have farther North.

August will give us some little relief or better weather than June or July; but September and October are likely to furnish cool and somewhat stormy weather. I therefore think, that taking the crop producing season—excepting for grass and spring sown small grains—altogether, it is not expected to be a good one for Indian corn in the United States, or for wheat in Northern Europe. I am pleased to say, however, that it is about the last one of this kind of seasons that is likely to occur again for quite a number of years.

January 1886, is likely to be mild for its season, so is February; giving those in Southern districts an early opportunity for agricultural work. March is also expected to average mild for its season, and spring farming can commence early, a considerable distance North as well. April, I anticipate, will hold its own pretty well as regards temperature. May—well it might be a little cool and slow, or more so than the three previous months, but it is not expected to be



a bad month ; while June and July I anticipate will be slow crop growing, and somewhat cool, stormy months for the season. August, on the average, will be somewhat better for its season, while September and October are likely to be cool and stormy periods.

The crop developing seasons of the future will grow more favorable with 1887, and continue so to do for several years. But at the same time I anticipate the inauguration of a coinciding set of cholera epidemical periods, lasting with more or less severity until 1890, the latter year is apt to be the maximum season of this cholera period. Another and more severe cholera period will commence again about 1897 and '98, continuing until 1902. These periods, as regards temperature will be quite the reverse of the cool summer seasons we have experienced of late. The summers of these coming periods will possess extremely high temperatures at times, accompanied with violent and unusual electric storms, and destructive earth convulsions.

The Indian corn crop in the United States and the wheat crop in Canada and Northern Europe are somewhat better this year (1885) than I had reason to expect, from the positions of the planets during the spring and summer. All crops, up to about the middle of July, had developed slowly, and were in a backward condition, as expected. During the last half of July a very unusual term of warm weather set in, that forced the crops much more rapidly than I anticipated.

I have every reason to believe that comets,—Tuttles, Brooks', etc.,—moving about their perihelions during July had something to do with our high temperature during the latter part of the month. The great Comets of 1874 and 1881 operated favorably for a time upon the atmosphere and crops of those years. I pointed out, some seven or eight years ago, that large comets exercise a great influence on the temperature during their perihelions. The Indian corn crop of the United States, and the wheat crop of Northern Europe were benefited by the Comet of 1874. Large comets, at perihelion during a suitable season, benefit crops rather than damage them. Damage oftener occurs after perihelion than prior to it, as in Great Britain in 1874—'81 and '85.

ROCK ISLAND, ILL., *October 20th, 1885.*

## THE MOONLIGHT EVENINGS OF 1886.

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- January.*—From the 13th to the 22nd, inclusive.  
*February.*—Beginning with the 11th and lasting to the 19th.  
*March.*—Between the 13th and the 21st.  
*April.*—After the 11th, up to and including the 20th.  
*May.*—From the 10th to the 18th, inclusive.  
*June.*—After the 8th up to the 18th or 19th.  
*July.*—Beginning on the 8th and lasting to the 16th.  
*August.*—From the 6th to the 15th.  
*September.*—Between the 5th and the 14th.  
*October.*—After the 4th and up to the 14th.  
*November.*—From the 3rd to the 12th or 13th.  
*December.*—Beginning on the 2nd and continuing to the 13th.
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## CLIMATOLOGY OF VIRGINIA.

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BY L. J. HEATWOLE,

*Presiding over Virginia Branch of the Astro-Meteorological Association.*

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The climate of Virginia, though somewhat changeable, is upon the whole one of the most temperate and agreeable in the United States. The season of snow, frost and frozen ground seldom exceeds four months, the winter commencing from the 1st to the 15th of November, and ending from the 1st to the 15th of April. Along the low, level portions of the east and south-eastern part, the climate is hot, producing malaria, so that bilious and intermittent fevers are common. The higher regions in the neighborhood of the mountains are cold in winter, but by far the largest part of the state is mild and healthful.

Though the rainfall is abundant, amounting annually to about 40 inches, the atmosphere is dry and salubrious. A rough computation shows the mean annual temperature to be about 55°, while the extremes run from 10° below zero, up to a maximum of 100°—the coldest month generally

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### STATIONS.

