

SMITH'S
PLANETARY ALMANAC
AND
WEATHER GUIDE.

1887



1887

CONTAINING A GENERAL FORECAST FOR THE YEAR; THE
WEATHER FOR EACH WEEK;
A PLANETARY EPHEMERIS CALCULATED TO MONTREAL MEAN TIME;
LUNAR INFLUENCE ON VEGETATION,
WITH TABLES FOR SOWING ACCORDING TO IT IN ALL LATITUDES;
A LIST OF MOONLIGHT EVENINGS;
SPECIALLY WRITTEN ARTICLES BY OTHER SCIENTISTS, ETC.

BY

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AUTHOR OF *Vennor's Almanac*, 1885;

ASTRONOMICAL EDITOR *Huntingdon Advocate*, ETC.

ESTABLISHED 1842.

CHARLES ALEXANDER,

Confectioner.

COFFEE AND DINING ROOM.

BREAKFAST,

DINNER

and

TEA.



BREAKFAST,

DINNER

and

TEA.

219 St. James Street,
MONTREAL.

TENTH ANNUAL ADDRESS.

Once more it is my privilege to address my friends. Thanks to their exertions the circulation of SMITH'S PLANETARY ALMANAC about doubled itself last issue. This, however encouraging, is not enough. The book is reliable, and its circulation should be again doubled, then doubled again, ere it will pay at its ridiculously low price. Last year my profit amounted to *twelve dollars*. Not one of my readers, I venture to say, would do so much for so little pecuniary return.

Yet, in the face of this, I have had to submit to the public charge by a Southern editor of "looking more to profits than to prophecy." This, however, was an individual case of spleen, my thanks being due to the press generally for their fair treatment of my efforts at elucidating probable weather changes.

What was said against my work did not discourage. Cast down for a season, I was not destroyed. When once a man takes hold of the weather subject with a view honestly to do his best to elucidate and reduce so vast a question to order, if he hopes to be at length successful there must be no relaxation of effort, no removing his hand from the plough; because the more he studies his subject the better he understands it. What is intricate at first becomes simple; what is mysterious grows plain, and the novice finally is proficient in his science. It is only after a number of years that his forecasts really become of sterling value to his fellow-men on account of their reliability. It then becomes the height of folly for him, a successful weather student, to make an un-studied forecast. He has a reputation to maintain.

Owing to an increased demand for information as regards Lunar Influence on Vegetation—SMITH'S PLANETARY ALMANAC being the only one on this Continent giving scientific information on this subject—I have extended the tables to suit all places from Lat. 20° up to 50° North.

WALTER H. SMITH.

31 Arcade Street, Montreal.

ASTRONOMICAL AND OTHER NOTES.

FIXED AND MOVABLE FESTIVALS, 1887.

New Year's Day— }	Jan.	1	Pentecost—Whit- }	May	29
Circumcision. }			Sunday. }		
Epiphany	"	6	Trinity Sunday	June	5
Septuagesima Sunday	Feb.	6	Corpus Christi	"	9
Quinquagesima }	"	20	Accession of Queen }	"	20
Shrove Sunday. }			Victoria. }		
Washington's Birthday... }	"	22	St. John Baptist— }	"	24
Ash Wednesday	"	23	Midsummer Day. }	"	24
First Sunday in Lent	"	27	St. Peter and St. Paul... }	"	29
St. Patrick	Mar.	17	Dominion Day	July	1
Annunciation—Lady Day. }	"	25	Independence Day..... }	"	4
Palm Sunday	Apr.	3	Michaelmas	Sept.	29
Good Friday	"	8	All Saints Day	Nov.	1
Easter Sunday	"	10	Birth of Prince of Wales.. }	"	9
Low Sunday	"	17	First Sunday in Advent.. }	"	27
St. George	"	23	St. Andrew	"	30
Rogation Sunday	May	15	Conception B. V. M. }	Dec.	8
Ascension Day— }	"	19	St. Thomas	"	21
Holy Thursday. }			Christmas Day	"	25
Birth of Queen Victoria... }	"	24			

PRINCIPAL ARTICLES OF THE CALENDAR.

Golden Number	7		Dominical Letter.....	B
Epact.....	6		Roman Indiction	15
Solar Cycle	20		Julian Period	6600

CHRONOLOGICAL ERAS.

The first day of January of the year 1887 is the 2,410, 273rd day since the commencement of, and the 6600th year of the Julian Period.

The year 1887 is the 7395-96 of the Byzantine Era, the year 7396 commencing on September 1st.

The year 5647-48 of the Jewish Era, the year 5648 commencing on September 19th, 1887, or, more exactly, at sunset on September 18th.

The year 2640 since the Foundation of Rome, according to VARRO.

The year 2634 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 2663 of the Olympiads, or the third year of the 666th Olympiad, commencing in July, 1887, 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 2199 of the Grecian Era, or the Era of the Seleucidæ.

The year 1603 of the Era of Diocletian, and the year 2547 of the Japanese Era.

The year 1305 of the Mohammedan Era, or the Era of the Hegira, commences on September 19th, 1887.

Ramadân (Month of Abstinence observed by the Turks) commences on May 24th, 1887.

The 112th year of the Independence of the United States of America begins on July 4th, 1887.

The 21st year of the Confederation of the Provinces of the Dominion of Canada begins on July 1st, 1887.

COMMENCEMENT OF THE SEASONS.

Montreal Mean Time.

The Sun enters ♈ and SPRING begins March 20th, at 5h. evening.

The Sun enters ♋ and SUMMER begins June 21st, at 1h. evening.

The Sun enters ♌ and AUTUMN begins September 23rd, at 4h. morning.

The Sun enters ♍ and WINTER begins December 21st, at 10h. evening.

SIGNS OF THE ZODIAC.

These are twelve, and given for mean noon at Montreal, in "the Moon" 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.

ECLIPSES.

In the year 1887 there will be four eclipses, two of the Sun and two of the Moon.

1.—A partial eclipse of the Moon, February 8th, visible over North America, and also in the Pacific Ocean and part of Asia. Moon enters penumbra, Montreal Mean Time 2h. 0m. 53s. morn.; enters shadow, 3h. 52m.; middle of eclipse, 5h. 0m.; leaves shadow, 6h. 08m.; leaves penumbra, 7h. 20m. Magnitude of the eclipse = 0.436, (Moon's diameter = 1).

2.—An annular eclipse of the Sun, February 22nd, invisible at Montreal. This eclipse will be visible over the South Pacific Ocean, from Central and South America to Tasmania and Queensland. Greenwich Mean Time of the conjunction, 9h. 13m. 4s. eve.

3. A partial eclipse of the Moon, August 3, invisible at Montreal. This eclipse is visible over the Indian Ocean and East Africa. Greenwich Mean Time of conjunction, 9h. 4m. 57s. eve.

4. A total eclipse of the Sun, Aug. 18-19, invisible at Montreal. This eclipse is visible over the North Pacific Ocean, Japan, Asia, Europe, Northern Greenland and Alaska, the line of central eclipse crossing the Isle of Rico de Oro, the city of Yeddo, passing a little north of Moscow, and crossing Konigsberg and Berlin. Greenwich Mean Time of conjunction, Aug. 19, 5h. 15m. 28s. morn.

Lines from Letters.

"All your predictions are verified by facts."—*W. R., N. Y.*

"Decembar carried out the programme you prepared for it."—*C. R. F., Washington.*

"Invaluable, I would not be without your ALMANAC for five dollars."—*H. H., Deering, Me.*

"So correct in its prognostications that I would not be without it at any price."—*W. B., Farmville, Va.*

"Its contents should be read by everyone who wants to know anything beforehand as regards the weather."—*C. D. R., Springfield, Vt.*

"Your prediction came according to the time set down. At 3 a.m. Jan. 21, a severe thunder storm came up from the west, lasting till 8 a.m. We all think this remarkable weather."—*A. M. M., Charleston, S. C.*

GENERAL FORECAST.



SUCCESSFUL beyond the hopes of my most sanguine friends, the triumphs of the past encourage me to speak with no uncertain sound concerning the future. I am daily more and more convinced that the glorious Science of Astro-Meteorology has its foundations laid deep on the rock of scientific truth, from which all the scepticism in the world cannot shake it. Were this not so, my forecasts, made by its rules, would not now be watched by thousands weekly, nay, daily and hourly, on all parts of this continent. Were Astro-Meteorology false, the independent and enlightened Press of this great free land, would not render me words of encouragement, words that, to the scientist working for the good of his race, are worth more than the wealth of the millionaire.

Then there are those words of private encouragement that reach me from friends scattered through every State and Province, by almost every mail, that tell me that eager eyes have been carefully watching my forecasts, some of their owners afraid at first lest I should stumble, but finally forwarding epistles full of praise, often of thankfulness, owing to their having calculated on some change of weather forecast by me, and which has happened exactly as expected. Very numerous have been the proofs vouchsafed to Astro-Meteorologists in the shape of coincident storms, severe cold and hot spells, dry and rainy periods, and other abnormal weather features during the past year, but not one was more conclusive than that terrible series of earthquakes over the South, which had their culmination at and around Charleston, S.C., at the close of August and entry of September, 1886. Although not, strictly speaking, a weather phenomenon, the dread *terre motus* may be considered the culmination, or result, of the most powerful forces that the outer bodies exert on this earth. During August 26th the total eclipse of the Sun, caused by an ecliptic conjunction of the two most powerful factors in our universe—the Sun and Moon—must have drawn the water and atmosphere from the North and

South polar regions and temperate zone belts towards the Equator. Here millions on millions of tons got piled up. The earth crust, weak under the mid-Atlantic, gave way with the pressure, the water forced its way deep into the fissures, coming in contact with that fervent heat which exists in the bowels of the earth. Explosions followed, venting themselves at the thinnest portion of the over-laying crust, and—we know the result. Rare air and frosts were felt at the time, from North to South, proving that a downward rush of the thin atmosphere had occurred from the upper regions. This was all caused by a derangement of the Earth's magnetic forces, an earthquake being perhaps nothing but an electric earth-storm. What I have said, however, is not a forecast for the coming year. Practice and study have enabled me to deal less in generalities, giving my students and readers this year sketches of the months in detail as follow:—

JANUARY.—A severe Winter month, generally, everywhere, with some intensely cold days. The mercury is likely to run down pretty low about the 4th and 5th; in the neighbourhood of the 10th, and again during the week ending the 29th. The year may open fairly mild in the East, but very cold in the North-West.

FEBRUARY.—A month of heavy snows and rains; its cold periods short and sharp, rather than long and steady. Some pretty general "breaks-up" and thaws probable, producing floods in the South. The worst storm periods are likely during the weeks ending the 12th and 26th. I expect some very rough weather over Eastern Canada, the New England States, and along the Atlantic coast during this month.

MARCH.—Some very heavy local precipitation during this month, causing floods, with a number of storm periods, especially along the Atlantic coast. Severe periods in the Southern States are likely, but the month will be generally unsteady there, with early warmth and spring-like days. In the South and South-West, winter will likely end about the 9th or 10th with a mild period. Cold weather at the equinox this year.

APRIL.—The warm, dry terms appear likely to be quite marked, especially from about the 24th to near the end. Vegetation is likely to be again rapidly advanced during April, '87, even as it was in April, '86. Several districts will

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report a scarcity of rain. A cold term, with local frosts, seems probable around the 18th and 20th. In the South and South-West the month will be warm and advanced.

MAY.—A favorable month, with some fine, advanced summer-like terms. Some severe local storms will do damage to growing crops. Extensive bush fires are probable, owing to the dry weather in sections, the heat and drought being quite marked. Portions of the month more like June than May. The North-West, however, may anticipate some heavy rains. The South and South-West will experience hot weather and heavy rains also.

JUNE.—At its opening, vegetation will be well advanced. The month, however, will not be very favorable, owing to its sudden cool changes, with local frosts in North-Western and Eastern sections. Electrical storms will likely be frequent.

JULY.—A month of heavy showers and some unfavorable cool spells. Disastrous local storms will likely do great damage. Reactionary waves of extreme heat will be experienced, and humanity, especially in the South and South-West, will suffer in consequence, sun-strokes and summer complaints proving frequent.

AUGUST.—Will also have several wet and unfavorable periods, with damaging local storms. Heavy rains in the South and South-West are probable, with very changeable weather there.

SEPTEMBER.—Looks like proving a favorable month on the whole. Disturbances not very marked. Fine weather generally is probable South and West.

OCTOBER.—Promises both warm and cool terms. Killing frosts will be intermixed with hot weather for the time of year, and brief spells of glorious "Indian summer."

NOVEMBER.—A generally open, wet month, with some remarkable spells of mild weather for the season. Cold and wintry at the close.

DECEMBER.—Another peculiar month. Some remarkable mild terms, astonishing the "oldest inhabitant," intermixed with very severe reactionary periods. The general "break-up" will cause floods in many sections.

MONTREAL, *September 18, 1886.*

1st MONTH.

JANUARY.

31 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
☽ F.Q.	2	7.40 mo.	7.26 mo.	7.25 mo.	7.12 mo.	6.30 mo.
☾ F.M.	9	5.52 ev.	5.38 ev.	5.37 ev.	5.24 ev.	4.42 ev.
☾ L.Q.	16	10.42 mo.	10.28 mo.	10.27 mo.	10.14 mo.	9.32 mo.
☾ N.M.	23	10.21 ev.	10.07 ev.	10.06 ev.	9.53 ev.	9.11 ev.

DAYS.	WEATHER FORECAST.	MONTREAL.				
		THE SUN		THE MOON		
M.	W.	Slow.	Rises.	Sets.	Zod.	Souths.

1 Sat.	NEW YEAR'S DAY. Opens fine;	M.	H.	M.	H.	M.	H.	M.
		4	7	41	4	27	☽	Eve.

(1) 2nd Sunday after Christmas.		Venus in Sagittarius.						
2 Su.	followed by generally cold weather, with heavy snows, high winds and drifts; very cold in the North-West—Brilliant, low ther. readings, "a dip" about 4th and 5th.	4	7	41	4	28	☽	6 14
3 Mo.		5	41	29	☽	6	50	
4 Tu.		5	41	30	☽	7	45	
5 We.		6	41	31	☽	8	35	
6 Th.	EPIPHANY. 5th—Milder, snow N. and N.W. sleet and rain S. and S.W.—Snow and rain general at end of week.	6	41	32	☽	9	30	
7 Fri.		6	40	33	☽	10	25	
8 Sat.		7	40	34	☽	11	23	

(2) 1st Sunday after Epiphany.		Mars in Capricornus.						
9 Su.	Cold, with high winds and snows; gales on Atlantic Coast and over New England—Cold winter weather; another "dip"—Moderating to mild about 13th, with snow storms W.—Fine weather towards the close.	7	7	40	4	35	☽	Morn
10 Mo.		8	40	36	☽	0	21	
11 Tu.		8	40	37	☽	1	22	
12 We.		8	39	38	☽	2	19	
13 Th.		9	39	40	☽	3	15	
14 Fri.		9	38	41	☽	4	08	
15 Sat.		10	37	42	☽	5	00	

(3) 2nd Sunday after Epiphany.		Jupiter in Virgo.						
16 Su.	Unsettled, bluster, great storms and drifts—High winds and snow blockades general in the W. and N.W., especially around Chicago and Wisconsin—Very cold weather—End of week milder.	10	7	36	4	43	☽	5 52
17 Mo.		10	36	44	☽	6	43	
18 Tu.		11	35	46	☽	7	34	
19 We.		11	35	48	☽	8	25	
20 Th.		11	34	49	☽	9	17	
21 Fri.		12	33	51	☽	10	09	
22 Sat.		12	32	52	☽	11	00	

(4) 3rd Sunday after Epiphany.		Saturn in Gemini.						
23 Su.	High winds and gales—A cold change,	12	7	32	4	54	☽	11 50
24 Mo.		12	31	55	☽	Eve.		
25 Tu.	Conversion of St. Paul.	12	30	56	☽	1 25		
26 We.	a "dip" in many sections—Mild and changeable, with local snows and rains—Another severe cold spell at the close.	13	29	57	☽	2 10		
27 Th.		13	28	58	☽	2 53		
28 Fri.		13	27	59	☽	3 35		
29 Sat.		13	25	5 01	☽	4 17		

(5) 4th Sunday after Epiphany.		Uranus in Virgo.						
30 Su.	Month ends mild, with wet snow, rain and wind—Foggy on Atlantic Coast.	13	7	24	5	03	☽	5 00
31 Mo.		14	23	05	☽	5 43		

(For Kansas)

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PLANETS IN JANUARY, 1887.

