




NUNC COGNOSCO EX PARTE



TRENT UNIVERSITY  
LIBRARY

PRESENTED BY

PROF. F.A. HAGAR



Digitized by the Internet Archive  
in 2019 with funding from  
Kahle/Austin Foundation

A481

.F306

1948



The 156th Continuous Year of Publication

No.  
CLVI

SPRING.

SUMMER.

THE  
OLD

FARMER'S

1948

ALMANAC

BY

ROBERT B. THOMAS



AUTUMN.

WINTER.

Nichols & Co.

Price 25 Cents

Weather and Planting Tables, Predictions



## The twilight hour on the farm

ON THE FARM the twilight hour is a welcome hour. It's the time for the lighter chores, the chores which put a little less burden on tired muscles. It is a particularly restful hour after a hard day in which a great deal has been accomplished, when nothing which should have been done has been neglected. Then we can look back on the day with the consciousness of work well done, with minds free from worry.

The twilight of life should be like that. It's a time for a little less work, for a little more rest, a time to look back — and forward, too — with minds free from worry.

It can be that way if we have been

thoughtful about the future. That's what life insurance is for, to provide particularly for the twilight hour, to make sure that homes are free and clear, to provide income for leisure.

Any John Hancock agent will be glad to show you how to plan for comfortable twilight hours. Get in touch with him today.

---

*John Hancock*  
MUTUAL LIFE INSURANCE COMPANY  
BOSTON, MASSACHUSETTS

GUY W. COX  
Chairman of the Board

PAUL F. CLARK  
President

---



Number One Hundred and Fifty-Six

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

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

**1948**

Being BISSEXTILE or LEAP YEAR, and (until July 4)  
172nd year of American Independence.

FITTED FOR BOSTON, AND THE NEW ENGLAND STATES, WITH SPECIAL CORRECTIONS AND CALCULATIONS TO ANSWER FOR ALL THE UNITED 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 1792

**BY ROBERT B. THOMAS.**



Behold thyself reflected here!  
The Spring proclaims thy infant year,  
Gay life, the Summer's bloom,  
Mild Autumn speaks maturer age,  
Proves thee unwise, or hails thee sage,  
While Winter shows the tomb.—*Cunningham*  
(From *The Old Farmer's Almanack, 1848*)

COPYRIGHT, 1947, BY  
MABEL M. SWAN, Est.  
BROOKLINE, MASS.

COVER T.M. REGISTERED IN U.S.  
PATENT OFFICE.

Published by:  
YANKEE, INC.  
DUBLIN, N. H.

Sold By:  
THE AMERICAN NEWS CO.  
AND BRANCHES

## TO PATRONS AND CORRESPONDENTS

This 156th continuous edition of *The Old Farmer's Almanac(k)*, published in Atomic Year 3, marks another crucial year in which all are called upon to challenge the forces of greed, war, hunger, and "statism." Perhaps never before has any year so strongly demanded the immediate and earnest response of man and woman to the calls of conscience. These calls are made plainer and are easier to know through faith in, humility and prayer to God. In these things of momentous importance, it will also be well to realize the cup of flour is still the measure of the loaf, the penny that of the dollar, and that nothing shall be gained in our rightful effort to help the world if home matters be neglected to the point at which the American way of life becomes no longer possible.

D. E. D., Melrose, Mass. In response to your question as to where the next World's Fair is going to be, we beg to state we have found no basis in fact for the rumor it is to be held on the Lynn Marshes. J. H. S., Rochester, N. Y. We have no staff member qualified to tell you which horse will win the next Kentucky Derby. G. C. W., Jr., Pottstown, Pa. We have not yet learned the formula by which your Newfoundland sea captain father may determine on which day of 1948 the harp seals will pup.

We remain indebted to Frank M. Walling, Meadville, Pennsylvania, for having called to our attention, for many almanacs now, errors of spelling and grammar. In the 1947 edition, there were six. Others reminded us of an error in our solution of puzzle No. 7, page 50, and that the Moon's Age, December 24th last, should have been given as 13—rising thereafter a unit a day to reach 19 on the thirty-first. George Nichols, Buffalo, New York, informs us his father engraved the present almanac(k) cover for the 59th edition in the year 1851.