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being January, and the hottest, July. The different sections of the state however, vary in temperature according to elevation, latitude and distance from the sea, as the following tabulated statement shows:—

STATIONS.	VARIATIONS.			TEMPERATURE.			
	Height Above Sea.	Latitude.	Annual Rainfall.	Summer.	Winter.	Difference.	Yearly Mean.
	Feet.		Inches.				
Norfolk .....	30	36° 51'	52·5	77° 5'	42° 0'	35° 5'	59° 8'
Richmond .. ..	100	37° 32'	47·5	75° 4'	37° 2'	38° 2'	56° 2'
Dale-Enterprise...	850	38° 40'	44·0	73° 6'	36° 5'	37° 1'	52° 8'
Staunton .....	980	38° 10'	42·0	73° 7'	37° 0'	36° 7'	53° 7'
Wytheville .....	2,300	36° 55'	37·0	71° 5'	35° 6'	35° 9'	52° 2'
New York .....	164	40° 43'	47·4	72° 1'	31° 4'	40° 7'	51° 7'
St. Louis .....	568	38° 38'	42·0	76° 3'	33° 8'	42° 5'	55° 4'

Glancing at this table, it is readily seen that the extremes of heat and cold are less severe than in more northern states, or even in western localities that lie in the same latitude. At New York, for instance, which is in latitude 40° 43', the difference between the summer and winter averages is 40° 7', while at Norfolk, in latitude 36° 51', the difference is but 35° 5'. And at St. Louis, which is nearly in the same latitude as Dale-Enterprise, there is a difference of 42° 5', while at Dale-Enterprise it is only 37° 1'.

In studying the meteorology of Virginia, in connection with that of several of the adjoining states, we find that her rainfall is derived mainly from the Gulf of Mexico. The warm, moisture-laden currents that accompany the Gulf stream from the Caribbean Sea are not deflected eastward in the Gulf as the great ocean river itself is, but pass toward the north-east over the land in a broad belt spreading from Texas to Florida. Leaving the warm waters of the Gulf and entering the continent, these winds become cooled, and the consequence is that they begin to unladen themselves.



The heaviest rainfall within the boundaries of the United States no doubt occurs along the central line of this moist air-current in the states of Louisiana, Mississippi, Alabama and eastern Tennessee, along which track the rainfall amounts to 60 inches annually. Further to the north-east the precipitation becomes notably less; but here the winds encounter the southern end of the Appalachian chain, and being driven into the higher and cooler atmosphere of the mountains, give, periodically, to Virginia and her sister states, a heavy rainfall. The Atlantic Ocean, therefore, as a source of moisture to our state, must be considered so only in a secondary sense. The currents flowing shoreward across the Gulf stream, however, produce a narrow strip of abnormally heavy rainfall along the coast, and this rapidly decreases inland.

The prevailing winds of the state are from the west and south-west. The south and south-easterly winds seldom fail to bring rain. Those from the west are invariably the harbingers of fair, open weather, but the north and north-west winds are always dry and cold, and in winter are the forerunners of a protracted series of frosts. Occasionally, in the spring of the year, but more frequently during the summer and autumn months, when these north-west currents become our prevailing winds, as was the case during the summer of 1884, the entire state, from the mountains to the sea, becomes subject to prolonged and distressing drouths.

Good authorities claim that the unwise destruction and removing of timber that has been in practice in the state for the past 200 years is the main cause of the great frequency and prolonged character of the drouth period. The effect upon the soil, by keeping it covered with vegetation, especially trees, is to retain its moisture instead of allowing it to flow directly off into the streams, or to be taken up at once by evaporation. It is evident, that by a judicious system of cultivation and tree-planting, Virginia could in time be again favored with the equable climate of her primitive days.

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## THE FIRST FOUR DAYS.

BY E. F. TEST,

*Associate of the Astro-Meteorological Association.*

Is there not a way to harmonize Science and the book of Genesis? In some cases the legends agree closely with the Scriptures, and there is no reason why Science should not do the same. In that strange work, "Ragnarok," Ignatius Donnelly gives the Chinese legend. It says:

"After the chaos cleared away heaven appeared first in order, then earth, then after they existed and the atmosphere had changed its character man came forth."

Genesis teaches that man was created after the completion of the firmament,—when the atmosphere had changed its character. As to the Peruvian legend, Prescott tells the story of Manco Capac and Mama Oello, "the children of the Sun," who taught the primitive races agriculture and the arts of peace. They were the children of their God, as he was understood and believed in by the Peruvians. The Aztecs believed in Quetzal, "the fair god," who taught them agriculture and the useful arts, and also the "serpent woman" to whom they offered prayers at the baptism of their children.

