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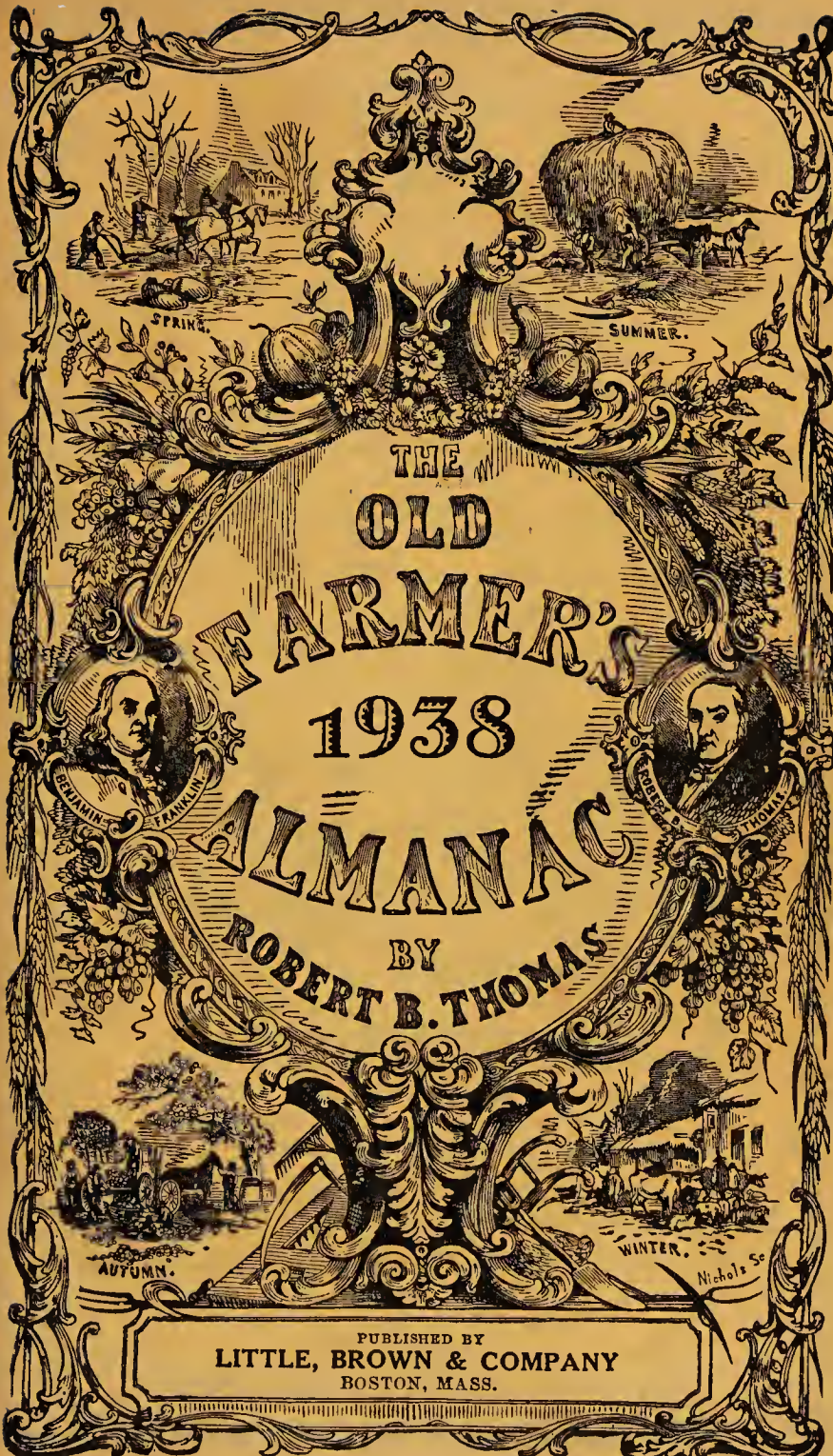
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146th Year



THE  
OLD  
FARMER'S  
1938  
ALMANAC  
BY  
ROBERT B. THOMAS

PUBLISHED BY  
LITTLE, BROWN & COMPANY  
BOSTON, MASS.

Price 15 Cents

1837



1937

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Number One Hundred and Forty-Six

THE  
(OLD)  
**FARMER'S ALMANACK,**

CALCULATED ON A NEW AND IMPROVED PLAN  
FOR THE YEAR OF OUR LORD

**1938**

Being 2nd after BISSEXTILE or LEAP YEAR, and (until July 4)  
162nd of American Independence.

FITTED FOR BOSTON, BUT WILL ANSWER FOR ALL NEW ENGLAND STATES

Containing, besides the large number of Astronomical Calculations  
and the Farmer's Calendar for every month  
in the year, a variety of

**NEW, USEFUL, AND ENTERTAINING MATTER.**

ESTABLISHED IN 1793

**BY ROBERT B. THOMAS.**



In earth and ocean, sky and air,  
All that is excellent and fair,  
Seen, felt, or understood,  
From one eternal cause descends,  
To one eternal centre tends. — Montg.

*From the Title Page, The Old Farmer's Almanac,  
Issue of 1833.*

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MABEL M. SWAN,  
BROOKLINE, MASS.

Sold by Booksellers and Traders throughout New England and Atlantic States.

THE WHITE HOUSE  
WASHINGTON

June 8, 1937

There is a quality about old-fashioned things that is almost certain to quicken our imaginations and to awaken in our thoughts and minds associations with events or persons long since vanished. But the Almanac is one of those old institutions which is perennially young in the appeal which it makes. From long custom we depend upon it. It is an invaluable friend, companion and guide.

And so once more it is a great pleasure to greet my fellow readers of The Old Farmer's Almanac and to extend to them best wishes for the year to come.

Very sincerely yours,




---

## TO PATRONS AND CORRESPONDENTS

The old saying that "imitation is the sincerest form of flattery" can well be applied to THE OLD FARMER'S ALMANAC, for the number of almanacs has apparently increased and one or two which have recently appeared have shown a striking resemblance to THE OLD FARMER. This is to be expected since the information contained in an almanac is of use to every person leading an outdoor life, whether in town or country.

This outdoor population is growing amazingly through the development of sport and the ease with which one can today escape from town. THE OLD FARMER is not unmindful of these new comers to the country, whether for fishing or hunting or for winter sports or simply for the pleasure of motoring. He has therefore increased his information to cover these fields while maintaining the same accurate astronomical features so well established and the perennial features planned for the farmer himself.

Nearly every one is a farmer at heart and so the 1938 edition is offered to this great public in the hope that it may increase their love for the open spaces.

*The Old Farmer.*



1938

JANUARY.							FEBRUARY.							MARCH.							APRIL.							
S	M	T	W	Th	F	S	S	M	T	W	Th	F	S	S	M	T	W	Th	F	S	S	M	T	W	Th	F	S	
-	-	-	-	-	-	1	-	-	1	2	3	4	5	-	-	1	2	3	4	5	-	-	-	-	-	-	1	2
2	3	4	5	6	7	8	6	7	8	9	10	11	12	6	7	8	9	10	11	12	3	4	5	6	7	8	9	
9	10	11	12	13	14	15	13	14	15	16	17	18	19	13	14	15	16	17	18	19	10	11	12	13	14	15	16	
16	17	18	19	20	21	22	20	21	22	23	24	25	26	20	21	22	23	24	25	26	17	18	19	20	21	22	23	
23	24	25	26	27	28	29	27	28	-	-	-	-	-	27	28	29	30	31	-	-	24	25	26	27	28	29	30	
30	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MAY.							JUNE.							JULY.							AUGUST.							
1	2	3	4	5	6	7	-	-	-	1	2	3	4	-	-	-	-	1	2	-	1	2	3	4	5	6		
8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9	7	8	9	10	11	12	13	
15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16	14	15	16	17	18	19	20	
22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23	21	22	23	24	25	26	27	
29	30	31	-	-	-	-	26	27	28	29	30	-	-	24	25	26	27	28	29	30	28	29	30	31	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	31	-	-	-	-	-	-	-	-	-	-	-	-	-	
SEPTEMBER.							OCTOBER.							NOVEMBER.							DECEMBER.							
-	-	-	-	1	2	3	-	-	-	-	-	-	1	-	-	1	2	3	4	5	-	-	-	-	-	1	2	3
4	5	6	7	8	9	10	2	3	4	5	6	7	8	6	7	8	9	10	11	12	4	5	6	7	8	9	10	
11	12	13	14	15	16	17	9	10	11	12	13	14	15	13	14	15	16	17	18	19	11	12	13	14	15	16	17	
18	19	20	21	22	23	24	16	17	18	19	20	21	22	20	21	22	23	24	25	26	18	19	20	21	22	23	24	
25	26	27	28	29	30	-	23	24	25	26	27	28	29	27	28	29	30	-	-	-	25	26	27	28	29	30	31	
-	-	-	-	-	-	-	30	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

"It is by our works and not by our words we would be judged: these we hope will sustain us in the humble though proud station we have so long held. . . ."

*W. O. Thomas.*

1939

JANUARY.							FEBRUARY.							MARCH.							APRIL.							
S	M	T	W	Th	F	S	S	M	T	W	Th	F	S	S	M	T	W	Th	F	S	S	M	T	W	Th	F	S	
1	2	3	4	5	6	7	-	-	-	1	2	3	4	-	-	-	1	2	3	4	-	-	-	-	-	-	1	
8	9	10	11	12	13	14	5	6	7	8	9	10	11	5	6	7	8	9	10	11	2	3	4	5	6	7	8	
15	16	17	18	19	20	21	12	13	14	15	16	17	18	12	13	14	15	16	17	18	9	10	11	12	13	14	15	
22	23	24	25	26	27	28	19	20	21	22	23	24	25	19	20	21	22	23	24	25	16	17	18	19	20	21	22	
29	30	31	-	-	-	-	26	27	28	-	-	-	-	26	27	28	29	30	31	-	23	24	25	26	27	28	29	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	
MAY.							JUNE.							JULY.							AUGUST.							
-	1	2	3	4	5	6	-	-	-	1	2	3	-	-	-	-	1	2	-	-	1	2	3	4	5			
7	8	9	10	11	12	13	4	5	6	7	8	9	10	2	3	4	5	6	7	8	6	7	8	9	10	11	12	
14	15	16	17	18	19	20	11	12	13	14	15	16	17	9	10	11	12	13	14	15	13	14	15	16	17	18	19	
21	22	23	24	25	26	27	18	19	20	21	22	23	24	16	17	18	19	20	21	22	20	21	22	23	24	25	26	
28	29	30	31	-	-	-	25	26	27	28	29	30	-	23	24	25	26	27	28	29	27	28	29	30	31	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	31	-	-	-	-	-	-	-	-	-	-	-	-	
SEPTEMBER.							OCTOBER.							NOVEMBER.							DECEMBER.							
-	-	-	-	-	1	2	1	2	3	4	5	6	7	-	-	-	1	2	3	4	-	-	-	-	-	-	1	2
3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9	
10	11	12	13	14	15	16	15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16	
17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23	
24	25	26	27	28	29	30	29	30	31	-	-	-	-	26	27	28	29	30	-	-	24	25	26	27	28	29	30	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31	-	-	-	-	-	-	

## EXPLANATIONS FOR CALENDAR PAGES.

The **Calculations** are made for the latitude and longitude of Boston and are in *Eastern Standard Time*, i. e., the time of the 75th meridian West from Greenwich, which is 16 minutes behind Boston mean time; and for general purposes are sufficiently accurate for all parts of New England. If, however, greater accuracy is desired, regard may be had to the following precepts.

The Table given below contains corrections in minutes of time for a number of important places in New England, and any other place in New England can use the correction of the place in the Table which is nearest in longitude to itself.

For the **Rising and Setting of the Sun, Moon and Planets** add tabular quantity if longitude from Boston is West, but subtract it if East; and this will give the value when the place is in or near the same latitude as Boston. When the latitude of the place differs considerably from that of Boston, the correction will also be right when the celestial body is on or near the Equator; but when it is remote from the Equator so much accuracy cannot be expected.

For **Sun Fast**, subtract tabular quantity if longitude from Boston is West, but add it if East.

For **Moon Souths**, add tabular quantity if longitude from Boston is West, but subtract it if East.

<i>East.</i>		<i>West.</i>		<i>West.</i>	
Eastport, Me. . .	16 min	Concord, N.H. . .	2 min	Springfield, Mass. . .	6 min.
Bangor, Me. . .	9 "	Nashua, N.H. . .	2 "	Williamstown, Mass. . .	9 "
Augusta, Me. . .	5 "	Plymouth, N.H. . .	3 "	Newport, R.I. . .	1 "
Lewiston, Me. . .	4 "	Keene, N.H. . .	5 "	Providence, R.I. . .	1 "
Portland, Me. . .	3 "	Montpelier, Vt. . .	6 "	Woonsocket, R.I. . .	2 "
Bridford, Me. . .	2 "	Brattleboro, Vt. . .	6 "	New London, Conn. . .	4 "
Portsmouth, N.H. . .	1 "	Rutland, Vt. . .	8 "	Willimantic, Conn. . .	5 "
Provincetown, Mass. . .	4 "	Burlington, Vt. . .	9 "	Hartford, Conn. . .	6 "
Gloucester, Mass. . .	2 "	Lowell, Mass. . .	1 "	New Haven, Conn. . .	7 "
Plymouth, Mass. . .	2 "	Worcester, Mass. . .	3 "	Bridgeport, Conn. . .	9 "

If during any part of the year 1938 there is in operation in any State or City of New England any of the so-called "*daylight saving*" laws or ordinances, proper allowance for that should be made in applying the figures of time given in the Almanac, which figures, as above stated, are all herein given in *Eastern Standard Time*.

The **Times and Heights of the Tides at High Water** are for the Port of Boston (Navy Yard). The times of High Water are given on the left hand Calendar pages under "Full Sea." The heights of High Water in feet and tenths are given among other data on the right hand Calendar pages under "Aspects," &c. The heights are reckoned from Mean Low Water; each day has a set of figures—many of them preceded by the word "Tides." The upper figures give the height of the morning (A.M.) tide, and the lower that of the evening (P.M.) tide.

### Names and Characters of the Principal Planets.

☉ ☽ ☿ ☿ The Sun.	♀ Venus.	♃ Jupiter.	♆ Neptune.
☾ ☽ ☿ ☿ The Moon.	♁ The Earth.	♄ Saturn.	♇ Pluto.
☿ Mercury.	♂ Mars.	♅ or ♂ Uranus.	

### Names and Characters of the Aspects.

♁ Conjunction, or in the same degree.	♁ Dragon's Head, or Ascending Node.
☐ Quadrature, 90 degrees.	♁ Dragon's Tail, or Descending Node.
♁ Opposition, or 180 degrees.	

### Names and Characters of the Signs of the Zodiac.

1. ♈ Aries, head.	5. ♌ Leo, heart.	9. ♎ Sagittarius, thighs.
2. ♉ Taurus, neck.	6. ♍ Virgo, belly.	10. ♏ Capricornus, knees.
3. ♊ Gemini, arms.	7. ♎ Libra, reins.	11. ♐ Aquarius, legs.
4. ♋ Cancer, breast.	8. ♏ Scorpio, secrets.	12. ♑ Pisces, feet.

### Chronological Cycles for 1938.

Golden Number . . . . . 1	Solar Cycle . . . . . 15	Roman Indiction . . . . . 6
Epact . . . . . 29	Dominical Letter . . . . . B	Year of Julian Period 6651

### Movable Feasts and Fasts for 1938.

Septuagesima Sun., Feb. 13	Good Friday,	April 15	Whit Sunday,	June 5
Shrove Sunday, " 27	Easter Sunday,	" 17	Trinity Sunday,	" 12
Ash Wednesday, March 2	Low Sunday,	" 24	Corpus Christi,	" 16
1st Sunday in Lent, " 6	Rogation Sunday, May 22	1st Sunday in Advent,		
Palm Sunday, April 10	Ascension Day,	26		Nov. 27

## VENUS, MARS, JUPITER AND SATURN, 1938.

Below are given the times of the rising or setting of the Planets named, on the first, eleventh and twenty-first days of each month. The time of the rising or setting of any one of said Planets between the days named may be found with sufficient accuracy by interpolation.

1938		VENUS h. m.		MARS h. m.		JUPITER h. m.		SATURN h. m.	
JANUARY	1st	rises	6 43 A.M.	sets	9 12 P.M.	sets	6 7 P.M.	sets	10 54 P.M.
"	11th	"	6 56 A.M.	"	9 11 P.M.	"	5 40 P.M.	"	10 18 P.M.
"	21st	"	7 3 A.M.	"	9 11 P.M.	"	5 13 P.M.	"	9 43 P.M.
FEBRUARY	1st	rises	7 4 A.M.	sets	9 10 P.M.	rises	6 57 P.M.	sets	9 7 P.M.
"	11th	sets	5 16 P.M.	"	9 9 P.M.	"	6 25 P.M.	"	8 31 P.M.
"	21st	"	5 42 P.M.	"	9 8 P.M.	"	5 52 P.M.	"	7 57 P.M.
MARCH	1st	sets	6 2 P.M.	sets	9 6 P.M.	rises	5 26 P.M.	sets	7 30 P.M.
"	11th	"	6 27 P.M.	"	9 5 P.M.	"	4 53 P.M.	"	6 57 P.M.
"	21st	"	6 51 P.M.	"	9 3 P.M.	"	4 19 P.M.	"	6 23 P.M.
APRIL	1st	sets	7 19 P.M.	sets	9 1 P.M.	rises	3 42 P.M.	rises	5 34 A.M.
"	11th	"	7 44 P.M.	"	8 58 P.M.	"	3 8 P.M.	"	4 58 A.M.
"	21st	"	8 9 P.M.	"	8 55 P.M.	"	2 33 P.M.	"	4 21 A.M.
MAY	1st	sets	8 35 P.M.	sets	8 51 P.M.	rises	1 58 P.M.	rises	3 44 A.M.
"	11th	"	8 58 P.M.	"	8 46 P.M.	"	1 22 P.M.	"	3 8 A.M.
"	21st	"	9 17 P.M.	"	8 40 P.M.	"	0 45 P.M.	"	2 31 A.M.
JUNE	1st	sets	9 32 P.M.	sets	8 31 P.M.	rises	0 1 A.M.	rises	1 50 A.M.
"	11th	"	9 39 P.M.	"	8 21 P.M.	"	11 23 P.M.	"	1 13 A.M.
"	21st	"	9 39 P.M.	"	8 9 P.M.	"	10 44 P.M.	"	0 36 A.M.
JULY	1st	sets	9 34 P.M.	sets	7 55 P.M.	rises	10 4 P.M.	rises	11 54 P.M.
"	11th	"	9 23 P.M.	"	7 40 P.M.	"	9 22 P.M.	"	11 16 P.M.
"	21st	"	9 9 P.M.	"	7 22 P.M.	"	8 43 P.M.	"	10 37 P.M.
AUGUST	1st	sets	8 51 P.M.	rises	4 22 A.M.	rises	7 57 P.M.	rises	9 54 P.M.
"	11th	"	8 33 P.M.	"	4 16 A.M.	"	7 15 P.M.	"	9 15 P.M.
"	21st	"	8 14 P.M.	"	4 10 A.M.	sets	4 59 A.M.	"	8 35 P.M.
SEPTEMBER	1st	sets	7 52 P.M.	rises	4 3 A.M.	sets	4 9 A.M.	rises	7 51 P.M.
"	11th	"	7 32 P.M.	"	3 57 A.M.	"	3 23 A.M.	"	7 10 P.M.
"	21st	"	7 12 P.M.	"	3 50 A.M.	"	2 39 A.M.	"	6 30 P.M.
OCTOBER	1st	sets	6 51 P.M.	rises	3 43 A.M.	sets	1 56 A.M.	rises	5 49 P.M.
"	11th	"	6 28 P.M.	"	3 37 A.M.	"	1 14 A.M.	sets	5 38 A.M.
"	21st	"	6 1 P.M.	"	3 30 A.M.	"	0 35 A.M.	"	4 55 A.M.
NOVEMBER	1st	sets	5 23 P.M.	rises	3 22 A.M.	sets	11 49 P.M.	sets	4 8 A.M.
"	11th	"	4 40 P.M.	"	3 14 A.M.	"	11 14 P.M.	"	3 26 A.M.
"	21st	rises	6 42 A.M.	"	3 7 A.M.	"	10 39 P.M.	"	2 44 A.M.
DECEMBER	1st	rises	5 28 A.M.	rises	3 0 A.M.	sets	10 6 P.M.	sets	2 3 A.M.
"	11th	"	4 33 A.M.	"	2 53 A.M.	"	9 34 P.M.	"	1 23 A.M.
"	21st	"	4 1 A.M.	"	2 46 A.M.	"	9 3 P.M.	"	0 44 A.M.
"	31st	"	3 45 A.M.	"	2 39 A.M.	"	8 34 P.M.	"	0 5 A.M.

### TIDE CORRECTIONS.

To obtain the time and height of high water at any place, apply the differences in accordance with the sign given to the daily predictions for Boston (Commonwealth Piers). Where a value in the "height difference" column is preceded by a \*, the height at Boston should be multiplied by this ratio.

	Time Differ- ence h. m.	Height Differ- ence Feet		Time Differ- ence h. m.	Height Differ- ence Feet
Augusta, Me. . . . .	+3 55	*0.4	Newburyport, Mass. . . . .	+0 40	-1.6
Bangor, Me. . . . .	-0 05	+3.7	New Haven, Conn. . . . .	+0 05	-3.1
Bar Harbor, Me. . . . .	-0 25	+1.1	New London, Conn. . . . .	-1 40	*0.3
Bath, Me. . . . .	+1 00	-3.0	Newport, R. I. . . . .	-3 50	*0.4
Belfast, Me. . . . .	-0 15	+0.3	New York, Governors I. . . . .	-2 55	*0.5
Block I. Harbor, R. I. . . . .	-3 45	*0.3	Plymouth, Mass. . . . .	0 00	+0.2
Boothbay Harbor, Me. . . . .	-0 20	-0.6	Point Judith, R. I. . . . .	-3 40	*0.3
Bridgeport, Conn. . . . .	+0 10	-2.6	Portland, Me. . . . .	-0 10	-0.5
Bristol, R. I. . . . .	-3 40	*0.4	Port Clyde, Me. . . . .	-0 25	-0.1
Camden, Me. . . . .	-0 20	+0.2	Portsmouth, N. H. . . . .	+0 10	-1.6
Chatham Light, Mass. . . . .	+0 25	-2.7	Providence, R. I. . . . .	-3 30	*0.5
Cohasset, Mass. . . . .	-0 05	-0.4	Provincetown, Mass. . . . .	0 00	-0.2
Eastport, Me. . . . .	-0 20	+8.8	Rockland, Me. . . . .	-0 25	+0.3
Edgartown, Mass. . . . .	+0 30	*0.2	Salem, Mass. . . . .	-0 05	-0.4
Fel River, Mass. . . . .	-3 35	*0.5	Sandwich, Mass. . . . .	+0 05	0.0
Gloucester, Mass. . . . .	-0 05	-0.7	Stamford, Conn. . . . .	+0 10	-2.1
Greenport, L. I. . . . .	-0 50	*0.3	Stonington, Conn. . . . .	-2 10	*0.3
Hartford, Conn. . . . .	+4 10	*0.1	Vineyard Haven, Mass. . . . .	+0 10	*0.2
Hyannisport, Mass. . . . .	+0 45	*0.4	West Falmouth, Mass. . . . .	-3 25	*0.4
Nantucket, Mass. . . . .	+0 55	*0.3	Woods Hole, Fish Com. . . . .		
Narragansett Pier, R. I. . . . .	-3 50	*0.4	Whf. . . . .	-2 30	*0.2
New Bedford, Mass. . . . .	-3 35	*0.4			

1938]

## JANUARY, FIRST MONTH.

## ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.	d. m.	Days.	d. m.	Days.	d. m.	Days.	d. m.	Days.	d. m.
	1	23s.	01	7	22 24	13	21 30	19	20 22	25
2	22	55	8	22 16	14	21 20	20	20 09	26	18 45
3	22	50	9	22 08	15	21 09	21	19 56	27	18 30
4	22	44	10	21 59	16	20 58	22	19 43	28	18 14
5	22	38	11	21 50	17	20 46	23	19 29	29	17 58
6	22	31	12	21 40	18	20 34	24	19 15	30	17 42

- New Moon, 1st day, 1h. 58m., evening, W.
- ☽ First Quarter, 9th day, 9h. 13m., morning, E.
- Full Moon, 16th day, 0h. 53m., morning, W.
- ☾ Last Quarter, 23rd day, 3h. 9m., morning, E.
- New Moon, 31st day, 8h. 35m., morning, E.

Day of Year.	Day of Month.	Day of the Week.	☺		Length of Days.		Day's Incr.		Sun m.	Fast m.	Moon's Age.	Full Sea. Boston		☽'s Place	☽ Sets		☽ Souths.
			Rises. h. m.	Sets. h. m.	h.	m.	h.	m.				Morn. h. m.	Even. h. m.		h.	m.	
1	1	Sa.	7 14	4 22	9 8	0 4	12	●	10 <sup>3</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>4</sub>	Cap	sets	11 43				
2	2	S_	7 14	4 23	9 9	0 5	12	1	11 <sup>1</sup> / <sub>2</sub>	0	Cap	5 32	0 30				
3	3	M.	7 14	4 24	9 10	0 6	11	2	—	0 <sup>1</sup> / <sub>4</sub>	Aqr	6 32	1 16				
4	4	Tu.	7 14	4 25	9 11	0 7	11	3	0 <sup>1</sup> / <sub>2</sub>	0 <sup>3</sup> / <sub>4</sub>	Aqr	7 33	2 01				
5	5	W.	7 14	4 26	9 12	0 8	10	4	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	Aqr	8 35	2 46				
6	6	Th.	7 14	4 27	9 13	0 9	10	5	2	2 <sup>1</sup> / <sub>4</sub>	Psc	9 38	3 30				
7	7	Fr.	7 14	4 28	9 14	0 10	9	6	2 <sup>3</sup> / <sub>4</sub>	3	Psc	10 42	4 15				
8	8	Sa.	7 13	4 29	9 16	0 12	9	7	3 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	Ari	11 48	5 02				
9	9	S_	7 13	4 30	9 17	0 13	9	8	4 <sup>1</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>4</sub>	Ari	morn	5 51				
10	10	M.	7 13	4 31	9 18	0 14	8	9	5	5 <sup>1</sup> / <sub>2</sub>	Tau	0 56	6 44				
11	11	Tu.	7 13	4 32	9 19	0 15	8	10	6	6 <sup>3</sup> / <sub>4</sub>	Tau	2 06	7 41				
12	12	W.	7 12	4 33	9 21	0 17	7	11	7	7 <sup>3</sup> / <sub>4</sub>	G'm	3 17	8 41				
13	13	Th.	7 12	4 34	9 22	0 18	7	12	8	8 <sup>3</sup> / <sub>4</sub>	G'm	4 25	9 44				
14	14	Fr.	7 12	4 35	9 23	0 19	7	13	9	9 <sup>3</sup> / <sub>4</sub>	Cnc	5 26	10 47				
15	15	Sa.	7 11	4 36	9 25	0 21	6	14	10	10 <sup>1</sup> / <sub>2</sub>	Cnc	6 21	11 48				
16	16	S_	7 11	4 38	9 27	0 23	6	○	11	11 <sup>1</sup> / <sub>2</sub>	Leo	rises	morn				
17	17	M.	7 10	4 39	9 29	0 25	6	16	11 <sup>3</sup> / <sub>4</sub>	—	Leo	6 51	0 46				
18	18	Tu.	7 10	4 40	9 30	0 26	5	17	0 <sup>1</sup> / <sub>4</sub>	0 <sup>3</sup> / <sub>4</sub>	Vir	8 03	1 40				
19	19	W.	7 9	4 41	9 32	0 28	5	18	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	Vir	9 11	2 31				
20	20	Th.	7 9	4 43	9 34	0 30	5	19	2	2 <sup>1</sup> / <sub>4</sub>	Vir	10 18	3 20				
21	21	Fr.	7 8	4 44	9 36	0 32	4	20	2 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>	Lib	11 22	4 07				
22	22	Sa.	7 7	4 45	9 38	0 34	4	21	3 <sup>3</sup> / <sub>4</sub>	4	Lib	morn	4 53				
23	23	S_	7 6	4 46	9 40	0 36	4	22	4 <sup>1</sup> / <sub>2</sub>	5	Sco	0 24	5 39				
24	24	M.	7 6	4 48	9 42	0 38	4	23	5 <sup>1</sup> / <sub>2</sub>	6	Sco	1 25	6 26				
25	25	Tu.	7 5	4 49	9 44	0 40	3	24	6 <sup>1</sup> / <sub>2</sub>	7	Sgr	2 22	7 13				
26	26	W.	7 4	4 50	9 46	0 42	3	25	7 <sup>1</sup> / <sub>4</sub>	8	Sgr	3 16	8 01				
27	27	Th.	7 3	4 51	9 48	0 44	3	26	8 <sup>1</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>4</sub>	Sgr	4 06	8 50				
28	28	Fr.	7 2	4 52	9 50	0 46	3	27	9	9 <sup>1</sup> / <sub>2</sub>	Cap	4 51	9 38				
29	29	Sa.	7 2	4 54	9 52	0 48	3	28	9 <sup>3</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>4</sub>	Cap	5 32	10 26				
30	30	S_	7 1	4 55	9 54	0 50	2	29	10 <sup>1</sup> / <sub>2</sub>	11	Aqr	6 08	11 13				
31	31	M.	7 0	4 56	9 56	0 52	2	●	11	11 <sup>1</sup> / <sub>2</sub>	Aqr	sets	11 59				

JANUARY hath 31 days.

[1938



In Frost's work on the window pane  
The tenets of true art obtain,  
As done with winter's rare repression  
In enigmatic self-expression.

A. W. B.  
"Art Criticism of Jack Frost"

D. M.	D. W.	Aspects, Holidays, Heights of High Water, etc. <i>Ave. temp. falls gradually during month.</i>	Farmer's Calendar. <i>Sunshine averages 143 hours.</i>
1	Sa.	Circumcision. ♂ ♀ ☾. 70° 1876	Tides { 9.5 8.4
2	B	♂ ♀ ♀.	Tides { 9.6 8.5
3	M.	⊕ in Peri. ♂ ♃ ☾.	Tides { 9.6 8.6
4	Tu.	Charles Dickens Sailed to America 1842	Tides { 9.6 8.6
5	W.	♀ Gr. Hel. Lat. N.	Tides { 8.7 9.5
6	Th.	Epiphany. ♂ ♂ ☾.	Tides { 8.8 9.3
7	Fr.	☾ on Equator. Often warmer.	Tides { 8.9 9.1
8	Sa.	♂ ☾ ☾.	Tides { 9.0 8.8
9	B	1st Sun. af. Epip. ♀ Stat. in	
10	M.	♂ ♂ ☾. Tides { 9.3 8.6 [9th R.A.	Tides { 9.1 8.7
11	Tu.	Francis Scott Key, author of The Star Spangled Banner died, 1843	Tides { 9.6 8.5
12	W.	John Hancock born, 1737	Tides { 10.0 8.7
13	Th.	☾ runs high.	Tides { 10.5 9.0
14	Fr.	☾ in Perigee.	Tides { 10.9 9.4
15	Sa.	Edward Everett died 1865	Tides { 11.3 9.8
16	B	2d Sun. af. Epiph. Tides { 11.5 11.5	
17	M.	Martin Luther preached his last sermon at Wittenburg, 1546	Tides { 11.5 —
18	Tu.	♂ Stat. in R.A. { 10.8 11.2 Zero averages	
19	W.	☾ on Eq. Tides { 10.2 10.7 on e.	
20	Th.	♂ ♀ ☾. ♀ Gr. elong. W. { 10.1 10.1	
21	Fr.	Louis XVI beheaded at Paris, 1793	Tides { 9.8 9.4 Frequently
22	Sa.	Accession of Edward VII of England 1901	Tides { 9.5 8.8 warmer.
23	B	3rd Sun. af. Epip. Tides { 9.2 8.2	
24	M.	U.S. troops under Gen. Jesup defeated Indians, 1838	Tides { 13° below zero 18.2
25	Tu.	Conv. of St. Paul. Tides { 8.7 7.6 [24th	Tides { 8.9 7.8
26	W.	☾ runs low.	Tides { 8.7 7.5
27	Th.	☾ in Apogee.	Tides { 8.8 7.7
28	Fr.	14.7 in. snow fell 1897 { 9.0 7.9 Coldest period;	
29	Sa.	♀ in ☽. ♂ ♀ ☾. ♂ ♃ ☾.	Tides { 9.2 8.2
30	B	4th S. a. Ep. ☐ ♂ ☾. ♂ ♀ ♃.	Tides { 9.4 8.5
31	M.	♂ ♃ ☾. ♂ ♀ ☾. { 9.6 Jan. av. depth 8.8 snow 11.2 in.	

With the New Year come those unpleasant reminders that annual tribute must be paid to Uncle Sam: a part in March, the balance later in the year. In order then to make up your income tax returns, it is well to consider January as a time to overhaul your accounts and to make up some sort of a budget for the coming year. This applies not only to business but also to the household and to the affairs of such children, either in school or in college, as may be receiving an allowance.

Everyone should learn to spend wisely and economically, and since the spending is to be done throughout the year it is important to plan ahead, for obligations should never be incurred unless the money necessary to meet them is in sight or arranged for.

In planning the budget, thought should be given to maintenance and repairs — therefore January is the time to take stock, in every sense of the word, so that provision may be made for an efficient year of work and a comfortable home. Thinking ahead will prevent many of our monetary worries and will assuredly diminish the remainder.

1938]

## FEBRUARY, SECOND MONTH.

## ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days	d. m.	Days.	d. m.	Days.	d. m.	Days.	d. m.	Days.	d. m.
	1	17s.	09	7	15 21	13	13 24	19	11 20	25
2	16	51	8	15 02	14	13 04	20	10 58	26	8 47
3	16	34	9	14 43	15	12 44	21	10 37	27	8 24
4	16	16	10	14 24	16	12 23	22	10 15	28	8 01
5	15	58	11	14 04	17	12 02	23	9 53		
6	15	40	12	13 44	18	11 41	24	9 31		

☽ First Quarter, 7th day, 7h. 33m., evening, W.

☾ Full Moon, 14th day, 0h. 14m., evening, E.

☾ Last Quarter, 21st day, 11h. 24m., evening, E.

Day of Year.	Day of Month.	Day of the Week.	☺		Length of Days.		Day's Incr.		Sun's East.	Moon's Age.	Full Sea. Boston		☽'s Place	☽ Sets		☽ Souths.
			Rises. h. m.	Sets. h. m.	h. m.	h. m.	h. m.	h. m.			Morn. h. m.	Even. h. m.		h. m.	h. m.	
32	1	Tu.	6 59	4 58	9 59	0 55	2	1	11 $\frac{3}{4}$	—	Aqr	6 28	0 44			
33	2	W.	6 57	4 59	10 20	0 58	2	2	0 $\frac{1}{4}$	0 $\frac{1}{4}$	Psc	7 31	1 29			
34	3	Th.	6 56	5 0	10 41	1 0	2	3	0 $\frac{3}{4}$	1	Psc	8 34	2 14			
35	4	Fr.	6 55	5 2	10 7	1 3	2	4	1 $\frac{1}{2}$	1 $\frac{3}{4}$	Ari	9 39	3 00			
36	5	Sa.	6 54	5 3	10 9	1 5	2	5	2 $\frac{1}{4}$	2 $\frac{1}{2}$	Ari	10 47	3 49			
37	6	S.	6 53	5 4	10 11	1 7	2	6	3	3 $\frac{1}{4}$	Tau	11 55	4 39			
38	7	M.	6 52	5 6	10 14	1 10	1	7	3 $\frac{3}{4}$	4 $\frac{1}{4}$	Tau	morn	5 33			
39	8	Tu.	6 51	5 7	10 16	1 12	1	8	4 $\frac{3}{4}$	5 $\frac{1}{4}$	Tau	1 03	6 30			
40	9	W.	6 50	5 8	10 18	1 14	1	9	5 $\frac{3}{4}$	6 $\frac{1}{4}$	G'm	2 10	7 30			
41	10	Th.	6 48	5 9	10 21	1 17	1	10	6 $\frac{3}{4}$	7 $\frac{1}{2}$	G'm	3 11	8 30			
42	11	Fr.	6 47	5 11	10 24	1 20	1	11	7 $\frac{3}{4}$	8 $\frac{1}{2}$	Cnc	4 07	9 31			
43	12	Sa.	6 46	5 12	10 26	1 22	1	12	8 $\frac{3}{4}$	9 $\frac{1}{2}$	Cnc	4 56	10 29			
44	13	S.	6 44	5 13	10 29	1 25	1	13	9 $\frac{3}{4}$	10 $\frac{1}{4}$	Leo	5 37	11 24			
45	14	M.	6 43	5 15	10 32	1 28	1	○	10 $\frac{3}{4}$	11 $\frac{1}{4}$	Leo	rises	morn			
46	15	Tu.	6 42	5 16	10 34	1 30	1	15	11 $\frac{1}{2}$	0	Vir	6 48	0 17			
47	16	W.	6 40	5 17	10 37	1 33	2	16	—	0 $\frac{1}{4}$	Vir	7 57	1 07			
48	17	Th.	6 39	5 19	10 40	1 36	2	17	0 $\frac{3}{4}$	1	Lib	9 04	1 56			
49	18	Fr.	6 37	5 20	10 43	1 39	2	18	1 $\frac{1}{2}$	2	Lib	10 09	2 44			
50	19	Sa.	6 36	5 21	10 45	1 41	2	19	2 $\frac{1}{4}$	2 $\frac{3}{4}$	Scor	11 11	3 31			
51	20	S.	6 34	5 22	10 48	1 44	2	20	3	3 $\frac{1}{2}$	Scor	morn	4 19			
52	21	M.	6 33	5 24	10 51	1 47	2	21	4	4 $\frac{1}{2}$	Scor	0 10	5 06			
53	22	Tu.	6 32	5 25	10 53	1 49	2	22	4 $\frac{3}{4}$	5 $\frac{1}{4}$	Sgr	1 07	5 55			
54	23	W.	6 30	5 26	10 56	1 52	2	23	5 $\frac{3}{4}$	6 $\frac{1}{4}$	Sgr	1 59	6 43			
55	24	Th.	6 28	5 27	10 59	1 55	2	24	6 $\frac{3}{4}$	7 $\frac{1}{4}$	Cap	2 46	7 32			
56	25	Fr.	6 27	5 29	11 2	1 58	3	25	7 $\frac{1}{2}$	8 $\frac{1}{4}$	Cap	3 28	8 19			
57	26	Sa.	6 25	5 30	11 5	2 1	3	26	8 $\frac{1}{2}$	9	Cap	4 05	9 07			
58	27	S.	6 24	5 31	11 7	2 3	3	27	9 $\frac{1}{4}$	9 $\frac{3}{4}$	Aqr	4 39	9 53			
59	28	M.	6 22	5 32	11 10	2 6	3	28	10	10 $\frac{1}{4}$	Aqr	5 10	10 39			



Thus, 'mid the wreck of thrones, shall live  
 Unmarred, undimmed, our hero's fame,  
 And years succeeding years shall give  
 Increase of honors to his name.