David Morton, of Amherst, Massachusetts, whom many consider as the world's finest living poet, has again produced the poetry on the Calendar pages. B. M. Rice, Peterborough, New Hampshire, has written the Farmer's Calendars, Anecdotes, Pleasantries and arranged most of the text for the other pages (except for the astronomical data which has again come from Professor Loring B. Andrews, and certain other matter, including the weather, which as usual emanates, from venerable Abraham Weatherwise). To our many friends in government and state agencies—and in various other positions from which the Almanac(k) has felt free to draw, also our many thanks. We would be ungrateful indeed were we not to reiterate hymns of thanks to those members of the press associations, newspapers, magazines, and radio stations who have been good enough by means of releases, articles, features, photographs, and broadcasts to maintain the *Almanac(k)* a good distance this side of oblivion.

In viewing this Leap Year of 1948, we note that Mr. Weatherwise has handed us for the first time in many years (see p. 38): some foreboding news with regard to the coming summer months—and possible crop failures. In these, we shall expect—if the predicted comes true—to lose many valued subscribers—for, we have found, unless predicted news be good news, no thanks come to the predictor. After our experience with the Office of Censorship during the war, and the suppression in other years of almanacks because their forecasts were taken too seriously, it is our sincere hope our fate will not be similar to that of several which were thus suppressed for correctly predicting the great London Fire of 1666.

*It is with regret we note the passing of Mabel M. Swan from this vale of tears to other lands where she may again happily be with her late husband, Carroll Swan. Working with and under her direction was a real pleasure as we trust it will be under the new copyright owners, Robert Haynes, Assistant Director of Harvard College Library, and Carroll Swan's two brothers.*

We conclude now in expressing our appreciation to the many readers and advertisers who have for so many years given us the confidence to carry on. It is to be hoped we will continue to merit this support. Man, however, in these great things can only propose. God is the true disposer. In this then it is by our works, and not by our words that we would be judged. These we hope will sustain us in the humble though proud station we have so long held, in the name of

Your ob'd servant,

*Chas. D. Thomas.*

July 4, 1947

# Biggest and Best GARDEN BOOK IN BRECK'S 130 YEARS



- FAMOUS FLOWER DISCOVERIES
- PRIZE "BIG CROP" VEGETABLES
- ALL SUPPLIES, NEW GADGETS

Every fascinating page in full color! Shows newest flower creations, more abundant and flavorful vegetables, rare bulbs, roses, fruits, and all supplies. Gives the down-to-earth know-how every modern gardener wants.

#### FAMOUS BRECK'S SPECIALTIES

- **Giant Camellia-Flowered Begonias.**  
Spectacular, satin-textured blooms of immense size (up to 8" across). Fully double! Exotic hues!
- **Century of Progress Pansies**  
Exhibition giants! Thick and velvety, with fantastically waved and frilled petals.
- **Midget Corn! Midget Watermelon!**  
Exciting Tom Thumb versions of mouth-watering succulence.  
... and scores of other rare Breck's exclusives.

**BRECK'S — 801 Breck Bldg., Boston 9, Mass.**

Send Breck's 1948 Garden-Book-Catalog. I enclose 9c for postage, handling.

Name .....

Address .....

**YOUR COPY IS  
READY**

Send 9c in stamps for  
postage, handling.

**SEEDSMEN SINCE 1818**

**BRECK'S**

**801 BRECK BLDG., BOSTON 9, MASS.**



## EXPLANATIONS AND SIGNS

In accord with long time usage the left and right hand calendar pages beginning respectively on pages 14 and 15 will be seen to contain numerous symbols (known as signs) and abbreviations which denote the many happenings in the heavens and on the earth which the OFA purports to set forth. On this page and pages 92 and 93 we include a brief summary of these hieroglyphics — the careful study of which will reward you with not only greater appreciation of this almanac but also stimulation with regard to further study of the wonders of the universe.