The first chapter of Genesis teaches the existence of a primitive race. They were evidently hunters, or in plainer terms, savages, as the Chinese legend further says,—“At first even the rulers dwelt in caves and desert places, eating raw flesh and drinking blood,” and Genesis says they had dominion over the fishes and the fowls, and over every living thing upon the earth. In the first verse of the fifth chapter of Genesis they are called "man," and at the time of the flood, they were known as "men." It is not clear how much, if anything, they knew of agriculture, or any of the peaceful arts.

Genesis gives the history of Adam and Eve, the first historic man and woman, and the duties laid upon them in dressing and keeping the garden of Eden,—a purely agricultural pursuit. Luke says Adam was "the son of God," and Genesis, Job and the Apostles speak of his descendants as "the sons of God." They were known as such to distinguish them from the primitive races, known as "men."

This is made plain where Genesis speaks of the "sons of God" taking unto themselves the "daughters of men," showing at that time the superior and inferior races were beginning to mix, raising up a posterity so vile the pen is unable to describe their wickedness. Job speaks of Satan presenting himself before the Lord in company with "the sons of God." Paul and John are explicit in speaking of the present races as the "offspring" and "the children of God," because we are the natural descendants of Adam, the son of God, and not of the original or primitive races of the earth.

This shows an agreement between Genesis and the legends. Let us see what can be done with Science.

The first thing is to know the true meaning of the word "firmament." One is, the arch overhanging the earth, the sky itself. Josephus speaks of it as a crystalline. Genesis implies it is some principle in the atmosphere separating the waters on the surface of the earth from the waters above the earth. The Chinese legend speaks of the atmosphere changing its character, but as this could not be done without some internal agent or principle, it is conclusive the reference in Genesis must be correct. The passage relating to the lights of the sun, moon and stars in the firmament may seem opposed to this, but where else could they shine on the earth, if not through the atmosphere? The diffusion of light caused by the water in the atmosphere is conclusive as to the firmament being a part of it. It is doubtful if the sunlight ever reaches the surface of a planet having no firmament in its atmosphere unless rent asunder by some violent commotion. The clouds must hang over it like a pall, causing thick darkness, such as covered the earth before the first day.

The next thing is to see what is meant by the constant references in Genesis and other parts of Scripture to the terms "heaven," "a heaven," "the heaven," "earth," and "the earth." The first chapter gives the meaning of "heaven" and "earth." It is the firmament and the dry land. Further investigation shows "a heaven," "the heaven," and "the earth," to mean the atmosphere and the globe on which we live. The "heavens and the earth" refer to the universe. The Fourth commandment endorses this. It does not say, "in six days God created the heavens

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and the earth," nor does it say, "the heaven and the earth," but it does say, "heaven and earth," that is, the firmament and the dry land. "The heaven," being the atmosphere, the meaning of the first verse of Genesis is apparent. "In the beginning God created the atmosphere and the earth." Genesis, therefore, confines itself to a terrestrial event with here and there a reference to the universe, to fill out the record, such as the allusion to the creation of the stars, their light appearing in our firmament with that of the sun and moon on the fourth day.

The first verse covers the periods up to the time of the advent of man. It says nothing of the existence of life on the earth in those periods. Geology steps in and says there was life on the earth ages before his appearance. The verse covers all the ages and creations known to geology. These creations were destroyed.

The old version of the Old Testament says, "And the earth was without form and void, and darkness was upon the face of the deep, and the Spirit of God moved upon the face of the waters." This is obscure. It carries us back to the so-called nebulous period. This is not the meaning of the text when read in connection with the next clause. It follows if the earth was then nebulous there could be no water on its surface. It had no surface or crust in that stage of its existence. There is also a misapplication of the word "Spirit." Josephus says God caused a "wind" to blow. The misapplication of "wind" is also apparent in the New Revision in the well-known phrase, "all is vanity and vexation of spirit." The revisers have it, "all is vanity and a striving after wind," yet a note on the margin leaves it optional to use either. Let us do the same and use "wind" for "spirit," and in the New Revision the second verse of Genesis will read like this:—

And the earth was waste and void, and darkness was upon the face of the deep, and the *wind* of God moved upon the face of the waters.

The definition of the words "waste" and "void" is, desolate, empty, vacant, uninhabited, so that the meaning of the verse will be:—

And the earth was desolate and uninhabited, and darkness was upon the face of the deep, and the wind of God moved upon the face of the waters.

There was no firmament, and the sunlight was shut out by the thick atmosphere, hence the darkness.