MONTREAL MEAN TIME.

(For Virginia and the Carolinas, deduct about 15 min.; for Iowa, Nebraska, and Kansas, 1 h. 35 m.; the Pacific States, 3 h. 15 m., and Hawaii, 5 h. 25 m.)

The glorious Sun is at Perigee—nearest the Earth—on the 2nd, at 3 p.m., Uranus being at Quadrature—90° from the Sun—the same day, at 7 p.m. The Moon, increasing in light, is near Neptune, the invisible, at 5.50 p.m. on the 5th. Mercury is in his descending node at 6 p.m., on the 6th, and Venus is in Aphelion—farthest from the Sun—at midnight, on the 8th. Saturn, with his rings and satellites, is most favorably placed on the 9th, he reaching opposition, the Earth passing between him and the Sun at 9 a.m. The same day, at 5.43 p.m., he is 3° 7' N. of the full Moon; the latter reaching Perigee—nearest Earth—on the 12th, at noon. Moon 3° 5' N. of Uranus on the 15th, at 8.53 a.m., and Mars in Perihelion, at 3 p.m., on the 16th, with Uranus stationary among the stars one hour later; Jupiter 3° 39' S. of the Moon at 10.03 p.m., and Mercury in Aphelion at 11 p.m. Mercury is 4° 38' S. of the Moon on the 23rd, at 3.32 a.m. Jupiter is at Quadrature on the 24th, at 10 p.m. Venus is 2° 27' S. of Luna, on the 25th, at 3 a.m., and the Moon is but 1° 13' N. of Mars at 6.21 p.m., the same evening. The Moon reaches Apogee at 1.00 p.m. on the 28th.

"Unusual Success in Verifications."

"The best almanac published."—*Advocate*.

"Smith, Montreal's Weather Prophet, has had unusual success in verifications this season."—*Pioneer Press*.

"From the press opinions published in the work, Mr. Smith appears to have had his forecasts keenly watched during the past year, and to have made some very clever ones."—*Gazette*.

"The mild term changed, just as Mr. Walter H. Smith told the readers of the *Herald* it would, to 'bluster in the North-West, and general windy, snowy, unsettled weather.' He appears to have made a 'decided hit,' when he forecast in the *Herald* of Dec. 14th severe storms, unsettled weather, high winds, heavy snows and drifts over the continent, and a general 'snow-blockade' for the especial benefit of the transcontinental railroads, during 'the first week in January.'"—*Herald*.

2nd MONTH.

FEBRUARY.

28 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
D F.Q.	1	3.46 mo.	3.32 mo.	3.31 mo.	3.18 mo.	2.36 mo.
☉ F.M.	8	5.33 mo.	5.19 mo.	5.18 mo.	5.05 mo.	4.23 mo.
☾ L.Q.	14	8.52 ev.	8.38 ev.	8.37 ev.	8.24 ev.	7.42 ev.
● N.M.	22	5.00 ev.	4.46 ev.	4.45 ev.	4.32 ev.	3.50 ev.

DAYS.		WEATHER FORECAST.	MONTREAL.			
M.	W.		THE SUN— Slow. Rises. Sets.		THE MOON Zod. Souths.	
1	Tu.	Cold, with strong winds—A moderate	14	7 22	5 06	♄ Eve.
2	We.	CANDLEMAS. to mild period,	14	20	08	♄ 7 18
3	Th.	with rain and snow falls, especially West	14	19	09	♄ 8 10
4	Fri.	and South—Windy and cold.	14	18	11	♄ 9 05
5	Sat.		14	17	12	♄ 10 03
(6) Septuagesima Sunday.		Neptune in Taurus.				
6	Su.	Cloudy, snowy, unsettled, with high	14	7 16	5 14	♄ 11 02
7	Mo.	winds and gales—A general storm period,	14	14	15	♄ Morn
8	Tu.	with heavy drifts and snow blockades—	14	13	17	♄ 0 01
9	We.	A brief period of cold, fine weather,	14	12	18	♄ 1 00
10	Th.	changing to—milder, with scattered snow	14	10	19	♄ 1 57
11	Fri.	and rain falls—Cold, windy weather at	14	09	21	♄ 2 52
12	Sat.	close.	14	07	22	♄ 3 45
(7) Sexagesima Sunday.		Mercury in Aquarius.				
13	Su.	Fine—Stormy, with snow and sleet—	14	7 06	5 24	♄ 4 38
14	Mo.	ST. VALENTINE. Rains on	14	04	25	♄ 5 30
15	Tu.	Atlantic Coast—Fair weather in northern	14	02	27	♄ 6 22
16	We.	and middle sections—Stormy and mild,	14	01	28	♄ 7 14
17	Th.	general rains and snows in Western	14	6 59	30	♄ 8 06
18	Fri.	States and Ontario, with rapid changes	14	58	31	♄ 8 57
19	Sat.	of temperature.	14	56	33	♄ 9 47
(8) Quinquagesima (Shrove) Sunday.		Venus in Pisces.				
20	Su.	Some abrupt changes—A general storm	14	6 54	5 34	♄ 10 35
21	Mo.		14	53	36	♄ 11 21
22	Tu.	SHROVE TUESDAY.	13	51	37	♄ Eve.
23	We.	ASH WEDNESDAY.	13	50	39	♄ 0 50
24	Th.	period, with snow, wind and drifts—	13	48	40	♄ 1 33
25	Fri.	Disastrous gales along Atlantic Coast and	13	47	41	♄ 2 15
26	Sat.	seaward—A cold and stormy week.	13	45	43	♄ 2 57
(9) Quadragesima Sunday.		Mars in Pisces.				
27	Su.	Cold, with snow and rain falls and	13	6 43	5 45	♄ 3 40
28	Mo.	strong winds—Month ends cold.	13	41	47	♄ 4 24

PLANETS IN FEBRUARY, 1887.

MONTREAL MEAN TIME.

(For Virginia and the Carolinas, deduct about 15 min.; for Iowa, Nebraska, and Kansas, 1 h. 35 m.; the Pacific States, 3 h. 15 m., and Hawaii, 5 h. 25 m.)

Luna passes Neptune's place on the 2nd, at 2.27 a.m., the trident bearer being stationary at 7 a.m. on the 5th. Saturn, extremely well placed for observing, is $3^{\circ} 22'$ N. of the Moon on the 6th, at 1.07 a.m., and, prior to sunrise (5 a.m.) the same morning, the be-ringed planet crosses the place of Wasat (*Delta Geminorum*), a beautiful double star of the third magnitude, in the constellation Gemini. On the 7th, at 5 a.m., Mercury passes behind the Sun, and on the same day the Moon is eclipsed. At 7 on the morning of the 9th, Luna makes her Perigee passage, and twelve hours later Mars and Venus are in close conjunction, the latter passing $34'$ S. Uranus is 3° S. of the Moon at 3.59 p.m. on the 11th, and Jupiter $3^{\circ} 43'$ S. of Luna on the 13th, at 7.05 a.m. Neptune reaches his Solar Quadrature at 9 p.m., on the 13th. The golden-hued Jupiter becomes stationary on the 19th, at 2 a.m. On the 22nd the Sun is eclipsed. The 23rd, at 11 a.m., witnesses another close conjunction, Mercury passing $32'$ N. of Mars; at 9.38 p.m. the Moon overtakes the latter, and passes the former one hour later. The Moon reaches Apogee on the 24th at noon, and overtakes Venus 20 min. later.

Forecasts that Cause a Sensation.

"A most excellent work."—*Shenandoah Valley*.

"The weather forecasts of Prof. Smith are highly spoken of by the press of the United States."—*Rockingham Register*.

"Your special forecast for February for this section, sent to our local paper, caused quite a sensation on account of its literal fulfilment."—*R. B., Ont.*

"People who braved the terrific storm of Saturday, stayed at home afraid to face the blizzard, or went out and got their ears frozen, on Sunday last, were not among the number who failed to see anything true in scientific weather predictions. Joking apart, it seems as if Mr. Smith has a remarkable insight as regards future weather."
—*Herald*.

3rd MONTH.

MARCH.

31 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
☾ F.Q.	2	8.27 ev.	8.13 ev.	8.12 ev.	7.59 ev.	7.17 ev.
☽ F.M.	9	3.54 ev.	3.40 ev.	3.39 ev.	3.26 ev.	2.44 ev.
☾ L.Q.	16	9.02 mo.	8.48 mo.	8.47 mo.	8.34 mo.	7.52 mo.
● N.M.	24	11.29 mo.	11.15 mo.	11.14 mo.	10.01 mo.	10.19 mo.

DAYS.		WEATHER FORECAST.	MONTREAL.								
M.	W.		THE SUN—			THE MOON					
				Slow.	Rises.	Sets.	Zod.	Souths.			
1	Tu.	ST. DAVID. Enters fine in most sections, changing to blustery, with snow and high winds, followed by a spell of fine, cold weather—Cloudy, dark and cold generally, with snows and rains.	12	6	40	5	48	♄	8	Eve.	
2	We.		12	38	49	II	6	00			
3	Th.		12	36	50	II	6	52			
4	Fri.		12	34	51	♁	7	46			
5	Sat.		11	32	53	♁	8	43			
(10)		2nd Sunday in Lent.	Jupiter in Virgo.								
6	Su.	Snow N. and rain S., bluster and storms continue—Fine, a mild change, warm for the season, perhaps spring-like—End of week winter again; stormy, snowy and unsettled, with drifts—Rains South.	11	6	30	5	54	♃	9	41	
7	Mo.		11	28	55	♃	10	39			
8	Tu.		11	26	57	♃	11	37			
9	We.		11	25	58	♃	Morn				
10	Th.		10	23	6	00	♁	0	34		
11	Fri.		10	21	01	♁	1	30			
12	Sat.		10	19	02	♃	2	25			
(11)		3rd Sunday in Lent.	Saturn in Gemini.								
13	Su.	Generally fine—Mild, rains in Southern sections, wet snow North—Colder, stormy again, with snow and rain, especially along the North Atlantic Coast and over New England.	9	6	17	6	03	♄	3	19	
14	Mo.		9	15	05	♄	4	14			
15	Tu.		9	13	06	♄	5	08			
16	We.		9	11	07	♄	6	01			
17	Th.		ST. PATRICK	8	09	08	♃	6	53		
18	Fri.		8	07	10	♃	7	44			
19	Sat.		ST. JOSEPH.	8	06	11	♃	8	32		
(12)			4th Sunday in Lent.	Uranus in Virgo.							
20	Su.		Windy, cold—High winds and equinoctial gales, with snow and rain generally—A cold term, followed by more equinoctial gales and rough weather, especially on the Atlantic seaboard.	7	6	04	6	13	♃	9	19
21	Mo.	7		02	14	♃	10	05			
22	Tu.	7		00	15	♃	10	48			
23	We.	6		5	58	16	♃	11	31		
24	Th.	6		56	18	♃	Eve.				
25	Fri.	ANNUNCIATION.		6	54	19	♃	0	55		
26	Sat.	5		52	20	♃	1	38			
(13)		5th Sunday in Lent.		Neptune in Taurus.							
27	Su.	Mild and spring-like—General rains in Ontario and Westward—Gales in Eastern sections—Cold, with hard frost, snow and wind—Ends "lion-like."	5	5	50	6	21	♃	2	21	
28	Mo.		5	48	23	♃	3	07			
29	Tu.		4	47	24	II	3	55			
30	We.		4	45	26	II	4	45			
31	Th.		4	43	27	♁	5	37			

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PLANETS IN MARCH, 1887.

MONTREAL MEAN TIME.

(For Virginia and the Carolinas, deduct about 15 min.; for Iowa, Nebraska, and Kansas, 1 h. 35 m.; the Pacific States, 3 h. 15 m., and Hawaii, 5 h. 25 m.)

The month opens with a conjunction of Neptune and the Moon on the 1st, at 10 a.m., and Mercury in Perihelion, at 10 p.m., the same day. On the 5th, at 9 a.m., the Moon passes $3^{\circ} 29'$ S. of Saturn, and two hours later, Mercury is at his greatest elongation East of the Sun of $18^{\circ} 44'$, and will be easily seen in the evening sky after sunset. On the 9th, at 7 p.m., Moon at Perigee, and $3^{\circ} 2'$ N. of Uranus on the 10th, at midnight. Mercury is stationary on the 12th, at noon, and the Moon runs $3^{\circ} 33'$ South of Jupiter, at 3.21 p.m. the same day. Mercury and Mars approach within $4^{\circ} 43'$ of each other at 2 a.m. on the 15th. Saturn stationary at noon on the 17th. The Sun touches the first point of Aries, at 5 p.m., on the 20th, and the Spring Quarter begins. Mercury is between the Earth and the Sun (inferior conjunction) on the 21st, at 9 p.m., and the Moon makes her Apogee passage at 1 p.m. on the 23rd, after which she is in conjunction with Mercury ($5^{\circ} 57'$ S. on the 23rd, at 9.41 p.m.); Mars ($3^{\circ} 10'$ S. on the 24th, at 11.56 p.m.); Venus ($4^{\circ} 50'$ S. on the 26th, at 7.20 p.m.), and Neptune ($3^{\circ} 35'$ S. at 5.26 p.m. on the 28th). Uranus reaches his opposition to the Sun, and becomes an "evening star" on the 31st, at 7 p.m.

Especially Valuable to Farmers.

"It should have a large sale."—*Bee*.

"Every enterprising farmer should secure a copy."—*Advocate*.

"The Lunar influence feature is of especial value to farmers and gardeners, and is alone fully worth the price of the book."—*Shawano Co. Journal*.

"Every word (of the March forecast) has been fulfilled. Mr. Smith appears to have ably coped with the weather subject, so far, at least, as this winter is concerned, arriving several weeks ahead at remarkably correct conclusions."—*Herald*.

"The author is a practical scientist, and in the new theories which he seeks to establish, he appeals to nothing but fixed natural laws. After all, there may be a great deal in his theory of lunar influence as a help to farmers in its effect upon crops, and the subject is worthy of attention and study."—*Farm and Home*.

4th MONTH.

APRIL.

30 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
☽ F.Q.	1	9.12 mo.	8.58 mo.	8.57 mo.	8.44 mo.	8.02 mo.
☾ F.M.	7-8	0.59 mo.	0.45 mo.	0.44 mo.	0.31 mo.	11.49 ev.
☾ L.Q.	14	11.23 ev.	11.09 ev.	11.08 ev.	10.55 ev.	10.13 ev.
☾ N.M.	23	4.13 mo.	3.59 mo.	3.58 mo.	3.45 mo.	3.03 mo.
☽ F.Q.	30	6.20 ev.	6.06 ev.	6.05 ev.	5.52 ev.	5.10 ev.

DAYS.		WEATHER FORECAST.	MONTREAL.						
M.	W.		THE SUN—			THE MOON			
				Slow.	Rises.	Sets.	Zod.	Souths.	
1	Fri.	Opens cold, "borrowed days," with snow-falls in Northern sections.	M.	H.	M.	H.	M.	H.	
2	Sat.		4	5	41	6	28	♄	Eve.
			4		40		29	♄	7 27

(14) Palm Sunday.

Mercury in Pisces.

3	Su.	Fine, frosts North, cool weather South — High winds, unsettled, dull, dark, rainy, sleety or snowy, according to locality — A spring-like change — decided heat, with thunder showers South.	3	5	38	6	31	♃	8 23
4	Mo.		3		36	32	♃	9 19	
5	Tu.		3		34	33	♃	10 15	
6	We.		2		32	34	♃	11 11	
7	Th.		2		30	35	♃	Morn	
8	Fri.		2		28	37	♃	0 07	
9	Sat.	2		26	38	♃	1 02		

(15) Easter Sunday.