WILLIAM CULLEN BRYANT  
 "Twenty Second of February"

D. M.	D. W.	Aspects, Holidays, Heights of High Water, etc.	Farmer's Calendar.
		<i>Gradually night temperatures increase</i>	<i>Sunshine averages 169 hours.</i>
1	Tu.	♀ Aphelion	Tides { 9.7
2	W.	Purif. of Vir. Mary. ☽♂h. Lowest pt.-ave. tem. curve.	{ 9.0
3	Th.	☽♀☉ Sup. ☾ on Eq.	Tides { 9.2
4	Fr.	♂♂☾. ☽♂☾. Tides { 9.4	<i>Strong-</i>
5	Sa.	Tremendous volcanic eruptions in Central America, 1835	{ 9.5 <i>est</i>
6	B	5th Sun. af. Epip.	Tides { 9.6
7	M.	♂♂☾.	Tides { 9.0
8	Tu.	♀ in Aphelion.	Tides { 9.6
9	W.	☾ Runs 18° below high. zero, 1934.	Tides { 9.7
10	Th.	Charles Lamb born 1775.	Tides { 8.4
11	Fr.	Papal State erected under name of State of Vatican City 1929.	Tides { 9.9 <i>wind</i>
12	Sa.	☾ in Abraham Lincoln born, 1809.	{ 10.2
13	B	Septuagesima S. { 10.9	<i>month.</i>
14	M.	St. Valentine	Tides { 9.9
15	Tu.	Blowing up of Battle Ship Maine, in Havana Harbor, 1898	{ 11.1
16	W.	♂ψ☾. ☾ on Eq.	{ 10.2
17	Th.	♂♀♃	Tides { 10.8
18	Fr.	Martin Luther died 1546	Tides { 10.4
19	Sa.	Florida ceded to United States by Spain, 1821	Tides { 10.4
20	B	Sexagesima S. 68°, 1930. Greatest snowfall 16 in. 1921.	Tides { 9.9
21	M.	Tides { 9.1	[20th Tides { 8.6
22	Tu.	Washington born, 1732.	Tides { 8.7
23	W.	♀ Gr. Hel. in Lat. S. ☾ Apogees ☾ low	{ 7.6 <i>Zero</i>
24	Th.	St. Matthias { 8.4	{ 8.5
25	Fr.	Christopher Wren, English architect died, 1723	{ 7.5
26	Sa.	Tides { 8.4	<i>averages once.</i>
27	B	Quinquagesima S. { 8.7	<i>snow depth</i>
28	M.	♂♃☾. ♀ Gr. Hel. Lat. S.	{ 8.5 <i>Feb. ave.</i>
			{ 8.1 <i>13 in.</i>
			Tides { 9.4
			{ 8.9

Alfalfa is the best hay to feed cows for milk production. However, it is not possible to raise it on all farms, and in many places it occasionally suffers from winter killing. The next best hay is clover which is very close to alfalfa in feeding value, but must be replanted every two years; whereas alfalfa will continue growing for several years. Timothy hay is a poor milk producer but an easy hay to raise and relatively permanent.

All hay has a much higher food value if harvested early. The yield per acre is not as high, but there will be a higher amount of food value in the lesser yield. Therefore be sure, this year, to do your haying early and watch the improved results at the pail next winter.

A light top dressing of fertilizer on your hay field in the spring not only increases the yield sufficiently to more than pay the cost, but it also increases the food value.

Do not expect your cows to maintain good production on pasture without some grain to balance their diet. While green grass at first stimulates milk production, it lacks some of the necessary elements to sustain both body and milk flow of good producers.

*Edw. Wigglesworth*

1938]

MARCH, THIRD MONTH.

ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.		Days.		Days.		Days.		Days.		Days.	
	d.	m.	d.	m.	d.	m.	d.	m.	d.	m.	d.	m.
	1	7s. 39	7	5 20	13	2 59	19	0 37	25	1 45		
	2	7 16	8	4 57	14	2 36	20	0s. 14	26	2 08		
	3	6 53	9	4 34	15	2 12	21	0N.10	27	2 32		
	4	6 30	10	4 10	16	1 48	22	0 34	28	2 55		
	5	6 07	11	3 47	17	1 25	23	0 58	29	3 19		
	6	5 44	12	3 23	18	1 01	24	1 21	30	3 42		

- New Moon, 2nd day, 0h. 40m., morning, E.
- ☽ First Quarter, 9th day, 3h. 35m., morning, W.
- Full Moon, 16th day, 0h. 15m., morning, W.
- ☾ Last Quarter, 23rd day, 8h. 6m., evening, E.
- New Moon, 31st day, 1h. 52m., evening, W.

Day of Year.	Day of Month.	Day of the Week.	☺		Length of Days.		Day's Incr.		Sun P. Fast.	Moon's Age.	Full Sea, Boston		☽'s Place	☽		☽ Souths.
			Rises.	Sets.	h.	m.	h.	m.			Morn	Even		Rises.	h.	
60	1	Tu.	6 21	5 34	11 13	2 9	3 29	10 $\frac{1}{2}$	11	Psc	5 39	11 25				
61	2	W.	6 19	5 35	11 16	2 12	3 ●	11 $\frac{1}{4}$	11 $\frac{1}{2}$	Psc	sets	0 11				
62	3	Th.	6 17	5 36	11 19	2 15	4 1	0	—	Ari	7 30	0 57				
63	4	Fr.	6 16	5 37	11 21	2 17	4 2	0 $\frac{1}{4}$	0 $\frac{1}{2}$	Ari	8 38	1 46				
64	5	Sa.	6 14	5 38	11 24	2 20	4 3	1	1 $\frac{1}{4}$	Ari	9 46	2 36				
65	6	S.	6 13	5 40	11 27	2 23	4 4	1 $\frac{3}{4}$	2	Tau	10 55	3 30				
66	7	M.	6 11	5 41	11 30	2 26	5 5	2 $\frac{1}{2}$	3	Tau	morn	4 26				
67	8	Tu.	6 9	5 42	11 33	2 29	5 6	3 $\frac{1}{4}$	4	G'm	0 02	5 24				
68	9	W.	6 8	5 43	11 35	2 31	5 7	4 $\frac{1}{4}$	5	G'm	1 05	6 23				
69	10	Th.	6 6	5 44	11 38	2 34	5 8	5 $\frac{1}{4}$	6	Cnc	2 01	7 21				
70	11	Fr.	6 4	5 45	11 41	2 37	6 9	6 $\frac{1}{2}$	7 $\frac{1}{4}$	Cnc	2 50	8 18				
71	12	Sa.	6 3	5 47	11 44	2 40	6 10	7 $\frac{1}{2}$	8 $\frac{1}{4}$	Leo	3 33	9 13				
72	13	S.	6 1	5 48	11 47	2 43	6 11	8 $\frac{1}{2}$	9 $\frac{1}{4}$	Leo	4 10	10 06				
73	14	M.	5 59	5 49	11 50	2 46	6 12	9 $\frac{1}{2}$	10	Vir	4 43	10 56				
74	15	Tu.	5 57	5 50	11 53	2 49	7 13	10 $\frac{1}{2}$	10 $\frac{3}{4}$	Vir	5 14	11 45				
75	16	W.	5 56	5 51	11 55	2 51	7 ○	11 $\frac{1}{4}$	11 $\frac{1}{2}$	Lib	rises	morn				
76	17	Th.	5 54	5 52	11 58	2 54	7 15	0	—	Lib	7 50	0 33				
77	18	Fr.	5 52	5 54	12 2	2 58	8 16	0 $\frac{1}{4}$	0 $\frac{3}{4}$	Lib	8 54	1 21				
78	19	Sa.	5 50	5 55	12 5	3 1	8 17	1	1 $\frac{1}{2}$	Sco	9 56	2 09				
79	20	S.	5 48	5 56	12 8	3 4	8 18	1 $\frac{3}{4}$	2 $\frac{1}{4}$	Sco	10 54	2 58				
80	21	M.	5 47	5 57	12 10	3 6	8 19	2 $\frac{1}{2}$	3	Sgr	11 49	3 47				
81	22	Tu.	5 45	5 58	12 13	3 9	9 20	3 $\frac{1}{4}$	3 $\frac{3}{4}$	Sgr	morn	4 35				
82	23	W.	5 43	5 59	12 16	3 12	9 21	4	4 $\frac{3}{4}$	Sgr	0 38	5 24				
83	24	Th.	5 42	6 1	12 19	3 15	9 22	5	5 $\frac{1}{2}$	Cap	1 22	6 12				
84	25	Fr.	5 40	6 2	12 22	3 18	10 23	6	6 $\frac{1}{2}$	Cap	2 01	6 59				
85	26	Sa.	5 38	6 3	12 25	3 21	10 24	6 $\frac{3}{4}$	7 $\frac{1}{2}$	Aqr	2 37	7 46				
86	27	S.	5 36	6 4	12 28	3 24	10 25	7 $\frac{3}{4}$	8 $\frac{1}{4}$	Aqr	3 08	8 31				
87	28	M.	5 35	6 5	12 30	3 26	11 26	8 $\frac{1}{2}$	9	Aqr	3 38	9 17				
88	29	Tu.	5 33	6 6	12 33	3 29	11 27	9 $\frac{1}{4}$	9 $\frac{3}{4}$	Psc	4 06	10 03				
89	30	W.	5 31	6 7	12 36	3 32	11 28	10	10 $\frac{1}{2}$	Psc	4 35	10 50				
90	31	Th.	5 30	6 8	12 38	3 34	11 ●	10 $\frac{3}{4}$	11	Ari	sets	11 38				



MARCH hath 31 days.

[1938



Would you think it? Spring has come.  
Winter's paid his passage home;  
Packed his ice-box, — gone — half way  
To the Arctic Pole, they say.

But I know the old ruffian still  
Skulks about from hill to hill,  
Where his freezing footprints cling,  
Though 'tis Spring.

CHRISTOPHER PEARSE CRANCH  
"A Spring Growl"

D.M.	D.W.	Aspects, Holidays, Heights of High Water, etc. <i>Temp. steadily shows upward Trend</i>	Farmer's Calendar. <i>Sunshine averages 213 hours.</i>
1	Tu.	St. David. Shr. Tu. ♂ in ♀. ♂ ♀ ☾.	<p>March is seed catalogue time. The home gardener has been studying the catalogues for some time, but the real fever comes during this month. He sends in his order, and, during late March, starts the early seeds like early cabbage, cauliflower, tomatoes, peppers, and eggplants.</p> <p>He may start them in the hotbed or in the kitchen window. The plants grown in the kitchen window are usually rather poor, but their quality may be improved by using better methods of culture.</p> <p>The soil should be made of equal parts of well-rotted manure and garden soil, thoroughly mixed and sifted through a 1/4 inch screen. Fill the flat or plant box with this soil and sow the seed covering lightly with sifted soil. Keep in a warm place until the seed germinates. Transplant the seedlings 1 1/2 to 2 inches apart as soon as they have formed their first true leaves. Full sunlight, judicious watering, and an even temperature around 60° F. will help greatly in growing better plants for the home garden.</p> <p>The plants should be hardened in a cold frame before transplanting into the garden. Exposing the flats to lower temperatures, withholding water to the point of wilting and exposure to ordinary outdoor weather will harden tender plants to withstand outdoor conditions.</p>
2	W.	Ash Wed. ♂ ♀ ☾. [1st { 9.7	
3	Th.	Greatest snowfall {10.0 [2nd ☾ on { 9.9	
4	Fr.	♂ ♀ ☾. Tides { 9.9	
5	Sa.	♂ ♂ ☾. Tides { 10.1	
6	B	1st S. in Lent. 8° below zero. 1872 ♂ ☾ ☾	
7	M.	Germans entered the Rhineland 1936 { 10.1 [6th { 10.2	
8	Tu.	♂ ♀ ☾ Sup. Tides { 10.0	
9	W.	☾ runs high. Tides { 9.8	
10	Th.	♂ ♀ ☾. Tides { 9.7	
11	Fr.	☾ in Perigee Tides { 9.5	
12	Sa.	Establishment of Russell Sage Foundation, 1907 Tides { 9.7	
13	B	2nd S. in Lent Tides { 9.9	
14	M.	Benjamin Harrison died 1901 An occasional colder period { 10.2	
15	Tu.	♂ ♀ ☾. ☾ on Eq. Tides { 10.1	
16	W.	U. S. Military Academy founded at West Pt. 1802 Tides { 10.6	
17	Th.	St. Patrick. ♂ ♀ ♀ Tides { 10.5	
18	Fr.	♂ ♀ ♀. Tides { 10.8	
19	Sa.	♀ in ♀. Tides { 10.0	
20	B	3rd Sun. in Lent. ♂ ♀ ♀ Tides { 10.2	
21	M.	St. Benedict. ☾ enters ♀ Spring com. { 9.9	
22	Tu.	☾ runs low Tides { 9.0	
23	W.	☾ in Apogee Tides { 8.0	
24	Th.	♀ in Perihelion. Tides { 8.7	
25	Fr.	ANNUNC. OF Lady Day { 8.4 Tides { 7.7	
26	Sa.	Tides { 8.4 usually	
27	B	4th S. in Lent { 8.6 above	
28	M.	♂ ♀ ☾. ♂ ♂ ☾. { 8.4 freeze-	
29	Tu.	♂ ♀ ☾. ☾ on Eq. { 9.0 ing.	
30	W.	March ave. snow depth 7.6 inches. Tides { 9.8	
31	Th.	♂ ♀ ☾. Tides { 9.9	

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APRIL, FOURTH MONTH.

ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.	d. m.	Days.	d. m.	Days.	d. m.	Days.	d. m.	Days.	d. m.
	1	4	N. 29	7	6 46	13	8 59	19	11 07	25
2	4	52	8	7 08	14	9 11	20	11 27	26	13 27
3	4	15	9	7 31	15	9 42	21	11 48	27	13 47
4	4	38	10	7 53	16	10 04	22	12 08	28	14 06
5	6	01	11	8 15	17	10 25	23	12 28	29	14 25
6	6	23	12	8 37	18	10 46	24	12 48	30	14 43

- ☽ First Quarter, 7th day, 10h. 10m., morning, E.
- ☾ Full Moon, 14th day, 1h. 21m., evening, E.
- ☾ Last Quarter, 22nd day, 3h. 14m., evening, W.
- New Moon, 30th day, 0h. 28m., morning, E.

Day of Year.	Day of Month.	Day of the Week.	☺		Length of Days.	Day's Incr.	Sun. Rise.	Moon's Age.	Full Sea, Boston		D's Place	D		D	
			Rises.	Sets.					Morn.	Even.		Sets.	Souths.		
91	1	Fr.	5 28	6 9	12 41	3 37	12	1	11 $\frac{1}{2}$	11 $\frac{3}{4}$	Ari	7 32	0 29		
92	2	Sa.	5 26	6 11	12 45	3 41	12	2	—	0 $\frac{1}{4}$	Tau	8 42	1 23		
93	3	S.	5 24	6 12	12 48	3 44	12	3	0 $\frac{1}{2}$	1	Tau	9 52	2 19		
94	4	M.	5 23	6 13	12 50	3 46	12	4	1 $\frac{1}{4}$	1 $\frac{3}{4}$	G'm	10 57	3 18		
95	5	Tu.	5 21	6 14	12 53	3 49	13	5	2	2 $\frac{3}{4}$	G'm	11 57	4 18		
96	6	W.	5 19	6 15	12 56	3 52	13	6	3	3 $\frac{3}{4}$	Cnc	morn	5 17		
97	7	Th.	5 18	6 16	12 58	3 54	13	7	4	4 $\frac{3}{4}$	Cnc	0 48	6 14		
98	8	Fr.	5 16	6 17	13 1	3 57	14	8	5 $\frac{1}{4}$	5 $\frac{3}{4}$	Leo	1 32	7 08		
99	9	Sa.	5 14	6 18	13 4	4 0	14	9	6 $\frac{1}{4}$	7	Leo	2 10	8 00		
100	10	S.	5 13	6 20	13 7	4 3	14	10	7 $\frac{1}{4}$	8	Vir	2 44	8 50		
101	11	M.	5 11	6 21	13 10	4 6	15	11	8 $\frac{1}{4}$	8 $\frac{3}{4}$	Vir	3 15	9 38		
102	12	Tu.	5 9	6 22	13 13	4 9	15	12	9 $\frac{1}{4}$	9 $\frac{3}{4}$	Vir	3 44	10 26		
103	13	W.	5 8	6 23	13 15	4 11	15	13	10 $\frac{1}{4}$	10 $\frac{1}{2}$	Lib	4 14	11 13		
104	14	Th.	5 6	6 24	13 18	4 14	15	○	11	11 $\frac{1}{4}$	Lib	rises	morn		
105	15	Fr.	5 4	6 25	13 21	4 17	16	15	11 $\frac{1}{2}$	11 $\frac{3}{4}$	Sco	7 42	0 01		
106	16	Sa.	5 3	6 26	13 23	4 19	16	16	—	0 $\frac{1}{4}$	Sco	8 41	0 49		
107	17	S.	5 1	6 27	13 26	4 22	16	17	0 $\frac{1}{2}$	1	Sgr	9 38	1 38		
108	18	M.	5 0	6 29	13 29	4 25	16	18	1 $\frac{1}{4}$	1 $\frac{3}{4}$	Sgr	10 30	2 27		
109	19	Tu.	4 58	6 30	13 32	4 28	17	19	2	2 $\frac{1}{2}$	Sgr	11 17	3 16		
110	20	W.	4 56	6 31	13 35	4 31	17	20	2 $\frac{3}{4}$	3 $\frac{1}{4}$	Cap	11 58	4 05		
111	21	Th.	4 55	6 32	13 37	4 33	17	21	3 $\frac{1}{2}$	4	Cap	morn	4 52		
112	22	Fr.	4 53	6 33	13 40	4 36	17	22	4 $\frac{1}{4}$	5	Aqr	0 34	5 38		
113	23	Sa.	4 52	6 34	13 42	4 38	17	23	5 $\frac{1}{4}$	5 $\frac{3}{4}$	Aqr	1 06	6 24		
114	24	S.	4 50	6 35	13 45	4 41	18	24	6 $\frac{1}{4}$	6 $\frac{3}{4}$	Aqr	1 36	7 09		
115	25	M.	4 49	6 36	13 47	4 43	18	25	7	7 $\frac{1}{2}$	Psc	2 05	7 54		
116	26	Tu.	4 48	6 38	13 50	4 46	18	26	8	8 $\frac{1}{4}$	Psc	2 33	8 40		
117	27	W.	4 46	6 39	13 53	4 49	18	27	8 $\frac{3}{4}$	9	Ari	3 02	9 27		
118	28	Th.	4 44	6 40	13 56	4 52	18	28	9 $\frac{1}{2}$	9 $\frac{3}{4}$	Ari	3 33	10 17		
119	29	Fr.	4 43	6 41	13 58	4 54	18	29	10 $\frac{1}{4}$	10 $\frac{1}{2}$	Tau	4 07	11 10		
120	30	Sa.	4 42	6 42	14 0	4 56	19	●	11	11 $\frac{1}{4}$	Tau	sets	0 06		

APRIL hath 30 days.

[1938



April's anger is swift to fall,  
 April's wonder is worth it all.

SIR HENRY NEWBOLT  
 "The Adventurers"

D. M.	D. W.	Aspects, Holidays, Heights of High Water, Etc. <i>Temp. rises about ten degrees during mo.</i>	Farmer's Calendar. <i>Sunshine averages 231 hours.</i>
1	Fr.	♂ ♀ ☾. Tides { 10.1 10.7	Now, to work, or not to work,—that is the question. Shall a man, pretending to be a farmer, disdain to dirty his hands, and give the whole business to servants, by which means he is sure to come out at the little end of the horn? Or shall he, himself, take hold of the plough, and guide it on to prosperity? Shall he be at the head of affairs, handling his tools without mittens, and trusting not to proxy? I tell you what, friend Longacre, he is a true farmer who bones down to the work himself, puts his own shoulder to the wheel, and recoils not from the tug of business. It will never do to depend altogether on other people. There is a great cry about help, and the expense of it; but let a farmer help himself, and cultivate no more land than he can well manage with the help of his family; let him give his boys, if he have any, a proper education, a farmer's education, nor foolishly suffer them to imbibe the false notions that some have, viz., that it is ungentlemanly to know how to handle a hoe or a pitchfork, and that a young man's good reputation depends upon the fit of his dickey, or the shape and trim of his whiskers. Get them up early, and inculcate habits of business rather than money spending. Let them know that they were not made in vain, but must work out their own salvation. The Old Farmer's Almanac Farmer's Calendar, 1838
2	Sa.	♂ ♀ ☾. ♀ Greatest elong. E. ♂ ♂ ☾. Tides { 10.1	
3	B	5th S. in Lent. ♂ ♂ ☾. Tides { 10.9 10.7 9.4	
4	M.	☾ in Per. { 10.8 9.7 [3rd ♀ Gr. Hel. Lat. N. Tides { 10.9 9.9	
5	Tu.	11° ☾ runs high. Tides { 10.7 9.4	
6	W.	1874 Congress forbade importation of slaves 1776 Tides { 10.4 9.1	
7	Th.	Tides { 10.0 9.9 Occasionally	
8	Fr.	♂ ♀ ♀. Tides { 9.7 8.9 colder	
9	Sa.	Greatest snowfall 9.1 inches, 1917. Tides { 9.6 9.1	
10	B	Balm Sun. Tides { 9.6 9.5	
11	M.	♀ Stationary ☾ on Eq. in R.A. Tides { 9.8 9.9	
12	Tu.	♂ ♀ ☾. Tides { 9.9 10.2	
13	W.	Construction of Erie Canal ordered 1815 Tides { 9.9 10.4	
14	Th.	Abraham Lincoln assassinated, 1865. Tides { 9.9 10.5	
15	Fr.	Good Fr. ♂ ♀ ♂. Tides { 9.7 10.4	
16	Sa.	Average date last killing frost. Tides { 9.5 10.1	
17	B	Easter Sunday Tides { 10.1 9.2	
18	M.	☾ runs low. Tides { 9.8 8.8	
19	Tu.	Battle of Lexington 1775 Tides { 9.5 8.5	
20	W.	89° ☾ in Apogee 1927. Tides { 9.1 8.2	
21	Th.	♀ in ☾. ♂ ♀ ☾ Inf. Tides { 8.8 8.0	
22	Fr.	Battle of Ratisbon between Napoleon and Archduke Charles 1809. Tides { 8.5 7.9	
23	Sa.	St. George. Mid-way between mid-winter and mid-summer. Tides { 8.4 8.0	
24	B	1st Sun. af. E. ♂ ♀ ☾. Tides { 8.4 8.3	
25	M.	St. Mark. Tides { 8.6 8.7	
26	Tu.	☾ on Eq. Tides { 8.9 9.3	
27	W.	♀ in ☾. Tides { 9.2 9.9	
28	Th.	♂ ♀ ☾. Tides { 9.6 10.5	
29	Fr.	♂ ♀ ☾. Tides { 9.9 11.0	
30	Sa.	April ave. snow depth 2.2 inches, ♂ ♂ ☾. Tides { 10.1 11.8	

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MAY, FIFTH MONTH.

ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.	d. m.	Days.	d. m.	Days.	d. m.	Days.	d. m.	Days.	d. m.
	1	15	N. 01	7	16 46	13	18 20	19	19 44	25
2	15	19	8	17 02	14	18 35	20	19 57	26	21 06
3	15	37	9	17 19	15	18 49	21	20 09	27	21 16
4	15	55	10	17 35	16	19 03	22	20 21	28	21 26
5	16	12	11	17 50	17	19 17	23	20 33	29	21 35
6	16	29	12	18 05	18	19 30	24	20 44	30	21 44

- ☽ First Quarter, 6th day, 4h. 24m., evening, E.
- ☾ Full Moon, 14th day, 3h. 39m., morning, W.
- ☾ Last Quarter, 22nd day, 7h. 36m., morning, W.
- New Moon, 29th day, 9h. 0m., morning, E.

Day of Year.	Day of Month.	Day of the Week.	☉		Length of Days.		Day's Incr.		Sun Fast.	Moon's AGE.	Full Sea, Boston		☽'s Place	☽ Sets.		☽ Souths.
			Rises.	Sets.	h.	m.	h.	m.			Morn	Even		h.	m.	
121	1	S	4 40	6 43	14 3	4 59	19 1	0	1	0	—	G'm	8 43	1 06		
122	2	M.	4 39	6 44	14 5	5 1	19 2	0	2	0	0 <sup>3</sup> / <sub>4</sub>	G'm	9 47	2 07		
123	3	Tu.	4 38	6 45	14 7	5 3	19 3	1	3	1	1 <sup>1</sup> / <sub>2</sub>	Cnc	10 43	3 09		
124	4	W.	4 36	6 46	14 10	5 6	19 4	1	4	1	2 <sup>1</sup> / <sub>2</sub>	Cnc	11 31	4 08		
125	5	Th.	4 35	6 48	14 13	5 9	19 5	2	5	2	3 <sup>1</sup> / <sub>2</sub>	Cnc	morn	5 04		
126	6	Fr.	4 34	6 49	14 15	5 11	19 6	3	6	3	4 <sup>1</sup> / <sub>2</sub>	Leo	0 11	5 58		
127	7	Sa.	4 32	6 50	14 18	5 14	19 7	4	7	5	5 <sup>1</sup> / <sub>2</sub>	Leo	0 47	6 48		
128	8	S	4 31	6 51	14 20	5 16	19 8	5	8	6	6 <sup>3</sup> / <sub>4</sub>	Vir	1 18	7 36		
129	9	M.	4 30	6 52	14 22	5 18	19 9	6	9	7	7 <sup>1</sup> / <sub>2</sub>	Vir	1 47	8 23		
130	10	Tu.	4 29	6 53	14 24	5 20	19 10	7	10	8	8 <sup>1</sup> / <sub>2</sub>	Lib	2 17	9 09		
131	11	W.	4 28	6 54	14 26	5 22	19 11	8	11	9	9 <sup>1</sup> / <sub>4</sub>	Lib	2 45	9 56		
132	12	Th.	4 27	6 55	14 28	5 24	19 12	9	12	9	9 <sup>3</sup> / <sub>4</sub>	10	3 17	10 44		
133	13	Fr.	4 25	6 56	14 31	5 27	19 13	10	13	10	10 <sup>3</sup> / <sub>4</sub>	10	3 51	11 32		
134	14	Sa.	4 24	6 57	14 33	5 29	19 14	11	14	11	11 <sup>1</sup> / <sub>2</sub>	11	4 11	12 00		
135	15	S	4 23	6 58	14 35	5 31	19 15	12	15	12	12	—	Sgr	8 23	0 21	
136	16	M.	4 22	6 59	14 37	5 33	19 16	13	16	13	0 <sup>1</sup> / <sub>2</sub>	Sgr	9 11	1 10		
137	17	Tu.	4 21	7 0	14 39	5 35	19 17	14	17	14	1 <sup>1</sup> / <sub>4</sub>	Cap	9 54	1 59		
138	18	W.	4 20	7 1	14 41	5 37	19 18	15	18	15	2	Cap	10 32	2 47		
139	19	Th.	4 19	7 2	14 43	5 39	19 19	16	19	16	2 <sup>3</sup> / <sub>4</sub>	Cap	11 06	3 33		
140	20	Fr.	4 18	7 3	14 45	5 41	19 20	17	20	17	3 <sup>1</sup> / <sub>2</sub>	Aqr	11 37	4 19		
141	21	Sa.	4 18	7 4	14 47	5 43	19 21	18	21	18	4 <sup>1</sup> / <sub>4</sub>	Aqr	morn	5 03		
142	22	S	4 17	7 5	14 48	5 44	19 22	19	22	19	4 <sup>1</sup> / <sub>2</sub>	Psc	0 05	5 47		
143	23	M.	4 16	7 6	14 50	5 46	19 23	20	23	20	5 <sup>1</sup> / <sub>2</sub>	6	Psc	0 33	6 31	
144	24	Tu.	4 15	7 7	14 52	5 48	19 24	21	24	21	6 <sup>1</sup> / <sub>4</sub>	6	Psc	1 00	7 16	
145	25	W.	4 14	7 8	14 54	5 50	19 25	22	25	22	7 <sup>1</sup> / <sub>4</sub>	7	Ari	1 29	8 04	
146	26	Th.	4 14	7 9	14 55	5 51	19 26	23	26	23	8 <sup>1</sup> / <sub>4</sub>	8	Ari	2 01	8 55	
147	27	Fr.	4 13	7 10	14 57	5 53	19 27	24	27	24	9	9	Tau	2 38	9 49	
148	28	Sa.	4 12	7 11	14 59	5 55	19 28	25	28	25	9 <sup>3</sup> / <sub>4</sub>	10	Tau	3 21	10 47	
149	29	S	4 12	7 12	15 0	5 56	19 29	26	29	26	10 <sup>3</sup> / <sub>4</sub>	11	G'm	sets	11 49	
150	30	M.	4 11	7 12	15 1	5 37	18 1	27	30	27	11 <sup>1</sup> / <sub>2</sub>	11	G'm	8 31	0 52	
151	31	Tu.	4 11	7 13	15 2	5 58	18 2	28	31	28	—	0 <sup>1</sup> / <sub>2</sub>	Cnc	9 24	1 55	



May shall make the world anew;  
Golden sun and silver dew,  
Money minted in the sky  
Shall the earth new garments buy.

FRANK DEMPSTER SHERMAN  
"May"

D. M.	D. W.	Aspects, Holidays, Heights of High Water, etc. <i>Temp. rises about 11 degrees during mo.</i>	Farmer's Calendar. <i>Sunshine averages 272 hours.</i>
1	B	St. Philip & St. James. 2nd S. af. E.	<p>In the vast and ancient attic of the farm, in that steep tent of old, brown board which the storms of winter lately filled with so tumultuous a sound, the household herbs hang from an oaken bar, — Peppermint and Spearmint, Sweet Tongue and Penny'rile', Wormwood and Balm, and all a dozen more. The sense of spring outside has made its way within, for the undisturbed sunlight now pours with a certain fierceness through the eastern panes, a boy's voice and the sound of a dog barking far away are to be heard, as through the roof itself, and once again the honest and pleasant fragrances of the treasured leaves are a part of the returning warmth and the morning light.</p> <p>Herbs have a hundred pleasant uses in country life, being valuable both as green plants and as dried leaves. In the olden days a farm without a few herbs would have been as unheard-of as a barn without a barn-cat or a well without a pail. Now is a good time to begin a small garden of these delightful plants, planting them conveniently near the house and putting in first the strong perennials. Various herbs have various strains, some more agreeable than others, and it is well to search about till you find what you like. Peppermint and Spearmint are good foundations, and Sweet Marjoram and Green Basil may be tried as annuals.</p> <p style="text-align: right;"><i>Henry Beston</i></p>
2	M.	☾ in [1st ♀ ☾. ☽ ♂ ☾. { 10.1	
3	Tu.	31° Per. 1882 Tides { 11.4 [2nd ☾ runs { 11.5 high { 10.1	
4	W.	♀ Sta. in R.A. ☽ ☽ ☉ Tides { 11.1	
5	Th.	Napoleon died at St. Helena, 1821 Tides { 10.6	
6	Fr.	Henry D. Thoreau died 1862 Tides { 10.2	
7	Sa.	♀ in Aph. ☽ ♀ ♂. Tides { 9.7	
8	B	3rd Sun. af. Ea. Tides { 9.4	
9	M.	♂ ♀ ☾. ☾ on Eq. Tides { 9.3	
10	Tu.	Ticonderoga captured by Americans under Ethan Allen, 1775 { 9.8	
11	W.	Lord Chatham Latest snow, died, 1778 1907 Tides { 10.0	
12	Th.	Coronation of George VI 1937 Tides { 9.8	
13	Fr.	Tides { 9.3	
14	Sa.	☾ Tot. Eclipse { 9.1 10.2 <i>occasionally colder.</i>	
15	B	4th S. a. E. { 9.0	
16	M.	Latest record killing frost, 1882. ☾ runs low Tides { 10.0	
17	Tu.	Gen. Worth, (Ft. Worth) of Mexican War fame, died 1849 Tides { 9.8	
18	W.	☾ in Apogee. Tides { 8.7	
19	Th.	♀ Greatest elong. W. Tides { 9.5	
20	Fr.	Charles Lindbergh hopped off from Mineola to Paris 1927 Execution of Montrose Scottish statesman and soldier, 1650 Tides { 8.3	
21	Sa.	♂ ♀ ☾. ☽ ♀ ☽. Tides { 8.3	
22	B	Reg. S. ☽ ♀ ☽. ☽ ♀ ☽. Tides { 8.5	
23	M.	☾ on Equator. Tides { 8.4	
24	Tu.	♀ in Peri. Tides { 8.5	
25	W.	♂ ♀ ☾. Tides { 8.7	
26	Th.	Ascen. Day. 97° 1880 Tides { 8.8	
27	Fr.	♀ Gr. Hel. Lat. S. ☽ ♀ ☾. ☽ ☽ ☾. Tides { 9.0	
28	Sa.	Thomas Moore born 1779 Tides { 10.2	
29	B	S. a. As. ☉ Tot. eclipse inv. in U.S. ☽ ♀ ☽. Tides { 9.9	
30	M.	Memorial Day runs high. ☽ ♂ ☾. ♀ Stat. in R. A. Tides { 11.7	
31	Tu.	♂ ♀ ☾. { 10.2 [30th ☾ in Per. { 10.1	

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## JUNE, SIXTH MONTH.

## ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.	d. m.	Days.	d. m.	Days.	d. m.	Days.	d. m.	Days.	d. m.
	1	22	N.02	7	22 44	13	23 12	19	23 25	25
2	22	10	8	22 50	14	23 15	20	23 26	26	23 22
3	22	18	9	22 55	15	23 18	21	23 27	27	23 20
4	22	25	10	23 00	16	23 21	22	23 26	28	23 17
5	22	32	11	23 04	17	23 23	23	23 26	29	23 15
6	22	38	12	23 08	18	23 24	24	23 25	30	23 12

☽ First Quarter, 4th day, 11h. 32m., evening, W.

☾ Full Moon, 12th day, 6h. 47m., evening, E.

☾ Last Quarter, 20th day, 8h. 52m., evening, E.

● New Moon, 27th day, 4h. 10m., evening, W.

Day of Year.	Day of Month.	Day of the Week.	☺		Length of Days.		Day's Incr.		Sun East.	Moon's Age.	Full Sea, Boston		☽'s Place	☽ Sets.		☽ Souths.	
			Rises. h. m.	Sets. h. m.	h. m.	h. m.	h. m.	h. m.			Morn. h.	Even. h.		h. m.	h. m.	h. m.	h. m.
152	1	W.	4 10	7 14	15 4	6 0	18 3	0 3 <sup>3</sup> / <sub>4</sub>	1 4	Cnc	10 09	2 55					
153	2	Th.	4 10	7 15	15 5	6 1	18 4	1 2 <sup>1</sup> / <sub>2</sub>	2 4	Leo	10 47	3 51					
154	3	Fr.	4 9	7 15	15 6	6 2	18 5	2 1 <sup>1</sup> / <sub>2</sub>	3 4	Leo	11 20	4 44					
155	4	Sa.	4 9	7 16	15 7	6 3	18 6	3 2 <sup>1</sup> / <sub>2</sub>	4 4	Vir	11 51	5 34					
156	5	S.	4 9	7 17	15 8	6 4	17 7	4 2 <sup>1</sup> / <sub>2</sub>	5 4	Vir	morn	6 21					
157	6	M.	4 8	7 17	15 9	6 5	17 8	5 3 <sup>3</sup> / <sub>4</sub>	6 4	Lib	0 20	7 08					
158	7	Tu.	4 8	7 18	15 10	6 6	17 9	6 3 <sup>3</sup> / <sub>4</sub>	7 4	Lib	0 49	7 54					
159	8	W.	4 8	7 19	15 11	6 7	17 10	7 3 <sup>3</sup> / <sub>4</sub>	8	Lib	1 20	8 41					
160	9	Th.	4 7	7 19	15 12	6 8	17 11	8 2 <sup>1</sup> / <sub>2</sub>	9	Scor	1 52	9 29					
161	10	Fr.	4 7	7 20	15 13	6 9	17 12	9 2 <sup>1</sup> / <sub>2</sub>	9 3 <sup>3</sup> / <sub>4</sub>	Scor	2 28	10 17					
162	11	Sa.	4 7	7 21	15 14	6 10	16 13	10 1 <sup>1</sup> / <sub>4</sub>	10 1 <sup>1</sup> / <sub>4</sub>	Sgr	3 08	11 06					
163	12	S.	4 7	7 21	15 14	6 10	16 16	11	11	Sgr	rises	11 55					
164	13	M.	4 7	7 22	15 15	6 11	16 15	11 1 <sup>1</sup> / <sub>2</sub>	11 3 <sup>3</sup> / <sub>4</sub>	Sgr	7 52	morn					
165	14	Tu.	4 7	7 22	15 15	6 11	16 16	—	0 1 <sup>1</sup> / <sub>4</sub>	Cap	8 32	0 43					
166	15	W.	4 7	7 22	15 15	6 11	16 17	0 1 <sup>1</sup> / <sub>4</sub>	0 3 <sup>3</sup> / <sub>4</sub>	Cap	9 08	1 30					
167	16	Th.	4 7	7 23	15 16	6 12	15 18	1	1 2 <sup>1</sup> / <sub>2</sub>	Aqr	9 39	2 16					
168	17	Fr.	4 7	7 23	15 16	6 12	15 19	1 2 <sup>1</sup> / <sub>2</sub>	2 1 <sup>1</sup> / <sub>4</sub>	Aqr	10 08	3 00					
169	18	Sa.	4 7	7 24	15 17	6 13	15 20	2 1 <sup>1</sup> / <sub>4</sub>	3	Aqr	10 35	3 44					
170	19	S.	4 7	7 24	15 17	6 13	15 21	3	3 3 <sup>3</sup> / <sub>4</sub>	Psc	11 02	4 27					
171	20	M.	4 7	7 24	15 17	6 13	14 22	3 3 <sup>3</sup> / <sub>4</sub>	4 2 <sup>1</sup> / <sub>2</sub>	Psc	11 30	5 11					
172	21	Tu.	4 7	7 24	15 17	dec.	14 23	4 3 <sup>3</sup> / <sub>4</sub>	5 1 <sup>1</sup> / <sub>4</sub>	Ari	morn	5 56					
173	22	W.	4 8	7 25	15 17	0 0	14 24	5 3 <sup>3</sup> / <sub>4</sub>	6 1 <sup>1</sup> / <sub>4</sub>	Ari	0 00	6 44					
174	23	Th.	4 8	7 25	15 17	0 0	14 25	6 3 <sup>3</sup> / <sub>4</sub>	7	Tau	0 33	7 35					
175	24	Fr.	4 8	7 25	15 17	0 0	14 26	7 2 <sup>1</sup> / <sub>2</sub>	8	Tau	1 11	8 30					
176	25	Sa.	4 8	7 25	15 17	0 0	13 27	8 2 <sup>1</sup> / <sub>2</sub>	8 3 <sup>3</sup> / <sub>4</sub>	G'm	1 57	9 29					
177	26	S.	4 9	7 25	15 16	0 1	13 28	9 2 <sup>1</sup> / <sub>2</sub>	9 3 <sup>3</sup> / <sub>4</sub>	G'm	2 52	10 31					
178	27	M.	4 9	7 25	15 16	0 1	13 ●	10 2 <sup>1</sup> / <sub>2</sub>	10 3 <sup>3</sup> / <sub>4</sub>	Cnc	sets	11 35					
179	28	Tu.	4 9	7 25	15 16	0 1	13 1	11 1 <sup>1</sup> / <sub>4</sub>	11 2 <sup>1</sup> / <sub>2</sub>	Cnc	8 00	0 38					
180	29	W.	4 10	7 25	15 15	0 2	13 2	—	0 1 <sup>1</sup> / <sub>4</sub>	Leo	8 43	1 37					
181	30	Th.	4 10	7 25	15 15	0 2	12 3	0 1 <sup>1</sup> / <sub>2</sub>	1	Leo	9 20	2 34					



And now though late the modest rose  
 Did more than half a blush disclose,  
 Thus all looks gay and full of cheer  
 To welcome the new liveried year.