### 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 1948.

Golden Number . . . . . 11	Solar Cycle . . . . . 25	Roman Indiction . . . . . 16
Epact . . . . . 19	Dominical Letter . . . DC	Year of Julian Period 6661

### Movable Feasts and Fasts for 1948.

Septuagesima Sun Jan. 25	Good Friday Mar. 26	Whitsunday May 16
Shrove Sunday Feb. 8	Easter Sunday Mar. 28	Trinity Sunday May 23
Ash Wednesday Feb. 11	Low Sunday Apr. 4	Corpus Christi May 27
1st Sun. in Lent Feb. 15	Rogation Sunday May 2	1st Sunday in Advent Nov. 28
Palm Sunday Mar. 21	Ascension Day May 6	

## THE SEASONS, 1948

*Eastern Standard Time* ♄

Winter Solstice (Winter 1947), December 22, 11.43 A.M. —	Sun enters Capricornus, ♏
Vernal Equinox (Spring, 1948), March 20, 11.57 A.M. —	" " Aries, ♈
Summer Solstice (Summer), June 21, 7.11 A.M. —	" " Cancer, ♋
Autumnal Equinox (Autumn), September 22, 10.22 P.M. —	" " Libra, ♎
Winter Solstice (Winter), December 21, 5.34 P.M. —	" " Capricornus, ♏

## CALCULATIONS AND CORRECTIONS

(For Outside New England, see Pages 7, 10, 11, 12)

While the predictions of the Calendar pages are made for the latitude and longitude of Boston and are in *Eastern Standard Time*, the time of the 75th meridian west of Greenwich, they may be used throughout the United States by applying the corrections given here and in the tables on pages 7 and 12.

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.

	<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 "
Biddeford, 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 "

## EARTH IN PERIHELION AND APHELION, 1948

The Earth will be in Perihelion on January 2, 1 A.M., distant from the Sun 91,187,000 miles. The Earth will be in Aphelion on July 4, Noon, distant from the Sun 94,456,000 miles.

1948

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

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

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

WORLD CALENDAR

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

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

SEPTEMBER.							OCTOBER.							NOVEMBER.							DECEMBER.							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
-	-	-	-	-	1	2	-	1	2	3	4	5	6	7	-	-	-	1	2	3	4	-	-	-	1	2	3	4
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	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

The World Calendar does not change. It is the same each year. \*Dec. 31 is Year End Day—World Holiday. \*\*In Leap Years June 31, another World Holiday is added.

1949

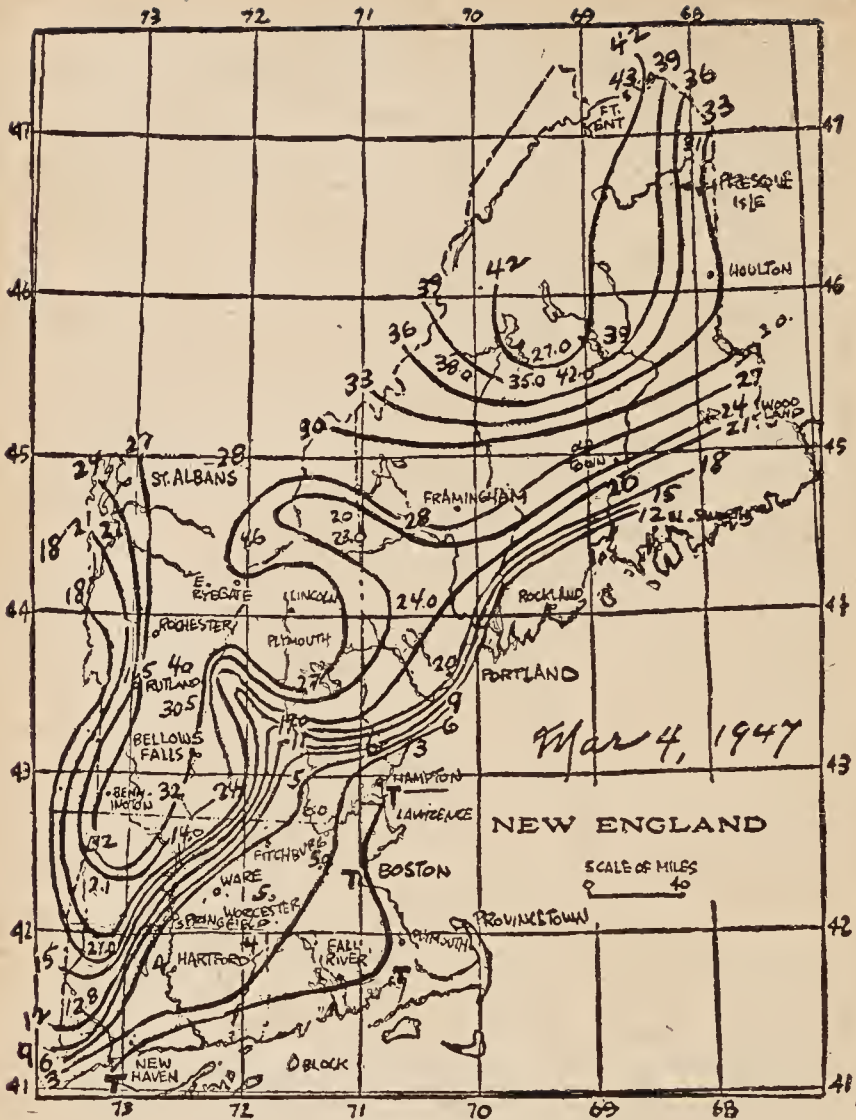
JANUARY.							FEBRUARY.							MARCH.							APRIL.						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
-	-	-	-	-	-	1	-	-	1	2	3	4	5	-	-	1	2	3	4	5	-	-	-	-	1	2	3
2	3	4	5	6	7	8	6	7	8	9	10	11	12	6	7	8	9	10	11	12	3	4	5	6	7	8	9
9	10	11	12	13	14	15	13	14	15	16	17	18	19	13	14	15	16	17	18	19	10	11	12	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.						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7	-	-	-	1	2	3	4	-	-	-	-	1	2	3	1	2	3	4	5	6	7
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	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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