This version places science and Genesis in harmony, because in this passage of the wind upon the waters, we see the operation of one of the great natural laws of God,—the cleansing of the atmosphere. The inquiry comes, what caused the wind to move upon the waters? Astronomy has demonstrated that the earth and the heavenly bodies are intimately connected, one with the other. Students of Meteorology in connection with celestial phenomena (Astro-meteorology) insist, from the abundance of recorded facts, that the movements and positions of these heavenly bodies cause constant disturbances, more or less violent, in our atmosphere, and even in the crust of the earth, causing earthquakes.

This is notably the case with the moon as she sweeps around us in her monthly journey. Genesis says two of these bodies govern the seasons and the days and nights. One influences strongly the tides and the atmosphere to keep them pure by constant agitation. Now there came a time when the members of the solar system were so placed that they acted powerfully upon the earth, the waters and the atmosphere, thrilling them with a magnetic influence so strong as to cause the earth to quake, tossing the waters into great waves, rolling away the thick atmosphere, or separating it, and letting in the sunlight upon the surface of the waters and the earth.

To a limited extent this law is still at work, as witnessed in the frequent magnetic storms, and about the time of the new moon. This was the case on the 8th of September, 1885, when Jupiter was in conjunction with the sun, and the moon with the sun, as she moved from "old" to "new," eclipsing the sun in her passage, and causing a terrible storm that swept over part of the American continent. History records some of the worst storms known, about the time of the new moon, and the above is only one link in our long chain of evidence.

It is claimed that the planet Jupiter is surrounded by a dense atmosphere, so that his surface cannot be seen. A few years ago what seemed to be a rent in his atmosphere took place, and "the great red spot," thousands of miles in

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circumference, was visible for many months. As there could be no water on his red-hot surface, no firmament could be formed. The present stage of Jupiter must be the same as the condition of the earth in its primeval period, when the granite was being formed. Although unfit for human or natural existence, still there are energies at work to make him yet the abode of living beings. As he cools, the waters will appear, darkness will cover his "face of the deep," and the wind of God will move upon his "face of the waters." Then his clouds will be riven, and a firmament created. His atmosphere will become semi-transparent, the dry land will appear; the great planet be clothed with beauty and verdure, and possibly the home of happier and more intelligent beings than ourselves. Such a law seems to be at work, judging from recent observations in which it was found that his rotation is slowly decreasing. As the earth was once in the same condition, being smaller, it has cooled and matured more rapidly, just as the Moon, Mercury and Mars have passed the earth in their maturity. As the earth matured and cooled, life appeared suitable to its then condition, and successively improved up to the advent of man. Evidently these successive creations or existences were successively destroyed. Geology leads to this belief, and of which we still have evidence.

By what means were they removed? The Noachian deluge explains the method. As God works by law in nature, the inference is that in the past He had used the waters to destroy the living existences on the earth to prepare it for a better order of created beings. Although geology confirms it, let us stick to Genesis for the proof.

The second verse is sufficient, as it gives an account of the first historic deluge. In this way, the creation immediately preceding ours was destroyed, and it is fair to assume that such was the method in regard to the others. But the Noachian deluge differs from its predecessor. Genesis says:—

In the second month, the seventeenth day of the month, the same day were all the fountains of the great deep broken up, and the windows of heaven were opened.

And the rain was upon the earth forty days and forty nights.



This indicates a violent disturbance in the atmosphere and the earth, possibly a sinking of the dry land, as in Lisbon, and Krakatoa, or the fabled Atlantis, while the firmament was opened or unbalanced and its waters poured upon the earth. That it was due to some celestial phenomena, caused by the movements of the heavenly bodies is evident, because the patriarch had notice of its coming a hundred years.

The firmament was not destroyed. If it had been, life on earth would have been extinct. We read of no creation of another firmament in the days of Noah. In this, the last flood was unlike the other. Then the existing creations were doomed, the deluge came, the firmament, such as it was, dissolved or perished, the waters or mists of the atmosphere mingled with those on the surface of the earth and created a darkness so dense, no light of the sun, moon or stars could penetrate the gloom. Everything was submerged, dormant and destroyed. The earth retained its diurnal motion, but the thickened atmosphere kept it in darkness. It was vacant, waste and desolate. Its tenants were dead. It was a vast charnel house.

In the fulness of time there came a change, but how was it wrought? Astro-Meteorology can make answer.