SIR HENRY WOTTON  
 "Spring" in "The Complete Angler"

D. M.	D. W.	Aspects, Holidays, Heights of High Water, etc.	Farmer's Calendar.
		<i>Temperatures rise about 34z degrees</i>	<i>Sunshine averages 289 hours.</i>
1	W.	Nicomede.	Tides {11.7 10.1
2	Th.	P. T. Barnum began his first tour, 1835	Tides {11.4 10.0
3	Fr.	Lt. Hobson and party sank Merrimac to block Santiago Hbr., 1898	{10.8 9.9
4	Sa.	I. O. O. F. organized their first lodge at Baltimore, Md., 1819	{10.3 9.8
5	B	Whit Sun. ♂ ♀ C. C on' Eq.	{9.7 9.7
6	M.	Patrick Henry 100° died, 1779 1925.	Tides {9.2 9.7
7	Tu.	Zachary Taylor nominated President by Whigs, 1848.	{8.9 9.7 Fre-
8	W.	42° 1932 {8.7 9.8	<i>quently cooler.</i>
9	Th.	□ ♀ ○.	Tides {8.6 9.9
10	Fr.	Federal troops fired upon by mistake at Bethel, defeated, 1861	{8.6 9.9
11	Sa.	St. Barnabas.	Tides {8.6 9.9
12	B	Trin. Sun. C runs low	Tides {8.7 9.9
13	M.	Lord Hastings, Yorkish nobleman, executed in the Tower 1483	{8.7 9.8
14	Tu.	C in Apogee.	Tides {8.7 9.7
15	W.	♀ Greatest Hel. ♀ in ♂. Lat. N.	Tides {8.7 9.7
16	Th.	Corpus Christl.	Tides {9.6 8.7
17	Fr.	Battle of Bunker Hill, 1775	Tides {9.4 8.6
18	Sa.	♂ ♀ C.	Tides {9.2 8.6
19	B	1st. S. af. Trin.	Tides {8.9 8.7
20	M.	♀ In Perihelion. C on Eq. {8.7 8.8	<i>Thunder</i>
21	Tu.	Centers ☉. SUMMER COMM. {8.6 9.0	<i>storms</i>
22	W.	♀ Stat. In R.A. ♂ ♀ C. ♂ ♀ ☉ Sup.	{8.5 9.4
23	Th.	Tides {8.5 9.9	<i>average three days.</i>
24	Fr.	St. John, Baptist. ♂ ♂ C.	{8.8 10.4
25	Sa.	Custer's fight on the Little Bighorn, 1876	{9.1 11.0 90° or
26	B	2d S.A.T. C runs high.	{9.4 11.4 higher
27	M.	C in Perigee. {9.8 11.8	<i>averages two days.</i>
28	Tu.	♂ ♀ C. ♂ ♂ C. {11.2 10.2	<i>Ave. warm-</i>
29	W.	St. Peter & St. Paul. ♂ ♀ ♂	{10.4 —
30	Th.	♂ ♀ C. ♀ Gr. Hel. {11.8 110.5 Lat. N.	<i>est period.</i>

The old proverb says that a "swarm of bees in May is worth a load of hay and in June a silver spoon," but you could hardly convince the commercial beekeeper of this. He much prefers to keep the original colony intact until after the honey flow and then divide it if he wants more colonies.

Swarming is the nature's method of making a new colony and will probably never be eliminated entirely. And what excitement there is when the bees start tumbling out of the hive, and circling around, finally clustering on a bush or tree near the apiary.

The commercial beekeeper uses various methods to keep his bees from swarming. He gives them more room to raise brood; he puts supers on early; he requeens every year to keep a young queen in the hive; he removes all poor combs which might make a barrier in the hive; he examines the bees every ten days during the swarming season to take out the queen cells. After the hive has passed through the swarm fever period, it may go through the rest of the season without attempting to swarm again.

The old-fashioned methods of clipping the queen's wings to prevent swarming or to use a queen and drone trap are not used by present-day beekeepers. The swarm is too likely to escape with a newly hatched queen for these methods to be effective.

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## JULY, SEVENTH MONTH.

## ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.	d. m.	Days.	d. m.	Days.	d. m.	Days.	d. m.	Days.	d. m.
	1	23	N.08	7	23 37	13	21 52	19	20 53	25
2	23	03	8	22 30	14	21 43	20	20 42	26	19 29
3	22	59	9	22 23	15	21 34	21	20 31	27	19 16
4	22	54	10	22 16	16	21 24	22	20 19	28	19 02
5	22	49	11	22 08	17	21 14	23	20 07	29	18 48
6	22	43	12	22 00	18	21 04	24	19 55	30	18 34

- ☽ First Quarter, 4th day, 8h. 47m., morning, E.  
 ☾ Full Moon, 12th day, 10h. 4m., morning, W.  
 ☾ Last Quarter, 20th day, 7h. 19m., morning, W.  
 ● New Moon, 26th day, 10h. 54m., evening, W.

Day of Year.	Day of Month.	Day of the week.	☺		Length of Days.		Day's Decr.	Sun B. Fast.	Moon's Age.	Full Sea. Boston		☽'s Place	☽ Sets.	☽ Souths.
			Rises.	Sets.	h.	m.				h.	m.			
182	1	Fr.	4 11	7 25	15 14	0 3	12	4	1 $\frac{1}{4}$	2	Vir	9 52	3 26	
183	2	Sa.	4 11	7 25	15 14	0 3	12	5	2 $\frac{1}{4}$	2 $\frac{3}{4}$	Vir	10 23	4 17	
184	3	S.	4 12	7 25	15 13	0 4	12	6	3 $\frac{1}{4}$	3 $\frac{3}{4}$	Lib	10 52	5 05	
185	4	M.	4 12	7 24	15 12	0 5	12	7	4 $\frac{1}{4}$	4 $\frac{3}{4}$	Lib	11 23	5 52	
186	5	Tu.	4 13	7 24	15 11	0 6	11	8	5 $\frac{1}{4}$	5 $\frac{3}{4}$	Lib	11 55	6 39	
187	6	W.	4 14	7 24	15 10	0 7	11	9	6 $\frac{1}{4}$	6 $\frac{3}{4}$	Sco	morn	7 26	
188	7	Th.	4 14	7 23	15 9	0 8	11	10	7 $\frac{1}{4}$	7 $\frac{1}{2}$	Sco	0 30	8 14	
189	8	Fr.	4 15	7 23	15 8	0 9	11	11	8 $\frac{1}{4}$	8 $\frac{1}{2}$	Sgr	1 08	9 03	
190	9	Sa.	4 16	7 23	15 7	0 10	11	12	9	9 $\frac{1}{4}$	Sgr	1 51	9 51	
191	10	S.	4 16	7 22	15 6	0 11	11	13	9 $\frac{3}{4}$	10	Sgr	2 38	10 40	
192	11	M.	4 17	7 22	15 5	0 12	10	14	10 $\frac{1}{2}$	10 $\frac{1}{2}$	Cap	3 30	11 27	
193	12	Tu.	4 17	7 21	15 4	0 13	10	15	11 $\frac{1}{4}$	11 $\frac{1}{4}$	Cap	rises	morn	
194	13	W.	4 18	7 21	15 3	0 14	10	16	11 $\frac{3}{4}$	0	Aqr	7 42	0 13	
195	14	Th.	4 19	7 20	15 1	0 16	10	17	—	0 $\frac{1}{2}$	Aqr	8 12	0 59	
196	15	Fr.	4 20	7 20	15 0	0 17	10	18	0 $\frac{1}{2}$	1	Aqr	8 40	1 43	
197	16	Sa.	4 21	7 19	14 58	0 19	10	19	1 $\frac{1}{4}$	1 $\frac{3}{4}$	Psc	9 07	2 26	
198	17	S.	4 22	7 18	14 56	0 21	10	20	1 $\frac{3}{4}$	2 $\frac{1}{4}$	Psc	9 34	3 09	
199	18	M.	4 23	7 18	14 55	0 22	10	21	2 $\frac{1}{2}$	3	Ari	10 02	3 53	
200	19	Tu.	4 23	7 17	15 54	0 23	10	22	3 $\frac{1}{4}$	3 $\frac{3}{4}$	Ari	10 33	4 39	
201	20	W.	4 24	7 16	14 52	0 25	10	23	4 $\frac{1}{4}$	4 $\frac{3}{4}$	Tau	11 07	5 27	
202	21	Th.	4 25	7 15	14 50	0 27	10	24	5	5 $\frac{1}{2}$	Tau	11 49	6 19	
203	22	Fr.	4 26	7 14	14 48	0 29	9	25	6	6 $\frac{1}{2}$	Tau	morn	7 14	
204	23	Sa.	4 27	7 13	14 46	0 31	9	26	7 $\frac{1}{4}$	7 $\frac{1}{2}$	G'm	0 37	8 13	
205	24	S.	4 28	7 13	14 45	0 32	9	27	8 $\frac{1}{4}$	8 $\frac{1}{2}$	G'm	1 35	9 15	
206	25	M.	4 29	7 12	14 43	0 34	9	28	9 $\frac{1}{4}$	9 $\frac{1}{2}$	Cnc	2 41	10 17	
207	26	Tu.	4 30	7 11	14 41	0 36	9	● 10	10	10 $\frac{1}{2}$	Cnc	sets	11 18	
208	27	W.	4 31	7 10	14 39	0 38	9	11	11	11 $\frac{1}{4}$	Leo	7 13	0 17	
209	28	Th.	4 32	7 9	14 37	0 40	9	2	11 $\frac{3}{4}$	—	Leo	7 49	1 13	
210	29	Fr.	4 33	7 8	14 35	0 42	9	3	0 $\frac{1}{4}$	0 $\frac{3}{4}$	Vir	8 22	2 06	
211	30	Sa.	4 34	7 7	14 33	0 44	9	4	1	1 $\frac{1}{2}$	Vir	8 53	2 57	
212	31	S.	4 35	7 5	14 30	0 47	9	5	2	2 $\frac{1}{2}$	Lib	9 24	3 46	





Breast of the great earth-mother! Here we lean  
With no conventions hard to intervene,  
Content with the contentment Nature brings,  
Just to be out of doors.

CHARLOTTE PERKINS GILMAN,  
"Summer Joy"

D.M.	D.W.	Aspects, Holidays, Heights of High Water, etc.	Farmer's Calendar.
1	Fr.	Rough Riders distinguished themselves in taking San Juan Hill, 1898.	<p><b>Keep Up to the Minute</b></p> <p>We are thankful that the New England farmer of today is not satisfied to carry-on with the same methods and practices that his father and grandfather used. BUT — there are too many New England farmers that are not taking advantage of their many opportunities to keep up to the minute in regard to production, varieties, packaging, harvesting, disease and insect control, and marketing.</p> <p>In this age there is no excuse for not knowing those things that lead to the successful operation of your farm business. See, listen, read. See — go into the market where the products of your farm are sold, notice the grade, size, package, etc. of the stuff that the buyers are paying real money for. Go into the retail markets and talk to the buyers, find out what they want.</p> <p>Listen — make it a part of your day's plans to listen to the agricultural radio programs. These broadcasts will keep you up to the minute on market prices, conditions, etc., and on the thousand and one questions on farm production to which you must know the answer. Listen to qualified agricultural speakers any chance you have.</p> <p>Read — subscribe to a good farm paper, read this Almanac from cover to cover, study market reports, outlook reports and the publications of the extension services and departments of agriculture.</p> <p>Keep up to the minute.</p> <p style="text-align: right;">E. J. Rowell</p>
2	Sa.	$\delta \Psi \text{C} \oplus$ in Aph. $\text{C}$ Eq.	
3	B	3rd. S.af. $\text{Trin.}$ tides $\left\{ \begin{matrix} 10.2 \\ 10.1 \end{matrix} \right.$ Most	
4	M.	Independ- 104°. Tides $\left\{ \begin{matrix} 9.6 \\ 9.8 \end{matrix} \right.$ frequent	
5	Tu.	Fire, Phila. destroyed National Theater, Chinese Museum, 1854	
6	W.	Edward VI of Eng. died 1553 $\left\{ \begin{matrix} 8.5 \\ 9.5 \end{matrix} \right.$ extreme heat.	
7	Th.	Tides $\left\{ \begin{matrix} 8.2 \\ 9.4 \end{matrix} \right.$ Thunder storms	
8	Fr.	Tides $\left\{ \begin{matrix} 8.1 \\ 9.5 \end{matrix} \right.$ average five days.	
9	Sa.	$\text{C}$ runs low. Tides $\left\{ \begin{matrix} 8.2 \\ 9.5 \end{matrix} \right.$	
10	B	4th S.a. $\text{T.}$ $\square \text{h} \odot$ . Tides $\left\{ \begin{matrix} 8.3 \\ 9.6 \end{matrix} \right.$	
11	M.	$\text{C}$ in Apo. Tides $\left\{ \begin{matrix} 8.4 \\ 9.7 \end{matrix} \right.$	
12	Tu.	Julius Caesar born 100 B.C. Tides $\left\{ \begin{matrix} 8.6 \\ 9.7 \end{matrix} \right.$	
13	W.	Highest point average temperature curve. Tides $\left\{ \begin{matrix} 8.8 \\ 9.8 \end{matrix} \right.$	
14	Th.	Storming of the Bastille 1789 Tides $\left\{ \begin{matrix} 8.8 \\ 9.9 \end{matrix} \right.$	
15	Fr.	St. Swithin Tides $\left\{ \begin{matrix} 8.9 \\ 9.0 \end{matrix} \right.$	
16	Sa.	$\delta \text{M} \text{C}$ . Tides $\left\{ \begin{matrix} 9.6 \\ 9.0 \end{matrix} \right.$ 90° or higher	
17	B	5th S.a. $\text{Tr.}$ $\text{C}$ Eq. $\left\{ \begin{matrix} 9.4 \\ 9.1 \end{matrix} \right.$ average	
18	M.	William Makepeace Thackeray born in Calcutta 1811 $\left\{ \begin{matrix} 9.2 \\ 9.2 \end{matrix} \right.$ four	
19	Tu.	$\delta \text{h} \text{C}$ . Tides $\left\{ \begin{matrix} 8.9 \\ 9.3 \end{matrix} \right.$ days.	
20	W.	St. Margaret. Tides $\left\{ \begin{matrix} 8.7 \\ 9.4 \end{matrix} \right.$	
21	Th.	$\delta \odot \text{C}$ . Tides $\left\{ \begin{matrix} 8.5 \\ 9.6 \end{matrix} \right.$	
22	Fr.	St. Mary Magdalene $\left\{ \begin{matrix} 46^\circ \\ 1874 \end{matrix} \right.$ $\left\{ \begin{matrix} 9.5 \\ 10.0 \end{matrix} \right.$ Occa-	
23	Sa.	Tides $\left\{ \begin{matrix} 8.6 \\ 10.4 \end{matrix} \right.$ sionally cooler.	
24	B	6th S.a. $\text{T.}$ $\Psi$ in $\text{g}$ . $\delta \delta \odot \text{C}$ runs high	
25	M.	St. James. Dog days begin $\left\{ \begin{matrix} 9.4 \\ 11.8 \end{matrix} \right.$ [24th $\left\{ \begin{matrix} 8.9 \\ 10.9 \end{matrix} \right.$	
26	Tu.	St. Anne. $\delta \delta \text{C}$ . $\text{C}$ in Peri. $\left\{ \begin{matrix} 9.9 \\ 11.7 \end{matrix} \right.$	
27	W.	Telegraphic communication with Great Britain, 1866 Tides $\left\{ \begin{matrix} 10.8 \\ 11.8 \end{matrix} \right.$	
28	Th.	$\delta \Psi \text{C}$ . Tides $\left\{ \begin{matrix} 10.7 \\ 10.7 \end{matrix} \right.$	
29	Fr.	Completion of Atlantic Cable 1866, earlier cable failed. $\left\{ \begin{matrix} 11.6 \\ 10.8 \end{matrix} \right.$	
30	Sa.	$\delta \odot \text{C}$ . $\delta \Psi \text{C}$ . $\text{C}$ on Eq. $\left\{ \begin{matrix} 11.3 \\ 10.7 \end{matrix} \right.$	
31	B	7th S.a. $\text{T.}$ $\delta \Psi \Psi$ . Gr. h. St. in $\left\{ \begin{matrix} 10.8 \\ 10.6 \end{matrix} \right.$ el. E. R. A.	

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## AUGUST, EIGHTH MONTH.

## ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.	d. m.	Days.	d. m.	Days.	d. m.	Days.	d. m.	Days.	d. m.
	1	18	N. 04	7	16 29	13	14 44	19	12 51	25
2	17	49	8	16 12	14	14 26	20	12 31	26	10 29
3	17	34	9	15 55	15	14 07	21	12 11	27	10 08
4	17	18	10	15 38	16	13 48	22	11 51	28	9 47
5	17	02	11	15 20	17	13 29	23	11 31	29	9 26
6	16	45	12	15 02	18	13 10	24	11 10	30	9 04

☽ First Quarter, 2nd day, 9h. 0m., evening, W.

☾ Full Moon, 11th day, 0h. 57m., morning, W.

☾ Last Quarter, 18th day, 3h. 30m., evening, W.

● New Moon, 25th day, 6h. 17m., morning, E.

Day of Year.	Day of Month.	Day of the week.	☉		Length of Days.	Day's Decr.		Sun East	Moon's Agt.	Full Sea, Boston		☽'s Place	☽ Sets.		☽ Souths.
			Rises.	Sets.		h.	m.			Morn.	Even.		h.	m.	
213	1	M.	4 36	7 4	14 28	0 49	10 6	2 3/4	3 1/4	Lib	9 56	4 34			
214	2	Tu.	4 37	7 3	14 26	0 51	10 7	3 3/4	4 1/4	Sco	10 31	5 22			
215	3	W.	4 38	7 2	14 24	0 53	10 8	4 3/4	5	Sco	11 08	6 11			
216	4	Th.	4 39	7 1	14 22	0 55	10 9	5 3/4	6	Sgr	11 50	6 59			
217	5	Fr.	4 40	7 0	14 20	0 57	10 10	6 3/4	7	Sgr	morn	7 48			
218	6	Sa.	4 41	6 58	14 17	1 0	10 11	7 1/2	8	Sgr	0 35	8 36			
219	7	S.	4 42	6 57	14 15	1 2	10 12	8 1/2	8 3/4	Cap	1 26	9 24			
220	8	M.	4 43	6 56	14 13	1 4	10 13	9 1/2	9 1/2	Cap	2 19	10 11			
221	9	Tu.	4 44	6 54	14 10	1 7	10 14	10	10 1/4	Cap	3 16	10 56			
222	10	W.	4 45	6 53	14 8	1 9	10 15	10 3/4	10 3/4	Aqr	4 14	11 41			
223	11	Th.	4 46	6 52	14 6	1 11	11 0	11 1/4	11 1/2	Aqr	rises	morn			
224	12	Fr.	4 47	6 50	14 3	1 14	11 17	0	—	Psc	7 12	0 25			
225	13	Sa.	4 48	6 49	14 1	1 16	11 18	0	0 1/2	Psc	7 39	1 09			
226	14	S.	4 49	6 48	13 59	1 18	11 19	0 3/4	1	Ari	8 07	1 53			
227	15	M.	4 50	6 46	13 56	1 21	11 20	1 1/2	1 3/4	Ari	8 37	2 38			
228	16	Tu.	4 52	6 45	13 53	1 24	12 21	2	2 1/2	Ari	9 10	3 25			
229	17	W.	4 53	6 43	13 50	1 27	12 22	3	3 1/4	Tau	9 48	4 14			
230	18	Th.	4 54	6 42	13 48	1 29	12 23	3 3/4	4 1/4	Tau	10 32	5 07			
231	19	Fr.	4 55	6 40	13 45	1 32	12 24	4 3/4	5	G'm	11 24	6 03			
232	20	Sa.	4 56	6 39	13 43	1 34	12 25	5 3/4	6 1/4	G'm	morn	7 01			
233	21	S.	4 57	6 37	13 40	1 37	13 26	6 3/4	7 1/4	Cnc	0 24	8 01			
234	22	M.	4 58	6 36	13 38	1 39	13 27	8	8 1/4	Cnc	1 32	9 01			
235	23	Tu.	4 59	6 34	13 35	1 42	13 28	8 3/4	9 1/4	Leo	2 45	10 00			
236	24	W.	5 0	6 32	13 32	1 45	13 29	9 3/4	10 1/4	Leo	4 00	10 57			
237	25	Th.	5 1	6 31	13 30	1 47	14 0	10 3/4	11	Vir	sets	11 51			
238	26	Fr.	5 2	6 29	13 27	1 50	14 1	11 1/2	0	Vir	6 51	0 44			
239	27	Sa.	5 3	6 28	13 25	1 52	14 2	—	0 1/4	Lib	7 23	1 35			
240	28	S.	5 4	6 26	13 22	1 55	14 3	0 3/4	1	Lib	7 55	2 25			
241	29	M.	5 5	6 24	13 19	1 58	15 4	1 1/2	2	Sco	8 29	3 14			
242	30	Tu.	5 7	6 23	13 16	2 1	15 5	2 1/4	2 3/4	Sco	9 06	4 04			
243	31	W.	5 8	6 21	13 13	2 4	15 6	3 1/4	3 1/2	Sco	9 46	4 53			

AUGUST hath 31 days.

[1938



Oh for a lodge in a garden of cucumbers!  
 Oh for an iceberg or two at control!  
 Oh for a vale that at mid-day the dew cumberls!  
 Oh for a pleasure-trip up to the Pole!

ROSSITER JOHNSON  
 "Ninety-Nine in the Shade"

D.M.	D.W.	Aspects, Holidays, Heights of High Water, etc. <i>Very slight but gradual decr. in temp.</i>	Farmer's Calendar. <i>Sunshine averages 268 hours</i>
1	M.	Lammas Day. 98° 1917	Tides {10.1 10.2
2	Tu.	Thomas Gainsborough, English artist died 1788	Tides {9.3 9.8
3	W.	♀ in Aphe. Tides {8.7 9.4	Lowest
4	Th.	Coronation of Queen Victoria, 1838. {9.2 9.2	wind
5	Fr.	Farragut defeated Buchanan in naval battle in Mobile Bay, 1864	{7.9 9.1
6	Sa.	Transfiguration. ☾ runs low. {7.8 9.1	month.
7	B	8th S. af. Tr. ☾ in Apo. Tides {7.9 9.2	
8	M.	Spanish Armada defeated 1588	Tides {9.2 9.8
9	Tu.	Most frequently very warm.	Tides {8.5 9.8
10	W.	St. Lawrence. ♀ in ♄. ☐ ☽ ☉. {8.8 9.7	
11	Th.	Thaddeus Stevens, American anti-slavery statesman, died 1868	{9.0 9.9
12	Fr.	♄ ♃ ☾. {9.3	Thunder storms
13	Sa.	♀ Stat. in R.A. ☾ on Eq. {9.9 9.4	ave.
14	B	9th Sun. af. Tr. Tides {9.5 9.5	four
15	M.	Sir Walter Scott born 1771	Tides {9.6 9.6
16	Tu.	♄ ♃ ☾	Tides {9.4 9.7
17	W.	Princes murdered by order of their uncle, afterwards Richard III, 1483	{9.1 9.7
18	Th.	♄ ☽ ☾.	Tides {8.9 9.7
19	Fr.	The Constitution, under Capt. Hull, captured the Guerrier 1812	{8.6 9.8
20	Sa.	♄ ♃ ☉. ☾ runs high. {8.5 9.9	90° or higher
21	B	10th S. a. Tr. Tides {8.8 10.2	averages
22	M.	47° 1894. Tides {9.0 10.6	two days.
23	Tu.	♀ Gr. Hel Stat. in Lat. S in R.A. ☾ Per. {9.5 11.0	
24	W.	St. Bartholomew. ♄ ☽ ☾.	{10.1 11.8
25	Th.	♄ ♃ ☾.	Tides {10.6 11.4
26	Fr.	Most frequent cool weather. ♄ ♃ ☾. ☾ on Eq. {10.9 11.8	
27	Sa.	British under Lord Howe defeated Americans at Long Island, 1776	{11.0
28	B	11th Sun. af. Tr. in. St. Augustine.	
29	M.	{10.4 10.6	[28th ♄ ♃ ☉ Int. ♄ ♃ ☾. {11.0 10.9
30	Tu.	Aug. 1937 warmest on record	Tides {9.8 10.2
31	W.	John Bunyan died 1688	{ Tides {9.1 9.7

There is nothing in America which makes an American feel more nationally at home than the sight of a field of Indian corn. The plant is beautiful at all stages of its growth, coming to its best, perhaps, in the heat and fruitfulness of the American mid-summer, when the green stalks meet above one's head and the dry, living rustle of the leaves gratifies delicately upon the listening ear. A botanical mystery still, the plant is the creation and the gift of the Indian peoples, and as long as its tassels stir in the August breeze, there will be a thought given to the old owners of the soil, to the lean hunters and fishers who covered the seed with a clam shell hoe before the first sailors came to trade their kettles and knives for furs.

The family garden these days would be the better for a little more imagination and enterprise in the choice of green corn. Only too often one commercial variety is grown year in and year out, and when this has run its course, the good wholesome pleasure of table corn is over for the summer. By making a wise choice of varieties, taking early and late ones, and getting them all off to a good start, corn can not only be kept on the table much longer, but can also be given variety in itself. The coming in of Black Mexican, rather a late corn, can be the event of the year.

Henry Beston

1938]

## SEPTEMBER, NINTH MONTH.

## ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.		d. m.		Days.		d. m.		Days.		d. m.			
	1	2	3	4	5	6	7	8	9	10	11	12		
	8N.	21	7	6	09	13	3	52	19	1	33	25	0	47
	7	59	8	5	46	14	3	29	20	1	10	26	1	10
	7	37	9	5	23	15	3	06	21	0	47	27	1	34
	7	15	10	5	01	16	2	43	22	0N.	23	28	1	57
	6	53	11	4	38	17	2	20	23	0	00	29	2	20
	6	31	12	4	15	18	1	57	24	0S.	23	30	2	44

☽ First Quarter, 1st day, 0h. 28m., evening, E.

☾ Full Moon, 9th day, 3h. 8m., evening, E.

☾ Last Quarter, 16th day, 10h. 12m., evening, E.

● New Moon, 23rd day, 3h. 34m., evening, W.

Day of Year.	Day of Month.	Day of the Week.	☉		Length of Days.		Day's Decr.		Sun Fall.	Moon's Acc.	Full Sea. Boston.		☽'s Place	☽ Sets.		☽ South.	
			Rises. h. m.	Sets. h. m.	h. m.	h. m.	h. m.	h. m.			Morn. h.	Even. h.		h. m.	h. m.	h. m.	h. m.
244	1	Th.	5 9	6 19	13 10	2 7	16	7	4	4 $\frac{1}{2}$	Sgr	10 32	5 42				
245	2	Fr.	5 10	6 17	13 7	2 10	16	8	5	5 $\frac{1}{2}$	Sgr	11 20	6 31				
246	3	Sa.	5 11	6 16	13 5	2 12	16	9	6	6 $\frac{1}{4}$	Cap	morn	7 19				
247	4	S.	5 12	6 14	13 2	2 15	17	10	7	7 $\frac{1}{4}$	Cap	0 12	8 06				
248	5	M.	5 13	6 12	12 59	2 18	17	11	8	8 $\frac{1}{4}$	Cap	1 08	8 52				
249	6	Tu.	5 14	6 11	12 57	2 20	17	12	8 $\frac{3}{4}$	9	Aqr	2 06	9 37				
250	7	W.	5 15	6 9	12 54	2 23	18	13	9 $\frac{1}{2}$	9 $\frac{3}{4}$	Aqr	3 04	10 21				
251	8	Th.	5 16	6 7	12 51	2 26	18	14	10	10 $\frac{1}{4}$	Psc	4 04	11 06				
252	9	Fr.	5 17	6 6	12 49	2 28	18	○	10 $\frac{3}{4}$	11	Psc	rises	11 50				
253	10	Sa.	5 18	6 4	12 46	2 31	19	16	11 $\frac{1}{4}$	11 $\frac{3}{4}$	Psc	6 11	morn				
254	11	S.	5 19	6 2	12 43	2 34	19	17	0	—	Ari	6 40	0 36				
255	12	M.	5 20	6 0	12 40	2 37	19	18	0 $\frac{1}{4}$	0 $\frac{1}{2}$	Ari	7 12	1 23				
256	13	Tu.	5 21	5 59	12 37	2 40	20	19	1	1 $\frac{1}{4}$	Tau	7 49	2 12				
257	14	W.	5 22	5 57	12 35	2 42	20	20	1 $\frac{3}{4}$	2	Tau	8 32	3 04				
258	15	Th.	5 23	5 55	12 32	2 45	20	21	2 $\frac{1}{2}$	2 $\frac{3}{4}$	G'm	9 21	3 58				
259	16	Fr.	5 24	5 53	12 29	2 48	21	22	3 $\frac{1}{2}$	3 $\frac{3}{4}$	G'm	10 17	4 55				
260	17	Sa.	5 25	5 51	12 26	2 51	21	23	4 $\frac{1}{2}$	4 $\frac{3}{4}$	Cnc	11 20	5 53				
261	18	S.	5 26	5 49	12 23	2 54	22	24	5 $\frac{1}{2}$	5 $\frac{3}{4}$	Cnc	morn	6 52				
262	19	M.	5 28	5 48	12 20	2 57	22	25	6 $\frac{1}{2}$	7	Leo	0 28	7 49				
263	20	Tu.	5 29	5 46	12 17	3 0	22	26	7 $\frac{1}{2}$	8	Leo	1 40	8 45				
264	21	W.	5 30	5 44	12 14	3 3	23	27	8 $\frac{1}{2}$	9	Leo	2 53	9 39				
265	22	Th.	5 31	5 42	12 11	3 6	23	28	9 $\frac{1}{2}$	10	Vir	4 05	10 31				
266	23	Fr.	5 32	5 41	12 8	3 9	23	●	10 $\frac{1}{4}$	10 $\frac{3}{4}$	Vir	sets	11 22				
267	24	Sa.	5 33	5 39	12 6	3 11	24	1	11 $\frac{1}{4}$	11 $\frac{1}{2}$	Lib	5 52	0 13				
268	25	S.	5 34	5 37	12 3	3 14	24	2	0	—	Lib	6 25	1 03				
269	26	M.	5 35	5 36	12 1	3 16	24	3	0 $\frac{1}{4}$	0 $\frac{3}{4}$	Sco	7 02	1 53				
270	27	Tu.	5 36	5 34	11 58	3 19	25	4	1 $\frac{1}{4}$	1 $\frac{1}{2}$	Sco	7 42	2 44				
271	28	W.	5 37	5 32	11 55	3 22	25	5	2	2 $\frac{1}{4}$	Sgr	8 26	3 34				
272	29	Th.	5 38	5 30	11 52	3 25	25	6	2 $\frac{3}{4}$	3	Sgr	9 13	4 23				
273	30	Fr.	5 40	5 29	11 49	3 28	26	7	3 $\frac{1}{2}$	3 $\frac{3}{4}$	Sgr	10 04	5 12				



When butterflies flutter from clover to thicket,  
Or wave their wings on the drooping leaf;  
When the breeze comes shrill with the call of the cricket —  
Grasshoppers' rasp, and rustle of sheaf;

RICHARD WATSON GILDER  
"A Song of Early Autumn"

D.M.	D.W.	Aspects, Holidays, Heights of High Water, etc. <i>Temperature decreases about eight degrees</i>	Farmer's Calendar. <i>Sunshine averages, 229 hours.</i>
1	Th.	General Kearney killed in a reconnoitre 1862. Tides {8.5 9.2	
2	Fr.	♂ Gr. Hel. ☾ runs low. Tides {8.0 8.9	
3	Sa.	Princess de Lamballe torn to pieces by mob after her trial, 1792. Tides {7.8 8.7	Many people who have dry, hot cellars may store their vegetables in outdoor pits.
4	B	12th S.a. Tr. ☽ ☿ ☾ in Apo. Tides {7.8 8.7	Cabbage, brussel sprouts, carrots, beets, parsnips, turnips, and rutabagas may be stored outdoors with perfect safety.
5	M.	Labor Day end ☿ Stationary in R.A. Tides {8.0 8.9	Root vegetables are often packed in moist sand, but in an extremely dry cellar the sand treatment is of no value.
6	Tu.	Mayflower sailed from Southampton, 1620. Tides {8.3 9.2	and carrots and beets must either be canned for winter use or stored outdoors. A fairly dry, warm cellar is preferred for squash which will keep best in a temperature around 45 to 50 degrees.
7	W.	Dr. Samuel Johnson 102° born, 1709, 1881 {8.7 9.4 Thunder-	Root vegetables are often packed in moist sand, but in an extremely dry cellar the sand treatment is of no value.
8	Th.	Nativ. of Vir. Mary. ☽ ☿ ☾ {9.1 9.7 storms	and carrots and beets must either be canned for winter use or stored outdoors. A fairly dry, warm cellar is preferred for squash which will keep best in a temperature around 45 to 50 degrees.
9	Fr.	☾ Eq. Tides {9.4 9.9 average	The home gardener may take an ordinary bushel box, line it with paper, then fill it full of a variety of vegetables which are clean and free from disease, especially beets, carrots, parsnips and other root vegetables. A hole is dug in the garden about 15 inches deep, lined with hay. The box is covered with 6 inches of hay and about six inches of soil. The vegetables will keep perfectly until April. However, it is rather difficult to remove the vegetables when the ground is frozen. The safest method is to thaw out the ground with boiling water. Be sure to store a box of vegetables for each three or four week period, storing them separately. If you haven't any hay, wrapping the box in asphalt paper will do.
10	Sa.	♀ Gr. Elong. E. Tides {9.7 9.9 two days.	
11	B	13th Su.a. Tr. ☽ in ☿ Tides {10.0 10.2	
12	M.	♂ ♀ ☾ Tides {9.9 10.2	
13	Tu.	♀ Gr. Elong. W. Tides {9.8 10.8	
14	W.	♀ in Aph. ☽ ☿ ☾ ☽ ☾ ☾ Tides {9.6 10.8	
15	Th.	Tennyson wrote "Better to have loved and lost", 1833. Tides {9.3 10.2	
16	Fr.	♀ in. Per. ☽ ☿ ☽ ☾ runs high. {8.9 10.0 occasion-	
17	Sa.	Signing of American Constitution, 1787. {8.7 9.9 ally warmer.	
18	B	14th S.a. Tr. ☽ ☽ 90° or higher Tides {9.9 10.0	
19	M.	Pr. Garfield died, after being shot on July 2nd, 1881. Tides {8.8 10.0 aver-	
20	Tu.	☾ in. Per. Tides {9.3 10.8 ages once.	
21	W.	St. Matthew. Tides {9.8 10.6	
22	Th.	♂ ☽ ☾ ☽ ☿ ☾ ☾ on Eq. Tides {10.3 10.8	
23	Fr.	♂ ☿ ☾ ☾ Centers. AUTUMN COM. Tides {10.7 10.9	
24	Sa.	General Taylor captured Monterey in Mexico, 1846. Tides {11.0 10.7	
25	B	15th Sun. af. Trin. Tides {11.0 11.0	
26	M.	♂ ☽ ☿ ☽ ☽ Gr. Hel. Earliest killing frost, 1879. Tides {10.4 10.8	
27	Tu.	♂ ☽ ☾ ☾ Tides {10.0 10.5	
28	W.	Battle of Marathon 490 B.C., a decisive battle of the world. Tides {9.4 10.0	
29	Th.	St. Michael & All Angels. ☾ runs 34° low. 1914. Tides {8.9 9.6	
30	Fr.	St. Jerome Tides {8.4 9.1	

J. R. Hepler

1938]

OCTOBER, TENTH MONTH.

ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.	d. m.	Days	d. m.	Days.	d. m.	Days.	d. m.	Days.	d. m.
	1	3s.	07	7	5 26	13	7 42	19	9 55	25
2	3	30	8	5 49	14	8 05	20	10 17	26	12 23
3	3	54	9	6 12	15	8 27	21	10 38	27	12 44
4	4	17	10	6 34	16	8 49	22	10 59	28	13 04
5	4	40	11	6 57	17	9 11	23	11 21	29	13 24
6	5	03	12	7 20	18	9 33	24	11 42	30	13 44

- ☽ First Quarter, 1st day, 6h. 45m., morning, E.
- ☾ Full Moon, 9th day, 4h. 37m., morning, W.
- ☾ Last Quarter, 16th day, 4h. 24m., morning, E.
- New Moon, 23rd day, 3h. 42m., morning, E.
- ☽ First Quarter, 31st day, 2h. 45m., morning, W.