## 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 Pier). Where a value in the "height difference" column is preceded by an\*, the height at Boston should be multiplied by this ratio.

	Time Differ- ence h.m.	Height Differ- ence Ft.		Time Differ- ence h.m.	Height Differ- ence Ft.
<b>MAINE</b>			<b>PENNSYLVANIA</b>		
Augusta . . . . .	+3 50	*0.4	Philadelphia . . . . .	+2 29	*0.5
Bangor . . . . .	-0 05	+3.6	<b>DELAWARE</b>		
Bar Harbor . . . . .	-0 33	+1.1	Rehoboth . . . . .	-3 37	*0.4
Boothbay Harbor . . . . .	-0 20	-0.8	<b>MARYLAND</b>		
Eastport . . . . .	-0 28	*1.9	Baltimore . . . . .	-4 25	*0.1
Old Orchard . . . . .	-0 10	-0.7	Ocean City . . . . .	-3 57	*0.4
Portland . . . . .	-0 10	-0.6	<b>DISTRICT OF COLUMBIA</b>		
Stonington . . . . .	-0 30	+0.2	Washington . . . . .	-3 08	*0.3
<b>NEW HAMPSHIRE</b>			<b>VIRGINIA</b>		
Hampton . . . . .	+0 15	-1.2	Norfolk . . . . .	-1 54	*0.3
<b>MASSACHUSETTS</b>			Virginia Beach . . . . .	-3 14	*0.3
Fall River . . . . .	-3 16	*0.5	<b>NORTH CAROLINA</b>		
Falmouth . . . . .	-0 40	*1.1	Beaufort . . . . .	-2 59	*0.3
Hyannisport . . . . .	+0 45	*0.3	Carolina Beach . . . . .	-3 30	*0.4
Lynn . . . . .	+0 05	-0.2	<b>SOUTH CAROLINA</b>		
Marblehead . . . . .	-0 05	-0.3	Myrtle Beach . . . . .	-3 45	*0.5
Mariou . . . . .	-3 16	*0.4	Charleston . . . . .	-3 15	*0.5
Monument Beach . . . . .	-3 06	*0.4	<b>GEORGIA</b>		
Nantasket . . . . .	+0 10	+0.1	St. Simon's Island . . . . .	-2 51	*0.7
Nantucket . . . . .	+0 50	*0.3	Savannah . . . . .	-2 40	*0.8
New Bedford . . . . .	-3 21	*0.4	Tybee Beach . . . . .	-3 26	*0.8
Oak Bluffs . . . . .	+0 05	*0.2	<b>FLORIDA</b>		
Onset . . . . .	-3 06	*0.5	Daytona . . . . .	-3 20	*0.4
Plymouth . . . . .	0 00	+0.1	Fort Lauderdale . . . . .	-2 15	*0.3
Provincetown . . . . .	+0 15	-0.3	Jacksonville . . . . .	-0 40	*0.1
Scituate . . . . .	-0 05	-0.5	Miami . . . . .	-3 00	*0.3
Wellfleet . . . . .	+0 20	+0.6	Palm Beach . . . . .	-3 20	*0.3
Woods Hole . . . . .	-3 01	*0.2	Port Everglades . . . . .	-2 15	*0.3
<b>RHODE ISLAND</b>			St. Augustine . . . . .	-2 20	*0.5
Block Island . . . . .	-3 21	*0.3	St. Petersburg . . . . .	+3 58	*0.2
Narragansett Pier . . . . .	-3 31	*0.4	<b>WASHINGTON</b>		
Newport . . . . .	-3 31	*0.4	Ilwaco . . . . .	+1 44	-3.5
Providence . . . . .	-3 11	*0.5	Port Townsend . . . . .	+5 04	*0.5
Watch Hill . . . . .	-2 06	*0.3	Seattle . . . . .	+5 37	-2.0
<b>CONNECTICUT</b>			<b>OREGON</b>		
Long Island Sound . . . . .	-0 02	*0.7	Astoria . . . . .	+1 37	-3.3
New London . . . . .	-1 47	*0.3	Cape Arago . . . . .	+1 19	-4.8
<b>NEW YORK</b>			Yaquina Head . . . . .	+1 12	-3.7
Coney Island . . . . .	-3 00	*0.5	<b>CALIFORNIA</b>		
Long Beach . . . . .	-3 57	*0.5	Catalina Island . . . . .	-1 33	-5.9
Long Island Sound . . . . .	+0 08	*0.7	Crescent City . . . . .	+0 56	-5.0
New York City . . . . .	-2 50	*0.5	Eureka . . . . .	+1 20	-5.0
Ocean Beach . . . . .	-3 57	*0.4	Long Beach . . . . .	-1 37	-5.5
Southampton . . . . .	-3 22	*0.3	Monterey . . . . .	-0 03	*0.4
<b>NEW JERSEY</b>			Point Mendocino . . . . .	+0 24	*0.4
Atlantic City . . . . .	-3 57	*0.5	San Diego . . . . .	-1 35	-5.9
Bayside . . . . .	-0 24	*0.6	San Francisco . . . . .	+0 59	*0.4
Cape May . . . . .	-3 37	*0.5	Santa Barbara . . . . .	-1 19	-6.0
Ocean City . . . . .	-3 17	*0.4	Santa Cruz . . . . .	+0 08	*0.4
Seabright . . . . .					
to . . . . .	-3 44	*0.5			
Seaside Park . . . . .					