Venus in Aries.

10	Su.	A brief storm period, probably snow in Quebec and Gulf—Fine, seasonable, some warm days — Windy and rainy at the close, cool to cold, with April showers.	1	5	24	6	39	♃	1 58
11	Mo.		1		22	40	♃	2 54	
12	Tu.		1		20	42	♃	3 50	
13	We.		0		19	43	♃	4 44	
14	Th.		0		17	45	♃	5 37	
15	Fri.		fast		15	46	♃	6 28	
16	Sat.		0		13	47	♃	7 16	

(16) Low Sunday.

Mars in Pisces.

17	Su.	Showery and windy—Cold weather for the season, with snow flurries N. and cool rains S.—Milder, fine, with strong N.W. winds—End of week stormy, with hail and thunder showers in the S.W. and S.	0	5	11	6	48	♂	8 02
18	Mo.		1		10	50	♂	8 46	
19	Tu.		1		08	51	♂	9 29	
20	We.		1		07	52	♂	10 11	
21	Th.		1		05	53	♂	10 53	
22	Fri.		2		03	54	♂	11 36	
23	Sat.		2		02	56	♂	Eve.	

(17) 2nd Sunday after Easter.

Jupiter in Virgo.

24	Su.	ST. MARK. Hot and dry for the time of year, with warm winds and generally favorable weather for the crops—Showery, cool and wet at the close.	2	5	00	6	57	♃	1 05
25	Mo.		2	4	59	58	♃	1 52	
26	Tu.		2		57	59	♃	2 42	
27	We.		2		56	7 01	♃	3 33	
28	Th.		3		54	02	♃	4 27	
29	Fri.		3		52	04	♃	5 21	
30	Sat.		3		50	05	♃	6 15	

PLANETS IN APRIL, 1887.

MONTREAL MEAN TIME.

(For Virginia and the Carolinas, deduct about 15 min.; for Iowa, Nebraska, and Kansas, 1 h. 35 m.; the Pacific States, 3 h. 15 m., and Hawaii, 5 h. 25 m.)

Saturn is $3^{\circ} 23'$ N. of the Moon on the 1st at 5.20 p.m. On the 4th at 6 p.m., Mercury is stationary, and the next day Saturn, at 8 p.m., is at Quadrature— 90° from the Sun, and overhead at 6 p.m. At 6 a.m., on the 7th, the Moon is nearest the Earth (Perigee); Uranus, being $2^{\circ} 57'$ S. of her at 10.25 a.m., and Jupiter $3^{\circ} 21'$ S. on the 8th, at 9.51 p.m. Mercury reaches his Aphelion point—farthest from the Sun—on the 14th, at 9 p.m., and on the 15th, Venus overtakes and passes $2^{\circ} 35'$ N. of Neptune at noon. Mercury, now a “morning star,” is well-placed for seeing around the 17th, when he is at his greatest elongation West of $27^{\circ} 26'$. The Apogee passage of Luna occurs on the 19th, at 9 p.m., she being but $31'$ S. of Mercury at 4.03 p.m. on the 20th. A noticeable event is the arrival at opposition to the Sun of Jupiter on the 21st at 5 a.m., when the giant planet is at his most brilliant phase during the year, rises about 6 p.m., and souths at midnight. From this to the end of the month, conjunctions are in order; at 1.26 a.m., on the 23rd, the Moon runs $4^{\circ} 35'$ S. of Mars; at 6 p.m., on the 24th, Mars is in conjunction with the Sun, and becomes a “morning star;” at 0.54 a.m. on the 25th, Neptune is $3^{\circ} 28'$ N. of the Moon; at 7 a.m., on the 25th, Saturn passes $12'$ N. of the third magnitude star, *Delta* in Gemini (*Wasat*); at 1.20 a.m., on the 26th, Venus is $6^{\circ} 18'$ N. of the Moon, and at 1.46 a.m., the Moon passes Saturn $3^{\circ} 6'$ S.

Nothing Mercenary about Smith.

“Mr. Smith successfully foretold the early spring and advanced April of 1886, last October.”—*Standard*.

“His work has evidently not been undertaken for mercenary motives, as he has not, he says, made fifty dollars out of his last two annuals.”—*Sherbrooke Examiner*.

“Prof Smith is a resident of Montreal, and is yearly increasing his well-earned reputation as an astronomer and meteorologist. He has the honor of being the Founder of the Astro-Meteorological Association, which has become so well and favorably known.”—*The People*.

5th MONTH.

MAY.

31 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
☉ F.M.	7	9.21 mo.	9.07 mo.	9.06 mo.	8.53 mo.	8.11 mo.
☾ L.Q.	14	3.37 ev.	3.23 ev.	3.22 ev.	3.09 ev.	2.27 ev.
☀ N.M.	22	6.25 ev.	6.11 ev.	6.10 ev.	5.57 ev.	5.15 ev.
☾ F.Q.	29-30	0.39 mo.	0.25 mo.	0.24 mo.	0.11 mo.	11.29 ev.

DAYS.		MONTREAL.	
M.	W.	WEATHER FORECAST.	
		THE SUN: Fast. Rises. Sets. THE MOON: Zod. Souths.	

(18) 3rd Sunday after Easter.

Saturn in Gemini.

		M.	H.	M.	H.	M.	H.	M.
1 Su.	MAY DAY. Cool; frosts and storms,	3	4	49	7	06	♄	Eve.
2 Mo.	possibly snow flurries N., rainy and cold	3		47		07	♄	8 04
3 Tu.		3		46		09	♄	8 58
4 We.	in the South—Tornadoes probable in	3		44		10	♄	9 51
5 Th.	Tornado sections—Fine weather—Heat;	3		43		11	♄	10 46
6 Fri.	summer-like, with local showers.	4		42		12	♄	11 41
7 Sat.		4		40		13	♄	Morn

(19) 4th Sunday after Easter.

Uranus in Virgo.

		M.	H.	M.	H.	M.	H.	M.
8 Su.	Cloudy and cold, with rains—Snow in	4	4	39	7	14	♅	0 37
9 Mo.		4		37		16	♅	1 34
10 Tu.	the Gulf of St. Lawrence, storms general	4		36		17	♅	2 31
11 We.	—Local frosts, fine—Week ends fine and	4		35		18	♅	3 26
12 Th.	warm.	4		34		19	♅	4 19
13 Fri.		4		33		21	♅	5 10
14 Sat.		4		31		22	♅	5 57

(20) Rogation Sunday.

Neptune in Taurus.

		M.	H.	M.	H.	M.	H.	M.
15 Su.	Hot and oppressive, bush fires pre-	4	4	30	7	23	♆	6 43
16 Mo.		4		29		24	♆	7 26
17 Tu.	valent—Stormy—A cool change, cold	4		28		25	♆	8 09
18 We.	rains and winds—Warmer, with advanced	4		27		26	♆	8 51
19 Th.	Spring	4		26		27	♆	9 33
20 Fri.	ASCENSION DAY. weather	4		25		28	♆	10 16
21 Sat.	about 19th and 20th—Cooler, with rain	4		24		29	♆	11 01
	at the close.	4		24		29	♆	11 01

(21) Sunday after Ascension.

Mercury in Taurus.

		M.	H.	M.	H.	M.	H.	M.
22 Su.	Windy and rainy; cool weather, with	4	4	23	7	30	♁	11 48
23 Mo.	Queen Victoria born 1819.	3		22		31	♁	Eve.
24 Tu.		3		21		32	♁	1 29
25 We.	hall storms—Unsettled and showery,	3		20		33	♁	2 23
26 Th.		3		19		34	♁	3 17
27 Fri.	cold evenings and nights—Warm, to hot	3		19		35	♁	4 12
28 Sat.	and sultry, with wind and rain storms.	3		18		36	♁	5 06

(22) Whit Sunday (Pentecost).

Venus in Gemini.

		M.	H.	M.	H.	M.	H.	M.
29 Su.	Stormy, unsettled, high winds and	3	4	18	7	37	♁	5 59
30 Mo.	DECORATION DAY. gales	3		17		38	♁	6 52
31 Tu.	—Cool, with rains.	3		16		39	♁	7 44

PLANETS IN MAY, 1887.

MONTREAL MEAN TIME.

(For Virginia and the Carolinas, deduct about 15 min.; for Iowa, Nebraska, and Kansas, 1 h. 35 m.; the Pacific States, 3 h. 15 m., and Hawaii, 5 h. 25 m.)

Venus, the brilliant evening star, is at Perihelion on the 1st, at 10 a.m. Uranus is $2^{\circ} 58'$ S. of the Moon at 6.38 p.m., on the 4th, the latter making her Perigee passage on the 5th, at 1 p.m. The next day, at 2.10 a.m., Luna is $3^{\circ} 14'$ N. of Jupiter. No planetary constellation of note occurs from this until the 17th, at noon, when the Moon is at Apogee. On the 18th, at 2 p.m., Neptune reaches his conjunction and passes behind the Sun. A close conjunction of Mars and Mercury takes place on the 21st, at 11 p.m., when Mercury passes $28'$ S. of Mars. The 22nd boasts three separate conjunctions, viz., Mars, $5^{\circ} 11'$ N. of the Moon, at 2.11 a.m.; Mercury, $4^{\circ} 46'$ N. of the Moon, at 2.36 a.m., and Neptune $3^{\circ} 26'$ N. of the Moon, at 9.27 a.m.; Neptune following on the 23rd with a conjunction with Mercury, the latter passing, at 7 p.m., $1^{\circ} 36'$ N. On the 26th, the Moon overtakes Venus at 3.05 a.m., and passes $5^{\circ} 18'$ S. of Hesperus, who is also drawing perceptibly nearer Saturn at the time. Saturn and the Moon are in conjunction at 11.38 a.m. on the 26th. On the 27th, at 9 a.m., Mercury is behind the Sun at superior conjunction, and at noon, the same day, Neptune and Mars are but $1^{\circ} 47'$ from each other. At 9 p.m., on the 28th, Mercury is at Perihelion, the month closing with the conjunction of Saturn and his "dere daughter," Venus, at noon, on the 30th, Venus passing $2^{\circ} 15'$ N.

Interesting to Everyone.

"A book of interest to everyone."—*Spirit of the Valley*.

"Montreal has, at least, one weather prophet worthy of the name, viz., Mr. Walter H. Smith.—*Herald*."

"Replete with information for agriculturists. The book ought to be in the hands of every farmer."—*New England Observer*.

"Last year, Mr. Smith issued the annual under its old name of *Venor's Almanac*, and with the prophetic parts as bold, and, events have proved, as accurate as ever. This year, the publication has come to hand under the new title of SMITH'S PLANETARY ALMANAC AND WEATHER GUIDE."—*Bulletin, Honolulu*.

6th MONTH.

JUNE.

30 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
☉ F.M.	5	5.58 ev.	5.44 ev.	5.43 ev.	5.30 ev.	4.48 ev.
☾ L.Q.	13	8.54 mo.	8.40 mo.	8.39 mo.	8.26 mo.	7.44 mo.
● N.M.	21	6.12 mo.	5.58 mo.	5.57 mo.	5.41 mo.	5.02 mo.
☽ F.Q.	28	5.21 mo.	5.07 mo.	5.06 mo.	4.53 mo.	4.11 mo.

DAYS.		WEATHER FORECAST.	MONTREAL.						
M.	W.		THE SUN— Fast. Rises. Sets.		THE MOON Zod. Souths.				
1	We.	Opens windy—Fine, hot weather, too dry in places; frequent thunder storms in others.	2	4	16	7	40	☾	Eve.
2	Th.		2		15		41	☾	9 29
3	Fri.		2		14		42	♎	10 23
4	Sat.		2		14		43	♎	11 19

(23) Trinity Sunday.

Mars in Taurus.

5	Su.	Cooler, scattered showers—Fine and hot—Sultry and showery—Generally	2	4	13	7	44	♂	Morn
6	Mo.		2		12		45	♂	0 15
7	Tu.		1		12		45	♂	1 12
8	We.	Henry G. Vennor died 1884.	1		12		46	♂	2 07
9	Th.	CORPUS CHRISTI.	1		12		46	♂	2 59
10	Fri.	heavy rainfalls, with wind and thunder	1		11		47	♂	3 49
11	Sat.	ST. BARNABAS. at the close.	1		11		47	♂	4 37

(24) 1st Sunday after Trinity.

Jupiter in Virgo.

12	Su.	Windy—A decidedly cooler change, with hail showers and thunder storms—Frosts probable in the Northern and North-western States and Canada—Week ends fine, warm and favorable.	1	4	11	7	48	♃	5 22
13	Mo.		0		11		48	♃	6 05
14	Tu.		0		11		49	♃	6 47
15	We.		st w		11		49	♃	7 29
16	Th.		0		11		50	♃	8 11
17	Fri.		1		11		50	♃	8 55
18	Sat.		1		11		51	♃	9 41

(25) 2nd Sunday after Trinity.

Saturn in Gemini.

19	Su.	Opens fine—Thunder showers, cloudy,	1	4	11	7	51	♄	10 30
20	Mo.	Accession of Queen Victoria.	1		11		51	♄	11 21
21	Tu.	windy and unsettled—Cool rains in sections—Hot weather about the 23rd to 25th, with some disastrous local storms.	1		11		51	♄	Eve.
22	We.		2		12		52	♄	1 11
23	Th.		2		12		52	♄	2 07
24	Fri.	ST. JOHN BAPTIST.—MID-	2		12		52	♄	3 02
25	Sat.	SUMMER DAY.	2		13		52	♄	3 56

(26) 3rd Sunday after Trinity.

Uranus in Virgo.

26	Su.	Fine, hot to sultry weather, with thick clouds and high winds in sections—Unsettled, with a sudden cool reaction,	3	4	13	7	52	♅	4 49
27	Mo.		3		14		52	♅	5 41
28	Tu.		3		14		52	♅	6 32
29	We.	ST. PETER and ST. PAUL	3		15		52	♅	7 24
30	Th.	probable about the 29th and 30th.	3		15		51	♅	8 16

PLANETS IN JUNE, 1887.

MONTREAL MEAN TIME.

(For Virginia and the Carolinas, deduct about 15 min; for Iowa, Nebraska, and Kansas, 1 h. 35 m.; the Pacific States, 3 h. 15 m., and Hawaii, 5 h. 25 m.)

June opens with a conjunction of Uranus and the Moon, at 1 a.m., on the 1st. The Moon is at Perigee on the 2nd, at 6 a.m., and passes $3^{\circ} 22'$ N. of Jupiter, at 7.09 the same morning. On the 14th, at 6 a.m., the Moon is at Apogee, and on the 16th, at 7 a.m., Uranus is stationary. Three conjunctions follow, viz., 18th, Moon with Neptune, at 7.08 p.m.; 20th, Moon with Mars, at 1 46 a.m., and same day, Saturn $1^{\circ} 34'$ S. of Mercury, at 4 p.m. The Sun enters Cancer, and Summer begins on the 21st, at 1 p.m.; Saturn is near the Moon on the 22nd, at 11.46 p.m., with Jupiter stationary at midnight. On the 23rd, at 5.31 a.m., the Moon is $3^{\circ} 27'$ S. of Mercury, and on the 24th, at 7.04 p.m., she is $2^{\circ} 1'$ S. of Venus. Luna passes Perigee for the second time this month, at 1 a.m., on the 28th; leaves Uranus behind at 6.26 the same morning, and passes $3^{\circ} 40'$ N. of Jupiter, at noon. Uranus is at Quadrature— 90° from the Sun—on the 30th at 8 a.m.

" You Need this Book."

"The bad weather predicted by our Weather Clerk, Prof. Smith, of Montreal, is on time."—*Citizen*.

"To every one of our subscribers, and to every farmer in this and every other district, we recommend this interesting publication; as Prof. Smith says, in his prospectus—'You need this book.'"—*Advocate*.