Day of Year.	Day of Month.	Day of the Week.	☉		Length of Days.	Day's Decr.	Sun Fast.	Moon's Age.	Full Sea, Boston		☽'s Place	☽ Sets.	☽ Souths.
			Rises.	Sets.					Morn	Even			
274	1	Sa.	5 41	5 27	11 46	3 31	26	8	4 $\frac{1}{2}$	4 $\frac{3}{4}$	Cap	10 58	6 00
275	2	S	5 42	5 25	11 43	3 34	26	9	5 $\frac{1}{4}$	5 $\frac{3}{4}$	Cap	11 55	6 46
276	3	M.	5 43	5 23	11 40	3 37	27	10	6 $\frac{1}{4}$	6 $\frac{1}{2}$	Aqr	morn	7 31
277	4	Tu.	5 44	5 22	11 38	3 39	27	11	7 $\frac{1}{4}$	7 $\frac{1}{2}$	Aqr	0 53	8 16
278	5	W.	5 45	5 20	11 35	3 42	27	12	8	8 $\frac{1}{4}$	Aqr	1 52	9 00
279	6	Th.	5 46	5 18	11 32	3 45	28	13	8 $\frac{3}{4}$	9	Psc	2 52	9 44
280	7	Fr.	5 47	5 16	11 29	3 48	28	14	9 $\frac{1}{2}$	9 $\frac{3}{4}$	Psc	3 54	10 30
281	8	Sa.	5 48	5 15	11 27	3 50	28	15	10	10 $\frac{1}{2}$	Ari	4 57	11 17
282	9	S	5 49	5 13	11 24	3 53	28	○	10 $\frac{3}{4}$	11 $\frac{1}{4}$	Ari	rises	morn
283	10	M.	5 51	5 12	11 21	3 56	29	17	11 $\frac{1}{2}$	11 $\frac{3}{4}$	Tau	5 49	0 06
284	11	Tu.	5 52	5 10	11 18	3 59	29	18	—	0	Tau	6 30	0 58
285	12	W.	5 53	5 8	11 15	4 2	29	19	0 $\frac{1}{2}$	0 $\frac{3}{4}$	G'm	7 18	1 53
286	13	Th.	5 54	5 6	11 12	4 5	29	20	1 $\frac{1}{2}$	1 $\frac{3}{4}$	G'm	8 13	2 50
287	14	Fr.	5 55	5 5	11 10	4 7	30	21	2 $\frac{1}{4}$	2 $\frac{1}{2}$	G'm	9 14	3 48
288	15	Sa.	5 56	5 3	11 7	4 10	30	22	3 $\frac{1}{4}$	3 $\frac{1}{2}$	Cnc	10 21	4 47
289	16	S	5 58	5 2	11 4	4 13	30	23	4 $\frac{1}{4}$	4 $\frac{1}{2}$	Cnc	11 29	5 44
290	17	M.	5 59	5 0	11 1	4 16	30	24	5 $\frac{1}{4}$	5 $\frac{1}{2}$	Leo	morn	6 39
291	18	Tu.	6 0	4 59	10 59	4 18	30	25	6 $\frac{1}{4}$	6 $\frac{3}{4}$	Leo	0 40	7 32
292	19	W.	6 1	4 57	10 56	4 21	31	26	7 $\frac{1}{4}$	7 $\frac{3}{4}$	Vir	1 50	8 23
293	20	Th.	6 2	4 55	10 53	4 24	31	27	8 $\frac{1}{4}$	8 $\frac{3}{4}$	Vir	3 00	9 13
294	21	Fr.	6 4	4 54	10 50	4 27	31	28	9 $\frac{1}{4}$	9 $\frac{3}{4}$	Lib	4 08	10 03
295	22	Sa.	6 5	4 52	10 47	4 30	31	29	10	10 $\frac{1}{2}$	Lib	5 15	10 52
296	23	S	6 6	4 51	10 45	4 32	31	●	10 $\frac{3}{4}$	11 $\frac{1}{4}$	Sco	sets	11 42
297	24	M.	6 7	4 49	10 42	4 35	31	1	11 $\frac{1}{2}$	0	Sco	5 36	0 33
298	25	Tu.	6 8	4 48	10 40	4 37	32	2	—	0 $\frac{1}{4}$	Sco	6 18	1 24
299	26	W.	6 10	4 47	10 37	4 40	32	3	0 $\frac{3}{4}$	1	Sgr	7 05	2 14
300	27	Th.	6 11	4 45	10 34	4 43	32	4	1 $\frac{1}{2}$	1 $\frac{3}{4}$	Sgr	7 55	3 04
301	28	Fr.	6 12	4 44	10 32	4 45	32	5	2 $\frac{1}{4}$	2 $\frac{1}{2}$	Cap	8 48	3 52
302	29	Sa.	6 13	4 42	10 29	4 48	32	6	3	3 $\frac{1}{4}$	Cap	9 44	4 39
303	30	S	6 14	4 41	10 27	4 50	32	7	3 $\frac{3}{4}$	4	Cap	10 41	5 25
304	31	M.	6 15	4 40	10 25	4 52	32	8	4 $\frac{3}{4}$	5	Aqr	11 39	6 09



I saw old Autumn in the misty morning  
Stand shadowless like silence, listening.

HOOD

D.M.	D.W.	Aspects, Holidays, Heights of High Water, etc. <i>Temp. falls about ten degrees.</i>	Farmer's Calendar. <i>Sunshine averages 196 hours.</i>
1	Sa.	Soviet Russia inaugurated 90° Five Year Plan, 1928 1881.	{8.0 8.7
2	B	16th S.a. T. C in Apo.	{7.9 8.5
3	M.	Battle of Moncontour, French Catholics defeated Huguenots 1569	{7.9 8.5
4	Tu.	Tides {8.1 8.7	Occasionally
5	W.	♄ ♃ C. First freezing temp., 28°, 1881	{8.5 8.9 warmer.
6	Th.	♀ Gr. Hel. Lat. S.	Tides {8.9 9.2
7	Fr.	C on equator.	Tides {9.4 9.5
8	Sa.	♄ ♃ ☉. ♂ in Aph.	Tides {9.8 9.7
9	B	17th S.a. T. St. Dennis. ♄ ♃ C	{10.2 9.9
10	M.	♄ ♃ ☉ Sup.	Tides {10.6 9.9
11	Tu.	♄ ☽ C	Tides {— 10.8
12	W.	Columbus Day. ♄ ♂ ♀.	Tides {9.3 10.8
13	Th.	C runs high.	Tides {9.7 10.8
14	Fr.	Battle of Jena; Napoleon defeated Prussians and Saxons 1806	{9.4 10.5
15	Sa.	Herrick, English poet buried; wrote his own epitaph. 1674	Tides {9.2 10.2
16	B	18th S.a. T. ♀ Gr. Brill. C in Per.	{9.0 10.0
17	M.	Burgoyne surrendered after Saratoga, 1777	Tides {9.0 9.8
18	Tu.	St. Luke.	Tides {9.2 9.8
19	W.	♃ Stat. in R.A.	Tides {9.8 9.9
20	Th.	♀ in ♄. ♄ ♀ C. ♂ ♂ C. C on Eq.	{10.0 10.0
21	Fr.	Despite victory, Admiral Nelson killed in Battle of Trafalgar, 1805	{10.4 10.1
22	Sa.	Theophile Gautier, French poet, critic and novelist died, 1872	{10.7 10.1
23	B	19th S.a. Tr. ♄ ♃ C. Tides	{10.8 10.0
24	M.	Death of Daniel Ave. date 1st Webster 1854 killing frost.	{10.8 9.7
25	Tu.	St. Crispin. ♄ ♃ C.	Tides {10.6 9.4
26	W.	25° 1879	Tides {9.4 10.8
27	Th.	Midway between mid-summer and mid-winter	C runs low. {9.1 9.9
28	Fr.	St. Simon & St. Jude.	Tides {8.7 9.4
29	Sa.	Sir Walter Raleigh beheaded 1618	Tides {8.4 9.0
30	B	20th S.a. T. ♀ in Aph. ♀ Stat. in R.A.	{8.1 8.7
31	M.	All Hallows Eve. ♄ of 30th C in Apo.	{8.1 8.7

Clean up the vegetable and flower gardens; cut down and burn all dead stalks to destroy insect eggs and fungi. Fall ploughing is to be recommended for the vegetable garden, especially in parts of the country where the European corn borer and the Mexican bean beetle winter over in the ground. Much can be done toward controlling them by this simple means.

The leaves from hardwood trees should be saved and piled up for compost to supply humus for the garden.

Most perennials, except fall-blooming kinds, can be transplanted now. Lilacs and other ornamental shrubs are also best moved after the leaves have fallen and the shrubs are dormant.

Give the flower borders a thorough weeding before they are covered for the winter, and do not put on the winter mulch until the ground freezes. The object of the mulch is not to prevent freezing but to maintain an even temperature to prevent the alternate freezing and thawing that is so disastrous in regions which have not the benefit of a thick blanket of snow through the winter.

Soak the evergreens well before the ground freezes unless there have been abundant rains. This includes rhododendrons, laurels, etc., as well as the cone-bearing kinds. Newly transplanted shrubs and trees also need plenty of water.

Margaret S. Watson

1938]

## NOVEMBER, ELEVENTH MONTH.

## ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.	d. m.	Days.	d. m.	Days.	d. m.	Days.	d. m.	Days.	d. m.
	1	14s.	23	7	16 14	13	17 55	19	19 25	25
2	14	42	8	16 31	14	18 11	20	19 39	26	20 55
3	15	01	9	16 49	15	18 27	21	19 53	27	21 06
4	15	19	10	17 06	16	18 42	22	20 06	28	21 17
5	15	38	11	17 23	17	18 57	23	20 19	29	21 27
6	15	56	12	17 39	18	19 11	24	20 31	30	21 37

○ Full Moon, 7th day, 5h. 23m., evening, E.

☾ Last Quarter, 14th day, 11h. 20m., morning, W.

● New Moon, 21st day, 7h. 5m., evening, W.

☽ First Quarter, 29th day, 10h. 59m., evening, W.

Day of Year.	Day of Month.	Day of the Week.	☉		Length of Days.		Day's Decr.		Sun Sun Fast.	Moon's Age.	Full Sea. Boston		☽'s Place	☽ Sets. h. m.	☽ Souths. h. m.
			Rises. h. m.	Sets. h. m.	h.	m.	h.	m.			Morn. h.	Even. h.			
305	1	Tu.	6 17	4 38	10 21	4 56	32	9	5 1/2	5 3/4	Aqr	morn	6 53		
306	2	W.	6 18	4 37	10 19	4 58	32	10	6 1/2	6 3/4	Psc	0 38	7 36		
307	3	Th.	6 19	4 36	10 17	5 0	32	11	7 1/4	7 1/2	Psc	1 38	8 21		
308	4	Fr.	6 21	4 35	10 14	5 3	32	12	8	8 1/2	Ari	2 40	9 07		
309	5	Sa.	6 22	4 33	10 11	5 6	32	13	8 3/4	9 1/4	Ari	3 44	9 55		
310	6	S.	6 23	4 32	10 9	5 8	32	14	9 1/2	10	Ari	4 51	10 47		
311	7	M.	6 24	4 31	10 7	5 10	32	15	10 1/4	10 3/4	Tau	rises	11 42		
312	8	Tu.	6 26	4 30	10 4	5 13	32	16	11	11 1/2	Tau	5 11	morn		
313	9	W.	6 27	4 29	10 2	5 15	32	17	11 3/4	—	G'm	6 04	0 40		
314	10	Th.	6 28	4 28	10 0	5 17	32	18	0 1/4	0 1/2	G'm	7 05	1 39		
315	11	Fr.	6 29	4 27	9 58	5 19	32	19	1 1/4	1 1/4	Cnc	8 11	2 40		
316	12	Sa.	6 31	4 26	9 55	5 22	32	20	2	2 1/4	Cnc	9 21	3 38		
317	13	S.	6 32	4 25	9 53	5 24	31	21	3	3 1/4	Leo	10 32	4 35		
318	14	M.	6 33	4 24	9 51	5 26	31	22	4	4 1/4	Leo	11 42	5 29		
319	15	Tu.	6 34	4 23	9 49	5 28	31	23	5	5 1/2	Vir	morn	6 20		
320	16	W.	6 36	4 22	9 46	5 31	31	24	6	6 1/2	Vir	0 50	7 10		
321	17	Th.	6 37	4 21	9 44	5 33	31	25	7	7 1/2	Lib	1 57	7 58		
322	18	Fr.	6 38	4 20	9 42	5 35	31	26	8	8 1/2	Lib	3 04	8 57		
323	19	Sa.	6 39	4 19	9 40	5 37	30	27	8 3/4	9 1/2	Lib	4 09	9 36		
324	20	S.	6 41	4 19	9 38	5 39	30	28	9 3/4	10 1/4	Sco	5 13	10 25		
325	21	M.	6 42	4 18	9 36	5 41	30	29	10 1/2	11	Sco	sets	11 15		
326	22	Tu.	6 43	4 17	9 34	5 43	30	1	11	11 3/4	Sgr	4 57	0 06		
327	23	W.	6 44	4 17	9 33	5 44	29	2	11 3/4	—	Sgr	5 47	0 56		
328	24	Th.	6 45	4 16	9 31	5 46	29	3	0 1/4	0 1/2	Cap	6 39	1 45		
329	25	Fr.	6 47	4 16	9 29	5 48	29	4	1	1 1/4	Cap	7 34	2 33		
330	26	Sa.	6 48	4 15	9 27	5 50	28	5	1 3/4	2	Cap	8 30	3 19		
331	27	S.	6 49	4 15	9 26	5 51	28	6	2 1/2	2 3/4	Aqr	9 28	4 04		
332	28	M.	6 50	4 14	9 24	5 53	28	7	3 1/4	3 1/2	Aqr	10 26	4 47		
333	29	Tu.	6 51	4 14	9 23	5 54	27	8	4	4 1/4	Pcs	11 25	5 30		
334	30	W.	6 52	4 13	9 21	5 56	27	9	4 3/4	5	Pcs	morn	6 13		





The sunny noon is thine,  
Soft, golden, noiseless as the dead of night,  
And hues that in the flushed horizon shine,  
At eve and early light.

JOHN HOWARD BRYANT  
"Indian Summer"

D. M.	D. W.	Aspects, Holidays, Heights of High Water, etc. <i>Temp falls about fourteen degrees.</i>	Farmer's Calendar. <i>Sunshine averages 14 1/2 hours.</i>
1	Tu.	All Saints Day ☽ ♃ ☾	Tides { 8.1 8.4
2	W.	Jenny Lind, famous singer, died 1837	Tides { 8.3 8.5
3	Th.	☾ on Eq.	Tides { 8.7 8.7
4	Fr.	Eugene Field died 1895	Tides { 9.1 9.0
5	Sa.	☽ ♃ ☾	Tides { 9.6 9.2
6	B	21st Sun. af. Trin.	Tides { 10.2 9.5
7	M.	☾ Tot. Partly vis. in U. S. ☽ ☽ ☾	Tides { 10.6 9.7
8	Tu.	Occasionally warmer. ☽ ♃ ♀. ☽ ☽ ☾	Tides { 11.0 9.8
9	W.	Francis Parkman, great American historian, died 1893	Tides { 11.2 —
10	Th.	78° in 1931. ☾ Perigee. ☾ Runs high.	Tides { 9.8 11.3
11	Fr.	St. Martin. Armistice Day.	Tides { 9.8 9.7
12	Sa.	Montreal surrendered to Americans 1775	Tides { 10.8 9.7
13	B	22d Sun. af. Trin.	Tides { 10.4 9.5
14	M.	C. Carroll, a signer of the Declaration of Independence, died, 1832	Tides { 10.0 9.4
15	Tu.	Steamboat Louisiana's boilers exploded; sixty persons, killed 1849	Tides { 9.6 9.5
16	W.	☽ ♃ ☾. ☽ ♃ ☾ on Eq.	Tides { 9.5 9.4
17	Th.	Relief of Lucknow, Incident of Indian Mutiny, 1857	Tides { 9.7 9.8
18	Fr.	☽ ♃ ☾	Tides { 9.8 9.8
19	Sa.	♀ Gr. Hel. Lat. S. Tides { 10.2 9.3	Snow ave.
20	B	23d S. a. T. ☽ ♃ ☾ inf.	Tides { 10.4 9.3
21	M.	☽ Partial (Invis. In Eclipse. Eastern U.S.) ☽ ♃ ☾	Tides { 10.4 9.2
22	Tu.	St. Cecilia. Tides { 10.3 9.1	1.5 inches.
23	W.	☽ ♃ ☾. ☾ runs low.	Tides { — 8.9
24	Th.	Thanksgiving Day.	Tides { 8.9 8.8
25	Fr.	St. Catharine. ♀ Gr. Elong. E.	Tides { 8.7 8.6
26	Sa.	☾ in Apo.	Tides { 8.6 8.4
27	B	1st S. in Ad. Deepest snow, 12 inches. 1898	Tides { 8.4 8.0
28	M.	Cornwallis forced Washington to retire across Passaic River, 1776	Tides { 8.3 8.7
29	Tu.	☽ ♃ ☾	Tides { 8.3 8.5
30	W.	St. Andrew. ☾ on Eq. 2° below zero. 1875.	Tides { 8.3 8.4

Perhaps your neighborhood needs a little community spirit —what the psychologist calls "class consciousness." Some of it might begin with you. Aren't there things in the country you appreciate? Almost beyond price? Hunt them out and develop them in your mind or elsewhere until your brother who lives in the city turns green with envy. Why not cooperate with the wife in planting a few flowers by the door rock? Couldn't you locate a spruce tree in that barren waste known as your door yard? Get one out back of the barn. It will suit the conditions better than one you might buy for twenty-five dollars and is much surer to live and thrive.

This is not advocating the employment of a landscape gardener, who mixes more money than he does dirt. That is not the type of project contemplated. It is your own conception and plan that make it worth while. You may develop a rural landscape artist in your community. We need many.

Next month brings winter and snow and the longest evenings most free from distractions. Why not read a few books about landscape gardening and other community improvement projects? Wouldn't you get some real satisfaction out of setting a good example!

1938]

## DECEMBER, TWELFTH MONTH.

## ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.		d. m.		Days.		d. m.		Days.		d. m.	
	1	2	3	4	5	6	7	8	9	10	11	12
	21s.	47	7	22 36	13	23 09	19	23 25	25	23 24		
	21	56	8	22 42	14	23 13	20	23 26	26	23 22		
	3	22 05	9	22 48	15	23 16	21	23 27	27	23 20		
	4	22 13	10	22 54	16	23 18	22	23 28	28	23 17		
	5	22 21	11	22 59	17	23 21	23	23 26	29	23 14		
	6	22 28	12	23 04	18	23 23	24	23 25	30	23 11		

○ Full Moon, 7th day, 5h. 22m., morning, W.

☾ Last Quarter, 13th day, 8h. 17m., evening, E.

● New Moon, 21st day, 1h. 7m., evening, W.

☽ First Quarter, 29th day, 5h. 53m., evening W.

Day of Year.	Day of Month.	Day of the week.	☺		Length of Days.		Day's Decr.		Sun. Fast.	Moon's Age.	Full Sea. Boston		☽'s Place	☽ Sets.	☽ Souths.
			Rises.	Sets.	h.	m.	h.	m.			h.	m.			
335	1	Th.	6 53	4 13	9 20	5 57	27 10	5 3/4	6	5 3/4	6	Psc	0 24	6 57	
336	2	Fr.	6 54	4 13	9 19	5 58	26 11	6 1/2	7	6 1/2	7	Ari	1 26	7 43	
337	3	Sa.	6 55	4 12	9 17	6 0	26 12	7 1/4	8	7 1/4	7 3/4	Ari	2 29	8 33	
338	4	S.	6 56	4 12	9 16	6 1	26 13	8 1/4	9	8 1/4	8 3/4	Tau	3 36	9 25	
339	5	M.	6 57	4 12	9 15	6 2	25 14	9	9	9 1/2	9 1/2	Tau	4 44	10 22	
340	6	Tu.	6 58	4 12	9 14	6 3	25 15	9 3/4	10	10 1/4	10 1/4	G'm	5 52	11 22	
341	7	W.	6 59	4 12	9 13	6 4	24 17	10 1/2	11	11 1/4	11 1/4	G'm	rises	morn	
342	8	Th.	7 0	4 12	9 12	6 5	24 17	11 1/2	0	11 1/2	0	Cnc	5 53	0 24	
343	9	Fr.	7 1	4 12	9 11	6 6	23 18	—	0 1/4	0 1/4	0 1/4	Cnc	7 05	1 26	
344	10	Sa.	7 2	4 12	9 10	6 7	23 19	0 3/4	1	0 3/4	1	Leo	8 18	2 25	
345	11	S.	7 3	4 12	9 9	6 8	23 20	1 3/4	2	1 3/4	2	Leo	9 30	3 22	
346	12	M.	7 4	4 12	9 8	6 9	22 21	2 3/4	3	2 3/4	3	Vir	10 42	4 16	
347	13	Tu.	7 5	4 12	9 7	6 10	22 22	3 3/4	4	3 3/4	4	Vir	11 49	5 07	
348	14	W.	7 5	4 12	9 7	6 10	21 23	4 3/4	5	4 3/4	5	Lib	morn	5 57	
349	15	Th.	7 6	4 12	9 6	6 11	21 24	5 3/4	6	5 3/4	6	Lib	0 56	6 45	
350	16	Fr.	7 7	4 13	9 6	6 11	20 25	6 3/4	7	6 3/4	7 1/4	Lib	2 02	7 33	
351	17	Sa.	7 8	4 13	9 5	6 12	20 26	7 1/2	8	7 1/2	8 1/4	Sco	3 05	8 22	
352	18	S.	7 8	4 13	9 5	6 12	19 27	8 1/2	9	8 1/2	9	Sco	4 07	9 11	
353	19	M.	7 9	4 14	9 5	6 12	19 28	9 1/4	10	9 1/4	10	Sgr	5 05	10 00	
354	20	Tu.	7 9	4 14	9 5	6 12	18 29	10	10	10 3/4	10 3/4	Sgr	5 59	10 50	
355	21	W.	7 10	4 15	9 5	6 12	18	10 3/4	11	10 3/4	11 1/4	Sgr	sets	11 40	
356	22	Th.	7 10	4 15	9 5	inc.	17 1	11 1/2	0	11 1/2	0	Cap	5 25	0 28	
357	23	Fr.	7 11	4 16	9 5	0 0	17 2	—	0	—	0	Cap	6 21	1 15	
358	24	Sa.	7 11	4 16	9 5	0 0	16 3	0 1/2	0 3/4	0 1/2	0 3/4	Aqr	7 19	2 00	
359	25	S.	7 12	4 17	9 5	0 0	16 4	1 1/4	1 1/2	1 1/4	1 1/2	Aqr	8 17	2 44	
360	26	M.	7 12	4 17	9 5	0 0	15 5	2	2	2	2	Aqr	9 15	3 26	
361	27	Tu.	7 13	4 18	9 5	0 0	15 6	2 3/4	2 3/4	2 3/4	2 3/4	Psc	10 13	4 09	
362	28	W.	7 13	4 19	9 6	0 1	14 7	3 1/4	3 1/2	3 1/4	3 1/2	Psc	11 12	4 52	
363	29	Th.	7 13	4 20	9 7	0 2	14 8	4	4 1/2	4	4 1/2	Ari	morn	5 36	
364	30	Fr.	7 13	4 20	9 7	0 2	13 9	5	5 1/4	5	5 1/4	Ari	0 13	6 22	
365	31	Sa.	7 13	4 21	9 8	0 3	13 10	5 3/4	6 1/4	5 3/4	6 1/4	Tau	1 16	7 11	

DECEMBER hath 31 days.

[1938



When the first Christmas presents came the straw where Christ was rolled  
Smelt sweeter than their frankincense, burnt brighter than their gold.

G. K. CHESTERTON  
"A Song of Gifts to God"

D.M.	D.W.	Aspects, Holidays, Heights of High Water, etc. <i>Temp. falls about four degrees.</i>	Farmer's Calendar. <i>Sunshine averages 135 hours.</i>
1	Th.	♀ in ♄. Tides {8.5 8.3	Dec. Ave.
2	Fr.	♄ ♃ ♄. Tides {8.8 8.4	Snow
3	Sa.	Robert Louis Stevenson died in Samoa, 1894 {9.2 8.6	8.0 in.
4	B	2d Sun. in Ad. ♀ Stat. in R.A. {9.8 9.2	While many types of weather-stripping are available for closing cracks to keep out cold about windows and doors, the use of extra sheathing doors, which may be hung to fit the same jamb as the screen doors of summer, and extra storm windows which provide a dead air space between the outside and inside panes, can scarcely be exceeded in effectiveness.
5	M.	♄ ♃ ♄. Tides {10.3 9.2	
6	Tu.	St. Nicholas. 69° 1912. Tides {10.8 9.5	
7	W.	♄ Rnns high Tides {11.2 9.7	
8	Th.	♀ in ♄. ♄ in Perigee Tides {11.5 9.9	
9	Fr.	♀ Sta. in R.A. Tides {— 11.0	
10	Sa.	Retreat of Napoleon from Moscow, 1812 Tides {10.8 11.8	
11	B	3d Sun. in Ad. Tides {10.0 10.9	
12	M.	Robert Browning died, 1889 Tides {9.9 10.5	Of course, broken panes of glass should be replaced. Small glazier's points are important to use in setting the glass to keep it firm and secure, and putty is used to fill the rabbet and to make the joint air- and water-tight. After hardening somewhat, a protective coating of paint over the putty is desirable, not only for looks, but to add durability.
13	Tu.	♀ in ♃ on Occasionally Per. ♄ eq. warmer. Tides {9.8 9.9	
14	W.	♄ ♃ ♄. ♄ ♃ ♄. Inf. Tides {9.7 9.4	
15	Th.	♃ Stat. in R.A. ♄ ♃ ♄. Tides {9.7 9.0	
16	Fr.	Famous Boston Tea Party 1773 Tides {9.7 8.7	
17	Sa.	♄ ♃ ♄. Tides {9.7 8.6	
18	B	4th S. in Ad. ♄ ♃ ♄. {9.8 8.6	Zero
19	M.	John Uncas, last male descendant of Mohegan chief, died, 1842 {9.8 8.6	
20	Tu.	♄ ♃ ♄. ♃ runs low. Tides {9.9 8.6	
21	W.	St. Thomas. Tides {9.9 8.6	averages once.
22	Th.	♃ en. ♃, WINTER COM. Tides {9.8 8.6	
23	Fr.	♀ Gr. Hel. Lat. N. Tides {— 9.7	
24	Sa.	♀ Stat. in R.A. ♄ in Ado. Tides {8.6 9.5	
25	B	Christmas. Tides {8.6 9.3	
26	M.	St. Stephen. ♃ Gr. Brit. ♃ Stat. in R.A. ♄ ♃ ♄. Tides {8.5 8.8	26th {8.6 9.1
27	Tu.	St. John, the Evangelist. {8.5 8.8	
28	W.	Holy Innocents. ♄ on Deepest snow zero storm, 12.3, 1909 {8.6 8.8	28th Tides {8.8 8.8
29	Th.	17° below zero, 1933. {8.6 8.8	
30	Fr.	♄ ♃ ♄. Tides {8.7 8.2	
31	Sa.	Montgomery, American General killed while attacking Quebec 1775 {8.9 8.2	Merry Christmas!

## ECLIPSES FOR THE YEAR 1938

In the year 1938 there will be four Eclipses, two of the Sun and two of the Moon.

- I. *A Total Eclipse of the Moon*, May 14, 1938, visible partly in northeastern United States. The beginning will be visible generally in the Atlantic Ocean except the eastern part, North America except the extreme northern part, South America, Antarctica, the eastern coast of Australia, and the Pacific Ocean except the northwestern part; and the ending will be visible generally in the central and western part of North America, the western part of South America, Antarctica, the Pacific Ocean, Australia, and the northeastern extremity of Asia.

Moon enters penumbra	May 14, 0h 44m	A.M., Eastern standard time
Moon enters umbra	1 57	A.M.
Total Eclipse begins	3 18	A.M.
Middle of the Eclipse	3 44	A.M.
Total Eclipse ends	4 9	A.M.
Moon leaves umbra	5 31	A.M.
Moon leaves penumbra	6 43	A.M.
Magnitude of Eclipse (Moon's diameter = 1),	1.102	

- II. *A Total Eclipse of the Sun*, May 29, 1938, invisible in northeastern United States. Visible as a partial Eclipse in the southern parts of Africa, the Atlantic Ocean, and South America, and as a total Eclipse in a curved band which lies mainly east of Cape Horn and which includes the South Georgia and South Orkney Islands. The greatest duration of totality, which will occur at the center of this band, will be 4 minutes, 4 seconds. The Eclipse begins in Argentina, in longitude  $68^{\circ} 23'$  west from Greenwich, latitude  $39^{\circ} 19'$  south; and ends off the western coast of South Africa, in longitude  $16^{\circ} 23'$  east from Greenwich, latitude  $32^{\circ} 21'$  south.

- III. *A Total Eclipse of the Moon*, November 7, 1938, visible partly in northeastern United States. The beginning will be visible generally in Asia, western Australia, the Indian Ocean, Europe, Africa, the Atlantic Ocean, the Arctic Ocean, the extreme northeastern part of North America, and the extreme eastern part of South America; and the ending will be visible generally in central and western Asia, the western part of the Indian Ocean, Europe, Africa, the Atlantic Ocean, the Arctic Ocean, North America except the extreme western and northwestern part, and South America.

Moon enters penumbra	November 7, 2h 39m	P.M., Eastern standard time
Moon enters umbra	3 41	P.M.
Total Eclipse begins	4 45	P.M.
Middle of the Eclipse	5 26	P.M.
Total Eclipse ends	6 8	P.M.
Moon leaves umbra	7 12	P.M.
Moon leaves penumbra	8 14	P.M.
Magnitude of Eclipse (Moon's diameter = 1),	1.359	

- IV. *A Partial Eclipse of the Sun*, November 21, 1938, invisible in northeastern United States. Visible on the west coast of North America, the northern part of the Pacific Ocean, Japan, and northeastern Asia. The Eclipse begins off the east coast of the island Sakhalin, in longitude  $143^{\circ} 58'$  east from Greenwich, latitude  $43^{\circ} 0'$  north, and ends in the Pacific Ocean, in longitude  $138^{\circ} 25'$  west from Greenwich, latitude  $35^{\circ} 41'$  north. Magnitude of greatest Eclipse (Sun's diameter = 1), 0.778.

### EARTH IN PERIHELION AND APHELION, 1938

The Earth will be in Perihelion on January 3, 1938, at 3 A.M., distant from the Sun 91,317,600 miles. The Earth will be in Aphelion on July 2, 1938, at 11 P.M., distant from the Sun 94,424,600 miles.

## MORNING AND EVENING STARS, 1938

(A planet is called *Morning Star* when it is above the horizon at sunrise, and *Evening Star* when it is above the horizon at sunset.)

*Mercury* will be most favorably situated for being seen as a Morning Star about January 20, May 19, and September 13, on which dates it rises 1h 35m, 0h 52m, and 1h 31m, respectively, before sunrise; and as an Evening Star about April 2, July 31, and November 25, on which dates it sets 1h 40m, 1h 3m, and 1h 8m, respectively, after sunset.

*Venus* will be Morning Star until February 3, then Evening Star until November 20, and then Morning Star the rest of the year. Greatest brilliancy, October 16 and December 26.

*Mars* will be Evening Star until July 24, and then Morning Star the rest of the year. *Mars* and *Venus* will be in close conjunction on May 7.

*Jupiter* will be Evening Star until January 29, then Morning Star until August 20, and then Evening Star the rest of the year.

*Saturn* will be Evening Star until March 29, then Morning Star until October 8 and then Morning Star the rest of the year. *Saturn* and *Mars* will be in conjunction on February 2.

## THE SEASONS, 1938

Winter begins	1937, December 22, 1h.22m. A. M. —	Sun enters Capricornus,	☿
Spring	" 1938, March 21, 1h.43m. A. M. —	" " Aries,	♈
Summer	" 1938, June 21, 9h. 4m. P. M. —	" " Cancer,	♋
Autumn	" 1938, September 23, 12h.0m. noon —	" " Libra,	♎
Winter	" 1938, December 22, 7h.14m. A. M. —	" " Capricornus,	♏
Spring	" 1939, March 21, 7h.29m. A. M. —	" " Aries	♈

Length of Winter,	1937-1938, 89 days,	0 hours, 21 minutes.
" " Spring,	1938 92 " 19 " 21 "	
" " Summer,	1938 93 " 14 " 56 "	
" " Autumn, 1938	89 " 19 " 14 "	
" " Winter,	1938-1939, 89 " 0 " 15 "	

## GLOSSARY OF ASTRONOMICAL TERMS used in the OLD FARMER'S ALMANAC

*Aphelion.* Point farthest from the Sun.

*Apogee.* Point farthest from the Earth.

*Aspect.* Relative apparent position in the sky (used principally with reference to the planets, the Sun, and the Moon).

*Comet.* A celestial body of diffuse, hazy appearance, which revolves in an orbit around the Sun. A fully developed comet consists of (1) a small, bright nucleus, surrounded by (2) a misty envelope called the coma, which extends on the side opposite the Sun into (3) a luminous tail; but in many comets the nucleus, or tail, or both, are lacking. Most known comets have been visible in the telescope only, but some have been visible to the naked eye and a few were spectacularly brilliant. Their orbits, unlike those of the planets, are mostly of high eccentricity and are inclined at the greatest possible variety of angles to the plane of the ecliptic. Many comets have orbits which, as nearly as can be determined, are parabolic; these comets approach the Sun from vast distances beyond the farthest planet, sweep once around the Sun, and recede into the depths of space. Their appearance in the heavens is of course impossible to predict. Others, moving in elliptic orbits, pass perihelion at regular intervals and can be predicted long in advance.

*Conjunction.* The same right ascension or celestial longitude. Used with reference to any two heavenly bodies, as the planets, the Sun and the Moon.

*Conjunction, inferior.* The conjunction of the planet Mercury or the planet Venus with the Sun is said to be inferior when the planet is between the Earth and the Sun.

*Conjunction, superior.* The conjunction of Mercury or Venus is said to be superior when the Sun is between the Earth and the planet.

*Day's Increase (or decrease).* This quantity, tabulated in the Almanac, is the difference between the length of the day in question and that of the shortest (or longest) day of the year.

*Declination.* Apparent distance north or south of the celestial equator. The Sun's declination, in degrees and minutes, is tabulated at the top of the left-hand pages.

*Dip of the horizon.* The depression of the apparent, or sea horizon below the true, or astronomical, horizon. The dip increases with the observer's height above sea-level.

**Dominical Letter.** The Sunday letter. The letters A, B, C, D, E, F, G being applied to the first seven days of any common year, the dominical letter for that year is the letter thus pertaining to the first Sunday. The intercalation of an extra day in Leap year shifts the dominical letter, for the part of the year which follows February 29, one place backward.

**Eccentricity.** As applied to the orbit of a comet or planet, this term signifies the ratio of the Sun's distance from the center of the orbit to the mean of the perihelion and aphelion distances. It is a measure of the non-circularity of the orbit.

**Eclipse.** The darkening of one heavenly body by another. The Almanac mentions (1) eclipses of the Sun, in which the Moon passes between the Sun and the observer, and (2) eclipses of the Moon, in which the Moon enters the shadow of the Earth. An eclipse may be partial or total according as the body is partly or wholly obscured; or an eclipse of the Sun may be annular, in which case the Moon, though it becomes centered on the disk of the Sun, is so far from the Earth that its apparent diameter is less than the Sun's, so that a ring, or annulus, of sunlight shows around the Moon. By far the most interesting eclipses, and also, for any given locality, the rarest, are total eclipses of the Sun.

**Ecliptic.** The apparent annual path of the Sun among the stars; or, the great circle which is the intersection of the celestial sphere with the plane of the Earth's orbit. It intersects the celestial equator at an angle of  $23\frac{1}{2}^{\circ}$ , at the equinoxes.

**Elongation.** Apparent distance from the Sun. The planets Mercury and Venus in their orbital motion, appear to oscillate from one side of the Sun to the other and back. The times of their greatest elongations are given in the Almanac.

**Epact.** The age of the "calendar Moon" at the beginning of the year. The calendar Moon is a fictitious Moon used in determining the date of Easter, made purposely to differ from the real Moon so that Easter may not coincide with the Jewish Passover. Easter is defined as the first Sunday after the first full "calendar" Moon following the Sun's passage of the vernal equinox.

**Equator, celestial.** The great circle of the celestial sphere midway between the poles.

**Equator, terrestrial.** The imaginary circle on the Earth's surface midway between the Earth's north and south poles. The celestial and terrestrial equators lie in the same plane.

**Full sea.** High water, or high tide.

**Golden Number.** The number of the year in the Metonic cycle. This is a cycle of 19 years established in Greece by Meton in the year 432 BC. It is almost exactly equal to 235 synodic months (a synodic month being the interval between successive new Moons), so that in years which have the same golden number the Moon's phases recur on the same dates.

**Heliocentric latitude.** Apparent distance north or south of the ecliptic, as seen from the Sun.

**Horizon.** The true, or astronomical, horizon is the great circle which is the intersection with the celestial sphere of a level plane passing through the observer's position. The apparent horizon is the line which limits the observer's view of the sky.

**Inclination.** As applied to the orbit of a comet or planet, inclination signifies the angle between the plane of that orbit and the plane of the Earth's orbit, or ecliptic.

**Julian Period.** A period proposed by Joseph Scaliger in 1582 AD to harmonize chronological systems. Its length is 7980 Julian years, being the least common multiple of the solar cycle, the Metonic cycle, and the Roman indiction. The first year of the Julian Period was 4713 BC, which was the year 1 in each of the three component cycles. The designation of a year in the Julian period is intelligible to any chronologist, whatever may be his religion.

**Latitude (of a place on the Earth).** The angle between the direction of gravity at the place and the plane of the Earth's equator. It is a measure of the distance of the place from the equator.

**Length of Days.** Time-interval between sunrise and sunset.

**Longitude (of a place on the Earth).** Arc of the equator between the meridian of the place and another meridian chosen as a standard, usually that of Greenwich, England.

**Meridian.** Great circle of the celestial sphere passing vertically north and south, through zenith and poles. Also, a north-south line on the surface of the Earth.

**Meteor.** A small, solid body which, revolving in an orbit around the Sun, enters the Earth's atmosphere and is made luminous by the consequent sudden stoppage of its swift flight. Often erroneously called a *falling* or *shooting star*. After falling upon the Earth, the body is called a *meteorite*.

**Moon's Place.** As tabulated in the Almanac, this signifies the sign of the zodiac occupied by the Moon.

**Moon Souths.** Moon is on the meridian, due south of the observer.

**Morning and Evening Stars.** A planet is called Morning Star when it is above the horizon at sunrise, and Evening Star when it is above the horizon at sunset.

**Node.** The point at which a heavenly body apparently crosses the ecliptic; ascending if northward, descending if southward.

**Opposition.** Elongation of  $180^{\circ}$ . At opposition, a planet appears opposite the Sun.

**Penumbra.** Partial shadow.

**Perigee.** Point nearest the Earth.

**Perihelion.** Point nearest the Sun.

**Phases of the Moon.** The four principal phases of the Moon are: (1) *New Moon*, which occurs when, for the month, the Moon is most nearly between the Earth and the Sun; (2) *First Quarter*, which occurs about a week after New Moon when the angle Sun-Moon-Earth is 90° and half the Moon's illuminated side, or a quarter of the Moon, is visible; (3) *Full Moon*, when the Moon is most nearly opposite the Sun; and (4) *Last Quarter*, when the angle Sun-Moon-Earth is again 90°.

**Planet.** An opaque body which revolves around the Sun in a nearly circular orbit near the plane of the ecliptic. The principal planets, in order of distance from the Sun, are Mercury, Venus, the Earth, Mars, Jupiter, Saturn, Uranus, Neptune, and Pluto. Of these, Venus, Mars, Jupiter and Saturn are brilliantly conspicuous to the naked eye, and Mercury also is bright but so near the Sun as to be found only with some difficulty. A planet may be distinguished from the "fixed" stars by its comparatively steady light and, if watched for a few nights, by the fact that it does not remain fixed relative to apparently neighboring stars.

**Pole.** Point in the sky around which the apparent diurnal rotation of the sky takes place; point where the Earth's axis intersects the celestial sphere.

**Quadrature.** Elongation of 90°.

**Refraction, atmospheric.** Bending of the light of a heavenly body within the Earth's atmosphere, which causes the body to seem higher in the sky than it really is.

**Right ascension.** Apparent distance, measured along the celestial equator eastward, from the vernal equinox.

**Rising, setting.** Appearing upon the horizon. The times of rising and setting of the Sun and Moon, given in the Almanac, are the times at which the upper point of the body's disk would appear at the true horizon to an observer at sea level. They are therefore corrected for atmospheric refraction, but not for dip.

**Roman Indiction.** An arbitrary cycle of 15 years used in Roman and ecclesiastical history. The year 1 of the first cycle was the year 313 AD.

**Runs high, runs low.** Has greatest declination, north or south; has greatest or least altitude in the sky at meridian passage. Used in reference to the Moon.

**Signs of the zodiac.** Ancient divisions of the zodiac, each 30° in length, beginning at the vernal equinox and named for the twelve zodiacal constellations.

**Solar Cycle.** A period of 28 years, after which the days of the week, in the ancient Julian calendar, fell on the same days of the year.