**Example:** The figures for Full Sea in Columns 11 and 12 of the left hand Almanac pages 14-36 are the times of high tide at Commonwealth Pier in Boston Harbor. The heights of these tides are given on the right hand pages 15-37. The heights are reckoned from Mean Low Water: each day has a set of figures—upper for the morning—and lower for the evening. Since Gulf ports are not beset with the tidal problems of ports on the open ocean, the conversion of the times of the tides at Boston to those of Miami is given by way of illustration.

See page 20, column 11.

	BOSTON		MIAMI
High Tide	1.00 P.M.E.S.T.	High tide (Boston)	1.00 P.M.
		Correction above	-3.00
Height	9.0 feet	High tide (Miami)	10.00 A.M.E.S.T.
		Height (Miami)	2.7 feet
		(8.9 x 0.3)	

## ECLIPSES FOR THE YEAR 1948

In the year 1948 there will be three eclipses, two of the Sun and one of the Moon.

I. **A Partial Eclipse of the Moon**, April 23, 1948. The beginning of the eclipse will be visible generally in Asia and the Indian Ocean, except the southeastern part, and the extreme western and northwestern part of North America. The ending will be visible generally in Asia and the Indian Ocean, except the western parts, the Antarctic regions, Australia, the Pacific Ocean, except the southeastern part, and the extreme northwestern part of North America. The eclipse will be of small magnitude; but 0.03 of the Moon's diameter will be covered by the umbra of the earth's shadow cone.

II. **An Annular Eclipse of the Sun**, May 8, 1948, invisible in the United States except the extreme northwestern part where the eclipse will just be beginning about sunset. The path of the annular phase extends from a point west of Australia in the southern part of the Indian Ocean, whence it sweeps northeastward along the coast of the Orient from Malaya to Kamchatka, over the northern Pacific to the Aleutian Islands, and on to an ending point off the Pacific coast of the United States. The tip of the Moon's shadow is computed to come within five miles of the earth's surface at mid-eclipse which occurs just northeast of Korea. Near this point a total eclipse of very short duration may occur. As a partial eclipse, the phenomenon will be visible throughout Asia, the Netherlands East Indies and the Philippines, the Arctic, Alaska and northwestern Canada.