"With the New Year we get Smith's 'PLANETARY ALMANAC AND WEATHER GUIDE' for 1886, which will prove invaluable to those who don't feel like taking a leap in the dark into that unknown period. If they are agricultural folk, they will know when to sow, so as best to reap; if they are sociable bodies, they will know when to get up the dance, the long drive to grandma's; when to buy the warm overcoat, or the vagrant umbrella; if they are only business people, seeking to make money when they can, they will know when it behooveth to sell cheap with slush in the streets, and when to tighten prices with a long spell of fair weather."—*Star*.

7th MONTH.

JULY.

31 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
☉ F.M.	5	3.54 mo.	3.40 mo.	3.39 mo.	3.26 mo.	2.44 mo.
☾ L.Q.	13	2.17 mo.	2.03 mo.	2.02 mo.	1.49 mo.	1.07 mo.
● N.M.	20	4.10 ev.	3.56 ev.	3.55 ev.	3.42 ev.	3.00 ev.
☽ F.Q.	27	9.50 mo.	9.36 mo.	9.35 mo.	9.22 mo.	8.40 mo.
DAYS.		WEATHER FORECAST.			MONTREAL.	
M.	W.				---THE SUN---	
					Slow.	Rises. Sets.
					THE MOON	
					Tod. Souths.	
1	Fri.	DOMINION DAY. Cool weather for July—Wind, rain and hail storms			M. 4	H. 4 16
2	Sat.				M. 4	H. 16
(27)		4th Sunday after Trinity.			M. 7	H. 51
		Neptune in Taurus.			M. 11	H. 10 04
3	Su.				M. 4	H. 4 17
4	Mo.	INDEPENDENCE DAY.			M. 4	H. 17
5	Tu.	Warmer, unsettled, thunder storms			M. 4	H. 18
6	We.	general—Hot, cloudy and murky—Very			M. 4	H. 19
7	Th.	hot in Southern sections—A cooler			M. 5	H. 19
8	Fri.	change—Dry in the N. and N.W.—Rains			M. 5	H. 20
9	Sat.	in the S. and S.W.			M. 5	H. 21
(28)		5th Sunday after Trinity.			M. 7	H. 48
		Mercury in Cancer.			M. 8	H. 4 00
10	Su.	Favorable summer weather—Cooler,			M. 5	H. 22
11	Mo.	high winds and showers, possibly frosts			M. 5	H. 23
12	Tu.	in the N. and N.W. States and Canada,			M. 5	H. 23
13	We.	followed by generally heavy showers,			M. 5	H. 24
14	Th.	with wind, thunder and hail storms, cool			M. 6	H. 25
15	Fri.	ST. SWITHIN. nights—End			M. 6	H. 26
16	Sat.	of week fine.			M. 6	H. 27
(29)		6th Sunday after Trinity.			M. 7	H. 42
		Venus in Leo.			M. 9	H. 11
17	Su.	Fine, hot and favorable—Storms of			M. 6	H. 28
18	Mo.	heavy rain, thunder showers and high			M. 6	H. 29
19	Tu.	winds—Cool weather N.; cooler in S.,			M. 6	H. 30
20	We.	with showers and rain storms—Nights			M. 6	H. 31
21	Th.	quite cool—Fine and hot at the close.			M. 6	H. 32
22	Fri.				M. 6	H. 33
23	Sat.				M. 6	H. 34
(30)		7th Sunday after Trinity			M. 7	H. 35
		Mars in Gemini.			M. 3	H. 37
24	Su.	Canada visited by Cartier 1534.			M. 6	H. 35
25	Mo.	ST. JAMES. A hot wave, great			M. 6	H. 36
26	Tu.	heat general—Very hot in the S., S.W.			M. 6	H. 37
27	We.	and W.—Disastrous storms W. and S.;			M. 6	H. 38
28	Th.	heat and thunder universal, with high			M. 6	H. 39
29	Fri.	winds, gales on Lakes and Atlantic and			M. 6	H. 40
30	Sat.	Auroral displays—Month ends show-			M. 6	H. 41
(31)		8th Sunday after Trinity.			M. 7	H. 29
		Jupiter in Virgo.			M. 9	H. 47
31	Su.	ery and cool.			M. 6	H. 42

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PLANETS IN JULY, 1887.

MONTREAL MEAN TIME.

(For Virginia and the Carolinas, deduct about 15 min.; for Iowa, Nebraska, and Kansas, 1 h. 35 m.; the Pacific States, 3 h. 15m., and Hawaii, 5 h. 25 m.)

Mercury is an evening star, at greatest elongation E. of $25^{\circ} 51'$ on the 1st, at 5 a.m. He is at his descending node the same day at 4 p.m. The Sun reaches Apogee—farthest from the Earth—on the 2nd, at 4 a.m. A beautiful conjunction is that of Venus and Regulus (*Alpha Leonis*) on the 4th, which takes place at 10 p.m., the brilliant Star of Love passing $1^{\circ} 14'$ S. of the "Lion's Heart." At 1 a.m., of the 11th, Luna is at Apogee; and at 9, the same evening, Mercury is at his Aphelion point. On the 13th, at midnight, Venus reaches greatest elongation East of the Sun, of $45^{\circ} 33'$. On the 15th, at 10 a.m., Mercury is stationary; Neptune and the Moon are in conjunction on the 16th, at 5 a.m., and on the 18th, at 4 p.m., Venus is in her descending node; seven hours later Saturn is in conjunction with the Sun, and a few minutes after the Moon passes $4^{\circ} 18'$ S. of Mars. At 8 p.m., on the 19th, the giant Jupiter reaches Quadrature, and is overhead at 6 o'clock in the evening, setting at midnight. The Moon is $2^{\circ} 10'$ S. of Saturn on the 20th, at 1.44 p.m.; Luna passing $3^{\circ} 40'$ N. of Mercury, on the 21st, at noon; and, leaving the brilliant Venus behind at 10.26 p.m. on the 23rd. The Moon is at Perigee very early on the morning of the 24th; passes Uranus at 0.36 p.m. on the 25th, and is alongside Jupiter at 7.36 p.m., on the 26th. Mercury reaches inferior conjunction on the 28th, at midnight.

"Wonderfully Accurate."

"The hot spell forecast by Prof. Smith set in on Dominion Day."
—*Advocate*.

"Prof. Smith's weather forecasts have proved wonderfully accurate thus far."—*Advance*.

"A continuation of the famous *Vennor's Almanac*, it contains specially revised forecasts of the weather of each week, with carefully prepared articles on "Lunar Influence on Vegetation," and directions for sowing in all latitudes and all seasons."—*Farmers' Friend*.

8th MONTH.

AUGUST.

31 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
☉ F.M.	3	4.00 ev.	3.46 ev.	3.45 ev.	3.32 ev.	2.50 ev.
☾ L.Q.	11	6.56 ev.	6.42 ev.	6.41 ev.	6.28 ev.	5.46 ev.
● N.M.	18-19	0.58 mo.	0.44 mo.	0.43 mo.	0.30 mo.	11.48 ev.
☽ F.Q.	25	3.41 ev.	3.27 ev.	3.26 ev.	3.13 ev.	2.31 ev.

DAYS.		WEATHER FORECAST.	MONTREAL.					
M.	W.		THE SUN			THE MOON		
				Slow.	Rises.	Sets.	Zod.	Souths.
1	Mo.	LAMMAS DAY. Warm and windy—A fine interval,—changing to stormy, with heavy rains and high winds.	M.	H.	M.	H.	M.	H.
6	4		43	7	28	☽	Eve.	
2	Tu.		6	45	26	☽	11 32	
3	We.		6	46	25	☽	Morn	
4	Th.		6	47	24	☽	0 22	
5	Fri.		6	48	23	☽	1 09	
6	Sat.	6	50	21	☽	1 55		

(32) 9th Sunday after Trinity. Saturn in Cancer.

7	Su.	A cool to cold term—Auroral displays—Very fine hot weather, another heated term—Some severe thunder and hail storms at the close of the week.	5	4	51	7	19	☽	2	38
8	Mo.		5	52	18	☽	3	20		
9	Tu.		5	53	16	☽	4	02		
10	We.		5	54	14	☽	4	44		
11	Th.		5	56	13	☽	5	27		
12	Fri.		5	57	11	☽	6	13		
13	Sat.	5	58	09	☽	7	00			

(33) 10th Sunday after Trinity. Uranus in Virgo.

14	Su.	Sultry, great heat—Storms general, ASSUMPTION, B.V.M. very heavy rains in the S. and S.W.—A cooler change, especially in Northern sections—Very hot and stormy again at the close.	4	4	59	7	08	☽	7	51
15	Mo.		4	5	00	07	☽	8	44	
16	Tu.		4	02	06	☽	9	40		
17	We.		4	03	04	☽	10	37		
18	Th.		4	04	02	☽	11	34		
19	Fri.		4	05	00	☽	Eve.			
20	Sat.	3	06	6	58	☽	1	27		

(34) 11th Sunday after Trinity. Neptune in Taurus.

21	Su.	Storms everywhere, with great heat—Tornadoes probable in tornado sections—Heavy and oppressive, "earthquake weather"—High winds and gales—A rapid change of Temperature probable, with local frosts in the N.W., Canada and the Eastern States.	3	5	08	6	56	☽	2	21
22	Mo.		3	09	54	☽	3	15		
23	Tu.		2	10	52	☽	4	08		
24	We.		2	11	51	☽	5	02		
25	Th.		2	12	49	☽	5	55		
26	Fri.		2	14	48	☽	6	49		
27	Sat.	1	15	46	☽	7	43			

(35) 12th Sunday after Trinity. Mercury in Leo.

28	Su.	Cool, showery, with local frosts—End of month warmer, with local showers.	1	5	16	6	44	☽	8	36
29	Mo.		1	17	42	☽	9	28		
30	Tu.		0	18	41	☽	10	18		
31	We.		0	20	40	☽	11	05		

PLANETS IN AUGUST, 1887.

MONTREAL MEAN TIME.

(For Virginia and the Carolinas, deduct about 15 min.; for Iowa, Nebraska, and Kansas, 1 h. 35 m.; the Pacific States, 3 h. 15 m., and Hawaii, 5 h. 25 m.)

On the 3rd, the Moon is eclipsed. Mercury is stationary on the 8th, at 4 a.m., the Moon passing Perigee the same evening at 7 o'clock. Neptune and the Moon are in conjunction on the 12th, at 2.14 p.m., and on the 15th Venus, approaching the Sun, is at greatest brilliancy. Mercury is $18^{\circ} 38'$ W. of the Sun on the 16th, at 1 a.m., when he is a Morning Star; the same evening, at 6.35, Mars is $3^{\circ} 10'$ N. of the Moon; Luna passing $1^{\circ} 56'$ S. of Saturn, at 5.32 a.m., on the 17th, and $33'$ S. of Mercury at 3.32 p.m. the same day. On the 19th, the Sun is eclipsed, the Moon being at Perigee on the 20th, at 7 p.m. The Moon is near Venus, on the 20th, at 9 a.m., Venus being at her Aphelion point on the 21st, at 6 p.m. The same evening, at 9.40, Uranus and the Moon are within $3^{\circ} 14'$ of each other. The 23rd, at 7.44 a.m., Jupiter is $4^{\circ} 12'$ S. of the Moon, and at 8 a.m., Neptune is 90° from the Sun. At 8 p.m., on the 24th, Mercury reaches Perihelion. Mars and Saturn are but $49'$ distant from each other on the 28th, at noon; on the 31st, at 6 a.m., Mercury passes $1^{\circ} 13'$ N. of Regulus (*Alpha Leonis*), and at 4 p.m., the same day, Venus is stationary among the stars.

Where and Why Smith is Known.

"Mr. Smith is extensively known as an Astronomer, Meteorologist, and Astro-Meteorologist."—*Shawano County Advocate*.

"Prof. Smith is not only a competent meteorologist, but is also looked to as an authority on astronomy, of which science he is passionately fond."—*Farmer*.

"His talents lead him in the direction of knowledge, and his particular hobby is astronomy. He spends much of his time in this way—as much as the busy life of a journalist will permit him to do—and he, as President and Founder of the Astro-Meteorological Association, is known from Halifax to Honolulu."—*Standard*.

9th MONTH.

SEPTEMBER.

30 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
☉ F.M.	2	6.32 mo.	6.18 mo.	6.17 mo.	6.04 mo.	5.22 mo.
☾ L.Q.	10	10.23 mo.	10.09 mo.	10.08 mo.	9.55 mo.	9.13 mo.
● N.M.	17	9.19 mo.	9.05 mo.	9.04 mo.	8.51 mo.	8.09 mo.
☽ F.Q.	23-24	0.23 mo.	0.09 mo.	0.08 mo.	11.55 ev.	11.13 ev.

DAYS.		WEATHER FORECAST.	MONTREAL.					
M.	W.		THE SUN			THE MOON		
				Fast.	Rises.	Sets.	Zod.	Souths.
1	Th.	ST. GILES.	M.	H.	M.	H.	M.	H.
2	Fri.	Opens warm and showery.	0	5	21	6	39	☾ 11 51
3	Sat.		1	23	35	☾ 0 35		

(36) 13th Sunday after Trinity. Venus in Virgo.

4	Su.	Cool, cloudy, showery and fall-like, high winds—Warmer, fine and mild for the season—End of week unsettled and stormy—Local frosts.	1	5	24	6	33	☿ 1 17
5	Mo.		1	26	31	☿ 1 59		
6	Tu.		2	27	29	☿ 2 41		
7	We.		2	28	27	☿ 3 24		
8	Th.		2	29	25	☿ 4 07		
9	Fri.		3	30	23	☿ 4 53		
10	Sat.		3	32	22	☿ 5 41		

(37) 14th Sunday after Trinity. Mars in Cancer.

11	Su.	Local frosts—Showery, cool and cloudy—Warm weather, some thick fogs in places—Quite a hot spell in Southern sections—Thunder storms and high winds.	4	5	33	6	20	♂ 6 32
12	Mo.		4	34	18	♂ 7 25		
13	Tu.		4	35	16	♂ 8 21		
14	We.		5	36	14	♂ 9 17		
15	Th.		5	38	12	♂ 10 14		
16	Fri.		5	39	10	♂ 11 10		
17	Sat.		6	40	08	♂ Eve.		

(38) 15th Sunday after Trinity. Jupiter in Virgo.

18	Su.	Stormy, unsettled—Warm to hot weather for September—Generally windy and rainy, Equinoctial gales probable on the Lakes	6	5	41	6	06	♃ 1 01
19	Mo.		6	42	04	♃ 1 57		
20	Tu.		7	44	02	♃ 2 52		
21	We.		7	45	00	♃ 3 48		
22	Th.		7	46	5 58	♃ 4 43		
23	Fri.		8	47	56	♃ 5 38		
24	Sat.		8	48	54	♃ 6 32		

(39) 16th Sunday after Trinity. Uranus in Virgo.

25	Su.	Cooler weather—Some heavy rains and murky weather—Stormy again over the Lakes and Atlantic.	8	5	50	5	53	♅ 7 25
26	Mo.		9	51	51	♅ 8 15		
27	Tu.		9	52	49	♅ 9 03		
28	We.		9	53	47	♅ 9 49		
29	Th.		10	55	45	♅ 10 33		
30	Fri.		10	56	43	♅ 11 16		

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PLANETS IN SEPTEMBER, 1887.

MONTREAL MEAN TIME.

(For Virginia and the Carolinas, deduct about 15 min.; for Iowa, Nebraska, and Kansas, 1 h. 35 m.; the Pacific States, 3 h. 15 m., and Hawaii, 5 h. 25 m.)

Neptune is at his stationary position on the 2nd, at 7 p.m. On the 5th, at 10 a.m., the Moon is at Apogee; Luna passing Neptune $3^{\circ} 30'$ to the South, on the 8th, at 10.14 p.m. Mercury is at superior conjunction with the Sun on the 10th, at 1 p.m. The Moon is $1^{\circ} 39'$ S. of Saturn, at 9 p.m. on the 13th, and $1^{\circ} 48'$ S. of Mars, at 0.14 p.m., on the 14th. Mercury and Venus are in conjunction on the 15th, at 8 p.m. The Moon passing N. of Venus, on the 17th, at 10.40 a.m., and S. of Mercury the same afternoon, at 5.06. Luna is at Perigee on the 18th at 1 a.m., and leaves Uranus behind at 9.53 the same morning. She is near Jupiter at 0.10 a.m. of the 20th. Venus passes between the Earth and Sun (inferior conjunction), at 11 a.m., on the 21st. The Sun enters Libra, and Autumn begins at 4 a.m. on the 23rd. Mercury and Uranus are but $20'$ separated at 1 p.m. on the 24th; Mercury passing Spica (*Alpha Virginis*), on the 30th, at 8 a.m.