**Sun fast, Sun slow.** Difference between local apparent solar time (sun-dial time) and the kind of time (Eastern Standard) used in the Almanac. The Sun is "fast" when the sun-dial indicates noon before Eastern standard noon. At Boston and vicinity the Sun is always "fast," but farther west it is alternately "fast" and "slow."

**Stationary.** Having no apparent motion among the stars. The apparent motion of each planet among the stars is of a zigzag nature, being toward the east for a considerable time, then westward for a shorter time, and then again eastward. At the points of reversal the planet is "stationary."

**Time.** The time of day, or number of hours and minutes since a certain point in the sky, chosen for reference, was on the meridian. For *apparent solar time* (sun-dial time) the point of reference is the Sun. Since the Sun moves in the sky at a rate which is not constant, it is impracticable to make clocks keep apparent solar time, and so a fictitious "mean sun," which moves in the celestial equator with uniform speed, is used instead, giving *mean solar time*. *Standard time* is the mean solar time of a certain meridian which is chosen as standard for a considerable region; these meridians are chosen at regular intervals from Greenwich, and *Eastern Standard Time* is Greenwich mean solar time minus exactly five hours. For further details, see the Almanac for 1934.

**Umbra.** Complete shadow.

**Vernal Equinox.** The point at which, in its apparent annual motion, the Sun crosses the celestial equator from south to north; the point occupied by the Sun at the moment of the beginning of Spring.

**Zodiac.** The belt of sky, eighteen degrees wide, which has the ecliptic as its central line. It contains the twelve zodiacal constellations and, at all times, the Sun, Moon, and principal planets.

## OCCULTATIONS OF STARS BY THE MOON, 1938

During the year 1938, the following occultations of stars of the fourth magnitude and brighter will be visible in the northeastern part of the United States. The times given are for Boston; for other places, the times will differ, in some cases by several minutes.

Date	Moon's Age	Star	Magnitude	Immersion	Emersion
Jan. 13	12	♁ Tauri	3.0	10:36 P.M.	11:40 P.M.
Jan. 14	13	♊ Geminorum	4.1	4:12 P.M.	5:00 P.M.
Apr. 20	20	♋ Sagittarii	4.0	2:19 A.M.	3:37 A.M.
July 10-11	13	♋ Sagittarii	4.0	10:47 P.M.	0:13 A.M.
Oct. 30	8	♄ Capricorni	3.2	7:04 P.M.	8:19 P.M.

## RECENT COMETS

During the year which ended June 30, 1937, four new comets were discovered and three previously-known comets were re-detected. These comets were as follows:

1. Comet 1936 b, discovered independently by three astronomers of whom the first was Kaho of Japan, 1936 July 17. Orbit parabolic, motion retrograde, inclination to plane of ecliptic 58 degrees; perihelion passage 1936 July 15 at a distance of 48 million miles from the Sun. For a few days following its discovery, this comet was faintly visible to the naked eye in the evening twilight, and it showed a little tail about 2 degrees long; but the comet's distance from the Earth increased rapidly and it was soon lost to sight.

2. Comet 1936 c, discovered by Jackson at Johannesburg, South Africa, 1936 September 20. Orbit elliptic, with a period of 8.5 years; inclination 13 degrees; perihelion passage 1936 October 3, at a distance of 136 million miles from the Sun. This comet was too faint to be seen by the naked eye.

3. Daniel's periodic comet of 1909, detected on its return in 1937 by Simizu in Japan on January 31. Although its period is only 6.8 years, this faint comet had not been observed since 1910. Perihelion passage 1937 January 28, inclination 20 degrees.

4. Comet 1937 b, discovered by Whipple at the Harvard College Observatory, 1937 February 14, on a photograph which had been taken on February 7. Very faint (magnitude 12) but showing a very short tail. Orbit probably parabolic, but owing to the comet's brief visibility, this is not certainly established. Perihelion passage 1937 June 20, at a distance of about 160 million miles from the Sun. Inclination 41 degrees.

5. Comet 1937 c, discovered independently by Wilk at Cracow, Poland, and by Peltier at Delphos, Ohio, 1937 February 27. Maximum magnitude 7, just missing naked-eye visibility; very short tail. Orbit parabolic. Perihelion passage 1937 February 21 at 58 million miles from the Sun; inclination 26 degrees.

6. Comet Grigg-Skjellerup, originally discovered in 1932, detected on its 1937 return by Cunningham at Harvard Observatory on April 30. Perihelion passage 1937 May 23 at 84 million miles from the Sun. Inclination 17 degrees. Very faint (magnitude 13).

7. The remarkable comet of Schwassmann-Wachmann which moves in a nearly circular orbit lying between the orbits of Jupiter and Saturn and which had been observed in every year except 1936 since its discovery in 1925 and in that interval had undergone wide variations in brightness. Detected by Van Biesbroeck at the Yerkes Observatory in Wisconsin, 1937 May 6.

## THE WIDE USES OF MILK TODAY

In a recent article by Professor W. H. E. Reid of the University of Missouri, the following statement is made: "The magnitude of the milk and milk products industry may be appreciated when it is realized that in 1935 (the last date available) a total of 45,838,000,000 pounds of milk were used in the manufacture of dairy products. With this growth, methods of production and processes of manufacture of the different type of dairy products have kept pace and today we find thousands of modern cheese factories, different types of creameries, ice cream, market milk, milk powder and casein plants, and condensaries located in the different states. The one great objective sought by all branches of the dairy industry has been a most sincere desire to furnish the consuming public with a finished product of superior quality. Manufacturers of dairy products today are spending greater sums of money than ever before for buildings, modern equipment, internal and external operations, qualified personnel, and especially for scientifically equipped laboratories. . . . This highly constructive program, which has been in progress for a period of years, is very closely associated with the requisites set forth by our national, state and local laws."

Hand in hand with this development has come the inspection of cattle, analysis of milk, inspection of barns and dairies, careful supervision by responsible agents all over the country. In addition has come the safeguard of pasteurization of milk and of course the prompt delivery from farm to home.

When one considers the vast consumption of milk and its products in every part of the country, on land and sea, in city and county, is it not natural to suppose that there can be realized a reasonable profit for the farmer as well as for the dealer who performs an efficient service in marketing the products?



## VERMONT

By DOROTHY CANFIELD

Vermont is being visited nowadays by all kinds of people from all over everywhere. They are not at all alike, but one impression they seem to have in common:—that when they step into Vermont they step backward in time.

Some of them like this, and some of them can't abide it. You'll hear some of them say approvingly, "Ah, Vermont represents the good old-American way of life." Another kind of temperament, rubbed the wrong way either by Vermonters, or by what they call "this faddy Vermont craze," says acidly that our state is "a hundred years behind the times." Modern visitors tell us we are sound and sane; they tell us we are reactionary and obstructionist; they say warmly, "Why, it's like walking into a history book. You can really understand your grandparents after a visit to Vermont." They cry out, appalled, "No movies for fifteen miles! People won't work for you unless they 'like' you! What everybody does is everybody's else business! Not for me!"

Vermont of course has no monopoly on this business of representing the past. Most mountain folk are forced by environment to stick to the old tried and true farming, herding and hunting scheme of life. The Basques in the Pyrenees for instance, never succumbed to the other forms of human organization which close around them rose and fell during the many centuries they have gone on catching fish, herding sheep and living on small farms. They proudly call your attention to the fact that the Roman Empire never imposed itself on them, with all its great power and prestige; nor yet feudalism; not even omnipotent industrialism. They have remained themselves, the Basques, and very much set up they are about it, although the idea occasionally crosses other people's minds that perhaps the Roman Empire, even though it did not last for ever, may have amounted to more in its time than all Basque mountain villages put together. In somewhat the same way Vermont represents (not because of any special quality in its people who are just Americans, like yourself) but because of its situation, topography, climate and soil, the kind of democracy in which Thomas Jefferson, Benjamin Franklin and yes, even George Washington for all his grand manner, would feel themselves reasonably at home; whereas if those gentlemen took their knee-breeches, ruffled shirts and eighteenth century ideas about life to Pittsburgh, Detroit, to that valley in California where so much of our lettuce is grown by factory methods, or to New York City, they would think they had landed on a planet unknown to them.

It is my thesis that this fact, whether you like it or not, is of interest to the rest of our nation. No invidious comparison of the relative values of old-fashioned Vermont life and up-to-the-minute Miami and Detroit life is needed to make this contrast between them stimulating to the American imagination. Family doctors often advise "a change of air" as the best tonic, and occasionally admit in confidence that it doesn't make much difference what kind of air it is, if it is different from what you have been breathing. So the difference between Vermont and other air may be stimulating to almost any American imagination.

You may be one of those urban people who revel in the protection from too close contact with their fellow-man afforded by the watertight compartments of city life. If so, when you encounter Vermont dyed to the marrow as it is with field-forest-and-village color, you will shudder away, remember with affection what Marx said about "the imbecility of country life," and flee back as to sanctuary to the place where you can have all you want of the rich delight of not having anybody care whether you live or die, and where cash can buy you almost anything in sight. Or on the contrary, you may find a strange, primitive, nostalgic, atavistic pleasure in being in human and personal relations with each of the few men, women and children you see every day, rather than in impersonal and strictly business relations with a great many; you may be enchanted and reposed by your first contact with the slow tempo of Vermont life, with the relatively small role played by wealth, social rank, and buying-and-selling in its everyday life—although I must stop here to warn you in all honesty that the women-folk of city families have been known to pine away in Vermont almost alarmingly when deprived of the vitamin of daily shopping, and positively to fall into

declines when compelled to go for a whole week without seeing anything to buy except necessary food.

If you belong to the first class, just consider gratefully your debt to the Green Mountain State as, after a visit here, you lock yourself safely back into your hole in an apartment hotel where you can be cared for and protected in exact ratio to the amount of cash you spend on service without having to bother to respect the personalities of those who serve you. What else could have enhanced your appreciation of the isolation and anonymity of city life, and of the glorious power of money, so much as a glimpse of Vermont?

If you belong to the second class of people—why come on in and stay awhile! Glad to see you!

Yes, I submit that, with all allowances made, stability, just plain stability, is so unusual in human affairs, especially in our dizzily changing America, as to have a value of its own.

A scarcity value, anyhow.

## STATE ELECTIONS IN NEW ENGLAND

In all the New England States, Legislatures and Governors are now elected every second year. The next elections will be in 1938. All these elections are on the Tuesday next after the first Monday in November, except that in Maine, which is on the second Monday in September.

## HOLIDAYS IN NEW ENGLAND

The following days are legal Holidays. If the day falls on Sunday the day following is usually kept as a Holiday. Thanksgiving and Fast are appointed by State or National authority.

**Maine.** Jan. 1, Feb. 22, Apr. 19, May 30, July 4, 1st Mon. Sept., State Election Day, Nov. 11, Thanksgiving and Christmas. **New Hampshire.** Jan. 1, Feb. 22, 3rd or 4th Thurs. April, May 30, July 4, 1st. Mon. Sept., Oct. 12, Nov. Election Day, Nov. 11, Thanksgiving and Christmas. **Vermont.** Jan. 1, Feb. 22, May 30, July 4, Aug. 16, 1st Mon. Sept., Oct. 12, Nov. 11, Thanksgiving and Christmas. **Massachusetts.** Jan. 1; Feb. 22, Apr. 19, May 30, June 17 in Suffolk Co. only, July 4, 1st Mon. Sept., Oct. 12, Nov. 11, Thanksgiving and Christmas. **Rhode Island.** Jan. 1, Feb. 22, May 4, May 30, July 4, 1st Mon. Sept., Oct. 12, Nov. Election Day, Nov. 11, Thanksgiving and Christmas. **Connecticut.** Jan. 1, Feb. 12, Feb. 22, Fast, May 30, July 4, 1st Mon. Sept., Oct. 12, Nov. 11, Thanksgiving and Christmas.

## FLOWERS OF THE MONTHS

January	Snowdrop: Fidelity; Hope; Purity
February	Primrose: Sincerity; Youth
March	Violet: Faithfulness; Love; Modesty
April	Daisy: Innocence; Patience; Peace
May	Hawthorn: Hope; Happy domestic life
June	Honeysuckle: Fidelity; Love; Devotion
July	Water-lily: Purity of heart; Faith
August	Poppy: Consolation
September	Morning-glory: Affectation; Equanimity
October	Hop: Hope
November	Chrysanthemum: Fidelity; Love
December	Holly: Domestic happiness; Foresight

## A MESSAGE TO THE READERS OF THE OLD FARMER'S ALMANAC

From HENRY A. WALLACE, Secretary of Agriculture

I should like to enlist the aid of the readers of The Old Farmer's Almanac in a long-time campaign. It has to do with grass, that most humble, most widespread and least appreciated of all our agricultural resources. The purpose of the campaign is first of all to make the people of the United States "grass-conscious" to at least the same extent that they are now "tree-conscious."

Forty years ago an unusual interest in trees began to develop and thirty years ago thousands of young men became very much interested in the idea of training themselves for forestry. While we still have a long way to go before the nation has a sufficient appreciation of trees, we have a much greater distance to go before it has a sufficient appreciation of grass.

Trees are dramatic. Grass is humble. We think of trees in terms of beauty and shade, furniture and houses. Trees are long lived and grass is short lived. Yet in its humble way, grass is perhaps just as important as trees in renewing the fundamental resources of the United States.

We in this country have not taken as much interest in grass as the farmers of England. But we really should take more interest because the nature of our weather and our agriculture is such as to make the intelligent use of grass absolutely necessary if we are to avoid further soil disaster.

We have in the United States roughly 300 million acres of crop land of which about 100 million is in corn, 35 million in cotton and 20 million acres in potatoes, sorghums and other crops which leave the soil exposed to the rain during the growing season. In Europe outside of Russia they have almost exactly the same number of acres of crop land as we have in the United States, but they have only 65 million acres in row crops as compared with our 155 million acres. In other words, the United States with the same area of crop land as Europe exposes two and a half times as many acres to the more serious forms of erosion. Moreover the rains over the greater part of Europe do not come in such sudden, dashing downpours as over that part of the United States where the row crops are found. On this combination of dashing rains and vast acreages in row crops rests the responsibility for most of the terrific erosion damage in the eastern part of the United States. In the western part of this country the damage is due in part to growing wheat on land that ought never to have been plowed, and even in greater part to overgrazing.

But in four cases out of five, whether in eastern or in western United States, the cure for the trouble can be found in proper use of grass. We don't need to lose our grass and our soil. We can put tens of millions of acres now in corn, cotton and wheat back to grass. We can put millions of acres of sloping and blown land back to grass. Before the World War we had to overplow and overgraze in order to pay the interest on the debt we owed to Europe. But now we are in considerable measure free from Europe. At any rate, we no longer have to overplow and overgraze to pay interest to Europe. Our chief debt is to our own farmers and our own soil. The problem is to use grass more skillfully to pay that debt in a way that will bring about the maximum of welfare to all the people of the United States in the long run. In spite of exceedingly unfavorable weather we have made a beginning on this problem. We shall continue to work on it until the income of the average farmer and the soil on the average farm are far safer than they are today.

## AGRICULTURAL COLLEGES

By M. GALE EASTMAN

Any person near middle age who spent his younger days in growing up on a New England farm hardly needs to be reminded that things have changed. Educational institutions, however, may experience a bit of difficulty in attempting to orient all the younger generation to appreciate properly the present and relate it to the past.

An occasional appraisal of this kind may be wholesome for all of us. Times of great change are wont to be times of criticism. We fail to appreciate how far we have come in our zeal to visualize the distances we may have the inspiration yet to hope to go. To take some account of stock concerning rural education, in general, and that institution called the Agricultural College, in particular, may not be amiss.

The Land-Grant Colleges, scarcely more than half a century old, now stand at the head of a well-organized group of services to help the farmers, and, through them, all the people of America, if not of the world. Authorized and stimulated by the Congressional Act of 1862, which took its name from our own Senator Justin S. Morrill of Vermont, New England States were among the first to avail themselves of this opportunity for each commonwealth to inaugurate a great educational adventure in the form of an Agricultural College.

Some twenty-five years of college experience in the agricultural phase of education placed these institutions well beyond the original experimental concept. However, the paucity of factual material, and the need of more information concerning this great enterprise under consideration were every year receiving added emphasis, and in 1887 Congress passed the Hatch Act establishing the "agricultural experiment stations." The expressed purpose of this act was "to aid in acquiring and diffusing—useful and practical information—and to promote scientific investigation and experiment—under direction of the colleges."

Finally, no longer ago than 1914, came Congressional action under the name of the Smith-Lever Act, providing authority and additional money to carry this growing fund of information and better means of teaching to a larger group, through the "giving of instruction and practical demonstrations in agriculture and home economics to persons not attending nor resident in said colleges."

More recently and periodically, many additional acts and amendments have been added to all these lines of activity in a successful endeavor to keep all farmers in America on a self-respecting basis. In general, however, the triumvirate of services, as named, including the finding of facts, the active dissemination of these facts among those who may never matriculate in college, as well as the more intensive instruction of the fewer young men and women who find residence on campus to work for a degree a possibility, represent the framework or backbone of this great system of services to humanity.

Contemporary with the Land-Grant College Act, Millet in Europe completed his picture, "The Man with the Hoe" as typical of peasant life. That same year our Congress passed, also, the Homestead Act, practically offering free to him who had the courage to try to farm it, the best land for agricultural purposes that the world has ever known. It was located in a relatively new region of ours called "The Middle West." New England people were not slow to send representatives to accept this challenge.

The peasant type of agriculture in this country has never been condoned. New England early struck the keynote. America's Edwin Markham, himself a son of the "middle border," has well expressed our general reactions. He called the man in whom Millet tried to depict his great love for a contemporary workman and his deep appreciation of the dignity of labor "a monstrous thing distorted and soul quenched," a "dread" and "terrible shape," "a thing that grieves not and that never hopes," a "brother to the ox" and many other things which would have surprised and sorely grieved Millet, but which were not inconsistent with American rural idealism.

And to this idealistic end, these great enlightening services of college, research and extension work are striving and are succeeding. One glory of America is that we can say: Agriculture, farming, is worth while. It is important—a world-satisfying business. It demands all-around skill in body and mind, and it has its compensations, not alone in money but in satisfaction and service. It is worthy of a man!

## LIME IN AGRICULTURE

By FORD S. PRINCE

The excellence of limestone soils over those formed from other kinds of rock has given rise to the ancient adage, "A limestone country is a rich country." Their superiority is mostly accounted for by the higher content of calcium carbonate and lower acidity of these soils which makes them ideal for crop production.

Few of the soils of the northeastern states were formed from limestone. Even these now mostly need an application of lime, for continued cropping and leaching have removed most of the lime from the surface soil. The other soils, formed from granite, schist, and similar rocks, are all acid and present a lime requirement of from one to three or more tons of ground limestone per acre, the amount needed depending upon the soil, the extent of leaching, and the lime needs of the crop to be grown.

Reducing acidity in soils makes them more favorable for crop production. Under the magic influence of lime, friendly bacteria thrive, organic matter decays rapidly, plant food is released, and the mineral elements of the soil are made more available to plants. With abundant lime present, nodule bacteria of legumes are encouraged to gather more nitrogen from the air. This enriches the plants and the soils as well.

Two troublesome elements, aluminum and iron, go into solution in abundance in strongly acid soils. These elements have a strong affinity for fertilizer phosphorus and render it insoluble, so that it is often impossible for plants to get a normal supply of this element. Liming helps to correct this undesirable condition.

Lime makes heavy soils lighter, improves their drainage, and facilitates tillage operations. Plant roots are thereby permitted to penetrate more deeply for their food.

According to Slipher, who summarized the effects of lime on crop yields from work that has been done in seventeen eastern states, the net increase from liming is four dollars an acre each year. He assumed that one dollar in net income increased the value of the farm ten dollars an acre, which means an added value of forty dollars an acre for the land for the four dollar increase.

Ground limestone is usually cheaper in terms of neutralizing value, but hydrated lime, burned lime, and lime mixtures are often purchased. These latter kinds are more soluble and are sometimes preferable for top-dressing. On strongly acid soils that lack magnesium a limestone high in this element may be indicated.

Before lime is used for any crop, a soil test should be made to determine the degree of acidity present. Acidity is more commonly expressed in terms of pH, which refers to the concentration of acids in the soil. At pH 7.0 a soil is neutral; at pH 7.5 it is alkaline, at pH 6.0 it is slightly acid, and pH 5.0 is a strong acid reaction. Around pH 5.0 clover fails to grow, bacterial activity slows up, and the soil begins to present aspects of infertility. The average untreated soil of the northeast tests somewhere between pH 5.0 and 5.5. Many soils run below pH 5.0, while some, particularly those with limestone influence in their formation, test above pH 5.5.

Vegetables vary in respect to their lime requirement, spinach, lettuce, asparagus, onions, and celery having a high lime need, while beans, corn, and tomatoes are more tolerant of acidity. Members of the cabbage family along with carrots, chard, cucumbers, squash, and eggplant are intermediate in their needs for lime. If the soil test is pH 5.2, two tons of ground limestone should be applied for the high lime vegetables, one ton for those in the intermediate group, and one half ton for those in the tolerant category. Potatoes are an exception and the soil should not be limed for this crop except when the pH is below 5.2, and then small amounts only should be applied.

Alfalfa and sweet clover have the highest lime requirement among the field crops, pH 6.0 or above. The other clovers, barley, corn, wheat, and timothy will grow well on a soil at pH 5.5 to 6.0, while vetch, rye, buckwheat, red top, and some others will do well below pH 5.5.

Lime should be worked into the soil after plowing. It is better not to use excessive amounts, but to lime to the reaction at which the crop will thrive and to repeat with a small application once every few years. In this way costs will be lower and excessive losses from leaching will be avoided.

## PLANTING TABLE FOR VARIOUS GARDEN CROPS

Vegetable	Seed or Plants per 100 ft. row	No. Seeds per foot	Earliest† Planting date	Latest Planting date	Distance between rows, Inches		Chief Insect or Disease Enemies	Control
					Max.	Min.		
Asparagus	50 pnts.		Apr. 15	May 15	48	36	Asparagus rot	Plant resistant varieties
Beans, string	4 oz.	4-6	May 15	July 15	36	24	Mexican Bean Beetle	Spray with magnesium arsenate
Beans, dry shell	1-4 oz.	4-6	May 25	June 10	36	24	Cutworm	Poison bran mash
Beets	¼ oz.	5-8	Apr. 15	July 15	30	12		
Brussels Sprouts	60 pnts.		June 1-15	July 1	36	24	Aphls	Dust with nicotine sulphate lime dust
Cabbage	60 pnts.		Apr. 15	July 1	36	24	Green worm	Dust with 10-90 calcium arsenate lime dust
Carrot	1/10 oz.	5-8	Apr. 15	Aug. 1	30	12	Rust fly	Plant before May 1 or after July 1
Cauliflower	60 pnts.		May 1	July 15	36	24	Maggot	Four corrosive sublimate solution around plants, 1-1000 strength
Celery	200 pnts.		May 15	July 15	36	24	Blight	Dust with 20-80 dust
Cucumber	¼ oz.	5-8*	May 15	June 20	60	48	Beetle	Dust with 10-90 calcium arsenate lime dust
Egg plant	60 pnts.		May 25	June 1	36	24	Flea beetle	Dust with 10-90 calcium arsenate lime dust
Endive	1/10 oz.	4-6	June 1-15	July 15	24	18		
Lettuce	1/10 oz.	5-10	Apr. 15	Aug. 1	30	12		
Muskmelons	¼ oz.	5-8*	May 20	June 1	60	48	See cucumber	
Onions	¼ oz.	10-12	Apr. 25	May 15	24	12	Trips	Spray at evening with nicotine sulphate
Onion sets	½ lb.	5-6	Apr. 25	May 15	24	12	Trips	Spray at evening with nicotine sulphate
Parsnips	1/10 oz.	8-10	May 10	June 15	30	18		
Peas	¼ lb.	5-8	Apr. 15	June 1	30	24	Aphls, foot rot	Plant on new or disease free soil
Pepper	75 pnts.		May 25	June 1	30	24		
Potatoes	5 lbs.	1	May 1	June 1	42	30	Potato beetle blight	Dust with 20-10-70 dust
Radish	¼ oz.	10	Apr. 15	Sept. 1	24	12	Maggot	Calomel gypsum dust in furrow
Spinach	¼ oz.	10-12	Apr. 15	Aug. 15	24	12	Damping off	Treat seed with red oxide of copper
Squash, winter	1 oz.	5-8*	May 15	June 1	96	72	Squash bug	Use nicotine dust
Sweet Corn	2 oz.	2-3	May 10	July 1	36	30		
Tomatoes	25 pnts.		May 25	June 1	60	24	Flea beetle	20-10-70 copper lime dust
Turnips	1/10 oz.	5-10	Apr. 15	Aug. 20	24	12	Maggot	Same as radish

†For Boston and vicinity. North of Boston, plant early crops later. \*Per hill.



## PRESIDENT, VICE-PRESIDENT AND CABINET

President .....Franklin Delano Roosevelt .....New York  
 Vice-President .....John Nance Garner .....Texas

Members of the Cabinet: Secretary of State, Cordell Hull, Tennessee; Secretary of the Treasury, Henry Morgenthau, Jr., New York; Secretary of War, Harry H. Woodring, Kansas; Attorney General, Homer S. Cummings, Connecticut; Postmaster General, James A. Farley, New York; Secretary of the Navy, Claude A. Swanson, Virginia; Secretary of the Interior, Harold L. Ickes, Illinois; Secretary of Agriculture, Henry A. Wallace, Iowa; Secretary of Commerce, Daniel C. Roper, South Carolina; Secretary of Labor, Miss Frances Perkins, New York.

### CHIEF INDEPENDENT OFFICES

Civil Service, Harry B. Mitchell; Interstate Commerce, Carroll Miller; Federal Reserve Bank, Marriner S. Eccles, Chairman; U. S. Tariff Commission, Raymond B. Stevens, Chairman; Veterans Administration, Brig. Gen. Frank T. Hines; Tennessee Valley Authority, Arthur E. Morgan; Farm Credit, W. I. Myers; Federal Emergency Relief, Harry L. Hopkins; Works Progress, Harry L. Hopkins; Securities and Exchange Commission, William O. Douglas; Social Security Board, Arthur J. Altmeyer; Director of the Budget, Daniel W. Bell, Acting Director.

## PRESIDENTS OF THE UNITED STATES

No. and Name	Politics	Native State	Born	In- aug.	Age at Inaug.	Date of Death	Age at Death
1. George Washington.....	Fed.	Va.	1732, Feb. 22	1789	57	1799, Dec. 14	67
2. John Adams.....	Fed.	Mass.	1735, Oct. 30	1797	61	1826, July 4	90
3. Thomas Jefferson.....	Rep.	Va.	1743, Apr. 13	1801	57	1826, July 4	83
4. James Madison.....	Rep.	Va.	1751, Mar. 16	1809	57	1836, June 28	85
5. James Monroe.....	Rep.	Va.	1758, Apr. 28	1817	58	1831, July 4	73
6. John Quincy Adams.....	Rep.	Mass.	1767, July 11	1825	57	1848, Feb. 23	80
7. Andrew Jackson.....	Dem.	N. C.	1767, Mar. 15	1829	61	1845, June 8	78
8. Martin Van Buren.....	Dem.	N. Y.	1782, Dec. 5	1837	54	1862, July 24	79
9. William Henry Harrison...	Whig	Va.	1773, Feb. 9	1841	68	1841, Apr. 4	68
10. John Tyler.....	Dem.	Va.	1790, Mar. 29	1841	51	1862, Jan. 17	71
11. James Knox Polk.....	Dem.	N. C.	1795, Nov. 2	1845	49	1849, June 15	53
12. Zachary Taylor.....	Whig	Va.	1784, Nov. 24	1849	64	1850, July 9	65
13. Millard Fillmore.....	Whig	N. Y.	1800, Jan. 7	1850	50	1874, Mar. 8	74
14. Franklin Pierce.....	Dem.	N. H.	1804, Nov. 23	1853	48	1869, Oct. 8	64
15. James Buchanan.....	Dem.	Pa.	1791, Apr. 23	1857	65	1868, June 1	77
16. Abraham Lincoln.....	Rep.	Ky.	1809, Feb. 12	1861	52	1865, Apr. 15	56
17. Andrew Johnson.....	Rep.	N. C.	1808, Dec. 29	1865	56	1875, July 31	66
18. Ulysses Simpson Grant....	Rep.	Ohio	1822, Apr. 27	1869	46	1885, July 23	63
19. Rutherford Birchard Hayes	Rep.	Ohio	1822, Oct. 4	1877	54	1893, Jan. 17	70
20. James Abram Garfield.....	Rep.	Ohio	1831, Nov. 19	1881	49	1881, Sept. 19	49
21. Chester Alan Arthur.....	Rep.	Vt.	1830, Oct. 5	1881	50	1886, Nov. 18	56
22. Grover Cleveland.....	Dem.	N. J.	1837, Mar. 18	1885	47	1908, June 24	71
23. Benjamin Harrison.....	Rep.	Ohio	1833, Aug. 20	1889	55	1901, Mar. 13	67
24. Grover Cleveland.....	Dem.	N. J.	1837, Mar. 18	1893	55	1908, June 24	71
25. William McKinley.....	Rep.	Ohio	1843, Jan. 29	1897	54	1901, Sept. 14	58
26. Theodore Roosevelt.....	Rep.	N. Y.	1858, Oct. 27	1901	42	1919, Jan. 6	61
27. William Howard Taft.....	Rep.	Ohio	1857, Sept. 8	1909	51	1930, Mar. 8	72
28. Woodrow Wilson.....	Dem.	Va.	1856, Dec. 28	1913	56	1924, Feb. 3	67
29. Warren Gamaliel Harding..	Rep.	Ohio	1865, Nov. 2	1921	55	1923, Aug. 2	58
30. Calvin Coolidge.....	Rep.	Vt.	1872, July 4	1923	51	1933, Jan. 5	60
31. Herbert Clark Hoover.....	Rep.	Iowa	1874, Aug. 10	1929	54	.....	..
32. Franklin Delano Roosevelt	Dem.	N. Y.	1882, Jan. 30	1933	51	.....	..

### SUPREME COURT OF THE UNITED STATES

Chief Justice, Charles Evans Hughes

Associate Justices, Louis D. Brandeis, James C. McReynolds, George Sutherland, Owen J. Roberts, Pierce Butler, Harlan F. Stone, Benjamin N. Cardozo, Hugo L. Black.



## CHARADES by Arthur W. Bell

1

Where feelings democratic bide,  
Within My First the masses ride.  
All persons as My Last are rated  
By marriage or by blood related.  
Quite proper he should rant and  
rage,  
Who dons My Whole to tread  
the stage.

2

"My First," a child may cry, left  
in the lurch;  
My Last, a call, comes from a  
higher perch:  
Behind the bars, apparently for  
fun,  
My Whole may mock the two or  
either one.

3

My First, a state, (here briefly  
known),  
Who hails therefrom must needs  
be shown.  
A gleam amid the Scottish hills,  
My Last is fed by Scottish rills.  
Once pagan parents superstitious  
Were wont, to make their gods  
propitious,  
To yield their young with pious  
grace  
Into My Total's hot embrace.

4

My First, climactic apex, is a  
dressing for the hair,  
My Last denotes fertility to speed  
the married pair;  
Those actuated by My Whole  
will ne'er get anywhere.

5

My First aglow with borrowed  
light,  
My Second is a ship's dimension;  
My Whole, as seen to dance by  
night  
Au clair de lune, defies deten-  
tion.

6

### My First

Its heritage of work and toil  
Has met relief from gas and oil.

### My Second

Is that which, in its walk of life,  
A sole mate has, but not a wife.

### My Whole

To pick and back its wearer  
nimble  
Is luck, for which My Whole's a  
symbol.

7

My First was in the good old  
days  
Suspended just above the blaze.  
An angler who had none before,  
Today, My Last may have galore.  
True hospitality is there  
In asking one My Whole to share.

8

Can one, at first, My First but  
say,  
Then stoutly hold to it when  
said,  
Avoid a habit bad he may,  
From which My Last is later  
bred.  
My Whole, yet uninitiate,  
Is still in his novitiate.

9

My First will oft times match the  
cloak,  
My Last may intimate a joke;  
My Whole to do would be to pull  
Across your victim's eyes the  
wool.

10

My First, myself, "My Last" may  
cry in woe,  
The Total of the two is all I owe.  
A hundred eyes kept watch upon  
My Whole,  
That is, upon her transmigrated  
soul.

11

How first the aspiration came,  
Which is My First, I wonder;  
Attempting to obtain the same,  
My Whole is torn asunder.  
My First as lacking substance  
must be classed,  
My Whole, again, in substance  
is My Last.

12

Above My First one's shares may  
soar,  
Then drop below as much or  
more;  
Could "longs" and "shorts" but  
know before!  
A goodly knight of olden days  
Might break My Last his way to  
blaze  
To honor and his lady's praise.  
My Whole I have employed  
above,  
Of trade, knight-errantry and  
love.

13

One's own My First is borne by  
each,  
Which is a figurative symbol.  
My Last may serve to heal the  
breach,  
With aid of needle, thread and  
thimble.  
My Whole is mocked, with good  
excuse,  
Among the rhymes of Mother  
Goose.

14

My Whole their blades received,  
the conflict o'er;  
And My First is nature's dressing  
of the sore:  
Ancient deeds of great renown  
By My Last were handed down,  
Preservers of tradition and folk-  
lore.

The answers to these charades will be found on page 53.

## A SOUNDER BASIS FOR WOODLOT FORESTRY

*(Written for The Old Farmer's Almanac)*

By A. C. CLINE

Assistant Director, Harvard Forest, Harvard University

In *The Old Farmer's Almanac* for 1937 the writer predicted a prosperous future for private forestry, in view of growing public recognition of the need to conserve the nation's resources in soil, water and vegetation, and a willingness to assist the needy private owner financially in restoring the productivity of run-down land and forests. For example, under the Agricultural Conservation Program of the past year hundreds of farm woodlot owners have availed themselves of benefit payments for planting forest trees, making improvement cuttings of various kinds in existing stands, and fencing woodlots to prevent harmful grazing. As a result of a century or more of forest exploitation with little or no thought of the future, a period of comparatively costly forest upbuilding is unavoidable, and in this the general public rightfully has both an interest and a responsibility.

Reference was made also to the expectable benefits from the formation of forest co-operative associations. One of the greatest drawbacks to forestry on small, isolated holdings has been the impossibility, under existing conditions, of selective cutting, and the manufacture and marketing of small quantities of material on an efficient and profitable basis. Furthermore, because of his unfamiliarity with markets, stumpage values, and costs and methods of logging, the individual owner frequently is unable to deal on even terms with lumber buyers and sawmill operators. He knows that his woodlot contains trees of many different kinds and qualities, capable of yielding a variety of wood products, and that there must be a wide range in stumpage values represented. But, when it comes to making a sale, he oftentimes accepts a flat rate of so many dollars per thousand board feet for the entire woodlot, with the understanding that all merchantable trees are to be included in the cut, and with the unpleasant anticipation of the land being left covered with slash and unproductive of income for several decades to come. For the small woodlot owner the forest co-operative offers the advantages of group action, with the employment of competent technical advice and direct aid in the management of his forest and the marketing of its products, whether they be logs, poles, cordwood, Christmas trees, or hunting rights. Under a soundly organized co-operative better prices for stumpage, surer outlets for forest products, and hence greater inducements to practice forestry are certain to result. Clear-cutting and wasteful exploitation under the existing methods of portable milling may then be expected to give way to selective cutting and the trucking of logs and other raw materials to stationary mills or permanent wood-using industries—a condition which will mark the beginning of real forest conservation.

The writer is aware that, despite these aids and assurances, many thoughtful persons will remain skeptical of the profitability of private forestry, and well they may, if their opinions are based too largely on certain past practices which have since proved to be faulty. Probably the greatest error in judgment on the part of early foresters and forestry propagandists was the placing of so much emphasis on growing white pine. It was quite natural to do this, to be sure, in the days when millions of board feet of second-growth, self-seeded on abandoned fields and pastures, were being cut annually, and at a considerable profit to the stumpage owner. Few realized that "old field" pine was purely a temporary sort of stand, resulting from farm abandonment, and that the "natural" forest growth over most of the woodlot section of the Northeast was something quite different. Now it has become evident that pine, after logging, is followed by a mixture of hardwoods, rather than by another volunteer stand of pine, and that to establish a cutover land plantation in competition with the hardwoods is a costly procedure. Also, sufficient time has passed to show that the pine planters of the early days will reap an inferior crop of forked and crooked trees, due chiefly to repeated attacks by the white pine weevil, an insect which became more and more destructive as its food supply increased. Even so, the notion that forestry consists in planting uniform stands of conifers was so firmly ingrained in the public mind that, instead of

taking this outcome as a warning against planting pure stands of conifers, interest merely shifted to other coniferous species, such as red pine, which were thought to be free from pests and diseases. Unfortunately, in these days no species is "safe." Means of communication between countries have developed to the point where world-wide distribution of plant pests and diseases can scarcely be prevented, besides which any pure stand providing a concentration of a favored host species may fall prey to a native enemy, as has been so well demonstrated in the case of the white pine weevil.

By far the best and surest way to avoid hereafter the troubles which have beset so many pure plantations is to turn to the development of mixed stands composed of a variety of both coniferous and hardwood species, well-adapted to the local climate and soil, and designed to afford the greatest protection against destructive agencies. Unlimited opportunities to proceed in this direction are on every hand—in the form of thousands of acres of well-stocked "natural" stands on cutover land, mixtures of native species which lend themselves to profitable silvicultural treatment and which give promise of much greater security and wider usefulness for all purposes than the "artificial" plantings of the past. Thus, while from now on forestry may appear more complex to the woodland owner, it will be on an immeasurably safer and sounder basis, and efforts formerly devoted largely to planting pine seedlings on idle acres will be much more effectively expended in a greater variety of cultural work, including weeding, thinning, pruning, and selective cutting in existing wild stands, as well as the planting of mixed stands on land not restocking naturally. At the same time, the recognition of the true worth of the present wild stands may bring to an end the wasteful practice of clear-cutting hardwood stands for cordwood, regardless of the kind and quality of trees present, their future value as sawtimber, or the deterioration of the growing stock by setting it back to comparatively worthless stump sprouts. In many cases improvement cuttings and thinnings in young and middle-aged hardwood stands would yield sufficient cordwood and other products to pay for the treatments, and pave the way for future sawtimber crops worth several hundred dollars per acre in stumpage. The need for favoring the better hardwood species as an essential element in our Northeastern forests cannot be overemphasized.

The writer is thoroughly convinced that, through the combination of temporary public aid in restoring deteriorated forest soils and growing stocks, the co-operation of forest owners, in management and marketing, and the application of sound silvicultural practices firmly based on natural associations of trees species and habits of growth, forestry will become a satisfying and profitable undertaking for the private owner.

June, 1937.