III. **A Total Eclipse of the Sun**, November 1, 1948, invisible in the United States. The path of total eclipse extends from a point in the heart of Africa across the south Indian Ocean to an end point south-east of Australia. It lies entirely over water except for the first 600 miles. In its partial phases the eclipse will be visible in Africa except the northwestern part, Arabia, the Indian Ocean, Australia except the northern coast, and parts of Antarctica.

## WAS NO SUMMER IN 1816

### Birds Froze to Death in June—Sun to Blame (?)

The year 1816 was called the year without a summer. As the spring-time approached nothing in the weather indicated the return of seed time, much less of harvest. Snows, heavy rains and cold winds prevailed incessantly, and during the entire season the sun arose each morning as though in a cloud of smoke, red and rayless, shedding little light or warmth and setting at night as behind a thick cloud of vapor, leaving hardly a trace of its having passed over the face of the earth. The frost never went off the ground until about the last of May.

The farmers planted their crops, but the seed would hardly sprout, and when at last it came to the surface there was not warmth enough to cause anything to grow. During the month of June young birds were frozen to death in their nests, and so great was their destruction that for at least three years after very few birds visited the colder parts of the northern states. The woods and forests seemed deserted by them. Small fruit, such as the juneberry, ripened and rotted on the trees in the forests because of no birds to eat them.

Crops that required warmth, like corn, generally failed to mature, and only here and there in a few places that seemed especially protected did an ear ripen. The people after repeated hopes of a change in the weather settled down in almost despair. Large spots appeared on the face of the sun, as seen through smoky atmosphere, distinctly visible with the naked eye; frosts prevailed every month the whole year and almost daily, and in the few places where corn ripened was the only supply of seed for the next year, and it was held at an exceedingly high figure, with now and then an exception.

*Magazine of American History*

## OCCULTATIONS OF ALDEBARAN, 1948

No occultations of the bright star Aldebaran (Alpha Tauri) will be visible to observers in the United States during 1948.

## VENUS, MARS JUPITER AND SATURN, 1948.

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. For explanation of keys (used in adjusting times given to your town) see pages 4 and 10 — especially if you live outside New England.