Honor to Whom it is Due.

"There was a young man named Wiggins—
A great weather prophet was Wiggins—
He predicted a storm
Of unparalleled form,
'It will come in September,' said Wiggins.

"There was a young man named Smith—
He said 'Wiggins' storm should be Smith's.
He'd predicted the blow,
Last October, you know,
And he wanted the credit for Smith."

—Star.

"The weather of the past few days has been exceedingly warm, bearing out to the letter Prof. Smith's forecast of 'hot weather for the time of year,' made nearly a year ago in his ALMANAC."—*Advocate*.

"Prophet Wiggins, of Ottawa, predicts a disastrous storm for Sept. 29th, next. Our Montreal prophet, Prof. Smith, has also predicted this storm, only he announced it in his ALMANAC, printed in October last, and sharp fellows say that, may be, Prof. Wiggins reads Mr. Smith's ALMANAC."—*Translated from La Presse*.

10th MONTH.

OCTOBER.

31 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
☉ F.M.	1	11.07 ev.	10.53 ev.	10.52 ev.	10.39 ev.	9.57 ev.
☾ L.Q.	9-10	0.17 mo.	0.03 mo.	0.02 mo.	11.49 ev.	11.07 ev.
● N.M.	16	5.54 ev.	5.40 ev.	5.39 ev.	5.26 ev.	4.44 ev.
☽ F.Q.	23	1.05 ev.	0.51 ev.	0.50 ev.	0.37 ev.	11.55 mo.
☼ F.M.	31	4.50 ev.	4.36 ev.	4.35 ev.	4.22 ev.	3.40 ev.

DAYS.		WEATHER FORECAST.	MONTREAL.						
M.	W.		THE SUN			THE MOON			
				Fast.	Rises.	Sets.	Zod.	Souths.	
1	Sat.	Opens cold and frosty N., cool in the S.		10	5 57	5 41	♄	11 57	
(40)		17th Sunday after Trinity.		Neptune in Taurus.					
2	Su.			11	5 59	5 39	♄	Morn	
3	Mo.	Killing frosts in Northern and Middle		11	6 00	37	♄	0 39	
4	Tu.	sections—Dark, cold weather about 6th		11	01	35	♄	1 22	
5	We.	and 7th, with high winds and heavy pre-		12	03	34	♄	2 05	
6	Th.	cipitation in places; rains everywhere.		12	04	32	♄	2 50	
7	Fri.			12	05	30	♄	3 37	
8	Sat.			12	06	28	♄	4 26	
(41)		18th Sunday after Trinity.		Mercury in Virgo.					
9	Su.	ST. DENIS. Misty, mild—Brief		13	6 08	5 26	♄	5 17	
10	Mo.	period of fine "Indian Summer" weather		13	09	25	♄	6 10	
11	Tu.			13	11	23	♄	7 09	
12	We.	Columbus discov'd America, 1492.		13	12	21	♄	7 59	
13	Th.	—Cloudy and stormy again, rainy and		14	13	19	♄	8 53	
14	Fri.	cold—Unsettled at the close, with gen-		14	15	17	♄	9 48	
15	Sat.	eral wind, rain and hail storms.		14	16	16	♄	10 43	
(42)		19th Sunday after Trinity.		Venus in Leo.					
16	Su.	Hot weather for October, quite a sum-		14	6 18	5 14	♄	11 39	
17	Mo.			15	19	12	♄	Eve.	
18	Tu.	ST. LUKE. mer-like spell—		15	20	10	♄	1 32	
19	We.			15	21	08	♄	2 30	
20	Th.	Cloudy and dull—A cold change—Killing		15	23	07	♄	3 28	
21	Fri.	frosts about 20th, 21st and 22nd, accord-		15	24	05	♄	4 24	
22	Sat.	ing to locality.		15	25	03	♄	5 19	
(43)		20th Sunday after Trinity.		Mars in Leo.					
23	Su.	Milder, with thick atmosphere and a		16	6 26	5 01	♄	6 11	
24	Mo.	storm period—Cool, fine and frosty—		16	28	00	♄	7 01	
25	Tu.	Close of week rainy, sleety and windy,		16	29	4 58	♄	7 47	
26	We.	with low temperatures for the season.		16	31	57	♄	8 32	
27	Th.			16	32	55	♄	9 14	
28	Fri.	ST. SIMON and ST. JUDE.		16	33	53	♄	9 56	
29	Sat.			16	35	52	♄	10 38	
(44)		21st Sunday after Trinity.		Jupiter in Libra.					
30	Su.	Very cold and stormy, winter-like, sleet		16	6 36	4 50	♄	11 20	
31	Mo.	All Hallow's Eve, and snow N., rains S.		16	38	49	♄	Morn	

PLANETS IN OCTOBER, 1887.

MONTREAL MEAN TIME.

(For Virginia and the Carolinas, deduct about 15 min.; for Iowa, Nebraska and Kansas, 1 h. 35 m.; the Pacific States, 3 h. 15 m., and Hawaii, 5 h. 25 m.)

The Moon is at Apogee, on the 2nd, at 4 p.m., and near Neptune on the 6th, at 4.03 morn. Uranus is in conjunction with the Sun on the 6th, at 6 a.m. Mercury in Aphelion, at 8 p.m., on the 7th. Mars passes 59' N. of Regulus (*Alpha Leonis*) on the 10th, at 7 p.m. Saturn is 1° 20' N. of the Moon, on the 23rd, at 2 a.m., and Venus becomes stationary, at 6 p.m., on the 12th. Mars is but 19' N. of the Moon, at 3 a.m., on the 13th. On the 14th, at 3 a.m., Jupiter is 3° N. of Mercury. The Moon is with Venus, on the 14th, at 8.12 a.m.; near Uranus, at 11.36 p.m., on the 15th; at Perigee, at noon of the 16th; runs N. of Jupiter, on the 17th, at 7.52 p.m., and passes Mercury on the 18th, at 3.09 a.m. Jupiter is but 34' N. of *Alpha Libræ*, at 1 a.m., on the 26th. Mercury is an evening star at greatest elongation E. of 23° 58' on the 27th, at 3 a.m.; Venus being at her greatest brilliancy in the morning sky on the 28th. Saturn is 90° from the Sun on the 29th, at 5 p.m., and the Moon is at Apogee one hour later.

"Eagerly Sought After."

"Mr. Smith strikes it again."—*Witness*.

"Mr. Smith was, for many years, the associate of the well-known Vennor, and his publication is eagerly sought after by those who would be weather-wise."—*Advocate, Grenville, Ill.*

"If there is a cake for the successful weather prophet, Mr. Walter H. Smith should be allowed to take it. His successes of the past few weeks are unprecedented since the palmiest days of Vennor."—*Herald*.

"Mr. Walter H. Smith's weather forecasts for Texas, sent the *Gazetteer* monthly, are attracting considerable attention from the readers of this paper, and have been copied by several papers in the State. Mr. Smith has devoted years of research to this department of meteorology, and pursues the study as a labor of love."—*Gazetteer*.

11th MONTH.

NOVEMBER.

30 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
☾ L.Q.	8	0.22 ev.	0.08 ev.	0.07 ev.	11.54 mo.	11.12 mo.
● N.M.	15	3.28 mo.	3.14 mo.	3.13 mo.	3.00 mo.	2.18 mo.
☽ F.Q.	22	6.03 mo.	5.49 mo.	5.48 mo.	5.35 mo.	4.53 mo.
☀ F.M.	30	10.40 mo.	10.26 mo.	10.25 mo.	10.12 mo.	9.30 mo.

DAYS.	WEATHER FORECAST.	MONTREAL.						
		THE SUN			THE MOON			
M. W.		Fast.	Rises.	Sets.	Zod.	Souths.		
1 Tu.	ALL SAINTS. Opens cold and	M.	H.	M.	H.	M.	H.	M.
2 We.	dull, with rain and sleet flurries—Occa-	16	6	39	4	47	♄	Morn
3 Th.	sional light rains and frosts.	16	41	46	♄	♄	♄	0 48
4 Fri.		16	42	44	♄	♄	♄	1 34
5 Sat.		16	44	43	♄	♄	♄	2 23
		16	45	41	♄	♄	♄	3 13

(45) 22nd Sunday after Trinity. Saturn in Cancer.

6 Su.	Rains S., sleet and high winds N.—	16	6	47	4	40	♄	4 05
7 Mo.	Cloudy, mild weather, some heavy rains,	16	48	39	♄	♄	♄	4 58
8 Tu.		16	50	38	♄	♄	♄	5 50
9 We.	Prince of Wales born 1841.	16	51	37	♄	♄	♄	6 43
10 Th.	warm for the season—End of week	16	53	35	♄	♄	♄	7 36
11 Fri.	MARTINMAS. cloudy, with	16	54	34	♄	♄	♄	8 29
12 Sat.	sudden squalls.	16	55	33	♄	♄	♄	9 22

(46) 23rd Sunday after Trinity. Uranus in Virgo.

13 Su.	Mild weather continues, some abnor-	15	6	57	4	32	♄	10 17
14 Mo.	mal temperatures—Stormy, unsettled,	15	58	31	♄	♄	♄	11 13
15 Tu.	rains S. and S.W., sleet and snow N. and	15	7	00	30	♄	♄	Eve.
16 We.	N.W.; heavy gales on Lakes, St. Law-	15	01	29	♄	♄	♄	1 10
17 Th.	rence and Atlantic Coast—A very stormy,	15	02	28	♄	♄	♄	2 09
18 Fri.	rough and unsettled week everywhere.	15	03	27	♄	♄	♄	3 06
19 Sat.		14	04	26	♄	♄	♄	4 02

(47) 24th Sunday after Trinity. Neptune in Taurus.

20 Su.	Rain storms and high winds continue	14	7	06	4	25	♄	4 54
21 Mo.	—Warm weather, with thunder storms	14	08	24	♄	♄	♄	5 43
22 Tu.	South—Wind and rain storms general	13	09	23	♄	♄	♄	6 29
23 We.	North—heavy, dashing rains in places—	13	10	22	♄	♄	♄	7 12
24 Th.	A cold change, with sharp frosts and	13	12	21	♄	♄	♄	7 55
25 Fri.	ST. CATHERINE. low ther.	12	13	21	♄	♄	♄	8 36
26 Sat.	readings for November.	12	14	20	♄	♄	♄	9 18

(48) 1st Sunday in Advent. Mercury in Libra.

27 Su.	Windy, snowy, dull, dark and cold—	12	7	15	4	20	♄	10 01
28 Mo.	Cold rains far to the South—Month ends	11	16	19	♄	♄	♄	10 45
29 Tu.	with heavy snows N. and a general	11	18	19	♄	♄	♄	11 31
30 We.	ST. ANDREW. wintry outlook.	11	19	18	♄	♄	♄	Morn

PLANETS IN NOVEMBER, 1887.

MONTREAL MEAN TIME.

(For Virginia and the Carolinas, deduct about 15 min. ; for Iowa, Nebraska, and Kansas, 1 h. 35 m. ; the Pacific States, 3h. 15 m. and Hawaii, 5h. 25 m.)

Neptune is near the Moon, on the 2nd, at 9.41 a.m. Mercury is stationary on the 6th, at 6 p.m., and Saturn alongside the Moon, at 7 p.m., on the 7th. Jupiter is at conjunction with the Sun on the 8th, at 9 p.m. Luna conjuncts Mars on the 10th, at 3 p.m. ; leaves Venus behind on the 11th, at 7.22 p.m. ; pays her respects to Uranus at 0.41 p.m. on the 12th ; makes her Perigee passage at 11 p.m. on the 13th ; reaches the place of Jupiter, at 5 p.m. on the 14th, and passes Mercury on the 15th, at 9.24 p.m. Mercury is at inferior conjunction on the 17th, at 2 p.m. Saturn is stationary at 8 p.m., on the same day ; Mercury is in Perihelion on the 20th, at 8 p.m., and Neptune at opposition to the Sun, on the 21st, at 1 a.m. Jupiter and Mercury are 1° 7' distant, on the 22nd, at 7 p.m., and Uranus is a similar distance S. of Venus, on the 24th, at 5 a.m. The Moon makes her Apogee passage at 4 a.m., on the 26th ; Mercury being stationary, on the same evening, at 7, and Neptune is near the full Moon, on the 29th.

NOVEMBER METEORS.

Those radiating from Leo, may be looked for during the nights and early mornings of Nov. 13th, 14th, and 15th. Those radiating from Andromeda are overhead, about 8 p.m., on Nov. 26-27. Meteors, in more or less quantities, are expected again this year.

Forecasts that Came " True to a Hair."

"The storm of rain and sleet, foretold by Prof. Smith, came about on time."—*Argus and Patriot.*

"Read Prof. Smith's weather prediction in another column, and get in a fresh supply of coal and wood."—*Citizen.*

"Last week's forecast agreed almost 'to a hair,' with the actual weather experienced, and the same might be said every week. The candid reader must acknowledge that it is possible to forecast the weather 'more than twenty-four hours ahead,' notwithstanding what other almanac publishers may say to the contrary."—*Advocate.*

12th MONTH.

DECEMBER.

31 DAYS.

Moon's Phases	Day.	BOSTON.	MONTREAL.	NEW YORK.	WASHINGTON	CHICAGO.
☾ L.Q.	7	10.30 ev.	10.16 ev.	10.15 ev.	10.02 ev.	9.20 ev.
● N.M.	14	2.41 ev.	2.27 ev.	2.26 ev.	2.13 ev.	1.31 ev.
☽ F.Q.	22	2.21 mo.	2.07 mo.	2.06 mo.	1.53 mo.	1.11 mo.
☾ F.M.	29	3.34 mo.	3.20 mo.	3.19 mo.	3.06 mo.	2.24 mo.

DAYS.

WEATHER FORECAST.

MONTREAL.

M.	W.	THE SUN						THE MOON	
		Fast.	Rises.	Sets.	H.	M.	Zod	Souths.	
1	Th.								
2	Fri.								
3	Sat.								

(49) 2nd Sunday in Advent.

Venus in Virgo.

4	Su.	Wind and snow N., rains S.—Dark,	9	7	23	4	17	♄	2 54
5	Mo.	cold and wintry—changing to mild and	9	24		16	♄	3 47	
6	Tu.	warm for the season, with thaws and	9	25		16	♄	4 40	
7	We.	rains; a general break up, floods in places	8	26		16	♄	5 31	
8	Th.	Conception B.V.M. —Week	8	27		16	♄	6 22	
9	Fri.	ends cloudy and squally, with colder	7	28		16	♄	7 14	
10	Sat.	weather.	7	29		16	♄	8 05	

(50) 3rd Sunday in Advent.

Mars in Virgo.

11	Su.	High winds; snow N., sleet and rain	6	7	30	4	16	♂	8 59
12	Mo.	S.—Another mild term, open weather	6	31		16	♂	9 54	
13	Tu.	with fogs and heavy rains—Snow and	5	32		17	♂	10 51	
14	We.	high winds, much colder; sudden plunge	5	33		17	♂	11 50	
15	Th.	of the mercury below zero in Northern	5	34		17	♂	Eve.	
16	Fri.	sections.	4	35		17	♂	1 46	
17	Sat.		4	36		18	♂	2 42	

(51) 4th Sunday in Advent.

Jupiter in Libra.