## BEAUFORT'S SCALE OF WINDS

Used Mostly at Sea but of Help to all who are interested in the Weather

Force	Description	Statute Miles Per Hour
0	Calm .....	0 to 3
1	Light air .....	3 to 8
2	Light breeze .....	8 to 13
3	Gentle breeze .....	13 to 18
4	Moderate breeze .....	18 to 23
5	Fresh breeze .....	23 to 28
6	Strong breeze .....	28 to 34
7	Moderate gale .....	34 to 40
8	Fresh gale .....	40 to 48
9	Strong gale .....	48 to 56
10	Whole gale .....	56 to 65
11	Storm .....	65 to 75
12	Hurricane .....	75 and over

## THE AUTOMOBILE IN NEW ENGLAND

*The laws and regulations relating to the operation of motor vehicles are subject to frequent changes, and some may possibly occur after the time of our going to press.*

*These laws are taken from State Law books and substantiated by the Registrar of Automobiles in each New England State in October, 1937.*

### MAINE

**CAR REGISTRATION:** With Secretary of State. Expires December 31. May be used until March 1. (Except Dealers.)

**FEES:** Passenger vehicles, 25 cents per horsepower plus 25 cents per hundredweight, 50 cents per hundredweight if solid tires. Motor vehicles used for hire or livery, double these fees. Reduced one-half September 1st.

**DRIVER'S LICENSE:** To persons 15 or over. Between 15 and 18 application requires father's signature if living, otherwise by mother or guardian having custody of minor. Employer may sign when applicant has no father, mother or guardian. Fee \$2.00. Expires Dec. 31. Chauffeur's license issued to persons 18 or over. Fee \$3.00.

**LIGHTS:** From half hour after sunset to half hour before sunrise. Must conform to regulations of Secretary of State. If vehicle is so constructed or controlled that it can exceed a speed of 15 miles per hour, its front lamps must render discernible objects 200 feet ahead on level road and at the same time at least 7 feet to the right of the axis of the vehicle for 100 feet. No part of the light beam when projected 75 feet or more ahead of lamps is to be more than 42 inches higher than surface on which vehicle stands. If vehicle is so constructed or controlled that it cannot exceed a speed of 15 miles per hour, the requirements are less.

**SPEED:** 15 miles per hour when passing school at recess or during opening and closing periods and when approaching within 50 feet of an intersection. 25 miles per hour in business and built-up portions. *Prima facie* lawful speed 35 miles per hour under all other conditions. Must be reasonable and proper so as not to endanger persons or property. Commercial vehicles, pneumatic tires, 35 miles in open country and 12 miles in built-up portions. Equipped with hard tires, 15 miles in open country and ten miles in built-up portions. Bus not to exceed 45 miles per hour.

**NON-RESIDENTS:** Pleasure cars exempt from Maine registration if properly registered in State of owner's residence. Trucks, tractors and trailers not owned by foreign corporations doing business in this State having capacity of 1½ tons or less, exempt. All others must register. Cars operated for hire require Maine registration.

**MOTOR TRUCKS:** Registration fees: Based on capacity and kind of tires. Range from \$10.00 on 1000 pounds or less to \$400.00 for over 12 tons with hard tires.

**INSURANCE:** In case of conviction of violation of certain sections of the automobile law, proof of financial responsibility required; Registration suspended until furnished. Such proof may be in the form of insurance, bond, real estate lien, collateral or money. Also required of all trucks operated as Interstate, Contract or Common Carriers, and any motor vehicle operated as a public car.

### NEW HAMPSHIRE

**CAR REGISTRATION:** With the Commissioner of Motor Vehicles. Expires April 1.

**FEES:** Vehicles equipped with pneumatic tires, not exceeding 4000 pounds, 35 cents per 100 pounds. The fees increase with weight until they reach 60 cents per 100 pounds on weights of over 8000 pounds. For all vehicles with hard rubber tires 20 cents per 100 pounds is added to the above rates. For all vehicles with iron, steel or other hard tires 40 cents per 100 pounds is added to the above rates.

The minimum fee is \$10 for a passenger vehicle. No motor vehicle owned or controlled by a resident may be registered without a permit from the city or town where such owner resides. Fee for permit varies from 17 mills to 3 mills per \$1 of list price according to year of manufacture. Exemption where applicant for permit has been assessed on property used in purchase of car.

**DRIVER'S LICENSE:** Persons 16 or over. Original license and examination, \$3. Expires December 31; renewals, \$2; chauffeur's license to persons over 18. Fee, \$5; renewals, \$2.

**NON-RESIDENT OWNER:** A non-resident owner of a motor vehicle which is used solely for pleasure and is not used for carrying passengers or property for a profit or for hire, and which has been duly registered for the current year in the state or country of which the owner is a resident, and in accordance with the laws thereof shall not be required to register such motor vehicle in this state.

**OPERATOR'S LICENSE:** No owner of such motor vehicle and no non-resident chauffeur or driver of such vehicle who is the holder of a license to drive such vehicle in the state or country in which he resides shall be required to purchase a license to drive such vehicle within this state.

**LIGHTS:** Between half hour after sunset and half hour before sunrise. Lights from front lamps to be visible at least 200 feet in the direction in which the vehicle is proceeding. Headlights must have dimmers.

**SPEED:** *Prima facie* unlawful if exceeding 15 miles an hour passing a school, 20 miles an hour in business district, 25 miles an hour in resident district and other than that the rate of speed is to be determined and posted by the Commissioner of Motor Vehicles

## VERMONT

**CAR REGISTRATION:** With Commissioner of Motor Vehicles, Montpelier, Vt. Expires March 31.

**FEES:** Motor vehicles, pleasure car type. Manufacturer's weight: 2000 pounds or less, \$12.00; 2001 pounds to 2500 pounds, \$14.00; 2501 pounds to 3000 pounds, \$18.00; 3001 pounds to 3500 pounds, \$21.00; 3501 pounds to 4000 pounds, \$25.00; 4001 pounds to 4500 pounds, \$29.00; 4501 pounds and over, \$33.00, provided, however, models later than 1936 register for not less than \$18.00.

**DRIVER'S LICENSE:** To persons 18 or over. Junior's license to persons 16 and 17, \$2.50. Expires March 31.

**Restrictions as to Sizes:** Width, 96 inches. Height, 12 feet. Length, Single unit:—50 feet. Tractor, semi-trailer, 50 feet. Other combinations, 50 feet.

**NUMBER OF TRAILERS:** 1 trailer or 1 semi-trailer only permitted.

**MINIMUM AXLE SPACING:** When gross weight is in excess of 20,000 pounds, 40 inches.

**CLEARANCE LIGHTS:**—Required on all motor vehicles having a width in excess of 80 inches. Green at front; red at rear. Left edge. Compliance with I.C.C. regulations will be accepted.

**Legal limits as to gross weight:** Per inch of tire surface in contact with road: 600 pounds. Per axle: When gross weight is in excess of 20,000 pounds limited to 15,000 pounds per axle. Town roads: All vehicles 16,000 pounds. State aid roads: All vehicles 20,000 pounds. State Highways and their connections on state aid highways: Single unit, 25,000 pounds; 3 axle unit, 30,000 pounds, truck or tractor with trailer or semi-trailer attached, 35,000 pounds. Flags and flares compulsory. 3 Flares 2 Flags.

**STATE GASOLINE TAX:** 4 cents per gallon.

**SIGNAL REGULATIONS:** Hand signals required. Approved signalling devices may be used.

**GASOLINE TANKS:** Only such tank or tanks as are regularly installed by the manufacturer.

**RECIPROCITY:** Full. Registration and operator's license. Exception: Vermont registration and operator's license required for all motor vehicles used for the transportation of persons or property for hire or profit between points within the state. See "Gasoline Tanks."

**FEES:** Motor trucks: Light weight plus load to be carried at following rates. 50c. per 100 pounds up to and including 7,000 pounds; 60c per 100 pounds, 7,100 pounds to 11,000 pounds; 70c per 100 pounds, 11,100 pounds to 17,000 pounds; 80c per 100 pounds, 17,100 pounds and over; fractional of 100 pounds to be disregarded.

**OPERATOR'S LICENSE:** \$2.50. Examination required for first license. Fee \$2.00.

**MILEAGE TAX:** None.

**SPEED LIMITS:** Pleasure Cars, 50 miles per hour; with trailer 40 miles per hour. Capacity 1 to 2 tons, 35 miles per hour; Capacity over 2 tons, 30 miles per hour; Bus, 40 miles per hour.

### MASSACHUSETTS

**CAR REGISTRATION:** Annually with Massachusetts Registrar of Motor Vehicles. Expires December 31.

**FEES:** Less than 30 horse power, \$10 when non gasoline driven and \$3 when gasoline driven; 30 to 40 horse power, \$15 when non gasoline driven and \$4.50 when gasoline driven; 40 to 50 horse power, \$20 when non gasoline driven and \$6 when gasoline driven; 50 horse power or more, \$25 when non gasoline driven and \$7.50 when gasoline driven. From October 1 to December 31 half fee.

For every gasoline driven automobile used for the transportation of goods, wares or merchandise, 15 cents for every hundred pounds of the weight of such vehicle and of its maximum carrying capacity, but in no event less than \$6.

**DRIVER'S LICENSE:** To persons 16 and over. Fee \$4; examination required. Yearly renewal fee, \$2.00.

**LIGHTS:** Between half hour after sunset and half hour before sunrise. Front lights must show 160 feet, must have red light showing in rear and white light illuminating the registration number. No head lamp without a lens approved by the Registrar to prevent glaring rays.

A green light must be attached to the extreme left of the front of a motor truck, trailer, or commercial motor vehicle used solely as such, having a carrying capacity of three tons or over, to indicate the extreme left lateral extension of the vehicle or load.

Every truck or trailer of more than two tons' carrying capacity must be equipped with a red reflector in the rear.

**SPEED LIMITS.**—*Section 17.* No person operating a motor vehicle on any way shall run it at a rate of speed greater than is reasonable and proper, having regard to traffic and the use of the way and the safety of the public. It is *prima facie* evidence of a rate of speed greater than is reasonable and proper if car is operated at rate of speed exceeding 30 miles an hour for the distance of a quarter of a mile, outside of a thickly settled or business district; inside a thickly settled or business district, at a rate of speed exceeding 20 miles an hour for the distance of one eighth of a mile; and in turning corners, approaching intersections, at more than 15 miles an hour. Good judgment and the safety of the public are the best guides to proper speed.

**NON-RESIDENTS:** At the expiration of period of 30 days after date of entry of vehicles in any one year, or acquisition by non-resident of regular place of abode or business in this state, application for non-resident permit must be made. Permit will be issued without charge, if owner holds policy of liability insurance providing indemnity for death or injury to the limits of at least \$5,000-\$10,000. Car may then be operated for same period allowed Massachusetts residents in state of non-resident's registration.

**INSURANCE:** Compulsory. Motor vehicles cannot be now registered in Massachusetts without being insured to cover personal injuries.

## RHODE ISLAND

**CAR REGISTRATION:** Dept. of Revenue and Regulation, Div. of Motor Vehicles. Expires December 31.

**FEES:** Automobiles with pneumatic tires, minimum fee \$8 for gross weight of 2500 pounds or less. The fee increases with the gross weight. For cars whose gross weight is more than 6000 pounds the fee is \$23.

**MOTOR TRUCK OR TRACTOR WITH PNEUMATIC TIRES:** The fee varies with the gross weight. The minimum fee for vehicles whose gross weight is 3000 pounds or less, is \$12.50 and for vehicles whose gross weight is more than 28,000 pounds it is \$100.

For the registration of every automobile, motor truck or tractor, when equipped with other than pneumatic tires, there shall be added to the above gross weight fees a charge of ten cents for each one hundred pounds of such gross weight.

**DRIVER'S LICENSE:** To persons 16 or over. Examination required. Fee \$1.00. License or renewals, \$2. Valid one year from date of issue.

**LIGHTS:** From one-half hour after sunset to one-half hour before sunrise. Headlights must illuminate objects 200 feet ahead. Register number must be visible sixty feet to the rear.

**SPEED:** No person shall operate a motor vehicle upon the public highways recklessly or at a rate of speed greater than is reasonable or proper, having due regard to the width, street intersections, conditions, traffic, weather or use of such highways, or so as to endanger property or the life or limb of any person. 20 miles per hour in thickly settled sections and 35 miles per hour elsewhere.

## CONNECTICUT

**CAR REGISTRATION:** With the Commissioner of Motor Vehicles. Expires last day of February.

**FEES:** Pleasure vehicles, light weight up to 3500 pounds, \$7; 3500 to 4500 pounds, \$9; over 4500 pounds, \$11. No pro-rated reduction, but half fees after seven months.

**DRIVER'S LICENSE:** To persons 16 or over upon examination. Expires last day of April. Fee for license, \$3. For examination, \$2.

**LIGHTS:** From half hour after sunset to one-half hour before sunrise, and when smoke or weather conditions make it impossible to see 200 feet ahead. Headlights must be visible for 500 feet in clear weather and the top of the lights not over 56 inches from the ground. Must have a red light behind and a white light which illuminates number plates.

**SPEED:** State Traffic Commission controls all speedlaws on trunk line roads and state-aid roads. Except where otherwise zoned, maximum 50 miles an hour.

**NON-RESIDENTS:** A non-resident over 16 years of age, who has complied with the laws of his state or country, may operate without Connecticut registration or license for the same period allowed Connecticut cars in his home state or country. Reciprocity is not extended to licensed operators of the State of New York unless they are at least eighteen years of age. Non-residents may operate in Connecticut taxicabs, liveries and charter busses where like privilege is granted by their home state.

**MOTOR TRUCKS:** Registration fees for a pneumatic tired, 30c per cwt. of gross weight up to 20,000 pounds; 40c per cwt. 20,000 to 30,000 pounds; 50c per cwt. 30,000 to 40,000. Having solid rubber or cushion tires, up to 20,000 pounds is 40c per cwt.; 20,000 to 26,000, 50c.

**INSURANCE:** Any person convicted of violating certain specified sections of the law relating to motor vehicles, must furnish the Commissioner with proof of financial responsibility to respond in damages or lose his right to operate. Such proof may be evidence of insurance or a bond or the deposit of money or collateral.

## COLLEGES, PROFESSIONAL AND NORMAL SCHOOLS IN NEW ENGLAND

### MAINE

Bates College—Lewiston  
Bowdoin College—Brunswick  
Colby College—Waterville  
Nasson College—Springvale  
University of Maine—Orono  
State Normal School—Castine  
State Normal School—Farmington  
State Normal School—Fort Kent  
State Normal School—Gorham  
State Normal School—Machias  
State Normal School—Presque Isle  
Theological Seminary—Bangor

### Junior Colleges

Ricker Classical Institute and Junior College—Houlton  
Westbrook Seminary and Junior College—Portland

### NEW HAMPSHIRE

Colby Junior College—New London  
Dartmouth College—Hanover  
(Including Medical, Tuck School of Administration and Finance and Thayer School of Civil Engineering.)  
Mount Saint Mary College—Hooksett  
Rivier College—Hudson  
University of New Hampshire—Durham  
St. Anselm's College—Manchester  
State Normal School—Keene  
State Normal School—Plymouth  
Stoneleigh College—Rye Beach  
Tilton Jr. College—Tilton

### VERMONT

Bennington College—Bennington  
Middlebury College—Middlebury  
Norwich University—Northfield  
St. Michael's College—Winooski Park  
State Normal Schools—Castleton  
State Normal Schools—Johnson  
State Normal School—Lyndon Ctr.  
Trinity College, Inc.—Burlington  
University of Vermont and State Agricultural College—Burlington  
Vermont State School of Agriculture—Randolph Center

### MASSACHUSETTS

American International College—Springfield  
Amherst College—Amherst  
Andover Newton Theological School—Newton  
Assumption College of Worcester—Worcester  
Atlantic Union College—Lancaster  
Boston College—Chestnut Hill  
Boston Ecclesiastical Seminary (St. John's)—Brighton  
Boston University—Boston  
Clark University—Worcester  
College of the Holy Cross—Worcester  
College of Our Lady of the Elms—Chicopee  
College of Physicians and Surgeons—Boston  
Eastern Nazarene College—Wollaston  
Emerson College of Oratory—Boston  
Emmanuel College—Boston  
Episcopal Theological Seminary—Cambridge  
Gordon College of Theology and Missions—Boston  
Harvard University—Cambridge  
Hebrew Teachers' College—Boston  
International Y.M.C.A. College—Springfield  
Jackson College—Medford  
Lowell Textile Institute—Lowell  
Massachusetts State College—Amherst  
Massachusetts College of Osteopathy—Boston  
Massachusetts College of Pharmacy—Boston

Massachusetts Department of Education:  
State Teachers' College—Bridgewater  
State Teachers' College—Fitchburg  
State Teachers' College—Framingham  
State Teachers' College—Hyannis  
State Teachers' College—Lowell  
State Teachers' College—North Adams  
State Teachers' College—Salem  
State Teachers' College—Westfield  
State Teachers' College—Worcester  
Massachusetts School of Art—Boston  
Massachusetts Institute of Technology—Cambridge

Middlesex College—Cambridge  
Mount Holyoke College—South Hadley  
New England Conservatory of Music—Boston  
Northeastern University—Boston  
Portia Law School—Boston  
Radcliffe College—Cambridge  
Regis College for Women (The)—Newton and Weston  
Simmons College—Boston  
Smith College—Northampton  
Staley College of the Spoken Word—Brookline  
Suffolk University—Boston  
The Teachers' College of the City of Boston—Boston  
Tufts College—Medford  
Wellesley College—Wellesley  
Wheaton College—Norton  
Williams College—Williamstown  
Worcester Polytechnic Institute—Worcester

### RHODE ISLAND

Rhode Island State College—Kingston  
Rhode Island College of Education—Providence  
Brown University—Providence  
(Including Pembroke College for Women.)  
Providence College—Providence  
Rhode Island College of Pharmacy and Allied Sciences—Providence  
Rhode Island School of Design—Providence  
Bryant College—Providence  
Salve Regina College—Providence  
Hill College—Woonsocket

### CONNECTICUT

Albertus Magnus College—New Haven  
Berkeley Divinity School—New Haven (Episcopal)  
Bridgeport Normal School—Bridgeport  
Connecticut State College—Storrs  
Connecticut College for Women—New London  
Hartford College of Law—Hartford  
Hartford Seminary Foundation—Hartford (Interdenominational)  
Hartford Theological Seminary—Hartford (Ortho. Cong.)  
Saint Joseph College—West Hartford  
Saint Thomas' Seminary—Bloomfield  
State Teachers' College—Danbury  
State Teachers' College—New Haven  
State Teachers' College—Williamantic  
Teachers' College of Connecticut—New Britain  
Trinity College—Hartford  
Wesleyan University—Middletown  
Yale University—New Haven  
(Academic, Fine Arts, Forestry, Law, Medical, Music, Scientific and Theological Departments.)  
St. Mary's Seminary—Norwalk  
U. S. Coast Guard Academy—New London



## ACCIDENTS AND SAFETY

By JOHN J. KILDUFF

Boston Police Department

Much has been said and many surveys have been made by persons in authority as to the cause of accidents and the proper operation of an automobile.

It has been my experience, during ten years as a Traffic Officer, that 99% of the accidents are the result of mental blunders of the operator of one or both of the automobiles involved. This may sound like an exaggeration but the automobile of today is an almost perfect machine. If it is not kept that way the operator is to blame. Accidents due solely to faulty equipment are very few. If a car is not working properly the operator is the first to realize it and should have this fact constantly in his mind so that he may not have an accident by "taking a chance."

The great majority of drivers are safe and sane operators. The operation of their car is their first consideration. They take pride in the fact that they have never been involved in an accident. However, watch their mental attitude change when one or two bad drivers get in among them. It is like placing a rotten apple in a barrel of good ones. They resent the bad driver "getting away with it" and start to follow the leader. One driver "pulling out of line" will start dozens following. One operator passing a car traveling thirty miles an hour will cause many to follow who otherwise would not do so.

Carelessness and selfishness are the cause of most accidents. Very few serious accidents occur in heavy traffic. The reason for this is that the motorist must keep in his proper place in traffic, he must be constantly on the alert, he cannot, even for a moment, take his mind off his driving and regardless of what his inclination may be, he must, from the very nature of things, obey the law. In heavy traffic it is as though the operator's thinking is done for him but when traffic gets light, then the passing, cutting, weaving, etc. starts.

Most people take offence at being told they cannot do as they wish. The Traffic Officer, who has always been efficient in their mind, becomes an obstruction on the highway once he has spoken to or booked them for violating some rule or regulation.

It has been my observation that since Repeal, there have been fewer drivers operating in a drunken condition but a great many more driving after drinking. This fact has considerable to do with the mentality of the operators. Even one drink has been known to change a man mentally and it is well to remember that if one drink makes you a worse driver you are "driving under the influence," if one drink makes you a better driver you are still "operating under the influence." Whatever effect drink has on your operating, whether good or bad, the Community is safer with such an operator on the "Side-Lines."

There are one or two things that have stuck in my mind as a result of handling traffic and booking accidents. First, automobile insurance does not give the insured the right to have an accident. So many times I have heard, "Take it up with my insurance company" or "I'm insured." Second, no one has an accident deliberately. Premeditation would make an accident a serious criminal offence. If you had seen faces disfigured, had ridden in ambulances with people crippled or dying, if you had to notify the "nearest of kin" that one of their loved ones was in a hospital as a result of someone's carelessness in the handling of an automobile, you would not wonder at the "Cop on the Corner" when he "boils over" at somebody whose foolish handling of an auto comes to his attention.

Here is my prescription to avoid accidents.

1. Watch out for children.

The fact that you are right will not help a crippled child.

2. Give the fellow on foot an "even break."
3. Have an unobstructed view before passing.
4. Avoid "Weaving."

You might get away with it yourself but still cause accidents.

5. Place your ear in the proper lane to make a turn.
6. Make up your mind before you get to an intersection.
7. Stay a safe distance behind the car ahead.
8. Be sure you are safe before pulling out from the curb.
9. Have your equipment in working order.
10. Drive your own car and let the other fellow drive his.
11. Two wrongs never made a right.

"Cutting Off" the other fellow because he cut you will not help YOU after you have become involved in an accident.

## POETRY, ANECDOTES AND PLEASANTRIES

### WILD ANIMAL

*Thomas Caldecot Chubb*

With short, high steps, the sly  
red fox  
Trots from his lair where the grey  
rocks,  
Granitic, spar-veined, mica-  
bright  
Are twisted shapes; into the  
night,  
Deep sea-blue velvet, swishing  
tail  
With proud white tip; across a  
swale  
By marshmallows and weeds  
made rank;  
Then down a grooved road; up a  
bank;  
And through a field where mea-  
dowsweet  
And meadow grass beneath his  
feet  
Are like a texture woven close,  
And soft and fragrant as wild  
rose,  
As he seeks for a chicken yard  
That he can plunder. I look hard,  
And study him. He looks so free,  
And so alert. He seems to me  
So poised, so confident and sure  
With legs like springs that can  
endure  
Hours of running. He seems so  
bold  
As he trots sharply through the  
wold  
That it is hard for me, although  
I grant it to be true, to know  
That every time he lifts his head  
And sniffs the air, it is in dread;  
That every time he cocks an ear  
Like a wise dog, it is in fear  
That danger crouches in the dark  
So close he is afraid to bark.

### CAVALIERS

*Theodosia Garrison*

The strike of hoofs to greet the  
day,  
A snatch of song, a sense of  
flight:  
A soldier on the king's highway  
Rides blithely to the fight.

With scarlet coat and sweeping  
feather,  
With steady hand and silver spur,  
A gentleman rides hell-for-leather  
To win a war for her.

And we with vision incomplete  
See only this—a pale young clerk  
Threading the traffic of the street  
Upon his way to work.

*From*

*The Woman's Home Companion*

### MEASURED MILE

*(Reading time fifty seconds)*

Parallel ribbons of concrete,  
No other traffic in sight,  
Purr of the motor disguises  
Latent mechanical might:  
Now is the chance to determine  
Whether the dealer was right.

Timing the start to split second,  
Master of time and of space,  
Caution goes into the discard,  
Drunk with the thrill of the race;  
Mere vindication of power  
Only excuse for the pace.

Ninety yards short of the finish,  
All running smoothly till now,  
Then in an instant disaster  
Looms without warning, and  
how?  
Protean fate walks the highway  
Garbed as a casual cow.

Brake application proves futile  
Causing the motor to sway  
Into the Arms Everlasting  
Via soft shoulders of clay:  
Serving as headstone, the mile-  
stone  
Marks the home stretch on life's  
way.

### THE LILY OF MALUD

A certain pond in Central Amer-  
ica is a perfect circle 20 feet in  
diameter. Every year a magnifi-  
cent water-lily appears in the ex-  
act center of the pond. The lily  
grows with remarkable rapidity,  
doubling its area every day; at  
the end of exactly 21 days, the  
lily fills the entire area of the  
pond.

At the end of how many days  
from its first appearance does the  
lily occupy half the area of the  
pond?

*From "Brush Up Your Wits"*  
*By Hubert Phillips*

(See Page 53 for Answer.)

Some people's fits of absent  
mindedness are so protracted as  
to cover a suspicious interval.

In the machine age when one  
sees a red-headed girl, he looks  
for a White Truck.

Beauty is only skin deep, but,  
in certain matters we are very  
superficial fellows. Indeed, today,  
beauty is frequently even less  
than skin deep.

### THE VEGETABLE MAN

*Evantha Caldwell*

The vegetable man is round as a berry,  
With something about him as gay  
as a cherry,  
And when he comes bouncing  
down out of the truck  
He has stopped at my curb, he's  
the vericost Puck  
Who has craftily plundered Tita-  
nia's store  
Of jewels and peddles them here  
at my door.

A beautiful ruby which he calls a  
beet,  
And pendants of gold he calls  
carrots to eat!  
And amethyst grapes, in fat clus-  
ters displayed,  
Overhanging tall baskets of deli-  
cate jade—  
"Fresh peas" so he tells me, "just  
gathered this morning."  
With a twist of a smile plainly  
meant to give warning

That I'm dabbling in magic. But  
I may have my pick  
Of Titania's jewels, if I will be  
quick,  
For quarters and nickels—oh, can  
this be I  
Who emeralds, topazes, garnets  
may buy  
As greens, squas' and rhubarb?  
Do fill up my pan,  
Mr. Puck,—disguised as a vege-  
table man!

The Daniel Caldwell farm, near  
Pittsfield, Mass., has remained  
without transfer in the hands of  
the same family since the original  
grant from George II to Abel  
Caldwell in 1748. A son of the  
sixth generation has recently  
been born on the property. The  
Caldwells have taken the Old  
Farmer's Almanac since it was  
first published in 1793. Buy the  
Old Farmer's and keep your  
farm!

### SUNRISE ON THE KENNEBEC

*Harold Trowbridge Pulsifer*

Shadow upon shadow the plumed  
pine stand  
Walling dark water from the  
darker land.

Comes the divine command,—“Let  
there be light.”  
And on the word there is the end  
of night.

Cool, soundless, flames of pearl  
and amethyst  
Mount from the conflagration of  
the mist.

*From Scribner's Magazine*

### SACHET CAT

A skunk by any other name,  
Wood pussy, polecat, smells the  
same;  
Possessed of aromatic fame,  
It also has a deadly aim.

Be very careful not to fret it,  
Only a fool would try to pet it;  
And should it start to leave, just  
let it,  
For even then you're apt to get it.

This creature you cannot debunk,  
You never will whitewash the  
skunk.

*From Falmouth Enterprise*

### MOTHER GOOSE MODERNE

Higglety, pigglety, my "Wet  
Hen,"  
Lays down the law to gentlemen;  
Gentlemen should stay away,—  
Avoiding what she has to say.

Needles and pins, needles and  
pins,  
When a man marries his trouble  
begins;  
But prior to that, while he coaxes  
and wheedles,  
His ladylove keeps him on pins  
and on needles.

### Answers to Charades

*(The answers are printed backwards to prevent seeing others when  
verifying any one)*

- |            |              |              |                |
|------------|--------------|--------------|----------------|
| 1. Niksub  | 5. Maebnoom  | 9. Kniwdooh  | 13. Hctapssorc |
| 2. Wacam   | 6. Eohsesroh | 10. Oi       | 14. Sdrabbacs  |
| 3. Hcolom  | 7. Keultop   | 11. Enobhsiw |                |
| 4. Ecirpac | 8. Ecivon    | 12. Ecnalrap |                |

Answer to Lily Puzzle—20 days

## THE REVENUE ACT OF 1937

Enacted 1 June 1937

The new Federal Income Tax Law, which is in essence merely supplementary to the Revenue Act of 1936, contains but few provisions of interest to the average taxpayer. Significantly nicknamed "The Loophole Law," it is aimed primarily at the various tax-avoidance devices, hitherto permitted by law, of which very wealthy taxpayers had upon occasion been successfully availing themselves in past years.

An excerpt from the report of the Joint Congressional Committee on Tax Evasion and Avoidance will illustrate the main objectives of the 1937 legislation:

"The committee, as a result of its investigations, believes it is imperative at this time that legislation should be enacted in regard to the following subjects, with respect to which it has been shown that certain serious loopholes exist:

1. Domestic personal holding companies.
2. Incorporated yachts, country estates, etc.
3. Incorporated talents.
4. Artificial deductions for losses from sales or exchanges of property.
5. Artificial deductions for interest and business expense.
6. Multiple trusts.
7. Foreign personal holding companies.
8. Nonresident aliens."

The above summarizes very briefly the scope of the new law. This article will not seek to discuss the merits or demerits of such legislation, or its possible effects, since it is believed that readers of the Almanac will be only academically interested therein, unless they be stockholders in a Personal Holding Company, or Nonresident Aliens. Certain changes, it is true, have also been made in the provisions for Disallowed Deductions, but these, again, are of little importance to the great majority of taxpayers, most of whose questions may readily be answered by reference to the below information reprinted from the 1937 edition of the Almanac:

### INCOME TAXES

Every single person (whether or not the head of a family) and every married person not living with husband or wife, earning more than \$1,000, must file a return. Every married person, living with husband or wife, earning \$2,500 or more, must file a return. Where the combined income of both is \$2,500 or more, a joint return is required, or each may file an individual return, dividing the exemption in any manner they may agree upon.

If the gross income is \$5,000 or more, a return is required even if the net income is less than the personal exemption. Gross income is defined as "gains, profits and income derived from salaries, wages, compensation for personal services, profits from professions, trades, business, commerce, or sales, dealings in property, rent, interest, dividends, securities, or gains or profits derived from any source whatever." In the case of a business concern, gross income means gross sales less cost of goods sold, but such cost should exclude any overhead chargeable to selling or office expense.

For the purpose of the normal tax and surtax, the following credits are allowed against net income:

- (a) Personal exemption and credit for dependents.  
 \$2,500 for a married person or the head of the family;  
 \$1,000 for a single person;  
 \$400 for each dependent, subject to certain limitations.
- (b) Credit for certain interest (allowable on the normal tax but not on the surtax).  
 Interest received on such obligations of the United States or its instrumentalities as the law requires to be included in gross income.
- (c) Earned income credit (allowable on the normal tax but not on the surtax).  
 10% of such income (wages, salary, fees, etc.), computed upon the excess of earned income over the sum of earned income deductions, such as traveling expenses, etc. Such credit may not be claimed in excess of 10% of the amount of net income. The first \$3,000 of a taxpayer's net income is considered always to be "earned net income," regardless of its actual source, but in no case will "earned net income" be considered to be more than \$14,000, irrespective of the amount actually so received.

#### THE NORMAL TAX

The normal tax is 4% of the net income after deduction of credits as indicated above. It is a flat percentage, and does not increase with the amount of income.

#### THE SURTAX

The surtax is based on net income, without deduction of the credits indicated above. It is based on a sliding scale of percentages which increase rapidly with increasing amounts of net income. The below table shows the percentages of surtax chargeable.

INCOME	% TAX	INCOME	% TAX
First \$4,000 .....	0	62,000 to 68,000 .....	39
\$4,000 to \$6,000 .....	4	68,000 to 74,000 .....	43
6,000 to 8,000 .....	5	74,000 to 80,000 .....	47
8,000 to 10,000 .....	6	80,000 to 90,000 .....	51
10,000 to 12,000 .....	7	90,000 to 100,000 .....	55
12,000 to 14,000 .....	8	100,000 to 150,000 .....	58
14,000 to 16,000 .....	9	150,000 to 200,000 .....	60
16,000 to 18,000 .....	11	200,000 to 250,000 .....	62
18,000 to 20,000 .....	13	250,000 to 300,000 .....	64
20,000 to 22,000 .....	15	300,000 to 400,000 .....	66
22,000 to 26,000 .....	17	400,000 to 500,000 .....	68
26,000 to 32,000 .....	19	500,000 to 750,000 .....	70
32,000 to 38,000 .....	21	750,000 to 1,000,000 .....	72
38,000 to 44,000 .....	24	1,000,000 to 2,000,000 .....	73
44,000 to 50,000 .....	27	2,000,000 to 5,000,000 .....	74
50,000 to 56,000 .....	31	Over 5,000,000 .....	75
56,000 to 62,000 .....	35		

## REPAIRING LEAKS IN WOOD-SHINGLED ROOFS

Reprinted by permission from "The Householder's Complete Handbook" by Hawthorne Daniel

Roofs of wooden shingle are, perhaps, more common on homes than roofs of any other material. They can be excellent, and in extreme cases may last a lifetime. Still, many an excellent roof may leak, now and then, and new roofs often do. This is usually due to some little error in the laying of the shingles, and is something that need not be taken too seriously.

In such a case, therefore, first locate your leak — exactly. And you should try to do this from the inside. If, of course, your attic is entirely finished and you cannot get a look at the underside of the roof, you will have to go about the matter in some other manner. In that case guess, as closely as you can, at where the leak is most likely to be, and from the outside begin an examination that will cover every joint in the neighborhood of the spot to which your guess has directed you.

If, on the other hand, you can examine the underside of the roof, the location of the leak is not likely to be difficult if you hunt for it during a rain.

Having located the actual leak, however, drive a long and very thin nail upward through the roof until its point is plainly visible from the outside. Take a sheet of copper, zinc, or tin, six or eight inches wide and two or three inches longer than that portion of a roof shingle that is exposed to "the weather."

If, by the way, you use tin, see that it is painted on both sides. What we call "tin" is usually not tin at all, but is, instead, thin sheet steel very thinly coated with tin, and it may rust to the detriment of your shingles. Copper is by far the best metal to use.

Now, with your metal sheet cut to the right size, and your leak accurately located by the nail thrust up from the underside, push the nail back until it falls out. Then slide your sheet of metal up under the course of shingles in which the leak was located, with approximately the vertical center line of the metal sheet beneath the leak. Ordinarily the metal need not be nailed, for the pressure of the shingles under which it is placed will keep it from moving. If, however, it is loose and gives any signs of coming out, put one small copper nail (if your sheet of metal is copper) through each side of the metal sheet. These nails should be placed just below the butts of the shingles in the course above the one in which the leak is located, and through the shingles immediately beneath which the metal sheet lies.

Your leak is now probably repaired. If not, similar sheets of metal placed similarly beneath other shingles in the immediate vicinity will certainly correct the trouble.

If, on the other hand, the leak is caused by a badly split shingle, or one that has come out, or has rotted or warped, a new shingle should be inserted. To remove an old shingle one need only split it into a number of pieces, whereupon they can readily be pulled out. If any of the pieces stick, split them again and again if necessary.

Now a difficult little task remains to be performed, and the best method of performing it is to arm yourself with a saw that is built to cut nails. With such a saw thrust up and under the shingles the nails that held the old shingle and any other nails that are in the way can readily be sawed off, and the way is clear for the insertion of a new shingle.

The new shingle must be cut to the exact width of the opening it is intended to fill. It is probable, however, that you may not care for its new brightness amid the weathered shingles. If the old shingles are merely weathered, paint your new shingles with linseed oil and turpentine. This will dull its newness to the point where it will not be obvious. Then insert it, and, with copper or galvanized shingle nails, nail it in place, putting your shingle nails in just below the butts of the shingles above the new one. Remember that you have cut the shingle nails that hold two or three shingles above the new one; consequently nail those down in exactly the same fashion, with shingle nails through them just below the butts of the next row above.

# GAME AND FISH LAWS

(Note:—For other information consult the Fish and Game Commissioner of each state. These laws are in force when this Almanac goes to print, November, 1937, and have been substantiated by the Fish and Game Commissioner in each state. All dates inclusive. For laws on Migratory Birds, write to State Game Commissioner of Bureau of Biological Survey, Washington, D. C.)

## GAME LAWS

### MAINE

MOOSE. No Open Season.

DEER. May be hunted in the counties of Androscoggin, Cumberland, Kennebec, Knox, Lincoln, Sagadahoc, Waldo and York from Nov. 1 to Nov. 30; in the counties of Washington and Hancock from Nov. 1 to Dec. 15; in the counties of Aroostook, Penobscot, Somerset, Piscataquis, Franklin and Oxford from Oct. 16 to Nov. 30.

HUNTING of wild animals is prohibited from one-half hour after sunset until one-half hour before sunrise, with the exception of skunks and raccoons.

PARTRIDGE. Open season Oct. 1 to Nov. 15.

HUNTING of wild birds is prohibited from sunset to  $\frac{1}{2}$  hour before sunrise. See Federal Laws.

GRAY SQUIRREL. Open season Oct. 1 to Oct. 31.

WILD HARES OR RABBITS. Open season Oct. 1 to March 1, except in counties of Franklin and Somerset, Oct. 1 to Mar. 31.

LICENSES: Any resident and his immediate family may without license hunt on land owned by him, or leased by him and on which he is actually domiciled and which is used exclusively for agricultural purposes.

Resident hunting license, \$1.15 annually. Combination hunting and fishing license, for residents, \$2.15 annually. Fishing license for residents \$1.15 annually.

Non-resident hunting license, for wild birds, rabbits, raccoons, foxes and unprotected wild birds or wild animals only, \$5.15 annually; for both wild birds and wild animals, \$15.15 annually. Junior small game \$2.15; Non-resident fishing license \$5.15 for one year, \$3.15 for 30 days, \$1.65 for 3 days. Junior fishing license \$1.15.

Hunting licenses shall not be issued to any non-resident under sixteen years of age unless the written consent of the parent or guardian is attached to the application, but any resident under eighteen years may hunt without a license if accompanied by parent or guardian, except that any resident under eighteen may procure a license to hunt by filing with the clerk issuing the license the written consent of his parent or guardian.

### NEW HAMPSHIRE

DEER. Open season: Wild deer, outside of private game preserves, may be hunted and taken after 6:00 a.m. and before 5:00 p.m. in the counties of Coos, Carroll and Grafton from Nov. 1 to Dec. 1, and in all other counties from Dec. 1 to Dec. 16. No deer shall be taken at any time on any island or in any waters in lakes and ponds.

Wild deer shall not be taken by the use of any firearm other than a shotgun loaded with a single ball or loose buckshot within the counties of Hillsborough, Merrimack, Belknap or Rockingham, with the following exceptions: the towns of Windsor, Hillsborough, Bennington, Deering, Francestown, Weare, Antrim, Hancock, Greenfield, New Boston, Lyndeborough, Temple, Sharon, New Ipswich, Greenville, Mason, Wilton and Peterborough in the county of Hillsborough; the towns of Andover, Chichester, Wilmot, Danbury, Canterbury, Hill, New London, Sutton, Bradford, Warner, Salisbury, Newbury, Webster, Allentown, Loudon, Pittsfield, Epsom, Boscawen, Hopkinton, Dunbarton, Bow, Northfield, the eastern part of the town of Hooksett bounded on the northeast by Allentown, east by Deerfield, southwest by Candia and west by the old Portsmouth Railroad, and Henniker in the county of Merrimack; the towns of Sanbornton, Alton, Gilmanton, Barnstead,

Belmont, Meredith, Center Harbor, and New Hampton in the county of Belknap, and the towns of Candia, Auburn, Deerfield, Northwood, Nottingham, Raymond and Epping in the county of Rockingham.