Assuming that the heavenly bodies were favorably placed, and the moon about to pass from "old" to "new," it follows in the four days of her passage, when invisible, she would disturb the magnetic connection between them and the earth, causing a great disturbance in the earth, the air, and the water, and the wind of God (a mighty storm) would move upon the "face of the waters," the earth would quake and upheave the land nearly or quite to the surface of the water, and the atmosphere would be rent (as in Jupiter). The sun shining through the parted atmosphere, upon the surface of the earth, would draw the waters into the air, (as he has been doing ever since,) creating and completing the firmament on the second day.

The sunlight on the surface of the earth made it the first day of our creation. God said, "Let there be light, and there was light." When the earth rolled over darkness ensued on that side away from the sun. "And God called the light, Day, and the darkness he called Night."

Here we have the first day and the night of our creation.

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The vast volume of water drawn from the earth changed the character of the atmosphere,—the firmament was finished.

“And God called the firmament Heaven.”

This was the second day.

The earth deprived of the water by the atmosphere, the dry land appeared, possibly also, by the upheaval of an earthquake, while the waters remaining upon the surface took the form of streams and oceans. The sunlight diffusing itself through the atmosphere, by reason of the innumerable particles of water, revived the dry land, and the earth began once more to clothe itself with verdure. As Genesis does not say God “created” vegetation on this day, but caused the earth to “bring it forth,” it shows it had been created in former ages, and lain dormant when the earth was enveloped in darkness and covered with the waters.

“And God called the dry land Earth, and the gathering together of the waters called he Seas.”

This was the third day.

All this time the moon being near the sun, changing from old to new, could not as now, be seen until it was two days old, the second day after the completion of the firmament. This brought it to the fourth day. All day long the sun shone in his strength, and in the evening the lights of the new moon and the stars appeared in the firmament. It was naturally impossible to be otherwise. Neither Nature nor the God of Nature deal in natural impossibilities.

“And the evening and the morning were the fourth day.”

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“We find the *Almanac* fully up to the high reputation it has hitherto acquired. The articles on ‘Ruddy Sunsets,’ ‘Lunar Life,’ ‘Lunar Influence on Vegetation,’ ‘Seed, Sowing,’ and ‘Agriculture, the Weather and the Seasons,’ make this work a valuable addition to every progressive farmers book table.”—*Farmer's Friend*.

“It is edited by Mr. Walter H. Smith, of this city, and is, on the whole, a most attractive little work. It is replete with information calculated to prove of invaluable service to persons moving in every sphere of life.”—*Star*.

“As the Moon is the principal cause of the tides, there is nothing primarily absurd in the idea that she also affects the air currents, and hence produces the barometrical and thermometrical oscillations which are otherwise so unaccountable.”—*Graphic*, London, Eng.

## QUESTION AND ANSWER.

What is it makes this weather?  
Sir Prophet can you tell?  
Did the stars connive together  
To weave an arctic spell?  
Did ocean, moon or sun-spots,  
First give the boom a start?  
Or an earthquake or volcano  
React upon the mart?  
Did vapor-cloud or iceberg  
Touch some electric wire,

Jan. 23, 1886.

And send a stinging "cold dip"  
To make our flame aspire?  
Was that old sentry Zero  
Asleep, I'd like to know,  
That he did not even challenge  
When Merc'ry passed below?  
Does aught in air, or matter,  
Presage a mild surprise?  
We ask—our teeth a-chatter—  
What prospect of a rise?

CAROLINE B. MORSE.

Up in the arctic northland  
Near the untravelled pole,  
In solitude and darkness,  
Dwells Winter—icy soul!  
Hating the sun and sunlight,  
'Tis there he makes his home,  
Auroras flaming round him,  
As king he loves to roam.

Down where the stately palm trees  
Sway in the southern wind—  
Where all is warmth, all idlesse,  
We gentle Summer find;  
Isles that first saw Columbus  
Sail out the eastern sea,  
Are spots sought out by Summer  
Where Summer loves to be.

Each o'er his own fair kingdom  
Bears undisputed sway,  
Where Summer never ventures  
Nor Winter dares to stray.

But in between their outposts  
No grievous gulf is fixed,  
And o'er the land in question  
The climate's "somewhat mixed."

Thus balmy, mild and placid,  
All's Summer here one day,  
The poor birds venture northward  
Men journey while they may.  
But when the evening twilight  
Dims out the darkened west,  
Up springs the icy north wind—  
'Tis Winter on his quest!