18	Su.	Generally cold and wintry everywhere,	3	7	37	4	18	♃	3 33
19	Mo.	with low ther. readings—A wintry week;	3	38		19	♃	4 22	
20	Tu.		2	38		19	♃	5 07	
21	We.	ST. THOMAS. very cold about	2	39		20	♃	5 51	
22	Th.	the 22nd, 23rd and 24th; snowy and	1	39		20	♃	6 33	
23	Fri.	stormy at the close.	1	40		21	♃	7 14	
24	Sat.		0	40		21	♃	7 56	

(52) Christmas Day.

Saturn in Cancer.

25	Su.	Mild and open, warm for the time of	sl'w	7	40	4	22	♄	8 40
26	Mo.	ST. STEPHEN. year—Some	1	40		23	♄	9 25	
27	Tu.	ST. JOHN EVANGELIST.	1	41		23	♄	10 12	
28	We.	heavy rains—A brief cold spell with high	2	41		24	♄	11 02	
29	Th.	winds and drifts in N. and N. W.—Year	2	41		25	♄	11 55	
30	Fri.	ends mild, sleety and rainy—Floods in	3	41		25	♄	Morn	
31	Sat.	Henry G. Vennor born 1840.	3	41		26	♄	0 48	

PLANETS IN DECEMBER, 1887.

MONTREAL MEAN TIME.

(For Virginia and the Carolinas, deduct about 15 min.; for Iowa, Nebraska, and Kansas, 1 h. 35 m.; the Pacific States, 3 h. 15 m., and Hawaii, 5 h. 25 m.)

On the 2nd, the magnificent Venus is at greatest elongation West of $46^{\circ} 49'$ from the Sun, when she is the most brilliant of morning stars. Jupiter and Mercury are $1^{\circ} 35'$ from each other on the 4th, at 6 a.m. Saturn is near the Moon at midnight of the 4th. On the 6th, at 11 a.m., Mercury reaches his greatest elongation W. of $20^{\circ} 36'$ and is consequently well placed for seeing as a morning star. Mars is S. of the Moon on the 8th, at 11.13 p.m., and Uranus is in a similar position at 10.45 p.m. on the 9th. Venus is $2^{\circ} 37'$ S. of the Moon on the 11th, at 2.41 a.m., and in Perihelion, at 7 a.m., on the 12th. The Moon is at Perigee, at 5 a.m., the same morning. Jupiter is S. of the Moon, at 1 p.m., on the 12th, and Mercury is in a similar position at 3.20 a.m. on the 13th. The Sun enters Capricorn, and Winter begins at 10 p.m., on the 21st. The Moon is at Apogee, at 10 p.m., on the 23rd; Mars in Aphelion, at 2 a.m., on the 26th, and Neptune $3^{\circ} 18'$ N. of the Moon, at 7.50 p.m., on the 26th.

Clerical and Lay Testimony.

"The book is all that was claimed for it in the prospectus."—*Shawano Co. Journal.*

"A heavy snow storm is prevailing in this section (Nov. 24), and has been for the past two days, exactly according to your forecast."—*(Rev.) J. N. S. E., Pa.*

"Of great benefit to the farming community, and the world generally, is Prof. Smith's system of weather forecasting. In this he has been more successful than his most sanguine admirers could expect."—*Advocate.*

"We have just received an almanac from the Astro-Meteorological Association, published by Walter H. Smith, of Montreal, successor to Vennor; it is certainly a document which is the result of great care in the observation and calculations of the planetary system, to tell the exact positions of the planets at stated times, and in what positions they exert their influence on the surface of the earth. From this we think that the Almanac published by said Smith is probably the most reliable prognosticator that has come to our notice."—*Watchful Pilgrim.*

AYS.

CAGO.

0 ev.

1 ev.

1 mo.

4 mo.

L.

MOON.

Souths.

H. M.

Morn

1 10

2 02

rgo.

2 54

3 47

4 40

5 31

6 22

7 14

8 05

rgo.

8 59

9 54

10 51

11 50

Eve.

1 46

2 42

bra.

3 33

4 22

5 07

5 51

6 33

7 14

7 56

ncr.

8 40

9 25

10 12

11 02

11 55

Morn

0 48

LUNAR INFLUENCE ON VEGETATION.

Despite the opposition given to my theory by sceptics, it has continued to gain ground during the past year, and I have had numerous requests from outlying places to extend my calculations so as to suit them. In consequence, tables appropriate to any place from 20° to 50° North have been prepared, suitable for the residents of Mexico, Cuba, Jamaica, and the Hawaiian Isles on the South, to Newfoundland, British Columbia, and the North-West, on the North. A few recent testimonials follow:—

(Advocate, Huntingdon, Que., March 25.)

Most people are satisfied to take it for granted, because they have been taught it at school, that the sun gives heat and light, thereby causing vegetation to shoot up and ripen for man's benefit; and that the moon causes the tidal variations in the oceans and adjacent rivers; and are satisfied to believe from their own experience that rain is sometimes beneficial, and sometimes hurtful. Many farmers, in common with people of every other class, are dubious about giving credence, or even attention to any new scientific theory or dogma in connection with their profession, for fear of being laughed at. But in this age of discovery and scientific research a trial, at least, should be given to any new idea capable of being put to a practical test, especially when the test can be made so simply, and so cheaply (actually at no expense whatever), as in the case of Prof. Walter H. Smith's theory of Lunar Influence on Vegetation. Mr. Smith claims, and has numerous reliable endorsements of his claim, that seed sown at a particular time of the day and month, will germinate and yield more satisfactorily than if sown even an hour or two earlier or later. In advancing this idea, Prof. Smith has nothing to gain but the pleasure arising from a knowledge that he is endeavoring to be of practical use to his fellow man, as he makes no charge for the information he gives in relation to it. His theory is based on scientific facts and unlimited practical tests. The farmer must sow his seed anyway, if he would reap in autumn; and if he can increase his crop by Mr. Smith's plan without extra labor or care, why should he not try it? We know several farmers in this section who have tried it with very satisfactory results.

(Daily Bulletin, Honolulu, Hawaii, Feb. 11.)

Mr. Smith has reason to be highly gratified at the testimony of the theory of Lunar Influence on Vegetation when reduced to practice. Although it was only four years ago or so that he began experimenting in his own garden, he has already been the recipient of numberless letters from scientific men and agriculturists all over the Union and the Dominion, telling of remarkably successful results of experimentation according to the directions given by him. In some cases, the application of the theory made all the difference between unusually good crops and total failures side by side, with everything else equal. While so much expense is being incurred in these Islands to arrive at the most

economical production of sugar possible, it might be well worth while to solicit the aid of Nature's laws as digested in the theory of Lunar Influence on Vegetation. It will cost nothing and may yield millions.

SIR,—I was very thankful to you for instructions regarding the sowing of seeds, etc., and feel that we have all been benefited by them. It has been a very unfavorable year, still there was a marked difference in the same crops in the part that was got in on the days and hours appointed by your calculations, and the rest, got in the next day or so. Our help disappointed us the day the corn was to be planted, and there being but two men there was only a part of the field planted at the time you calculated. That part lay along the public road. Everyone remarked it, and took it to be some different kind of corn from the rest; it grew faster, and far beyond the rest of the piece, and was really remarkable both in height and color. We have, in consequence, every confidence in your calculations, and prefer to go as far as possible by them.

Mansonville, Que.

M. J. C.

SIR,—I intended making several experiments, but failed to execute any but one, viz.:—I planted potatoes on May 15th, according to instructions in your ALMANAC. I planted six short rows in my garden, and in order to prove the experiment, I planted just two hills on the seventh row. The next morning I commenced where I left off the previous day, and finished the plot. Those I planted on the 15th, came up fully ten days before those planted on the following day, and kept ahead all the way through. The ground was all tilled at the same time and the same way, therefore I can attribute the rapid growth of those planted on the 15th only to Lunar Influence; although, until now, I have been somewhat prejudiced against such arguments. I have also proved your weather forecasts to be fairly correct; in fact, very much so; and shall be happy to give you the results of any experiments I may make in future.

Lindsay, Ont.

J. C. SMYTH.

SIR,—We took pains and planted our garden at the proper times for favorable Lunar Influence, and are well repaid; its luxuriant growth and yield is wonderful; the strawberry plants, set out between the hours of two and five p.m., May 14th, have thrown out new runners so as to almost cover the ground of those set out on the following Monday, 17th. Many of the latter plants died, and those that lived have made poor growth. The plots for these plants were prepared alike, and are side by side. The corn and potatoes in the fields set at proper times are also very fine.

Cazaville, Que.

M. W. COLE.

SIR,—By accident your ALMANAC for 1885 fell into my hands in the early part of the year, and I put it away so carefully that I did not find it until August. On Aug. 26, I put down a lot of rose cuttings by your table of "Favorable Times, Lat. 35°." By Oct. 19, I found my cuttings well rooted, roots four inches long, and I potted them, and they are now (Dec. 6) growing well. I had never heard of rose cuttings being put out in August, November being the favorite time. At the dates given in November, I put out over four hundred more cuttings, and

hope to see them turn out as well as those I put in in August. I am, in consequence, anxious to cultivate an acquaintance with all the theories of Lunar Influence, and have no doubt that my faith and your scientific investigations will work satisfactory results. I want your ALMANAC for 1886.

Atlanta, Ga.

MRS. K. R.

SIR,—Having seen in the *Florida Despatch*, above your signature, an article on "The Moon's Influence, Time to Plant, etc.," I put in some seeds as there directed. They are all making a vigorous growth. I am anxious to try this plan further, but have no means of posting myself in regard to it, except by sending for a copy of your PLANETARY ALMANAC. Please send immediately, as I have many seeds I want to put in the ground.

Lawtey, Fla.

B. A.

SIR,—Having planted some portion of my land last year—by your directions in the ALMANAC—with potatoes, I was much pleased by the result, and intend experimenting again this year by planting from thirty to forty acres according to the times given.

Charleston, S. C.

J. B.

SIR,—Your forecasts of the weather have been very correct here during the year, and this fact has been observed by a good many, which creates a demand for your PLANETARY ALMANAC. I planted my potatoes, commencing on April 20th, and finishing on the 23rd, observing your signs. My potatoes were very good, better than any of my neighbors'.

Casey, Ill.

G. W. REDMAN.

SIR,—Your PLANETARY ALMANAC is the best guide for planting in the world; the only guide we have, in fact, and we want no other here. I keep a daily record of the weather, and find that your WEATHER GUIDE hits the mark nearly every time. I cannot do without your ALMANAC.

Bethany, Va.

G. W. RIZOR.

MRS. B., of New Hampshire, writes:—"My tomatoes, under your directions, did nobly, and were unusually nice—I never had such fine ones before."

A gentleman, writing from Tennessee, says:—"Please send me your ALMANAC. I feel that I could not do without the dates for sowing seeds."

E. M. S., Salem, Mass., says:—"We have just the weather you foretell. I have made a great many converts to your weather prophecies, and often say, 'You cannot do thus on such a day, because Mr. Smith says it is going to storm.' Laughed at, they are willing to acknowledge the truth afterward. I planted beans and nasturtiums by your rules. The latter did finely, and the former are very nice."

*SEED SOWING.—1887.

LATITUDE 20°.—FAVORABLE TIMES,

according to the theory of Lunar Influence on Vegetation, for sowing and transplanting in Cuba, St. Domingo, Porto Rico, Jamaica, Honduras, Mexico, Hawaii and all places at or near 20° N. Latitude.

JANUARY.—For roots, and crops of downward growth, choose the 4th and 5th from 9.30 to 11.00 a.m., when the Moon is below the horizon in δ and κ rising. For everything else, the same days are good between 12.35 and 2.10 p.m., when δ is rising. The next good day is the 8th from 9.15 to 10.45 a.m., when crops of downward growth should be sown. The Moon is then in ϖ with κ rising. From 12.20 to 1.50 p.m. δ rises, which is also good. On the 26th, 27th and 28th the Moon is in κ rising from 8.00 to 9.30 a.m. On these days sow and plant crops of upward tendency; δ rises from 11.05 a.m. to 12.35 noon, and ϖ from 2.45 to 4.55 p.m. On the 31st, Luna is in δ , and root crops should be sown from 7.40 to 9.10 a.m. with κ rising. Other crops from 10.45 a.m. to 12.15 noon, with δ rising; and 2.25 to 4.35 p.m. with ϖ rising.

FEBRUARY.—As Jan. 31st on the 1st. The 5th for roots from 7.20 to 8.50 a.m., κ rising; 10.25 to 11.55 a.m., δ rising, and for other crops 2.05 to 4.15 p.m., (ζ rising in ϖ). On the 23rd–24th, κ rises with ζ therein from 6.10 to 7.40 a.m.; δ rises 9.15 to 10.45 a.m., and ϖ from 12.55 to 3.05 p.m. All these times are good for above ground crops. The 28th is good for roots from 5.50 to 7.20 a.m., κ rising; also from 8.55 to 10.25 a.m., δ rising, with ζ therein; for crops above the surface ϖ rises from 12.40 noon to 2.50 aft.

MARCH.—As Feb. 28th on the 1st. The 4th–5th sees δ in ϖ , with δ rising from 8.40 to 10.10 a.m., and ϖ rising from 12.20 noon to 2.30 aft. These times are good for roots. The 28th has δ in δ rising, from 7.10 to 8.40 a.m.; ϖ rising 10.55 a.m. to 1.05 p.m., and \approx rising from 5.35 to 7.40 p.m.; the first mentioned time being good for roots and the others for growth above ground. The 31st has δ in

* The local time at the places mentioned is meant in every case.

♄ with ♀ rising from 6.55 to 8.25 a.m.; ♄ rising 10.40 a.m. to 12.55 noon (good for roots) and ♃ rising from 5.20 to 7.25 p.m. (good for things whose growth and fruit is above ground).

APRIL.—As March 31st on the 1st. The 7th and 8th for crops below the surface when ♃ is in ♃ and ♀ rising from 6.35 to 8.05 a.m.; ♄ rising 10.20 a.m. to 12.30 noon; and ♃ rising from 5.00 to 7.05 p.m. The 28th and 29th have ♃ in ♄ with ♀ rising from 5.15 to 6.45 a.m.; ♄ rising 9.00 to 11.10 a.m. (good for roots), and ♃ rising 3.40 to 5.45 p.m. (good for things of surface growth.)

MAY.—Root crops on 4th and 5th with ♃ in ♃ and ♀ rising from 5.00 to 6.30 a.m.; ♄ rising 8.40 to 10.45 a.m., and ♃ rising 3.15 to 5.20 p.m. The 25th has ♃ in ♄ rising from 7.15 to 9.25 a.m. (good for roots) and ♃ rising from 1.50 to 3.55 p.m. (good for growth above ground). Things for development below ground should also be sown on the 31st, from 1.30 to 3.35 p.m., when ♃ is rising.

JUNE.—The 1st and 2nd are good for roots from 6.50 to 9.00 a.m. (♃ in ♃ and ♄ rising), and the 1st only from 1.30 to 3.35 p.m. The 22nd is good for roots from 5.20 to 7.30 a.m. (♃ in ♄ rising), and for other crops from 12 noon to 2.05 aft., ♃ rising; the 28th and 29th are also favorable, when ♃ in ♃ is rising from 11.30 a.m. to 1.35 p.m.

JULY.—The 25th and 26th sees ♃ in ♃ rising from 9.45 to 11.50 a.m.

AUGUST.—The best day is the 22nd, from 8.00 to 10.05 a.m., ♃ is then in ♃ rising.

SEPTEMBER.—Has ♃ in ♀ on the 1st, 2nd and 3rd, when crops of downward tendency should be sown with ♃ rising from 7.30 to 9.35 a.m. Other crops from 5.50 to 7.20 p.m., when ♀ is rising. The 19th when ♃ is in ♃ rising is also a good date from 6.15 to 8.20 a.m., and ♀ rising from 4.45 to 6.15 p.m. The 28th, 29th, and 30th, sees ♃ in ♀ rising from 4.10 to 5.40 p.m.

OCTOBER.—On the 26th-27th, ♃ is in ♀ rising, from 2.25 to 3.55 aft.

NOVEMBER.—The best dates are: ♀ in ♂ rising on 22nd and 23rd, from 12.40 noon to 2.10 p.m., and ♀ in ♂ rising on 28th and 29th, from 12.15 noon to 1.45 p.m.