Limit, one deer.

GRAY SQUIRREL. Open season Oct. 1 to Nov. 1.

HARE AND RABBIT. Oct. 1 to Feb. 1.

PARTRIDGE. Oct. 1 to Nov. 30.

QUAIL. Oct. 1 to Oct. 31. Daily limit, 3.

LICENSES: Hunting and Fishing: Resident \$2.50; Non-resident \$15.15.

Fishing: Non-resident \$4.00; 3-day Non-resident \$1.50.

Guide Licenses: Resident \$2.00; Non-resident \$20.00.

#### VERMONT

(All dates inclusive)

DEER. One deer with horns not less than 3 inches long, Nov. 21-Nov. 30 (except Sundays).

Landowner, member of his family, or authorized employee may kill deer doing damage to his fruit trees or crops; but person under whose direction a deer is so killed must, within 12 hours, report the matter in a signed statement to nearest fish and game warden. Deer may also be killed at any time in orchard zones established by director, but such killing must forthwith be reported to owner of orchard and county warden.

MOOSE, ELK AND CARIBOU. Closed season.

GRAY SQUIRREL. Open season Oct. 1 to Oct. 31.

HARE AND RABBIT. Open season Oct. 1 to Feb. 28.

PARTRIDGE. Open season Oct. 1 to Nov. 14.

QUAIL. Open season Sept. 15 to Nov. 30.

EUROPEAN PARTRIDGE, UPLAND PLOVER AND WOOD DUCK. No open season.

PHEASANTS. Wednesdays and Saturdays during October. Cock birds only.

LICENSES: Non-resident: Game, \$10.50.

Resident: Game and fish, \$2.00; game, \$1.25, fish, \$1.25. Citizens of United States who own \$1,000 taxable property in Vermont pay same fees as resident. Alien resident who has not declared his intention, pays same fees as non-resident; declarant resident for six months in State pays same fees as resident.

Non-resident fishing—3 consecutive days, \$1.65, 14 consecutive days \$2.35; season, \$5.15.

Hunting licenses not issued to persons under 16 without written consent of parent or guardian. Owners of farm lands and their resident minor children or tenants may hunt without a license on own lands during open season. Fishing license not required of persons under 15.

#### MASSACHUSETTS

DEER. Open season Dec. 6 to Dec. 11. No open season in Dukes and Norfolk counties. Daily closed season one-half hour after sunset to one-half hour before sunrise. No hunting dogs to be at large during open season on deer.

GRAY SQUIRREL. Open season Oct. 20 to Nov. 20.

HARE AND RABBIT. Open season Oct. 20 to Feb. 1; in Nantucket County Nov. 20 to last day of February. Dukes County, Nov. 15 to Feb. 15.

QUAIL. Closed season in Essex, Hampden, Hampshire, Berkshire and Franklin Counties.

PARTRIDGE. Open season Oct. 20 to Nov. 20.

LICENSES: Citizen (resident for six months), sporting, \$3.25; hunting, \$2.00; fishing, \$2.00. Minors and women, fishing, \$1.25; trapping \$5.25. Minors, trapping, \$2.25.

Non-resident citizens, sporting, \$15.25; hunting, \$10.25; fishing, \$5.25; trapping, \$15.25.

#### RHODE ISLAND

GRAY SQUIRREL. Open season Nov. 1 to Dec. 31.

HARE AND RABBIT. Open season Nov. 1 to Dec. 31.

PARTRIDGE, Nov. 1 to Dec. 31.

QUAIL. Nov. 1 to Dec. 31.



NEW SHOREHAM PHEASANTS. Protected except first and third Wednesdays in November and first Wednesday in December. Limit, 2 per day.  
 JAMESTOWN PHEASANT. Limit, 2 per day.

No open season on Hungarian partridge, wood duck, swan, curlew, dowitchers, godwits, knots, phalaropes, sandpipers, stilts, surf birds, turnstone and willet, black breasted and golden plover, greater and lesser yellowlegs.

Sending or carrying out of the State partridge, quail, wood cock, wild duck, wild swan, wild geese, rails, shore marsh or beach birds prohibited. Live game birds or animals may not be brought into the State without a permit.

HUNTING LICENSES: Resident, \$2.00; Non-resident, \$10.00; unnaturalized foreign born person, \$15.00.

FISHING LICENSES: Resident, \$1.25; Non-resident reciprocal but not less than \$2.50; alien who has resided in State one year, \$2.50; other aliens, \$5.00.

### CONNECTICUT

Governor may suspend *open seasons* during time of drought.

DEER. No open season. Owners of agricultural lands, member of family, or employe may kill deer with a shotgun or, under permit, with a rifle, at any time on such lands when deer are damaging fruit trees or growing crops, but such killing or wounding must be reported to the commissioners within 12 hours.

HARE, RABBIT (except European, Belgian, or German hare and jack rabbit, no closed season); Nov. 1-Dec. 31, open season.

GRAY SQUIRREL. Oct. 20 to Nov. 23, open season.

PHEASANT (male only); Oct. 20-Nov. 23, open season.

Hungarian Partridge—Indefinite closed season.

Quail—Closed season to June 30, 1939.

HUNTING AND FISHING LICENSES: Non-resident: Game, \$10.35; game and fish, \$14.35; fish, \$5.35. Resident citizen: Game, \$3.35; game and fish, \$5.35; fish, \$3.35.

Hunting license not issued to persons under 16, and fishing license not required of such persons. Resident and his children may hunt or fish during open season without license on land on which he is actually domiciled, if such land is not used for club, shooting, or fishing purposes. Licensee must report amount of game killed, and must wear license button on outer garment. Alien: Not permitted to hunt. Taxidermist, \$5.

Hunting license exceptions: Non-resident citizen owning improved real estate in Connecticut to the value of \$1,000 or more or any lineal descendant of such non-resident may procure a license for the same fee as a resident, provided the state of which he is a resident offers a similar privilege to non-resident property owners.

Fishing license—Non-residents residing in a state the non-resident fee of which is in excess of \$5.35, shall be charged the same fee in this state. Aliens or their lineal descendants owning real estate situated in the state assessed for the purpose of taxation in the amount of \$500 or more and non-residents or lineal descendants of same owning improved real estate situated in the state assessed for the purpose of taxation in the amount of \$1,000 or more may procure a license for the same fee as a resident, provided the state of which he is a resident offers a similar privilege to non-resident property owners.

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## FISH LAWS.

### MAINE

Open Season: Lakes and Ponds.

SALMON, TROUT, AND TOGUE, from the time the ice is out of the lakes and ponds to Sept. 30. White Perch from June 21 to Sept. 30. Black Bass from June 21 to Sept. 30, except that not more than three Black Bass in one day may be caught by fly fishing from June 1 to June 20, inclusive.

## Rivers Above Tide Waters

**SALMON, TROUT AND TOGUE**, from the time the ice is out of the river to Sept. 14. **Black Bass** from June 21 to Sept. 14, except that not more than 3 Black Bass in any one day may be caught by fly fishing from June 1 to June 20 inclusive. **White Perch** from June 21 to Sept. 14.

## Brooks and Streams Above Tide Waters

**SALMON** from the time the ice is out of the brooks and streams to August 15.

**WHITE PERCH**, from June 21 to Aug. 15. **BLACK BASS**, from June 21 to Aug. 15, except that not more than three Black Bass in any one day may be caught by fly fishing from June 1 to June 20 inclusive. Minimum length of Salmon 14 in., Trout from lakes and ponds 7 in. or White Perch 6 in., Black Bass 10 in. Trout, ice out to August 15.

## NEW HAMPSHIRE

**BROOK TROUT** in Coos, Grafton and Carroll Counties: May 1 to Sept. 1, and during the month of September by use of artificial flies only. In all other counties May 1 to Aug. 1, and during the month of August by artificial flies only. Minimum length 6 inches. Limit, 25 in number or 5 pounds in weight.

**LAKE TROUT**: Jan. 1 to Sept. 1, and during the month of September by the use of artificial flies only. Minimum length 12 inches in Big Diamond Pond, Big Greenough Pond and Stinson Lake; 15 inches in all other waters. Limit, 2 fish per person or 6 fish for 3 or more persons fishing from a boat.

**SALMON**: April 15 to Sept. 1, and during the month of September by the use of artificial flies only. Minimum length 12 inches in Big Diamond Pond, Umbagog Lake and the Connecticut and Androscoggin Rivers; 15 inches in all other waters. Limit, same as for Lake Trout.

**AUREOLUS TROUT**: April 15 to Sept. 1. Minimum length 12 inches. Limit, 4 per day.

**BLACK BASS**: July 1 to Nov. 1. Minimum length 9 inches. Limit, 10 pounds per day.

**PIKE PERCH**: June 1 to Nov. 1. Minimum length 10 inches.

**WHITE PERCH**: June 1 to Nov. 1. Minimum length 7 inches. Limit, 10 pounds per day.

**YELLOW PERCH**: Limit, 40 fish or 10 pounds.

**PIKEREL**: June 1 to Jan. 16. Minimum 12 inches. Limit, 10 pounds per day.

**SHAD, WHITEFISH OR BLUEFINS**: Jan. 1 to Sept. 1. Limit, 12 per day (total of Shad, Whitefish or Bluefins).

**HORNED POUT**: June 1 to Nov. 1. Limit, 40 per day.

**SMELT**: Limit, 5 pounds per day.

**MUSCALLONGE**: June 1 to Nov. 1.

## VERMONT

(All dates inclusive)

**OPEN SEASON**: General Rule. Consult Director of Fish and Game for exceptions.

**BROOK TROUT, BROWN TROUT, LOCK LEVEN, STEELHEAD and RAINBOW TROUT, GREYLING or BLACK SPOTTED TROUT**, May 1 to Aug. 14, not less than 6 in. long, not more than 20 fish or 5 lbs. **GOLDEN TROUT, LAKE TROUT and LANDLOCKED SALMON**, May 1 to Aug. 31, **LAKE TROUT and SALMON**, not less than 15 in. long, not more than 10 lbs.; **GOLDEN TROUT**, not less than 6 in. long, not more than 5 lbs. or 20 fish. **STEELHEAD and RAINBOW TROUT**, not less than 10 in. in Willoughby and Barton Rivers and tributaries.

**NOTE**.—See General Laws or chart for exceptions to above. (It is illegal to take any of the fish enumerated above two hours after sunset and one hour before sunrise.)

BLACK BASS, not less than 10 in. long, not more than 10 fish, July 1 to Nov. 30. (Cannot be sold) MUSCALLONGE (except Lake Champlain), June 15 to Apr. 14. PIKE PERCH (WALL-EYED PIKE), not less than 10 in. long, not more than 25 lbs., May 1 to Feb. 28. PICKEREL, not less than 12 in. long, not more than 25 lbs. May 1 to Mar. 14.

Shooting and Spearing in *certain* waters March 15 to May 14. (Consult Fish and Game Director.)

### MASSACHUSETTS

GENERAL RULES, ALL DATES INCLUSIVE, OPEN SEASON.

TROUT, Apr. 15 to July 31. Dukes County Apr. 1 to July 15. 6 inches or more long, daily limit 15. Fishing prohibited 2 hours after sunset to 1 hour before sunrise. Deerfield River May 30 to Aug. 31. 12 inches or more in length, 5 Trout per person per day. Fish may be taken only with a single rod and line attached to be held in the hand.

SALMON, Apr. 15 to Nov. 30, 12 inches or more in length, 5 in a day.

PICKEREL, May 1 to Feb. 28, 12 inches or more long, 10 in a day. Pike Perch, May 1 to Feb. 28, 12 inches or more, 5 in a day. Muscallonge, May 1 to Jan. 31, 15 inches or more long.

WHITE PERCH, June 1 to Feb. 28, 7 inches, 15 in one day, except in Dukes and Nantucket Counties. Horned Pout, April 15 to Feb. 28, 30 fish in 24 hours.

YELLOW PERCH, April 15 to Feb. 28, 30 fish in 24 hours.

BLACK BASS, July 1 to Jan. 31, 10 inches or more long, 6 in a day.

*Fish frequenting fresh water* may be taken only by single hook attached to each line, except 3 flies may be attached to a single leader. Limit 10 lines with single hook attached to each line.

### RHODE ISLAND

OPEN SEASON: Dates inclusive. Consult Fish Commissioner of State for exceptions.

Consult Fish Commissioner of State concerning restrictions regarding seining.

BLACK BASS, June 20 to Feb. 20, 10 inches or more long, 6 in a day. White Perch not less than 6 inches, daily limit 20. Yellow or Striped Perch, 6 inches or more long, daily limit 30. Pickerel, June 20 to Feb. 20, 12 inches or more long, daily limit 10. Trout, Apr. 15 to July 15, 7 inches or more long, daily limit 10.

*Fishing in fresh water* restricted to lines operated by hand with not over 2 hooks upon each. *Through the ice*, 10 lines with a single hook upon each. Restricted to daylight hours and lines must be personally attended.

### CONNECTICUT

OPEN SEASON: Dates inclusive. Consult Fish Commissioner of State for exceptions.

TROUT, other than lake trout, April 15th to July 15th, legal length 6 inches, limit 10 pounds in any one day or not more than 15 trout. Sale of trout prohibited.

LAKE TROUT from April 15 to August 31, legal length 10 inches. PICKEREL from April 15 to Feb. 9, legal length 12 inches, bag limit 10. ALEWIVES from Mar. 1 to May 31. BLACK BASS from July 1 to Oct. 31, legal length 10 inches, bag limit 10. LAMPREY EELS, Mar. 1 to June 14th. STRIPED BASS shall not be taken in the inland waters except by angling, legal length 12 in. PERCH, YELLOW and WHITE, from Apr. 15 to Feb. 9, legal length 7 in. Limit, a total of 30 of both kinds, except for ice fishing. BULLHEADS, bag limit 30.

NOTE.—*The above is not a complete transcript of the Fish and Game Laws. It is intended merely as a concise statement of the provisions most likely to be of general interest.*

Consult Fish Warden of each county for exceptions.

ICE FISHING. In most of the New England States different laws apply to each county. Write for information to the Fish and Game Commissioner at the state capitals.



U. S. WEATHER BUREAU — BOSTON TEMPERATURES — Continued

	JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER										
	Extreme highest	Average highest	Average lowest	Extreme lowest	Extreme highest	Average highest	Average lowest	Extreme lowest	Extreme highest	Average highest	Average lowest	Extreme lowest	Extreme highest	Average highest	Average lowest	Extreme lowest	Extreme highest	Average highest	Average lowest	Extreme lowest						
1	98	80	62	51	98	80	63	54	96	76	60	50	90	65	50	38	74	56	41	26	67	41	26	67	41	26
2	96	81	64	51	98	79	63	56	94	75	59	49	85	65	49	34	77	56	40	26	65	42	27	65	42	27
3	102	80	62	51	98	79	62	55	97	75	58	47	85	67	48	35	75	54	39	27	65	42	27	65	42	27
4	104	82	62	53	96	78	62	52	94	75	59	43	85	68	51	34	74	54	38	21	62	42	28	62	42	28
5	101	79	64	52	95	80	63	56	93	76	59	48	87	66	50	28	71	53	36	17	59	42	28	60	42	28
6	101	79	62	50	97	79	64	52	92	74	58	43	85	66	48	31	70	53	38	21	60	42	26	60	42	26
7	96	80	63	52	98	78	63	55	102	74	59	43	86	65	48	30	76	53	37	25	66	42	28	66	42	28
8	99	82	64	55	95	81	64	52	95	73	58	48	88	65	47	36	72	53	39	25	65	41	28	65	41	28
9	99	81	63	53	95	79	63	53	90	72	56	47	81	65	47	32	71	54	39	26	64	41	27	64	41	27
10	101	81	64	53	95	81	63	55	95	72	55	41	80	63	47	33	78	52	38	27	64	41	25	64	41	25
11	100	81	64	54	95	80	64	54	95	72	56	40	81	63	47	32	76	51	36	24	68	41	25	68	41	25
12	97	79	62	54	94	80	64	56	89	72	56	43	88	63	47	31	76	52	37	25	68	38	26	68	38	26
13	97	83	64	56	93	80	63	53	88	72	55	45	87	62	46	30	69	50	30	16	62	41	27	62	41	27
14	95	81	64	56	96	79	63	52	92	71	56	40	81	62	46	31	68	47	34	14	66	41	26	66	41	26
15	96	81	63	54	92	78	62	54	94	71	55	41	86	62	46	30	70	48	34	17	63	41	24	63	41	24
16	95	82	64	54	95	76	62	47	94	71	56	45	88	62	46	27	76	49	35	12	56	38	24	56	38	24
17	95	81	64	54	96	78	62	52	91	73	57	45	80	62	46	27	76	49	34	14	60	37	24	60	37	24
18	97	80	64	54	94	77	62	53	90	71	55	43	80	62	46	31	69	49	35	14	61	37	24	61	37	24
19	96	80	64	54	92	76	61	51	88	69	55	42	78	62	46	28	72	48	34	14	64	39	24	64	39	24
20	95	80	64	54	98	77	61	52	87	70	55	42	78	61	46	32	71	46	33	15	61	39	23	61	39	23
21	98	79	63	52	95	79	61	47	94	69	53	40	82	60	45	32	74	47	32	10	60	41	25	66	41	25
22	103	80	63	46	91	77	61	47	94	69	53	35	85	60	44	32	74	48	34	9	58	40	25	58	40	25
23	98	78	64	57	96	79	62	49	96	69	52	35	80	60	44	29	77	48	33	11	64	41	26	64	41	26
24	98	79	63	54	94	78	62	50	87	69	52	39	80	60	44	31	72	46	33	11	59	40	25	59	40	25
25	96	81	62	53	93	76	61	50	89	69	53	39	89	58	42	26	75	44	32	19	65	38	25	65	38	25
26	96	80	64	56	97	75	60	50	95	69	53	34	85	69	42	25	74	44	31	12	60	37	23	60	37	23
27	98	79	63	52	91	74	61	47	86	68	52	40	81	59	42	25	72	44	30	8	60	37	25	60	37	25
28	97	80	63	55	92	75	61	47	90	68	52	39	81	57	43	28	72	44	29	11	60	37	23	60	37	23
29	97	80	64	55	92	75	61	47	83	67	52	34	79	55	42	26	78	45	29	8	60	38	23	60	38	23
30	98	79	64	52	93	75	61	49	83	68	51	36	78	55	42	28	79	45	28	8	62	37	22	62	37	22
31	98	79	63	54	97	76	61	49	83	68	51	36	76	56	40	27	76	41	27	2	65	37	22	65	37	22

"When your temperature is extreme, think of the average; when it is near average, beware the extreme. When New England weather is abnormal it is normal."

**POSTAL RATES.—DOMESTIC.**

First Class Matter may be forwarded from one Post Office to another without additional postage, but other matter must have new postage.

**LETTERS AND POSTAL CARDS.—FIRST CLASS.**

Written and Typewritten Matter, each ounce and fraction..... .03  
(Except when mailed for local delivery when the rate is 2c for each ounce or fraction.)

Post Cards and Private Mailing Cards which comply with Departmental requirements ..... .01

Business Reply Cards or Letters, consult Post Office.

**NEWSPAPERS AND PERIODICALS—SECOND CLASS.**

Entire Newspapers or Magazines when mailed by the public; for each two ounces or fraction, regardless of distance or weight..... .01

Fourth class rate applies when it is lower than second class.

**MERCHANDISE AND MISCELLANEOUS.—THIRD CLASS.**

(Limit of weight 8 ounces.)

Merchandise, incomplete copies of newspapers, printed and other mailable matter, each 2 ounces or fraction..... .015

Books, catalogues (must be of 24 or more pages and substantially bound, with at least 22 pages printed, seeds, cuttings, bulbs, roots, scions and plants, 2 ounces or fraction..... .01

Plain Printed Cards containing no writing other than the address, and not conforming with regulation size of Post Card, shall be considered Third Class and mailed for ..... .015

Permit Mail. Envelopes, folders, etc., which are to be mailed under Third Class permit privileges should indicate the amount of postage paid.

Bulk Mailings. Applications for bulk mailing privilege should be submitted to the Post Office.

**PARCEL POST.—FOURTH CLASS.**

(For Zone consult Post Office)

Everything over 8 ounces, including books and printed matter, except First Class and newspapers and other periodicals entered as Second Class matter mailed by the publishers:—

Table of fourth-class or parcel-post rates  
ZONES

Weight in pounds	Local	1st	2d	3d	4th	5th	6th	7th	8th
		Up to 50 miles	50 to 150 miles	150 to 300 miles	300 to 600 miles	600 to 1,000 miles	1,000 to 1,400 miles	1,400 to 1,800 miles	Over 1,800 miles
1	\$.07	\$.08	\$.08	\$.09	\$.10	\$.11	\$.12	\$.14	\$.15
2	.08	.10	.10	.11	.14	.17	.19	.23	.20
3	.08	.11	.11	.13	.17	.22	.26	.32	.37
4	.09	.12	.12	.15	.21	.27	.33	.41	.48
5	.09	.13	.13	.17	.24	.33	.40	.50	.59
6	.10	.14	.14	.19	.28	.38	.47	.59	.70
7	.10	.15	.15	.21	.31	.43	.54	.68	.81
8	.11	.16	.16	.23	.35	.49	.61	.77	.92
9	.11	.17	.17	.25	.38	.54	.68	.86	1.03
10	.12	.18	.18	.27	.42	.59	.75	.95	1.14
11	.12	.19	.19	.29	.45	.64	.82	1.04	1.25
12	.13	.21	.21	.31	.49	.70	.89	1.13	1.38
13	.13	.22	.22	.33	.52	.75	.96	1.22	1.47
14	.14	.23	.23	.35	.56	.80	1.03	1.31	1.58
15	.14	.24	.24	.37	.59	.86	1.10	1.40	1.69
16	.15	.25	.25	.39	.63	.91	1.17	1.49	1.80
17	.15	.26	.26	.41	.66	.96	1.24	1.58	1.91
18	.16	.27	.27	.43	.70	1.02	1.31	1.67	2.02
19	.16	.28	.28	.45	.73	1.07	1.38	1.76	2.13
20	.17	.29	.29	.47	.77	1.12	1.45	1.85	2.24
21	.17	.30	.30	.49	.80	1.17	1.52	1.94	2.35
22	.18	.32	.32	.51	.84	1.23	1.59	2.03	2.46
23	.18	.33	.33	.53	.87	1.28	1.66	2.12	2.57
24	.19	.34	.34	.55	.91	1.33	1.73	2.21	2.68
25	.19	.35	.35	.57	.94	1.39	1.80	2.30	2.79
26	.20	.36	.36	.59	.98	1.44	1.87	2.39	2.90
27	.20	.37	.37	.61	1.01	1.49	1.94	2.48	3.01
28	.21	.38	.38	.63	1.05	1.55	2.01	2.57	3.12
29	.21	.39	.39	.65	1.08	1.60	2.08	2.66	3.23
30	.22	.40	.40	.67	1.12	1.65	2.15	2.75	3.34
31	.22	.41	.41	.69	1.15	1.70	2.22	2.84	3.45
32	.23	.43	.43	.71	1.19	1.76	2.29	2.93	3.56
33	.23	.44	.44	.73	1.22	1.81	2.36	3.02	3.67
34	.24	.45	.45	.75	1.26	1.86	2.43	3.11	3.78
35	.24	.46	.46	.77	1.29	1.92	2.50	3.20	3.89
36	.25	.47	.47	.79	1.33	1.97	2.57	3.29	4.00
37	.25	.48	.48	.81	1.36	2.02	2.64	3.38	4.11
38	.26	.49	.49	.83	1.40	2.08	2.71	3.47	4.22
39	.26	.50	.50	.85	1.43	2.13	2.78	3.56	4.33
40	.27	.51	.51	.87	1.47	2.18	2.85	3.65	4.44
41	.27	.52	.52	.89	1.50	2.23	2.92	3.74	4.55
42	.28	.54	.54	.91	1.54	2.29	2.99	3.83	4.66
43	.28	.55	.55	.93	1.57	2.34	3.06	3.92	4.77
44	.29	.56	.56	.95	1.61	2.39	3.13	4.01	4.88

Weight in pounds	Local	ZONES							
		1st Up to 50 miles	2d 50 to 150 miles	3d 150 to 300 miles	4th 300 to 600 miles	5th 600 to 1,000 miles	6th 1,000 to 1,400 miles	7th 1,400 to 1,800 miles	8th Over 1,800 miles
45	.29	.57	.57	.97	1.64	2.45	3.20	4.10	4.99
46	.30	.58	.58	.99	1.68	2.50	3.27	4.19	5.10
47	.30	.59	.59	1.01	1.71	2.55	3.34	4.28	5.21
48	.31	.60	.60	1.03	1.75	2.61	3.41	4.37	5.32
49	.31	.61	.61	1.05	1.78	2.66	3.48	4.46	5.43
50	.32	.62	.62	1.07	1.82	2.71	3.55	4.55	5.54
51	.32	.63	.63	1.09	1.85	2.76	3.62	4.64	5.65
52	.33	.65	.65	1.11	1.89	2.82	3.69	4.73	5.76
53	.33	.66	.66	1.13	1.92	2.87	3.76	4.82	5.87
54	.34	.67	.67	1.15	1.96	2.92	3.83	4.91	5.98
55	.34	.68	.68	1.17	1.99	2.98	3.90	5.00	6.09
56	.35	.69	.69	1.19	2.03	3.03	3.97	5.09	6.20
57	.35	.70	.70	1.21	2.06	3.08	4.04	5.18	6.31
58	.36	.71	.71	1.23	2.10	3.14	4.11	5.27	6.42
59	.36	.72	.72	1.25	2.13	3.19	4.18	5.36	6.53
60	.37	.73	.73	1.27	2.17	3.24	4.25	5.45	6.64
61	.37	.74	.74	1.29	2.20	3.29	4.32	5.54	6.75
62	.38	.76	.76	1.31	2.24	3.35	4.39	5.63	6.86
63	.38	.77	.77	1.33	2.27	3.40	4.46	5.72	6.97
64	.39	.78	.78	1.35	2.31	3.45	4.53	5.81	7.08
65	.39	.79	.79	1.37	2.34	3.51	4.60	5.90	7.19
66	.40	.80	.80	1.39	2.38	3.56	4.67	5.99	7.30
67	.40	.81	.81	1.41	2.41	3.61	4.74	6.08	7.41
68	.41	.82	.82	1.43	2.45	3.67	4.81	6.17	7.52
69	.41	.83	.83	1.45	2.48	3.72	4.88	6.26	7.63
70	.42	.84	.84	1.47	2.52	3.77	4.95	6.35	7.74

**EXCEPTIONS**

(a) In the first or second zone, where the distance by the shortest regular practicable mail route is 300 miles or more, the rate is 9 cents for the first pound and 2 cents for each additional pound.

(b) On parcels collected on rural routes the postage is 2 cents less per parcel than shown in the foregoing table when for local delivery and 3 cents less per parcel when for other than local delivery.

(c) Parcels weighing less than 10 pounds measuring over 34 inches, but not more than 100 inches in length and girth combined, are subject to a minimum charge equal to that for a 10-pound parcel for the zone to which addressed.

**Limit of size for parcels is 100 inches in length and girth combined. Limit of weight is 70 pounds in all zones.**

**Library Books.** A special rate is allowed under certain conditions. (Inquire at Post Office as to requirements.)

**SPECIAL HANDLING. (Fourth Class Matter Only)**

Parcels will receive first-class handling if, in addition to regular postage, there is added—

2 lbs. or less .....	.10
Over 2 lbs. and not more than 10 lbs. ....	.15
Over 10 lbs. ....	.20

**SPECIAL DELIVERY FEES**

	First Class	Second, Third or Fourth Class
Up to 2 pounds .....	10c	15c
Over 2 pounds up to 10 pounds .....	20c	25c
Over 10 pounds .....	25c	35c

The prepayment of the foregoing fee on second, third, or fourth class mail entitles it to the most expeditious handling and transportation practicable, and also entitles it to special delivery at the office of address.

**To Canada** (including Newfoundland and Labrador) 20c prepaid in addition to regular postage on letters or articles only prepaid at the letter rate.

For special delivery rates to other foreign countries, consult post office.

**REGISTERED MAIL.**

Not to exceed \$5 .....	\$0.15	Not to exceed \$500 .....	\$0.70
Not to exceed 25 .....	.18	Not to exceed 600 .....	.80
Not to exceed 50 .....	.20	Not to exceed 700 .....	.85
Not to exceed 75 .....	.25	Not to exceed 800 .....	.90
Not to exceed 100 .....	.30	Not to exceed 900 .....	.95
Not to exceed 200 .....	.40	Not to exceed 1000 .....	1.00
Not to exceed 300 .....	.50		
Not to exceed 400 .....	.60		

**POSTAL MONEY ORDERS.**

For Orders		For Orders	
From \$0.01 to \$2.50 .....	6 cents	From \$20.01 to \$40.00 .....	15 cents
From \$2.51 to \$5.00 .....	8 cents	From \$40.01 to \$60.00 .....	18 cents
From \$5.01 to \$10.00 .....	11 cents	From \$60.01 to \$80.00 .....	20 cents
From \$10.01 to \$20.00 .....	13 cents	From \$80.01 to \$100.00 .....	22 cents

## POSTAL RATES.—FOREIGN

**Letters.**—For the places in the following list the postal rate is 3 cents each ounce or fraction. For all other foreign destinations, 5 cents first ounce and 3 cents each additional ounce or fraction: Andorra (Republic), Argentina, Balearic Islands, Bolivia, Brazil, Canada, Canary Islands, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Haiti, Honduras (Republic), Labrador, Mexico, Newfoundland, Nicaragua, Panama, Paraguay, Peru, Salvador, El; Spain, including Alhucemas Island, Ceuta, Chafarinas or Zafarani Islands, Melilla, Penon de Velez de la Gomera; Uruguay, Venezuela.

**Post Cards.**—Single post cards for places enumerated above 2 cents; maximum size  $6 \times 4\frac{1}{4}$  inches, minimum size  $4 \times 2\frac{3}{4}$  inches. Single post cards for all other foreign destinations 3 cents.

**Printed Matter.**— $1\frac{1}{2}$  cents for each two ounces or fraction. Limit of weight 8 lbs. 12 oz., in general. (Canada, 4 lbs., 6 oz.)

**Samples of merchandise.**—For all foreign destinations,  $1\frac{1}{2}$  cents each 2 ounces or fraction, with a minimum charge of 3 cents. Limit of weight: 18 ounces.

**Commercial papers.**—For all foreign destinations,  $1\frac{1}{2}$  cents each 2 ounces or fraction, with a minimum charge of 5 cents. Limit of weight 4 lbs., 6 oz., except to Haiti which is 8 lbs., 12 oz.

**Maximum dimensions.**—For all foreign destinations on all classes of mail noted above (except Post Cards), 36 inches in length, breadth and thickness combined, the length being limited to 24 inches. When sent in the form of a roll the length (the maximum of which is 32 inches) plus twice the diameter is limited to 40 inches.

**Registration fee.**—For all foreign destinations, 15 cents in addition to postage. When a return receipt is requested there is an additional charge of 5 cents.

### INTERNATIONAL PARCEL POST.

**International (Foreign) Parcel Post.**—For all countries, colonies and places the postage rate is 14 cents a pound. Because of the varying transit charges, surcharges, etc., applicable to most foreign countries, in addition to the regular parcel post rates, it is important that a qualified postal employee handle transactions. Foreign parcel post must not be posted in a letter box; it must be taken to a regular post office and handed to a postal clerk.

### POSTAL MONEY ORDERS.—INTERNATIONAL.

Limit of a Single Order, \$100.

For Orders from—

\$0.01 to \$10	10 cents
From \$10.01 to \$20	20 cents
From \$20.01 to \$30	30 cents
From \$30.01 to \$40	40 cents
From \$40.01 to \$50	50 cents
From \$50.01 to \$60	60 cents
From \$60.01 to \$70	70 cents
From \$70.01 to \$80	80 cents
From \$80.01 to \$90	90 cents
From \$90.01 to \$100	1 dollar

### AIR MAIL SERVICE.

The rate on Air Mail in the Continental United States is 6 cents for each ounce or fraction thereof. This rate is also applicable to Canada.

The rate to Bahamas, Cuba, Dominican Republic, Haiti, Jamaica, British Virgin Islands, Mexico, Puerto Rico, and Virgin Islands of the United States, is 10 cents for each  $\frac{1}{2}$  ounce or fraction thereof.



Famous recipes reprinted from Fannie Merritt Farmer's  
**THE BOSTON COOKING-SCHOOL COOK BOOK**  
 by special permission

## THANKSGIVING MENU

Oyster Bisque  
 Roast Turkey, garnished with tiny broiled sausages  
 Brown Gravy                      Cranberry Sauce  
 Mashed Potatoes                      Baked Winter Squash  
 Onions, Buttered or in Cream  
 Grapefruit and Celery Salad  
 Pumpkin Pie  
 Fruit                      Nuts  
 Black Coffee

### OYSTER BISQUE

1 quart oysters	2 cups scalded milk
1½ quarts water	2 teaspoons salt
2 stalks celery	¼ teaspoon pepper
2 leeks	⅛ teaspoon cayenne
2 slices onion	⅛ teaspoon nutmeg
2 sprigs parsley	2 egg yolks
2 cloves	1 cup cream
½ bay leaf	1 cup canned or cooked peas
½ cup rice	

Pick over oysters, removing bits of shell. Chop. Add water, celery, leeks, onion, parsley, cloves, bay leaf and rice. Bring to boiling point and simmer 1¼ hours. Press through sieve, add remaining seasonings, peas and milk. Just before serving, add egg yolks and cream and bring to boiling point. Serves 8.

### ROAST TURKEY

Dress, clean, stuff. Place on its side on rack in dripping pan, rub entire surface with salt and spread breast, legs and wings with ⅓ cup butter, rubbed until creamy and mixed with ¼ cup flour. Dredge bottom of pan with flour. Place in hot oven (450° F.). When flour on turkey begins to brown, reduce heat (350° F.) and baste every 15 minutes until turkey is cooked (about 3 hours). For basting, use ½ cup butter melted in ½ cup boiling water and after this is used baste with fat in pan. Pour water in pan during the cooking, as needed to prevent flour from burning. During cooking, turn turkey frequently, that it may brown evenly. If turkey is browning too fast, cover with buttered paper to prevent burning. Garnish with tiny broiled sausages.

New England Stuffing: Allow 8 cups for a 10-pound turkey.

12 slices bread, ½ inch thick	1 egg, well beaten
Stock or water to moisten	Salt
2-inch cube fat salt pork, finely chopped	Pepper
	Sage or poultry seasoning

Remove crusts from bread. Toast. Chop, moisten with stock. Add pork, egg and seasonings.

### TURKEY GRAVY

6 tablespoons fat from roasting pan	3 cups stock (water in which giblets, neck and wing tips have been cooked)
6 tablespoons flour	Salt, pepper, onion juice

Brown fat with flour. Pour on gradually stock or liquor left in pan. Cook 5 minutes, season and strain.

### CRANBERRY SAUCE

3 cups cranberries	1¼ cups sugar
	1 cup boiling water

Pick over and wash cranberries. Cook with sugar and water 10 minutes. Watch to prevent boiling over. Skim and cool.

**PUMPKIN PIE**

1¼ cups cooked and strained pumpkin	1 teaspoon ginger
½ cup sugar	1 teaspoon cinnamon
2 tablespoons butter	½ teaspoon salt
2 tablespoons molasses	2 eggs
	1¼ cups scalded milk

Add sugar, butter, molasses, ginger, cinnamon and salt to pumpkin. Add egg yolks slightly beaten. Add milk and mix thoroughly. Fold in egg whites beaten until stiff. Bake in one crust.

**SPECIAL DISHES FOR SUNDAY-NIGHT SUPPERS****CHICKEN A LA KING**

1½ tablespoons chicken fat or butter	2 tablespoons butter
1¾ tablespoons flour	1 cup boiled fowl, cut in strips
½ cup hot Chicken Stock	½ cup sliced mushrooms, fried in butter
½ cup scalded milk	¼ cup canned pimientos, cut in strips
¼ cup scalded cream	1 egg yolk, slightly beaten
½ teaspoon salt	2 tablespoons sherry, if desired

Melt fat, add flour, and stir until well blended; then pour stock, milk and cream on gradually, while stirring constantly. Bring to boiling point and add salt, butter bit by bit, fowl, mushrooms and pimientos. Again bring to boiling point and add egg yolk and sherry if used. Serves 6 or more.

**WELSH RAREBIT**

1 tablespoon butter	½ pound soft, mild cheese cut in small pieces
1 teaspoon cornstarch	¼ teaspoon mustard
½ cup thin cream	Few grains cayenne
¼ teaspoon salt	

Toast or wafer crackers

Melt butter, add cornstarch and stir until well mixed. Add cream gradually, while stirring constantly and cook 2 minutes. Add cheese and stir until cheese is melted. Season and serve on wafer crackers, or bread toasted on one side, rarebit being poured over untoasted side. Much of the success of a rarebit depends upon the quality of the cheese. A rarebit should be smooth and of a creamy consistency, never stringy. If stringy, add one egg slightly beaten. Serves 4.

**STUFFED ALLIGATOR PEARS**

Cut pears in half, remove stone, fill with shrimp or crab meat, mixed with Russian dressing.

Russian Dressing: To ½ cup Mayonnaise, add ¼ cup Chili Sauce, 1 tablespoon celery, cut in small pieces, 1 tablespoon pimiento, cut in small pieces, 1 tablespoon green pepper, cut in small pieces.

**LOBSTER NEWBURG**

2-pound lobster, boiled	1 tablespoon brandy
¼ cup melted butter	1/3 cup cream
1 tablespoon sherry	2 egg yolks, slightly beaten
	Salt, cayenne and grated nutmeg

Slice lobster meat, cook in butter 3 minutes. Add liquors, cook 1 minute, add cream. Season and add egg yolks. Stir until thickened. Serve with toast. Serves 4.

**APPLE PORCUPINE**

1½ cups sugar	Jelly, marmalade or preserved fruit
1½ cups water	Almonds, blanched and split
8 apples	Whipped cream

Boil sugar and water 7 minutes. Wipe, pare and core apples. Cook in syrup to cover until soft, occasionally skimming. Drain, cool, fill with jelly and stick with almonds. Serve with whipped cream.

**DATE AND NUT TORTE**

1 cup chopped dates	1 cup sugar
1 teaspoon soda	2 eggs, well beaten
1 cup boiling water	1 cup flour, sifted
1 tablespoon butter	1 cup nut meats, cut in pieces

Add soda to dates, pour over boiling water and allow to stand 1 hour. Cream butter, add sugar, eggs, flour, dates and nut meats. Spread in buttered pan ¾ in. thick and bake 40 minutes in moderately slow oven (325° F.). Cut in squares and serve with whipped cream.



## OUR FRIEND, THE DOG

By DR. ARTHUR W. MAY

The dog has reached a position of greater importance in the family life of America than at any previous time. The increase in numbers and quality is marked. A recent census gives a total of approximately 13,000,000 in the United States, while out of this group, the highly bred dogs of all breeds, sporting, working, and pet types, show a definite growth in popularity as evidenced by the registrations with the American Kennel Club.

The improvement in breeding has increased the monetary value to such an extent that it now takes its place along with the sentimental interest in determining the proper care and conditioning.

The house dog literally becomes a member of the family. A man acquiring his first dog, as a playmate for his children, was heard to remark that he had assumed a definite responsibility; in other words, that he not only wished to give his dog the same care as his children, but felt that he was entitled to such care.