1948		VENUS		Key	MARS		Key	JUPITER		Key	SATURN		Key
		h. m.			h. m.			h. m.			h. m.		
JANUARY	1st	sets	6 39P.M.	D	rises	8 55P.M.	F	rises	5 23A.M.	O	rises	7 39P.M.	E
"	11th	"	7 09P.M.	E	"	8 16P.M.	F	"	4 53A.M.	O	"	7 01P.M.	E
"	21st	"	7 34P.M.	F	"	7 30P.M.	E	"	4 23A.M.	P	"	6 14P.M.	D
FEBRUARY	1st	sets	8 01P.M.	H	"	6 32P.M.	E	rises	3 50A.M.	P	rises	5 28P.M.	D
"	11th	"	8 24P.M.	I	rises	5 35P.M.	E	"	3 19A.M.	P	sets	6 55A.M.	N
"	21st	"	8 46P.M.	J	sets	6 52A.M.	N	"	2 47A.M.	P	"	6 16A.M.	N
MARCH	1st	sets	9 06P.M.	K	sets	6 08A.M.	N	rises	2 17A.M.	P	sets	5 37A.M.	N
"	11th	"	9 28P.M.	M	"	5 19A.M.	O	"	1 43A.M.	P	"	4 55A.M.	N
"	21st	"	9 50P.M.	N	"	4 33A.M.	O	"	1 07A.M.	P	"	4 15A.M.	N
APRIL	1st	sets	10 12P.M.	P	sets	3 46A.M.	O	rises	12 27A.M.	P	sets	3 30A.M.	N
"	11th	"	10 29P.M.	Q	"	3 07A.M.	N	"	11 45P.M.	P	"	2 50A.M.	H
"	21st	"	10 40P.M.	Q	"	2 31A.M.	N	"	11 05P.M.	P	"	2 12A.M.	N
MAY	1st	sets	10 43P.M.	Q	sets	1 57A.M.	M	rises	10 24P.M.	P	sets	1 32A.M.	N
"	11th	"	10 36P.M.	Q	"	1 25A.M.	M	"	9 42P.M.	P	"	12 54A.M.	N
"	21st	"	10 16P.M.	Q	"	12 54A.M.	L	"	8 59P.M.	P	"	12 16A.M.	N
JUNE	1st	sets	9 37P.M.	Q	sets	12 21A.M.	L	rises	8 10P.M.	P	sets	11 31P.M.	N
"	11th	"	8 42P.M.	Q	"	11 48P.M.	K	rises	7 26P.M.	P	"	10 53P.M.	N
"	21st	sets	7 31P.M.	P	"	11 20P.M.	K	sets	3 51A.M.	B	"	10 17P.M.	N
JULY	1st	rises	3 42A.M.	C	sets	10 51P.M.	J	sets	3 06A.M.	B	sets	9 40P.M.	N
"	11th	"	2 53A.M.	D	"	10 24P.M.	I	"	2 22A.M.	B	"	9 04P.M.	M
"	21st	"	2 16A.M.	D	"	9 56P.M.	I	"	1 39A.M.	B	"	8 27P.M.	M
AUGUST	1st	rises	1 47A.M.	D	sets	9 27P.M.	H	sets	12 53A.M.	B	sets	7 47P.M.	M
"	11th	"	1 32A.M.	C	"	9 01P.M.	H	"	12 13A.M.	B	sets	7 11P.M.	M
"	21st	"	1 24A.M.	C	"	8 35P.M.	G	"	11 29P.M.	B	rises	4 45A.M.	E
SEPTEMBER	1st	rises	1 24A.M.	C	sets	8 08P.M.	F	sets	10 48P.M.	B	rises	4 10A.M.	E
"	11th	"	1 30A.M.	D	"	7 45P.M.	E	"	10 11P.M.	B	"	3 37A.M.	E
"	21st	"	1 42A.M.	D	"	7 23P.M.	E	"	9 35P.M.	B	"	3 04A.M.	F
OCTOBER	1st	rises	1 57A.M.	E	sets	7 02P.M.	D	sets	9 00P.M.	B	rises	2 31A.M.	F
"	11th	"	2 14A.M.	F	"	6 44P.M.	C	"	8 27P.M.	B	"	1 57A.M.	F
"	21st	"	2 33A.M.	G	"	6 27P.M.	C	"	7 54P.M.	B	"	1 22A.M.	F
NOVEMBER	1st	rises	2 56A.M.	I	sets	6 11P.M.	B	sets	7 19P.M.	B	rises	12 44A.M.	F
"	11th	"	3 17A.M.	J	"	6 00P.M.	B	"	6 48P.M.	B	"	12 08A.M.	F
"	21st	"	3 40A.M.	K	"	5 51P.M.	B	"	6 18P.M.	B	"	11 28P.M.	F
DECEMBER	1st	rises	4 04A.M.	L	sets	5 44P.M.	B	sets	5 48P.M.	B	rises	10 49P.M.	F
"	11th	"	4 28A.M.	M	"	5 40P.M.	B	"	5 18P.M.	B	"	10 11P.M.	F
"	21st	"	4 52A.M.	N	"	5 39P.M.	B	"	4 49P.M.	B	"	9 33P.M.	F
"	31st	rises	5 16A.M.	O	sets	5 38P.M.	C	sets	4 21P.M.	B	rises	8 54P.M.	F

## MORNING AND EVENING STARS, 1948

(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. More precisely, it is a Morning Star when it is less than  $180^\circ$  west of the Sun in right ascension and Evening Star when it is less than  $180^\circ$  east. When the planet is near conjunction or opposition, the distinction is unimportant.)

Mercury will be favorably situated for being seen as an Evening Star when near its greatest eastern elongations about February 4, May 28, and September 25. On these dates it will set 1h. 36m., 1h. 46m., and 0h. 45m., respectively, after sunset. It will be seen as a Morning Star when near its greatest western elongations, about March 17, July 16, and November 4, on which dates it will rise 0h. 58m., 1h. 23m., and 1h. 40m., respectively, before sunrise.

Venus will be an Evening Star until June 24 and a Morning Star the rest of the year. It will attain its greatest brilliance of the year on July 31.

Mars will be a Morning Star until February 17 when it reaches opposition, and an Evening Star the rest of the year. It will be brightest at the time of opposition, which is also the time it is closest to the earth during the year.