DECEMBER.—The 19th and 20th (♀ in ♂ rising) from 10.40 a.m. to 12.10 noon; and 26th, ♀ in ♂ rising 10.10 to 11.30 a.m.

LATITUDE 25°.

Favorable times for sowing in the Bahamas, Southern Florida, Southern Texas, and all places in North America, at or near 25° N. Lat. (Whether for roots or top growth, see table for Latitude 20°.)

JANUARY.—The 4th and 5th, 9.40 to 11.00 a.m. and 12.40 to 2.10 aft. The 8th, 9.25 to 10.45 a.m., and 12.15 to 1.40 aft. The 26th, 27th and 28th, 8.10 to 9.30 a.m.; 10.55 a.m. to 12.20 noon; and 2.30 to 4.40 aft. The 31st, 7.50 to 9.10 a.m.; 10.40 a.m. to 12.05 noon, and 2.15 to 4.25 p.m.

FEBRUARY.—As Jan. 31st on 1st. The 5th, 7.25 to 8.50 a.m., 10.20 to 11.45 a.m., and 2.00 to 4.10 p.m. The 23rd and 24th, 6.15 to 7.40 a.m., 9.10 to 10.40 a.m., and 12.45 noon to 2.50 p.m. The 28th, 5.55 to 7.20 a.m., 8.50 to 10.15 a.m., and 12.25 noon to 2.35 aft.

MARCH.—As Feb. 28th. on 1st. The 4th and 5th, 8.30 to 10.05 a.m., and 12.10 noon to 2.20 p.m. The 28th, 7.05 to 8.35 a.m., 10.45 a.m. to 12.55 noon, and 5.35 to 7.45 p.m. The 31st, 6.50 to 8.15 a.m.; 10.30 a.m. to 12.40 noon, and 5.20 to 7.30 p.m.

APRIL.—As March 31st, on 1st. The 7th and 8th, 6.30 to 8.00 a.m., 10.10 a.m. to 12.20 noon, and 5.00 to 7.10 p.m. The 28th and 29th, 5.10 to 6.35 a.m., 8.50 to 11.00 a.m., and 3.40 to 5.55 aft.

MAY.—The 4th and 5th, 4.50 to 6.25 a.m., 8.30 to 10.35 a.m., and 3.15 to 5.25 aft. The 25th and 26th, 7.05 to 9.15 a.m., and 1.50 to 4.05 p.m. The 31st, 1.30 to 3.40 p.m.

JUNE.—The 1st and 2nd, 6.40 to 8.50 a.m.; the 1st only, 1.30 to 3.40 p.m. The 22nd, 5.10 to 7.20 a.m., and 12.00 noon to 2.15 p.m. The 28th and 29th, 11.30 a.m. to 1.40 p.m.

JULY.—The 25th and 26th, 9.45 to 11.55 a.m.

AUGUST.—The 22nd, 8.00 to 10.10 a.m.

SEPTEMBER.—The 1st, 2nd and 3rd, 7.30 to 9.40 a.m., and 5.55 to 7.20 p.m. The 19th, 6.15 to 8.30 a.m., and 4.50 to 6.15 p.m. The 28th, 29th, and 30th, 4.15 to 5.40 p.m.

OCTOBER.—The 26th and 27th, 2.30 to 3.55 p.m.

NOVEMBER.—The 22nd and 23rd, 12.45 noon to 2.10 p.m. The 28th and 29th, 12.20 noon to 1.45 p.m.

DECEMBER.—The 19th, 20th, and 21st, 10.45 a.m. to 12.10 noon, and the 26th from 10.15 to 11.30 a.m.

LATITUDE 30°.

Favorable times for sowing in Northern Florida, Alabama, Mississippi, Louisiana, Middle Texas, Northern Mexico, Lower California, and all places in North America at or near 30° North Latitude. (Whether for roots or top growth, see table for Latitude 20°.)

JANUARY.—The 4th and 5th, 9.45 to 11.00 a.m. and 12.40 to 2.10 aft. The 8th, 9.30 to 10.50 a.m., and 12.15 to 1.40 aft. The 26th, 27th, and 28th, 8.10 to 9.30 a.m., 10.55 a.m. to 12.15 noon, and 2.20 to 4.30 aft. The 31st, 7.50 to 9.10 a.m., 10.35 a.m. to 12.00 noon, and 2.00 to 4.10 p.m.

FEBRUARY.—As Jan. 31st on 1st. Feb. 2nd, 7.50 to 9.10 a.m., and 10.25 to noon. The 5th, 7.30 to 8.50 a.m., 10.15 to 11.40 a.m., and 1.55 to 4.00 p.m. The 23rd and 24th, 6.20 to 7.40 a.m., 9.05 to 10.30 a.m. and 12.35 noon to 2.45 p.m. The 28th, 6.00 to 7.20 a.m., 8.45 to 10.10 a.m., and 12.10 noon to 2.25 aft.

MARCH.—As Feb. 28th on 1st. The 4th and 5th, 8.30 to 10.00 a.m., and 11.55 a.m. to 2.05 p.m. The 28th, 7.00 to 8.25 a.m., 10.30 a.m. to 12.45 noon, and 5.35 to 7.50 p.m. The 31st, 6.45 to 8.10 a.m., 10.20 a.m. to 12.25 noon, and 5.20 to 7.40 p.m.

APRIL.—As March 31st, on 1st. The 7th and 8th, 6.25 to 7.50 a.m., 9.55 to 12.05 noon and 5.00 to 7.15 p.m. The 28th and 29th, 5.05 to 6.30 a.m., 8.40 to 10.50 a.m., and 3.40 to 6.00 p.m.

MAY.—The 4th and 5th, 4.50 to 6.20 a.m., 8.15 to 10.25 a.m., and 3.15 to 5.30 aft. The 25th and 26th, 6.50 to 9.05 a.m., and 1.50 to 4.10 aft. The 31st, 1.30 to 3.50 p.m.

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JUNE.—The 1st and 2nd, 6.30 to 8.35 a.m. The 1st only, 1.30 to 3.50 p.m. The 22nd, 4.55 to 7.10 a.m., and 12.00 noon to 2.20 p.m. The 28th and 29th, 11.30 a.m. to 1.50 p.m.

JULY.—The 25th and 26th, 9.45 a.m. to 12.00 noon.

AUGUST.—The 22nd, 8.00 to 10.15 a.m.

SEPTEMBER.—The 1st, 2nd, and 3rd, 7.30 to 9.50 a.m., and 6.00 to 7.20 p.m. The 19th, 6.15 to 8.35 a.m., and 4.55 to 6.15 p.m. The 28th, 29th and 30th, 4.20 to 5.45 p.m.

OCTOBER.—The 26th and 27th, 2.35 to 3.55 p.m.

NOVEMBER.—The 22nd and 23rd, 12.50 noon to 2.10 p.m. The 28th and 29th, 12.25 noon to 1.45 p.m.

DECEMBER.—The 19th, 20th, and 21st, 10.50 a.m. to 12.10 noon, and the 26th, 10.20 to 11.35 a.m.

LATITUDE 35°.

Favorable times 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° N. (For Moon's place in Zodiac, see Calendar pages or table for Latitude 20° N.)

JANUARY.—The 4th and 5th from 9.50 to 11.05 a.m. is good for roots, early potatoes, etc.; also, the same days from 12.40 noon to 2.10 p.m. The 8th is another excellent date for roots between 9.35 and 10.50 a.m. and 12.10 noon to 1.35 p.m. The 26th, 27th and 28th, are good for roots from 8.15 to 9.30 a.m., and for garden truck and other things requiring top growth, the same days, from 10.50 a.m. to 12.15 noon, and 2.15 to 4.25 p.m. The 31st is good for potatoes and roots from 7.55 to 9.10 a.m., and 10.30 to 11.55 a.m.; for grain, vines and things requiring top-growth, 1.50 to 4.00 p.m.

FEBRUARY.—As Jan. 31st on 1st. The 2nd is good for roots from 7.55 to 9.10, and 10.30 to 11.55 a.m. The 5th, for roots, 7.35 to 8.50 and 10.10 to 11.35 a.m., also 1.45 to 3.55 p.m. The 23rd and 24th are good for potatoes and roots from 6.25 to 7.40 a.m.; for grain, vines, and other things of top growth from 9.00 to 10.25 a.m., and 12.25 noon to 2.35 p.m.

The 28th is good for roots from 6.05 to 7.20, and 8.40 to 10.05 a.m.; and for other things from 12.00 noon to 2.10 aft.

MARCH.—As Feb. 28th on 1st. The 4th and 5th for roots, from 8.25 to 9.50 a.m., and 11.45 a.m. to 1.55 p.m. The 28th for roots, potatoes, etc., 6.55 to 8.20 a.m.; grain, vines, and similar things, 10.20 a.m. to 12.30 noon, and 5.35 to 8.00 p.m. The 31st for roots, 6.55 to 8.25 a.m., and 10.40 to 12.55 noon for grain; other things, 5.20 to 7.45 p.m.

APRIL.—As March 31st on 1st. The 2nd for roots, 6.35 to 8.00 a.m. The 7th and 8th are good for roots from 6.20 to 7.45 and 9.45 to 11.55 a.m.; also from 5.00 to 7.25 p.m. The 28th and 29th for roots from 5.00 to 6.25, and 8.30 to 10.40 a.m.; and for grain, vines and top growth from 3.40 to 6.05 p.m.

MAY.—The 4th and 5th for roots, from 4.45 to 6.10, and 8.05 to 10.15 a.m., and 3.15 to 5.40 p.m. The 25th and 26th for roots, 6.45 to 8.55 a.m., for grain, vines, etc., 1.50 to 4.20 p.m. The 31st is also good for roots from 1.30 to 3.55 p.m.

JUNE.—The 1st and 2nd for roots from 6.15 to 8.25 a.m., or 1.30 to 3.55 p.m. The 22nd for roots from 4.45 to 6.55 a.m., and for other things 12.00 noon to 2.25 p.m. The 28th and 29th are also good from 11.30 a.m. to 1.55 p.m.

JULY.—The best dates this month are from 9.45 a.m. to 12.10 noon, on the 25th and 26th.

AUGUST.—The 22nd from 8.00 to 10.25 a.m.

SEPTEMBER.—For downward growth, the 1st, 2nd and 3rd, from 7.30 to 9.55 a.m., and for fall grain, etc., 6.05 to 7.20 p.m. The 19th, from 6.15 to 8.40 a.m., for roots; and for grain, vines, etc, 5.00 to 6.15 p.m. The 28th, 29th, and 30th are also good from 4.30 to 5.45 p.m.

OCTOBER.—The 26th and 27th, from 2.40 to 3.55 p.m., are best for all purposes.

NOVEMBER.—The 22nd and 23rd from 12.55 noon to 2.10 p.m., and the 28th and 29th from 12.30 noon to 1.45 p.m., are best for all purposes.

DECEMBER.—The 19th, 20th and 21st from 11.00 a.m. to 12.15 noon, and the 26th from 10.25 to 11.40 a.m.

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LATITUDE 40°.

Favorable times for sowing in Maryland, District of Columbia, Pennsylvania, Delaware, New Jersey, Southern New York, Rhode Island, Connecticut, Ohio, Indiana, Southern Illinois, Northern Missouri, Iowa, Kansas, Nebraska, Utah Territory, Nevada, Colorado, and all places at or near the latitude of 40° North. (For Moon's place in Zodiac see Calendar pages or table for Latitude 20° N.)

MARCH.—The 1st, from 6.10 to 7.15 and 8.35 to 10.00 a.m., for roots; and for other things 11.50 a.m. to 2.00 aft. The 4th and 5th, for roots, from 8.20 to 9.45 a.m., and 11.35 a.m. to 1.45 p.m. The 28th for roots, potatoes, etc., 7.00 to 8.20 a.m.; grain, vines, etc., 10.15 a.m. to 12.20 noon, and 5.40 to 8.10 p.m. The 31st for roots, 6.30 to 8.00 a.m. and 10.00 a.m. to 12.05 noon; grain, vines, etc., 5.20 to 7.50 p.m.

APRIL.—As March 31st on 1st. The 2nd from 6.30 to 7.50, and 9.50 to 12.00 noon. The 7th and 8th, from 6.15 to 7.35, and 9.30 to 11.50 a.m., and 5.00 to 7.30 p.m. The 28th and 29th from 4.55 to 6.15, and 8.20 to 10.35 a.m. for roots, and 3.40 to 6.10 p.m. for grain, vines, etc.

MAY.—The 4th and 5th for roots, 4.40 to 5.55, and 8.00 to 10.10 a.m.; and 3.15 to 5.50 p.m. The 25th and 26th, from 6.30 to 8.45 a.m. for roots; and 1.50 to 4.20 for grain, vines, etc. The 31st, from 1.30 to 4.00 p.m. is also good for roots.

JUNE.—The 1st and 2nd, from 6.05 to 8.20 a.m. for roots, and the 1st, same as May 31st in aft. The 22nd from 4.30 to 6.50 a.m. for roots, and from 12.00 noon to 2.30 p.m. for other things. The 28th and 29th from 11.30 a.m. to 2.00 p.m. is also good for roots.

JULY.—The 25th and 26th, from 9.45 a.m. to 12.15 noon.

AUGUST.—The 22nd, from 8.00 to 10.30 a.m.

SEPTEMBER.—The 1st, 2nd, and 3rd from 7.30 to 10.00 a.m., and 6.10 to 7.20 p.m. are good for fall sowing. The 19th, from 6.15 to 8.45 a.m., and 5.10 to 6.15 p.m. The 28th, 29th, and 30th from 4.40 to 5.45 p.m.

OCTOBER.—The 26th and 27th, from 2.50 to 4.00 p.m.

LATITUDE 45°.

Favorable times for sowing in Massachusetts, New Hampshire, Vermont, Maine, Nova Scotia, New Brunswick, Prince Edward Island, 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 at or near latitude 45° North. (For Moon's place in Zodiac, see Calendar pages, or table for Latitude 20° N.)

APRIL.—The 1st and 2nd for roots, early potatoes, etc., from 6.30 to 7.40, and 9.40 a.m. to 12.00 noon; for grain, vines, etc., 5.20 to 7.55 p.m. The 7th and 8th, from 6.10 to 7.20; 9.20 to 11.40 a.m., and 5.00 to 7.35 p.m. are all good for crops needing downward growth. The 28th and 29th, from 4.55 to 6.05, and 8.10 to 10.30 a.m., are good for roots; and 3.40 to 6.15 p.m. for grain, vines, etc.

MAY.—The 4th and 5th for roots, from 4.30 to 5.40; and 7.50 to 10.10 a.m., and 3.15 to 5.55 p.m. The 25th, from 6.15 to 8.35 a.m. for roots, and 1.50 to 4.25 p.m. for grain, corn, vines, squash, etc. The 31st from 5.50 to 8.10 a.m., and 1.30 to 4.05 is good for roots.

JUNE.—The 1st and 2nd, 5.50 to 8.10 a.m., and the 1st only from 1.30 to 4.05 p.m. The 22nd from 4.20 to 6.40 a.m. for roots, and 12.00 noon to 2.35 p.m., other things. The 28th and 29th from 11.30 to 2.05 are also good.

JULY.—The best dates are the 25th and 26th, from 9.45 a.m. to 12.20 noon.

AUGUST.—The best time is the 22nd, from 8.00 to 10.35 a.m.

SEPTEMBER.—The 1st, 2nd, and 3rd are good from 7.30 to 10.05 a.m., and 6.20 to 7.20 p.m. (The latter especially for fall grain.) The 19th, 6.15 to 8.50 a.m., and 5.15 to 6.15 p.m. (The latter is best for grain.) The 28th, 29th and 30th, from 4.50 to 5.50 p.m. are also excellent for grain.

OCTOBER.—The 26th and 27th, from 3.00 to 4.00 p.m., are the best dates.

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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. (For Moon's place in Zodiac see Calendar pages, or table for Lat. 20° N.)