Fast, fast flies Summer southward  
Leaving his birds to die;  
On mountain city, farmland,  
The flakes of Winter lie,  
The merc'ry creeps past Zero—  
Breath freezes on each lip—  
This zone, miscalled "the temp'-  
rate"—  
Just shudders through "a dip."

WALTER H. SMITH.

## A WONDERFUL STAR.

The principal astronomical event of 1885 was the outbreak of a new, variable star near the centre of the great nebula in the constellation Andromeda. The outburst was first noticed on the night of August 19th. The star grew in brightness until about September 1st, when it was of the sixth magnitude. It has been declining unsteadily since. Observations show that this wonderful star does not affect the brightness of the misty nebulosity surrounding it; it is not in the nucleus and has not moved since discovery. It is being carefully watched by astronomers wherever visible.





## The Astro-Meteorological Association.

PRESIDENT:—WALTER H. SMITH, 31 Arcade Street, Montreal, Canada.

VICE-PRESIDENTS:—RICHARD MANSILL, Rock Island, Ill.; HENRY D. SOMERVILLE, Huntingdon, Que.; N. PLUMADORE, Asheville, North Carolina; L. J. HEATWOLE, Dale-Enterprise, Virginia; E. F. KIRKPATRICK, Harrisonburg, Va.

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SECRETARIES:—J. BROWN, Montreal; C. H. BRUNK, Dale-Enterprise, Va., J. STONE, Asheville, N.C.

TREASURER:—L. H. LEPAGE, Montreal.

THIS Association was organized at Montreal on October 29th, 1884, by a few students of Astronomy and Meteorology. In a few weeks the movement was taken hold of in the United States, and, by the spring of 1885, corresponding members had been gained in several states, as well as two branches formed—one in North Carolina and the other in Virginia. The Association, now in its second year, is becoming extensively known all over the Continent, and promises soon to become one of the leading scientific societies. New members are added at every meeting.

Its aims have been briefly summarized as the Study of Astronomy and Meteorology, but more particularly with regard to Astronomy as connected with terrestrial phenomena. All persons interested in the study of Astronomy, Astro-Meteorology, (sometimes called Planetary Meteorology), Meteorology, and their kindred sciences, are eligible for membership, and are cordially invited to correspond with the President or either of the Vice-Presidents.

The meetings are held monthly, except during June, July and August. As soon as the membership warrants, however, it is the intention to hold a General Annual Meeting in one of the large cities, when essays on Astro-Meteorology and Planetary Influence will be the leading features. During the first year no less than twenty-nine papers have been read, and published in the organ of the Association. The subjects and authors being as follows:—Walter H. Smith (eleven papers), "The connection of Sun spots with terrestrial phenomena;" "The Earth in Meteoric Shadow;" "Weather at past Conjunctions of Venus and the Sun;" "The Recent Lunar Eclipse;" "Ruddy Sunsets;" "The Motion of Storms;" "Theories of Solar Light and Heat;" "Dead Worlds in Space;" "The Year without a Summer (1816);" and "The New Star in Andromeda."

L. J. Heatwole (four papers), "Astro-Meteorology;" "Storms" (two papers); and "The Red Sunsets."

C. H. Brunk (three papers), "The Moon and her Influence on Vegetation" (two papers), and "The Formation of the Earth."

J. Ross Brown, (two papers), "The Dark Moon Theory" and "The Sun's Light and Heat."

One paper each was read by the following:—Maria T. Cole, on "The Sun;" B. F. Kirkpatrick, "Clouds and Vapors;" L. H. Sonedecker, "The Planets;" W. J. Leslie, "Saturn and his System;" W. Fanning, "Dew;" Dugald McDonald, "The Laws of Motion and Composition of Space;" Daniel Logan, "Meteorology of Honolulu;" John Bryant, "A Nebraska Storm;" and W. J. Webster, "Heavy Hail in Natal." Several of the above are of great interest, and should be re-published.

To facilitate observational work at Montreal, it has been decided to commence a fund for the purchase of suitable instruments, and it is hoped that these will be forthcoming ere long.

Part of the special work of the Association is the conducting of experiments concerning Lunar Influence on Vegetation; these have been very successful. Some reports on this subject will be found on a previous page.

Prospectuses and by-laws of the Association, together with instructions to those desirous of forming Branches, will be furnished free on application to the President or Vice-Presidents.

The Annual Subscription fee is one dollar, payable on the first day of January each year in advance.