The attitude of the average dog owner has been, and is today, that a dog is a strange creation to which the accepted human laws of life do not apply. The statement which is so often made that a dog "can take care of itself" in sickness is erroneous. One should consider his pet as an established member of the family group from every point of view except that of diet. The illnesses and accidents are comparable to those of the younger members of the household, who cannot as yet talk, and should be interpreted in the same manner using the same judgment and processes of reasoning since the fundamental principles are identical.

The anatomy and physiology are, in the main, the same as that of the human but the minor differences are due to the fact that the dog is a carnivorous animal. The teeth are developed for tearing and are not of the flat grinding millstone type such as those characteristic of the horse and cow in the vegetable eating group. The saliva does not contain ptyalin for the predigestion of starchy foods. The size of the stomach and bowels indicate a small bulk, highly concentrated diet. The animal under discussion being classed as carnivorous, and the anatomy as described above indicating high concentration in food, we cannot do other than accept a diet composed of animal proteins such as milk, meat and liver.

The vegetable and starchy foods are bulky and therefore, on this basis alone, are definitely contraindicated. The common reasoning in feeding vegetable foods is the fact that dogs have been domesticated. The dog is a domestic animal, as the horse and cow, but the anatomy has not changed during the process of domestication and it remains one of the meat eating group just as they are still members of the vegetable eating species. Consistent reasoning applied to the horse and cow would include animal proteins in their diet.

The evidences of improper feeding are rarely spectacular except in puppies and again from middle life to old age. The results, frequently seen, of improper feeding in young dogs are rickets, "lack of bone." In other words, an underdevelopment of the bony structure, excessive weight, fat, and a general lack of normal muscular tone. The most alarming puppy nutritional disturbance, to the layman, is so-called fits or convulsions due to acute indigestion. The carbohydrate, starchy diet is accumulative in its effect producing, in late life, definite disturbances of metabolism. This type of diet creates illness in two distinct ways: first, by deficiencies in the essential elements of nutrition and second, by the accumulation of an abnormal amount of fat. Pyorrhea is a common disease among the older house dogs but an interesting fact has been observed, covering a twenty year period, that it is a rare occurrence in those fed on animal products. The methods of diagnosis are those of the children's doctor, objective, supplemented by the history of the case.

A word on distemper, one of the most serious diseases of dogs, is particularly important at the present time. In the past, previous to 1929, there was no known preventive or curative treatment for this disease. The period from the above date to the present, has proven conclusively that this disease can be prevented. The treatment has not been universally accepted, due to prejudice, which

was justified by experiences prior to 1929. The procedure worked out by Laidlaw and Dunkin on a non-commercial basis has given the dog owner a 98.6 effective preventive treatment.

Psychology. Included in a previous comparison of the dog and man, psychology was stated as being the same. The reasons for dogs' actions are based on the same fundamentals as the human without, except in rare instances, the complexes. One of the well known psychologists stated that after years of a microscopic approach to the subject, he had realized that the proper approach was through the lower animals.

The so-called vicious dog is a rarity, his aggressiveness being due either to fear or a sense of duty in protecting his master. A great many dogs are nothing more than bullies endeavoring to instill fear into the mind of the human but, failing in this attempt, prove to be amiable.

The repeated assertion that dogs recognize fear by scent has not been proven. As an illustration of this fact, a person without fear of dogs, encountered a supposedly dangerous animal in a closed building and the dog made repeated, determined rushes but did not actually attack. The advances, over a period of five minutes, became less and less positive with longer intervals between, during which there was an apparent questioning attitude. The dog became, in a short time, perfectly friendly and insisted on being caressed. It was obvious, in this case, that it was not scent which alarmed the dog, for the person had been alone with the animal in a small area where the scent would have been just as evident on his entrance as at a later time.

The above instance illustrates the most important psychological fact to the dog owner, and that is, that by completely ignoring the mere existence of a dog of this type, as was done in this case, his curiosity has been aroused and you have won. A person's lack of physical hesitation or mental indecision is readily recognized by the animal's acute interpretive sense.

A case comes to mind of an uncanny recognition of a mental change in a person due to a narcotic used in a minor surgical operation. The owner of the dog arrived home to find his pet Scottish terrier standing close by his wife's side neither making the usual friendly demonstration nor showing even recognition. Head and ears were down, ruff up, ears back, teeth bared, tail motionless while the dog prevented his master's entrance by direct attacks. The attitude toward his owner, following recovery, was perfectly friendly and demonstrative. In this instance it was not scent, for the animal assumed his protective attitude before his owner had opened two doors and entered the house. It was, as stated above, the recognition of an abnormal mental condition as evidenced by some subtle change in the manner of the owner's entrance to his home.

One point in canine psychology that is more or less destructive to one's ego, even though you may like the new dog, is that one must allow him time to decide whether he likes you or not. The fact must be accepted that it is a question for two personalities to decide.

The success and pleasure in owning a dog is dependent on a few essential facts. The health of the dog is the primary factor and, in this respect, the kind and quality of the diet should be considered to be as important for him as for any other member of the family. The prevention of the contagious and infectious diseases such as distemper and rabies by the modern methods of inoculation is a vital point and should be considered in the same light as typhoid inoculation and smallpox vaccination in human medicine.

Dogs should be kept under reasonable control in order to prevent that worst of tragedies—the automobile accident case. The dog owner dislikes to limit the dog's freedom but for the good of the dog and the happiness of the family certain definite restraint should be exercised.

Finally, it should always be remembered that the dog's actions and reactions are based on the same processes as your own. Treat him at least as an equal, if not as a superior, and the results should be mutually satisfactory.

## FIRST AID AND WHAT TO DO UNTIL THE DOCTOR COMES

By DR. EUGENE L. SWAN

American Social Hygiene Association; National Council of Boy Scouts; Director of Pine Island Camps, Belgrade Lakes, Me.

**KEEP COOL! IF YOU ARE EXCITED YOU ARE NOT AS VALUABLE TO THE PATIENT. REMEMBER HE IS MORE FRIGHTENED THAN YOU ARE AND NEEDS ALL YOUR QUIET HELPFUL ATTENTION.** Move patient to a quiet, airy place. Keep bystanders at a distance. This is important.

Be quiet, gentle, kind. Place patient in a comfortable position. Unless the head is injured place it on the same level as the body. If patient vomits, turn the head on one side, wipe mouth and lips. If bleeding check at once (see later information about bleeding). Cover all wounds immediately (see wounds).

### Don'ts Regarding Bleeding

Don't use lukewarm water to stop bleeding—it increases it. Use either ice, ice cold water, or water as hot as it can be borne.

Don't apply cobwebs, tobacco, mud, or other styptics to stop bleeding.

Don't give stimulants to bleeding patients.

Don't put bare fingers into a bleeding wound.

Don't apply tight bandages longer than necessary.

Don't apply dirty dressings or bandage, apply any clean piece of cotton, muslin, or linen. A clean shirt, handkerchief, pillow slip, sheet, is practically sterile if freshly laundered.

**Bleeding**—To check bleeding remember two words **PRESSURE** and **POSTURE**. If an artery is cut, it will spurt. Here make pressure between the cut and the heart. If a vein, remember the blood is flowing toward the heart, make pressure on the vein on the opposite side of the cut.

**Posture**—Always elevate the bleeding part. If a hand is bleeding lay the patient down and elevate as high as possible. If the bleeding is on the head, or a nose bleed, of course always set the patient up. A common nose bleed may be checked by pressure of two fingers on the upper lip directly below the nostrils. Direct the patient to breathe slowly in through the nose and exhale through the mouth. If this does not do it, try ice on the nose wrapped in a piece of cloth, or an ice bag. If it still bleeds, pack the nose tightly with cotton; avoid blowing the nose.

**Avoid Using a Tourniquet** unless there are many bleeding points or unless the bleeding is so severe that it cannot be checked by the pressure of the fingers. A tourniquet may be made of anything that can be put around a limb **ABOVE** the wound and then twisted tight with some kind of a stick. A tourniquet may be made of a belt, handkerchief, shirt sleeve; rope is not good. Many a policeman's night stick twisted up in a handkerchief has saved a life. Avoid carefully keeping the tourniquet on any longer than necessary.

**Wounds**—Do not touch the wound with bare or unclean hands. Arrest bleeding.

Do not disturb blood clots. They are nature's way of helping.

Remove foreign substances when it can be easily done.

Do not wash wounds in water that has not been boiled if you can avoid it.

Bring the edges of the wound together. Nature wishes to help the patient, so keep the part quiet.

Apply any pieces of clean linen or cotton and bind in place, clean handkerchiefs, shirt, or napkin—never put cotton as a dressing on a wound. Send for a surgeon.

**Bruises**—Don't pass a bruise by as a simple thing. There may be a fracture. Apply very cold water or ice to a bruise. A bruise with the skin off is a wound and should be treated as such (see wounds). Do not dress a bruise with cotton. Use sterile gauze or a sterile piece of cloth. Cotton sticks to the edges of the wound.

**Poisons**—Send for the doctor at once. If possible inform him of the kind of poison.

Induce vomiting in the patient unless it is an acid or alkaline poison.

To make a patient vomit gag with fingers, warm mustard and water, warm salt water.

If patients have taken either opium or morphine—give strong coffee, dash water in their face, walk them about, shake them and keep from going to sleep, even slapping or shaking them.

If patients have taken acids, give alkali such as lime water or soap suds, or a weak solution of plaster from the wall. If they have taken an alkali, give an acid—vinegar or lemon juice and water.

If patient has taken rat poison, which is arsenic or paris green, give raw eggs, flour and water, or milk. Bi-chloride of mercury tablets or corrosive sublimate, give white of eggs freely. Carbolic acid or the disinfectants that have creosote, dissolve a tablespoonful of epsom salts in a glass of water or baking soda, or flour and water. Tincture of iodine, give starch and water. If the children eat toad stools, induce vomiting and give castor oil. Wood alcohol, a pint or more of hot water, induce vomiting, give castor oil.

Decayed foods, ptomaine poisoning, castor oil and powdered charcoal.

**Never**—Have poison unmarked. It is best to keep it away from medicine cabinets. Do not take anything out of bottles in the dark. Always have light enough to read the labels on bottles. Do not pull cork stoppers with your teeth. Many deaths have been caused by swallowing cork stoppers. If the label is washed off replace it with another.

**Fractures**—The signs of a broken bone are swelling in an unusual place, exquisite tenderness over one spot, deformity and if a complete fracture a distinct grating feeling in the rubbing of the ends of the bones together. Get the patient in as comfortable position as possible. Immediately prepare to prevent any motion on the part of the injured part. To prevent motion apply a splint. Splints may be made of an umbrella, cane, board, almost anything that will give support. **ALWAYS PAD YOUR SPLINT.** Padding may be made of a pillow, old coat or cotton. Bandage above and below the fracture. Call a doctor.

**Dislocation**—Insist on the person with a dislocation remaining quiet. Do not let him attempt to stand. Send for the doctor. If a finger is dislocated it may be reduced thus saving pain until the doctor comes. Wipe the finger dry, wrap with a handkerchief or a bandage, have someone hold the patient's wrist and with steady, firm pressure—do not yank the finger to pull it into place. Dislocated jaw may be determined by the fact that the patient cannot close his mouth and presents a rather horrible grinning effect. You may wrap both thumbs with a handkerchief or towel, stand behind the patient, rest his head against your body and press firmly downward and then backwards and the muscles in the cheek will snap the jaw back into place. Place something like a piece of cork or cloth between the front teeth or they will come together with severe force. If care is not used your own fingers may be bitten.

**Burns**—Do not wash burns with cotton. It sticks to the surface. Use gauze or a clean cloth. In a burn where the clothing adheres to the skin use care in removal. Whole areas of skin may be torn off with the clothing. Cut along the seams, soak the clothing with oil or water. Get burns covered as quickly as possible to keep out the air. They may be dressed by applying **CARRON OIL** (equal parts of linseed oil and lime water), any oil except machine oil, vaseline, or the white of an egg. Burns from gun powder or electricity treat like any other burn. Burns from caustic or ammonia, wash freely with water followed by vinegar. Then treat like any burn.

**Mental Hygiene**—When millions of men following the war not only filled the homes and hospitals with shattered bodies but shattered minds, it was recognized as never before that mental health was as important as physical health. There are two main departments of the mind—the conscious mind and the subconscious mind. The first is the part of our mental equipment that we use when we see, taste, hear, etc., but deep buried is another part of our mind which is in fact a vast reservoir in which is stored all our impressions, our fears, our hates, our joys and sorrows. This part of our mind never sleeps and out of it may suddenly arise something which has occurred in our earliest babyhood. There may be hidden deep in our subconscious mind so simple a thing as an odor, a strain of music, a note of tenderness in the voice of a loved one—or a bitter hurt accompanied by a very simple experience. The modern doctor recognizes the fact that physical health can only come when mental health is reached. The greatest enemy man has always had is worry. It is a sneak thief which comes in the night and steals away peace and security. If you wish to be in full radiant, shining health, cultivate a serene, calm, hopeful attitude and **DON'T WORRY.**

## NEW ENGLAND — A GOING CONCERN

By DUDLEY HARMON

Executive Vice-President, New England Council\*

In 1775, John Adams, later to become the Nation's second president, confessed to "an over-weening prejudice in favor of New England," and added: "New England has in many respects the advantage of every other colony in America, and, indeed, of every other part of the world that I know anything of."

So assiduously has the New Englander developed not only these "advantages" but also the essential Yankee characteristics of courage, vitality, independence and ingenuity, that today he enjoys a decidedly secure position in the country's economic picture.

The possessions and position of New England have been gained through three major types of economic activity—industry, the capitalization of recreational assets, and agriculture. These are New England's basic wealth-producing factors—these keep it a going concern.

### INDUSTRY

The birthplace of American industry, New England is today one of the nation's most intensively developed manufacturing areas, with an industrial diversification unequalled elsewhere. It is the home of more than 14,000 manufacturing establishments, whose products range in variety from wooden spools to microscopes, from rubber boots to submarines. Of the country's total of 350 classifications of manufactured products, nearly two-thirds are to be found in New England.

Since early in the present century, approximately half of all the gainfully employed in New England have drawn their livelihood directly from manufacturing. The bulk of New England's prosperity, employment, wages and salaries, and the purchasing power by which New England's vast retail structure is supported, are dependent upon the continued prosperity of its mills and factories.

#### New England Manufacturing Activity

	No. of Wage Earners	Wages Paid	Value of Products	Value Added by Manufacture
ME. ....	69,273	\$ 58,949,379	\$ 274,870,206	\$ 120,056,043
N. H. ....	54,212	48,358,310	209,384,111	93,772,614
VT. ....	19,486	18,317,336	82,696,255	41,082,419
MASS. ....	442,640	445,830,970	2,095,389,595	1,019,991,649
R. I. ....	101,316	94,990,117	418,888,747	196,246,903
CONN. ....	224,086	227,717,696	906,423,010	504,278,623
N. E. ....	911,022	\$ 894,163,808	\$3,987,651,924	\$1,975,428,251
U. S. ....	7,378,845	\$7,544,338,434	\$45,759,763,062	\$19,496,269,394
N. E. % of U. S.	12.3	11.9	8.7	10.1

### RECREATION

The second great wealth-producing factor in New England economy is recreation. A survey by the New England Council shows that approximately 3,000,000 persons visit New England annually to enjoy the beauties of its scenery and the delights of its recreational activities. Their expenditures in New England aggregate some \$500,000,000 a year.

Of each dollar spent by the recreational visitor, 20 cents goes for transportation, 20 cents for accommodations, 25 cents to retail stores, 21 cents for food, eight cents for amusements, and six cents for confections, souvenirs, etc. This \$500,000,000 income works back through manufacturers of food, clothing, equipment and drugs to banks, insurance companies, utilities and miscellaneous manufacturers and to communities, and states as taxes.

### AGRICULTURE

The third most important of New England's wealth-producing activities is agriculture. In normal years, the gross income from New England's 158,241 farms is well over \$300,000,000. More than half a million New Englanders are directly dependent for their livelihood on the sale of farm products, and the value of their farm property is \$901,271,000.

These then are the principal sources of New England's livelihood. Mines and quarries, forests and fisheries, are others, less important. Commerce and the so-called service industries—transportation, power production, communication, etc.—important as they are, depend for their prosperity upon the continued good health of New England industry, recreation and agriculture. These are what "make the wheels go round."

\*Formed under auspices of the six New England Governors in 1925, the New England Council is the all-New England economic research and development organization. It has but one purpose—the promotion of New England's economic welfare.



## SPORT OR BIG BUSINESS?

By RICHARD E. DANIELSON

Editor of "The Sportsman"

Nothing seems stranger to the rest of the country than that the once Puritanical States, New Hampshire, Rhode Island, and Massachusetts, should during the past few years have made *pari mutuel* betting legal and that, when costly racing plants had been built, the public should have taken up following the races and betting on the horses with an enthusiasm amounting almost to hysteria. (Such is the fact, however, and 1937 shows no let-down in the public support of racing.)

I wrote "costly plants" and that is no exaggeration. From a million and a half to two million and a half is the cost of building a track, a great steel and concrete grandstand, a clubhouse, an administration building, stables to house two thousand or more horses, and all the other things which must be provided if the public is to enjoy the sport. As much of the capital required is provided by a public offering of securities, the directors of racing associations are under every obligation to make their venture pay dividends. It is not wholly a matter of self-interest. The result is something which is often referred to rather sneeringly as "commercialized racing." Well, if it weren't commercialized, there wouldn't be any racing, at least at *pari mutuel* tracks. Since the unfortunate precedent of almost universal free admission was set by Narragansett, in Rhode Island, the other tracks were forced to follow suit as the public—to a large degree—insisted on seeing racing for nothing. As a result, the gate receipts are very small and the tracks must depend for their livelihood on their percentage of the money bet at the *pari mutuel* windows. This is a temptation to them to resort to devices which lovers of racing, as a sport, regret. Eight races every day are too many races for the good of the sport; long, long parades to the post so that more and more people will have time to place belated wagers may not be unethical but it is certainly unpleasing. And so on. Yet New Englanders, once noted for their thrift and shrewdness, bet in 1936 \$34,960,856 at Narragansett, and \$21,500,622 at Suffolk Downs in East Boston. From this the respective associations received their percentage of 6½%, and the States theirs of 3½%, the two amounting to ten per cent of the total. Admittedly this is big business.

But is it sport? Obviously such racing is not conducted in an unselfish desire "to improve the breed of horses," but nevertheless this racing is sport, colorful thrilling sport, to thousands of people, including many owners of stables, and it does interest the public in the good or bad qualities of the thoroughbred horse.

Is it honest racing? At no track in the world is it safe to assume that all races will be fairly run. There are four vulnerable factors in every entry—first, the horse which is never certain to run true to form; second, the jockey; third, the trainer; fourth, the owner. Any one of the latter three may be guilty of crime and get away with it in spite of the best efforts of the various track officials. But from my own experience I can testify that at the track with which I was intimately connected during its first season, every possible effort was made and unceasing vigilance exerted to see that the rules of racing were strictly enforced. Any infraction of those rules was immediately and severely punished, no matter by whom committed. The result was a wholesome discipline and a weeding out of the less desirable stables. As an interesting sidelight I might add that—as is practically universal nowadays—every winner during sixty days of racing was given the "saliva test" which indicates whether or not he has been "doped,"—that most miserable crime and abuse of the thoroughbred horse. In not one instance was the presence of "dope" detected.

You back your choice at your peril, but it is a difference of opinion which makes horse racing. If you follow the races and the horses, and never bet above your means, you will see beautiful animals and stirring scenes. And you will have a lot of fun.

## AMERICA'S CUP RACES

By WILLIAM U. SWAN

First race. Aug. 22, 1851. Round Isle of Wight, 53 miles. Won by schooner America against a fleet of fifteen schooners and cutters, beating Aurora, second boat by 8 min.

First Match. Aug. 8, 1870. Schooner Magic in a fleet of fifteen schooners beat challenging schooner Cambria, which finished eighth and was placed tenth in corrected time, by 39 min. 12 sec. over N. Y. C. course, 38 miles.

Second Match. First race. Oct. 16, 1871. Defending schooner Columbia beat challenging schooner Livonia 27 min. 4 sec. over N. Y. C. course, 38 miles. Second race. Oct. 18. Columbia beat Livonia 10 min. 33 sec. over 40 miles windward and leeward course off Sandy Hook. Third race. Oct. 19. Livonia beat Columbia 15 min. 10 sec. over N. Y. C. course. Fourth race. Oct. 21. Sappho (substituted for Columbia) beat Livonia 33 min. 31 sec. over 40 miles windward and leeward course. Fifth race. Sappho beat Livonia 33 min. 27 sec. over N. Y. C. course.

Third Match. First race. Aug. 11, 1876. Defending schooner Madeleine beat challenge schooner Countess of Dufferin 10 min. 59 sec. over N. Y. C. course 38 miles. Second race. Aug. 12. Madeleine beat Countess of Dufferin, 27 min. 14 sec. over 40 miles windward and leeward course off Sandy Hook.

Fourth Match. First race. Nov. 9, 1881. Defending sloop Mischief beat challenging sloop Atalanta 28 min. 20 sec. over N. Y. C. course 36 miles. Second race. Nov. 10. Mischief beat Atalanta 38 min. 54 sec. over 32 miles windward and leeward course off Sandy Hook.

Fifth Match. First race. Sept. 14, 1885. Defending sloop Puritan beat challenging cutter Genesta, 16 min. 19 sec. over N. Y. C. course 36 miles. Second race. Sept. 16. Puritan beat Genesta 1 min. 38 sec. over 40 miles leeward and windward course outside of Sandy Hook.

Sixth Match. First race. Sept. 9, 1886. Defending sloop Mayflower beat challenging cutter Galatea 12 min. 2 sec. over N. Y. C. course, 36 miles. Second race. Sept. 11. Mayflower beat Galatea 29 min. 9 sec. over 40 miles windward and leeward course off Sandy Hook.

Seventh Match. First race. Sept. 27, 1887. Defending sloop Volunteer beat challenging cutter Thistle, 19 min. 23 sec. over N. Y. C. course 36 miles. Second race. Sept. 30. Volunteer beat Thistle 11 min. 48 sec. over 40 miles windward and leeward course off Sandy Hook.

(Note. Races in subsequent matches were 30 miles windward and leeward or triangular, with start and finish at Scotland lightship in 1893 and 1895 and from Sandy Hook lightship in other years.)

Eighth Match. First race. Oct. 7, 1893. Defending cutter Vigilant beat challenging cutter Valkyrie II, 5 min. 48 sec. Second race. Oct. 9. Vigilant beat Valkyrie II, 10 min. 35 sec. Third race. Oct. 11. Vigilant beat Valkyrie II, 40 sec.

Ninth Match. First race. Sept. 11, 1895. Defending cutter Defender beat challenging cutter Valkyrie III, 8 min. 49 sec. Second race. Sept. 10. Valkyrie III beat Defender 47 sec. but was disqualified for a foul at start. Third race. Sept. 12. Defender won, as Valkyrie III withdrew after starting.

Tenth Match. First race. Oct. 16, 1899. Defending cutter Columbia beat challenging cutter Shamrock 10 min. 8 sec. Second race. Oct. 17. Columbia won as Shamrock broke down and withdrew. Third race. Oct. 20. Columbia beat Shamrock 6 min. 34 sec.

Eleventh Match. First race. Sept. 28, 1901. Defending cutter Columbia beat challenging cutter Shamrock II, 1 min. 20 sec. Second race. Oct. 3. Columbia beat Shamrock II, 3 min. 35 sec. Third race. Oct. 4. Columbia beat Shamrock II, 41 sec.

Twelfth Match. First race. Aug. 23, 1903. Defending cutter Reliance beat challenging cutter Shamrock III, 7 min. 3 sec. Second race. Aug. 25. Reliance beat Shamrock III, 1 min. 19 sec. Third race. Sept. 3. Reliance won as Shamrock III did not finish.

Thirteenth Match. First race. July 15, 1920. Challenging cutter Shamrock IV won, as defending cutter Resolute broke down. Second race. July 20. Shamrock IV beat Resolute, 2 min. 26 sec. Third race. July 21. Resolute beat Shamrock IV 7 min. 1 sec. Fourth race. July 23. Resolute beat Shamrock IV 9 min. 58 sec. Fifth race. July 25. Resolute beat Shamrock IV, 19 min. 45 sec.

(Note. Races in subsequent match were sailed in eastern Block Island Sound and were 30 miles windward and leeward or triangular.)

## GIRL SCOUTS, INC.

Girl Scouting in the United States was founded by Mrs. Juliette Low in Savannah, Georgia, March 12, 1912. Mrs. Low, a friend of Sir Robert (now Lord) Baden Powell and his sister, told a group of her young friends about the British Girl Guide movement, sponsored by Sir Robert. The American girls enthusiastically approved the program which was then adapted to their own needs and interests, and chose the name, Girl Scouts.

The purpose of the organization is to help girls realize the ideals of womanhood, as a preparation for their responsibilities in the home and service to the community. The program emphasizes the out-of-door life and is planned to give girls a practical knowledge of health, homemaking, first-aid work and arts and crafts. The activities aim through comradeship to develop initiative, self-control, self-reliance and unselfish service to others. These ideals are embodied in the Girl Scout Promise which is made by every girl who becomes a Girl Scout:

On my honor, I will try:  
To do my duty to God and my country,  
To help other people at all times,  
To obey the Girl Scout Laws.

The Girl Scout Laws enumerate and enjoin ten attributes of worthwhile membership in society: honesty, loyalty, helpfulness, friendliness, courtesy, kindness to animals, obedience, cheerfulness, thrift and cleanliness—moral as well as physical. The emblem of the Girl Scouts is the Trefoil which indicates the threefold promise. The Slogan is "Do a Good Turn Daily" and the Motto is "Be Prepared" which implies the quiet competence in the face of emergency which should distinguish the Girl Scout.

A girl must be at least ten years old before she is eligible to become a Tenderfoot Girl Scout. She may become successively a Second Class and a First Class Girl Scout by meeting requirements in First Aid, homemaking, nature study, healthful living, woodcraft and specialized fields of interest. The system of Proficiency Badges, whereby a girl is able to earn recognition in fields that are of interest to her, is also flexible enough to allow for full development of the individual within the organization. The Mariners are Girl Scouts, 14 years old or over, who are especially interested in watermanship of all kinds. Mounted troops of Girl Scouts are regularly enrolled troops who have a special interest in horseback riding. Girls who cannot affiliate with a regular troop may be Lone Scouts. There is no upward age limit for Girl Scouts. Girls from seven to ten years old are organized as Brownies. Their program of outdoor life, helpfulness and crafts is based on the same principles as that of the Girl Scouts with adaptations to suit the age of the Brownies.

Girl Scouts, Inc. is non-sectarian and non-partisan. It is a member of the World Association of Girl Guides and Girl Scouts and through the association it works for good-will and better international understanding. In order to give girls practical experience in international co-operation a permanent world meeting place has been set up at Adelboden, Switzerland, to which girls from the United States and foreign countries are sent each year. The meeting place, called "Our Chalet," is the gift of Mrs. James J. Storrow of Boston, Mass., and the visits are financed by the interest from the Juliette Low Memorial Fund maintained by Girl Scouts, Inc. From time to time additional international encampments are held. Thirty-two countries are members of the World Association, with a total world membership of about a million and a half. There are over 400,000 Girl Scouts in the United States, including girls of all classes and creeds, and an alumnae group of over two million women.

Girl Scouts are organized into Troops of about 32 girls, with a volunteer leader, the Captain, and her assistant, the Lieutenant. The basic unit of action, however, is the Patrol, a group of about 8 girls (but which may be varied in number to meet the needs of varied patrol interests). The patrol plans its own projects and organizes its own activities. In this small democratic unit the girl has practical training in responsible citizenship.

Girl Scouting exists to serve the needs of the girls of today, wherever they may be. In 1937 the Girl Scouts celebrated 25 years of service, and could point to an impressive record ranging from spectacular life-saving to quiet day-by-day usefulness in the home. The Girl Scouts look forward to a future in which they will continue to bring opportunities for new skills, new interests, new health, new helpfulness and happier living to all girls.

## COURTS IN NEW ENGLAND

Below are given the names of the places where the different Court Records are kept in the custody of the Clerks of Court, Registers of Probate or othersuch officers

### United States—First and Second Circuits.

**FIRST CIRCUIT.** Circuit Court of Appeals at Boston;—District Court of Maine at Portland;—of Massachusetts at Boston;—of New Hampshire at Concord;—of Rhode Island at Providence.

**SECOND CIRCUIT.** Circuit of Appeals at New York City;—District Court of Vermont at Burlington;—of Connecticut at New Haven and Hartford;—Northern District of New York at Utica;—Eastern District of New York at Brooklyn;—Southern District of New York at New York City;—Western District of New York at Buffalo.

### Maine.

The Supreme Judicial Court holds eight Law Terms, four at Augusta and four at Portland. This is the Court of last resort. It also meets in theseveral counties for Equity and other matters as occasion requires. The Superior Court which is a Circuit Court holds terms in the sixteen counties of the State, terms comprising a minimum of two in Lincoln, Piscataquis and Hancock and a maximum of ten in Cumberland County.

Superior Court convenes in the following places: Androscoggin County at Auburn, Aroostook County at Houlton or Caribou, Cumberland County at Portland, Franklin County at Farmington, Hancock County at Ellsworth, Kennebec County at Augusta, Knox County at Rockland, Lincoln County at Wiscasset, Oxford County at South Paris or Rumford, Penobscot County at Bangor, Piscataquis County at Dover-Foxcroft, Sagadahoc County at Bath, Somerset County at Skowhegan, Waldo County at Belfast, Washington County at Machias or Calais, and York County at Alfred.

Superior Court is a trial court. Clerks of the Supreme Judicial Courts in the several counties are also Clerks of the Superior Court.

Probate Courts are County Courts and meet in the County seat of each county.

### New Hampshire.

Supreme Court at Concord;—Superior Court and Probate Courts:—Rockingham Co. at Exeter;—Strafford Co. at Dover;—Belknap Co. at Laconia;—Carroll Co. at Ossipee;—Merrimack Co. at Concord;—Hillsborough Co. at Nashua and Manchester;—Cheshire Co. at Keene;—Sullivan Co. at Newport;—Grafton Co. at Woodsville;—Coos Co. at Lancaster.

### Vermont.

Supreme Court: Montpelier;—County Court and Court of Chancery:—Addison Co. at Middlebury;—Bennington Co. at Bennington;—Caledonia Co. at St. Johnsbury;—Chittenden Co. at Burlington;—Essex Co. at Guildhall;—Franklin Co. at St. Albans;—Grand Isle Co. at North Hero;—Lamoille Co. at Hyde Park;—Orange Co. at Chelsea;—Orleans Co. at Newport;—Rutland Co. at Rutland;—Washington Co. at Montpelier;—Windham Co. at Brattleboro;—Windsor Co. at Woodstock. Probate Courts:—Where the Probate District consists of an entire County its records are in the same places above. Other Probate records as follows:—Addison Dist. at Middlebury;—New Haven Dist. at Vergennes;—Bennington Dist. at Bennington;—Manchester Dist. at Manchester;—Bradford Dist. at Wells River;—Randolph Dist. at Chelsea;—Rutland Dist. at Rutland;—Fairhaven Dist. at Fair Haven;—Marlboro Dist. at Brattleboro;—Westminster Dist. at Bellows Falls;—Windsor Dist. at Ludlow;—Hartford Dist. at Woodstock. The records of each Probate District are in the custody of its Judge of Probate.

### Massachusetts.

Supremo Judicial Court for the Commonwealth at Boston. Supreme Judicial Court, Superior Court, and Probate Courts:—Barnstable Co. at Barnstable;—Berkshire Co. at Pittsfield;—Bristol Co. at Taunton;—Dukes Co. at Edgartown, (see below);—Essex Co. at Salem;—Franklin Co. at Greenfield;—Hampden Co. at Springfield;—Hampshire Co. at Northampton;—Middlesex Co. at Cambridge;—Nantucket Co. at Nantucket, (see below);—Norfolk Co. at Dedham;—Plymouth Co. at Plymouth;—Suffolk Co. at Boston;—Worcester Co. at Worcester;—except that the records of the Supreme Judicial Court in cases arising in the Counties of Dukes County and Nantucket are at Taunton. Land Court at Boston.

### Rhode Island.

Supreme Court at Providence. Superior Court:—Providence and Bristol Counties at Providence;—Kent Co. at East Greenwich;—Washington Co. at South Kingstown;—Newport Co. at Newport. In each City and Town there is a Court having Probate jurisdiction within its limits. In towns which have not elected a Judge of Probate the Town Councils act as Probate Courts.

### Connecticut.

Supreme Court of Errors:—All sessions at Hartford. Superior Court:—Hartford Co. at Hartford;—New Haven Co. at New Haven and Waterbury;—Fairfield Co. at Bridgeport and at Danbury;—New London Co. at Norwich and New London;—Litchfield Co. at Winsted, Litchfield and New Milford;—Middlesex Co. at Middletown;—Windham Co. at Willimantic and Putnam;—Tolland Co. at Rockville. Courts of Common Pleas for such Counties as have these Courts are as follows:—Hartford Co. at Hartford;—New Haven Co. at New Haven;—Fairfield Co. at Bridgeport;—New London Co. at Norwich;—Litchfield Co. at Litchfield and Common Pleas Court, for Waterbury Judicial District at Waterbury. There are 113 Probate Districts;—84 of these Districts consist of one town only; each of the remaining Districts comprises more than one town. The records of each District are in the custody of its Judge of Probate.

## TO EXERCISE THE BABY OF FOUR TO SIX WEEKS OLD

Reprinted by permission from "Healthy Babies are Happy Babies"  
by Josephine Hemenway Kenyon, M.D.

A baby, left to himself, is more apt to exercise what are called the flexor group muscles and will use the extensor or stretching muscles less than perhaps is good for his body development. His arm, leg, and finger joints are habitually bent, and thus the following simple exercises are suggested to correct this tendency. They should be given for about fifteen or twenty minutes before his morning bath and again before the six-o'clock feeding. Have all his clothing loose or remove it so that he may be unhampered.

1. With the baby lying on his back on a padded dressing table or other firm surface, encourage leg bending and stretching. Steady his body with one hand and grasp one of his feet with your other. Bend his leg at knee and hip, so that his thigh presses lightly against his abdomen. Then straighten his leg gently until it lies flat against the table. Do this three times with each leg. When the baby learns to kick on the downward motion, let him push vigorously against your hand. Do the movements slowly and rhythmically. The baby will enjoy this.

2. Place the baby on his back with his feet toward you. Grasp both ankles with your right hand and bend both knees, so that they press lightly on the abdomen. Then straighten both knees, or let him kick back against your hand until the legs are flat on the table again. Do this three times, pause, and repeat it.

3. With the baby on his back, feet toward you, bend his knees until they touch the abdomen; then circle his knees from his right to his left; bring them down flat on the table. Repeat this three times. Then rest your left palm lightly on his abdomen, with the tips of your fingers toward the baby's left side. Do the same exercises so that the knees touch against your hand and it in turn presses lightly against the abdomen.

4. With the baby still on his back, swing one arm away from his side until it extends at right angles to the body. Let it rest flat on the table with the palm uppermost; return it to his side. Do this with the other arm; then with both together. After the baby has become accustomed to it, this swing of the arms may be increased until both arms extend parallel on either side of his head.

5. Turn the baby over upon his abdomen, with his face to one side. In this position he will hold his arms bent. Straighten first one leg, then the other, until they lie flat on the table. Let him rest, turn his head toward the opposite side, and swing his arms out perpendicularly to his body. See that he breathes easily. A few babies at the age of four weeks will try to lift their heads up, turtle fashion, when resting on the abdomen. This adds to the value of the exercise, but he cannot nor should he hold his head up for long. Be careful that he does not bump his face as his head drops down.

Your effort is to initiate motions which the infant will later learn to make for himself. Remember to be gentle; force should never be used.

*Cont. from Page 76*

Fourteenth Match. First race, Sept. 13, 1930. Defending cutter Enterprise, beat challenging cutter Shamrock V, 2 min. 52 sec. Second race, Sept. 15. Enterprise beat Shamrock V, 9 min. 34 sec. Third race, Sept. 17. Enterprise won as Shamrock V broke down. Fourth race, Sept. 18. Enterprise beat Shamrock V, 5 min. 44 sec.

Fifteenth Match. First race, Sept. 15, 1934. Challenging cutter Endeavour beat defending cutter Rainbow, 2 min. 9 sec. Second race, Sept. 18. Endeavour beat Rainbow, 51 sec. Third race, Sept. 20. Rainbow beat Endeavour, 3 min. 26 sec. Fourth race, Sept. 22. Rainbow beat Endeavour, 1 min. 15 sec. Fifth race, Sept. 24. Rainbow beat Endeavour, 4 min. 1 sec. Sixth race, Sept. 25. Rainbow beat Endeavour, 55 sec.

Sixteenth Match. First race, July 31, 1937. Defending cutter Ranger beat challenging cutter Endeavour II, 17 min. 5 sec. Second race, August 2, Ranger beat Endeavour II, 18 min. 32 sec. Third race, August 4. Ranger beat Endeavour II, 4 min. 5 sec. Fourth race, August 5. Ranger beat Endeavour II, 3 min. 37 sec.

## UNCLE SAM AND THE BUSINESS MAN'S MAIL

Committee on Postal Facilities  
Boston Chamber of Commerce

Business and the Post Office are closely connected and mutually dependent. To enable the latter to render the best possible service, the Boston Chamber of Commerce recommends to your business the following 10-point program:

1. Wrap parcel post matter securely. It is necessary—and it pays. Also be certain that each parcel bears the name and address of sender.
2. Use No. 9 or No. 10 envelopes for business correspondence. These long envelopes are "worked" first in the Post Office, and thus receive regular service even during holiday seasons insofar as that is possible.
3. Use the air mail and special delivery for quicker service. Air mail is the modern method for rapid postal business interchange. A special delivery stamp guarantees delivery of the letter or parcel the same day it reaches the post office of destination.
4. Post outgoing mail at frequent intervals—in the morning, at noon, and early in the afternoon, rather than once at the close of the day.
5. Deposit large mailings in the Post Office, not in letter boxes or mail chutes.
6. Be sure to inform the Post Office, at the time of posting, if the circulars you are sending out have a time value. They will receive prompter service.
7. Register all valuable and important first-class letters or parcels.
8. Insure all parcel post shipments, especially if valuable.
9. Stagger first-of-the-month mailings, if possible, over several days. This will relieve the abnormal burden put on the postal service at the first of each month.
10. Post your mail earlier than usual during the Christmas season.

*This program has the whole-hearted endorsement of the Postmaster of  
Boston: Hon. Peter F. Tague.*

Note: The foregoing suggestions, although made by the Boston Chamber of Commerce, are equally valuable, of course, to users of postal facilities in all parts of the country.



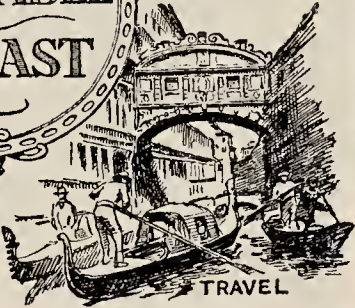
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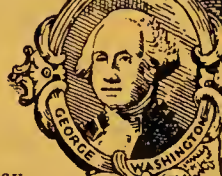
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