MAY.—The 4th and 5th, for roots, from 4.15 to 5.20 and 7.05 to 9.35 a.m.; and 3.15 to 6.05 p.m. The 25th, from 5.50 to 8.15 a.m. for roots, and 1.50 to 4.40 p.m. for grain, corn, vines, squash, etc. The 31st, from 5.20 to 7.50 a.m., and 1.30 to 4.20 p.m., is good for roots.

JUNE.—The 1st and 2nd, 5.20 to 7.50 a.m., and the 1st only, 1.30 to 4.20 p.m. The 22nd, from 3.50 to 6.20 a.m., for roots, and 12.00 noon to 2.50 p.m. other things. The 28th and 29th from 11.30 a.m. to 1.50 p.m. are also good.

JULY.—The 25th and 26th are best from 9.45 a.m. to 12.35 noon.

AUGUST.—The 22nd, from 8.00 to 10.50 a.m.

SEPTEMBER.—The 1st, 2nd and 3rd, from 7.30 to 9.50 a.m., and 6.30 to 7.20 p.m. (The latter specially for fall grain.) The 19th, 6.15 to 9.05 a.m., and 5.25 to 6.15 p.m. (The latter date is good for grain.) The 28th, 29th, and 30th from 4.15 to 5.45 p.m. are excellent for grain.

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. A good many write to me for "special times for special things." These I am glad to answer, but would remind them that a stamp should always be enclosed for reply.

THE MOONLIGHT EVENINGS OF 1887.

January.—From the 2nd to the 11th inclusive.

February.—Beginning with the 1st and lasting to the 10th.

March.—Between the 2nd and the 11th.

April.—From the 1st up to and including the 10th.

May.—From the 1st to the 9th, also from the 29th to 31st.

June.—From the 1st up to the 7th ; and from the 28th to end.

July.—From the 1st to the 7th ; and from the 27th to 31st.

August.—From the 1st to the 5th, and from the 25th to end of month.

September.—Between the 1st and 4th, and from the 23rd to 30th.

October.—From the 1st to the 6th, and from the 23rd to end.

November.—From the 22nd to the 30th.

December.—Beginning on the 22nd and continuing to the 31st.

CERTAIN WEATHER PROPHETS.

BY E. F. TEST,

Vice-President of the Astro-Meteorological Association.

In the domain of Nature there is nothing so terrifying as earthquakes, but the causes that produce them are easily understood. I attribute them to the magnetic influences of the heavenly bodies upon the earth, and the response of the earth to such forces. This knowledge the ancients possessed, and in alluding to the fact in the *ALMANAC* of 1885, I spoke of the different colors of the planets, thus :—

“ Unless our eyes deceive us, the Planets appear in different colors. Mars is red, Jupiter yellow, and Venus a luminous green.”

To prove this ancient knowledge, we have the following : In a ruin of Babylon, thought to be the oldest observatory in the world, stood “ The Stages of the Seven Spheres of Borsippa,” each story dedicated to a planet, stained with the color attributed to it by Sabean astronomers, and

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handed down to the Chaldeans. The lowest was *black*, for Saturn; the second *orange*, for Jupiter; the third *red*, for Mars; the fourth *yellow*, for the Sun; the fifth *green*, for Venus; the sixth *blue*, for Mercury (or the Earth), and the temple on the summit supposed to be *white*, for the Moon, showing that the people of that day were not ignorant of magnetism, while some forecast the weather for the future. Their records of the deluge attribute it to the influence of Saturn.

A more modern illustration of this is seen in the Prophet Elijah standing on Mount Horeb, watching the mighty wind, the earthquake, and the fire (lightning), the natural agents for cleansing the atmosphere after the long drouth in Israel. His experience has been repeated, after the recent drouth in the South and West by the storms, and earthquakes, reaching from the Missouri to Asia Minor.

An enlightened opinion from our scientific men (Astro-Meteorologists) has told the people that an earthquake is as much a meteorological phenomenon as heat or cold, but charlatans terrified them with their vaporings. The law of magnetic influences is the one on which Astro-Meteorologists base their forecasts of atmospheric and other changes. In popular parlance, they are sometimes known as "weather prophets," but it is wrong to class them with mountebanks, who seek every chance to gain notoriety, regardless of consequences. *The true Astro-Meteorologist desires no such reputation.* A student of the laws of God, he has everything to keep him humble when amazed at the beauty they unfold for our health and happiness. Among these men are the most illustrious the world has produced, some of whom derived their knowledge directly from the Deity. They were patriarchs, rulers, prophets, judges and apostles—men who were princes of God, and even the Son of God Himself. If we exclude the Babylonian records of the Creation, whose authors, lost in antiquity, speak of the "wandering stars, fixed in their courses, so they could do no injury," the Book of Enoch is one of the oldest extant. We read "he walked with God," yet he wrote :—

"The earth shall be immersed, and all things which are in it shall perish. * * * He shall preserve the elect. The whole earth is full of water."

When the deluge came, Noah, "the preacher of righteousness," and his family, had entered the ark of gopher wood, and

"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."

This period the Babylonian records describe as signalized by rain, cyclones, hurricanes, and earthquakes. After the deluge, we read God placed an astro-meteorological sign in the cloud (the rainbow), and promised the patriarch He would no more destroy the world by water. In these days the people on this continent were recently told that God would violate this promise.

In the heat of the day the angels came to Abraham. They told him of the doomed cities of the plain. Did he denounce them as "fools and knaves?"* Or did he fetch the calf, tender and good, with butter and milk, and set it before them? Sarah was incredulous of what she was told. Abraham pleaded for the lives of the inhabitants, but in the early morning, he looked, and "lo, the smoke of the country went up as the smoke of a furnace" after the dreadful tempest had destroyed the cities of the plain.

Joseph, the young Hebrew, is another instance. Did the king consider him a "fool and a knave?" He made him the Governor of Egypt, second only in authority to himself. And God made him the instrument to save the "chosen people" from perishing. "Fools and knaves" were not appointed to office in those days so much as they are now.

We see Moses calling down fire from heaven; holding familiar converse with the Lord, guiding the people of Israel, and, in his last days, blessing the tribe of Joseph thus:

"Blessed of the Lord be his land, for the precious things of heaven, for the dew. * * * * And for the precious fruits brought forth by the sun, and for the precious things put forth by the moon."

The meekest of men, he combined the talents of the governor, general, poet, law-giver, and prophet.

*The epithets hurled at the heads of Astro-Meteorologists by R. A. Proctor.

On the day of his justification, Samuel said to the people :

“I will call unto the Lord, and He shall send thunder and rain.
* * * * And the Lord sent thunder and rain that day : and all the people greatly feared the Lord and Samuel.”

Then follows Elijah's prophecy of the famine in Israel, and his warning to Ahab to fly before the rain, after the sacrifice on Carmel.

Isaiah wrote :

“It is He that sitteth upon the circle of the earth.” “I will shake the heavens, and the earth shall remove out of her place.” “The earth shall reel to and fro like a drunkard.”

How did he know of these things, if not familiar with astronomy and meteorology ?

Ezekiel, predicting the destruction of the Russian armies, after the future restoration of Israel, utters this fearful prophecy :—

“Son of man, set thy face against Gog, the land of Magog, the Prince of Rosh, Meshech and Tubal, and prophesy against him. * * * * When Gog shall come against the land of Israel, saith the Lord God, my fury shall come up in my face. * * * * Surely in that day there shall be a great shaking in the land of Israel. * * * * And the mountains shall be thrown down, and the steep places shall fall. * * * * And I will rain upon him, and upon his bands, and upon the many people that are with him, an overflowing rain, and great hailstones, fire, and brimstone.”

These are the features of a great earthquake.

The Saviour Himself, says :—

“When it is evening, ye say, It will be fair weather ; for the sky is red : and in the morning, It will be foul weather to-day ; for the sky is red and lowering. * * Ye can discern the face of the sky ; but can ye not discern the signs of the times ?”

And the humble fishermen said, “What manner of man is this, that even the winds and the sea obey him ?” A little later, Christ utters His prophecy against Jerusalem and the earth itself, when there shall be great earthquakes, famine, and pestilence, and fearful sights, and great signs from Heaven.

Is not this a brilliant array to whom we can point with pride, not to mention those on our side among the moderns ?

THE WEATHER; Its Present Relation to Man.

BY L. J. HEATWOLE,

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

It is well-known that there are, among theological writers and thinkers, some who hold the opinion that foreknowledge of the weather is detrimental to the progress of Christianity; the principal ground for this opinion being that a part of the best discipline of this life comes from the various uncertainties and unexpected changes of the weather.

Viewing the matter thus, it might be also urged that other branches of human progress be discouraged; that the sanitary measures adopted by our municipal governments, and the establishment of all efficient City, State and Provincial Boards of Health, by which means the origin and fatal consequences of malignant diseases are prevented, are not to be considered conducive to the advancement and promotion of religious faith among the people.

The fact is that there is not another question in all the departments of science more closely allied with the moral, physical and social interests of mankind than a thorough knowledge of the laws and forces that control the weather. In all the vocations of life, no other question is more frequently made the subject for remark. Deplorable as it may seem, it is still true that no other branch of natural science is so little studied or searched into by the masses.

The idea of deriving any practical benefit from this study, has long been looked upon with disfavor, and its advocates have pretty generally been classed among those who profess to deal with the supernatural, who pry and search after the "hidden things" that God does not choose to reveal to man.

It may be presumed, however, that the same Power that controls and regulates all the forces and energies of the Universe, has also endowed man with that faculty which we call "common sense"—a faculty by which he becomes enabled to think and judge for himself, and also to reach certain conclusions with regard to the manifold phenomena of nature constantly going on around and above him, inviting his attention and investigation.

Hence the deep thinker, who seriously and earnestly studies the weather problem, discovers in the various aspects and features of our atmospheric movements "the chains of cause and effect so strangely and wonderfully linked together," that the more he ponders over the subject the more intense becomes his desire to continue his researches.

To the casual observer, who sees and comprehends nothing beyond the limits of his own horizon, our atmospheric changes appear obedient to no law, seeming fickle in all their movements, and subject only to chance. To the persevering investigator, however, who compares reports taken simultaneously at various points over the country, these abrupt changes and reverses of weather, are by no means capricious or accidental. He sees that they follow certain laws, all of which are founded upon natural principles.

In this country we seem to have had but few men—such as Espy, Redfield, Loomis, Ferrel—who have given this subject enough thought and study to enable them to impart instruction to others, and there are now but very few institutions of learning, where there is any pretence made at teaching weather science, and even what is taught is of a very elementary nature.

Since the establishment of a Weather Service by the Government in 1870, a few adventurous minds—Tice, Vennor, Smith, Mansill, Blake, Hicks, and others—have taken bold and important steps towards perfecting "long range" forecasting as a science. Their new theories have for some years been contemptuously ignored by the Signal Service Bureaus, still these theories are known to be steadily, if but slowly, gaining ground, and will, no doubt, in time be universally accepted.

That successful "long range" forecasts can be made, is shown by what follows:—In the year 1884, a class at Harvard, composed of 88 students, took a course in the elements of Meteorology, with the special view of forming trained habits of observation. Early in December this class undertook, by taking into consideration the solar and lunar tide influences on atmospheric currents, to forecast the weather for all parts of the United States on the following Christmas and New Year's days. The predictions were forwarded

to the Chief Signal Officer at Washington, where it was found that the verifications ranged from 74 to 90 per cent.

In October, 1884, the Astro-Meteorological Association was founded at Montreal, Can., by a number of students of Astronomy and Meteorology, with the purpose of examining into the pre-supposed influences of the heavenly bodies upon each other, and thus formulating a system of rules in order to simplify the science of weather forecasting, not only for hours or days, but weeks and months ahead. The movement has since been taken hold of in the United States, where branches have been formed, and its general aims are becoming extensively and favorably known all over the continent. The time has, therefore, come when the student who enters the broad field of Meteorology no longer should confine his researches and investigations to this earth, an insignificant member of the solar system, alone and apart from the others, when following up the prime causes by which he is to account for all meteorological disturbances.

The various phenomena and characteristics of the weather for the past few years, having coincided so harmoniously with the laws laid down by Astro-Meteorologists, its followers are quite sanguine of the results attained by laws which have been built upon "the solid ground of Nature," and will have to be acknowledged by all students of weather science as the sure road to success. The present system of the Meteorological Bureau is, no doubt, destined in the near future to become entirely revolutionized, after which its observers will be required to give the astronomical phase of the question their special attention.

It is generally known that the latest move of Prof. Edison is to make experiments with the earth's electric currents, hoping by this means to become able to reach the possibility of forecasting the weather to a nicety. Currents of electricity are believed, by Astro-Meteorologists, to be constantly passing out from the sun, and then being taken up and absorbed by the planets, the observer, by watching their different relations, discovers that electric lines or currents exist not only between the planets and the sun, but also between each other. The earth, in crossing one of these lines, becomes unduly affected, and her atmosphere more or less disturbed.

People should discontinue regarding the planets as so many specks of light and remember that they are great globes of solid matter. Then, and not until then, will they cease to wonder why such a small area of light as that of the planets Mercury, Mars or Jupiter should contain electric force enough to affect and disturb the earth's atmosphere.

Living in an age of progress, as a civilized and enlightened people, we need arousing to a deeper and keener sense of the responsibilities we severally owe each other. Suitable measures need to be urged and adopted to prevent, if possible, that wholesale disaster from storm and exposure by which many hundred lives are lost and millions of property destroyed every year.

THE SUN WITH MERCURY.

(Abridged from a paper read before the Astro-Meteorological Association by President Smith. Enquiry into the probable effects of Venus and other Planets is in progress.)

A small planet, scarcely 3,000 miles in diameter, and very little larger than our Moon, Mercury is perhaps the most worthy of all in the eyes of Astro-Meteorologists. Excepting only the Moon, it is the planet most frequently in conjunction, longitudinal line and aspect with the Sun, as well as most frequent at Perihelion and Aphelion. Owing to its one-sided orbit, Mercury is 14,000,000 miles nearer the Sun at Perihelion than at Aphelion. Its inclination to the orbit of the earth is greater than any other planet except the Asteroids. In consequence of these peculiarities, Mercury doubtless exerts a greater number of influences on the atmosphere of this earth in a given period than any other planet. The student of Astro-Meteorology should carefully study Mercury and its influences. At least one-half the stormy, snowy weather in Winter, and the variable, gusty, unsettled terms of Spring and Summer may be attributed to it, and calculated to within 48 hours of their appearance.

MERCURIO-SOLAR RECORD.

MERCURY IN PERIHELION.—Generally stormy, rain (or snow) and high winds, with extreme temperatures at times. Tornadoes sometimes in tornado sections.

MERCURY IN APHELION.—High winds, precipitation; often very cold in winter and quite cool in summer.

MERCURY AT INFERIOR CONJUNCTION.—High winds and gales; sometimes heavy rains (or snows); sometimes very cold in winter or cool in summer.

MERCURY AT SUPERIOR CONJUNCTION.—Windy and unsettled; often precipitation and extreme weather for the season; auroras and dark, cloudy weather not infrequent.

MERCURY "STATIONARY."—Sometimes windy, rainy (or snowy); dull, dark and threatening.

MERCURY AT ELONGATION, E. OR W.—Sometimes windy, with rain (or snow), extremes of temperature and dark weather occasionally.

PARALLEL DECLINATION.—Cold, with rain (or snow); windy occasionally.

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THIS, the only Astro-Meteorological Association in the World, is now in its third year. Thus far, its career has been very successful, and it is every day becoming more widely and favorably known.

The special aims of the Association may be briefly summarized as the study of Astronomy and Meteorology, but more particularly with regard to Astronomy as connected with terrestrial phenomena. Its members hope to be able to formulate a system of rules that will simplify the science of weather forecasting. The accurate weather forecasts of its President and its First Vice-President, are too well known to need further comment. Its members are also conducting experiments and recording the observed lunar and other influences on vegetation in various latitudes; and tables, published yearly by President Smith, have been of great advantage to agriculturists in obtaining more abundant crops.

The annual subscription fee of Associates is One Dollar. Ladies and Gentlemen are equally eligible for membership.