Jupiter will be a Morning Star until it reaches opposition on June 15 and then an Evening Star through the remainder of the year.

Saturn starts the year as a Morning Star, but becomes an Evening Star on February 8 when it reaches opposition. From February 8 to August 19 it remains an Evening Star; then, after passing conjunction, it becomes a Morning Star again for the rest of the year.



## CALCULATIONS AND CORRECTIONS IF YOU LIVE OUTSIDE NEW ENGLAND

(For New England — See Page Four)

Times obtained for a place other than Boston by the conversions described below will in every case be in the standard Time of the time zone in which the place lies. Some States by State ordinance do not observe Standard Time during the whole or part of the year. To obtain the time in everyday use in those States during the period such State ordinances are in effect one hour should be added to the time derived by conversion. The times used herein are Eastern Standard Time. To compensate for Daylight Saving Time in those States or Cities which adopt it by local ordinance, add one hour.

A direct reading of the figures on the Almanac pages gives information that applies precisely and solely to Boston. The examples which follow interpret the significance of this information and illustrate the way to get the same information for a place outside New England, such as Dallas. The date, April 12, used for the purpose of the illustrations, has been chosen at random.

**Sunrise and Sunset.** The times of sunrise and sunset at Boston on April 12 are read directly from columns 4 and 6 on page 20. The key letters adjacent to these times, in columns 5 and 7, are indices to the table on page 12 whereby the times of sunrise and sunset at Boston are converted into those for other key cities, to wit:—

BOSTON			DALLAS		
Sunrise	5:07	A.M.E.S.T.	Sunrise (Boston)	5:07	A.M.E.S.T.
Key Letter		G	Correction (Column G, page 12)	+52	
<hr/>			<hr/>		
Sunset	6:23	P.M.E.S.T.	Sunset (Boston)	6:23	P.M.E.S.T.
Key letter		K	Correction (Column K, page 12)	+35	
<hr/>			<hr/>		
			Sunset (Dallas)	6:58	P.M.C.S.T.

**Dawn and Dark.** The approximate times dawn will break and dark descend are found by applying the length of twilight taken from the table on page 93 to the times of sunrise and sunset given on the calendar pages. The latitude of the locality determines the column of the table from which the length of twilight is to be selected.

BOSTON (Latitude 42° 22' N.)			DALLAS (Latitude 32° 48' N.)		
Sunrise	5:07	A.M.	Sunrise	5:59	A.M.
Subtract length of twilight (Column 4 of table)		1:39	Subtract length of twilight (Column 4 of table)		1:28
<hr/>			<hr/>		
Dawn breaks	3:28	A.M.E.S.T.	Dawn breaks	4:31	A.M.C.S.T.
Sunset	6:23	P.M.	Sunset	6:58	P.M.
Add length of twilight		1:39	Add length of twilight		1:28
<hr/>			<hr/>		
Dark descends	8:02	P.M.E.S.T.	Dark descends	8:26	P.M.C.S.T.

**Sun Fast.** The column headed "Sun Fast" is of primary use to sundial enthusiasts. The figures therein tell how fast on each day the time indicated by a *properly adjusted and graduated* sundial will be of the time indicated by a clock. On April 12 sun time in Boston will be 15 minutes Fast of Eastern Standard Time. The time indicated by a sundial located elsewhere than in Boston is converted to clock time by applying two corrections, the "sun Fast" correction for Boston and that for the locality given in Column I of the table on page 12.

BOSTON			DALLAS		
Sundial time	2:34	P.M.	Sundial time	9:17	A.M.
Sun fast		-:15	Sun fast		-:15
<hr/>			<hr/>		
Eastern Standard Time	2:19	P.M.	Correction (Column I, page 12)	+43	
<hr/>			<hr/>		
			Central Standard Time	9:45	A.M.

**Length of Day.** The figures in the column headed "Length of Day" give directly the length of time the Sun will be above the horizon at Boston. The length of day in other localities is found by subtracting the time of sunrise from that of sunset for each locality. (See *Sunrise and Sunset* above).

BOSTON		DALLAS	
Length of day	13h 15m	Sunset	6:58 P.M.
(From calendar pages)		Sunrise	5:59 A.M.
		Length of Day	12h 59m

**Moonrise and Moonset.** The procedure for finding the times of moonrise and moonset follows that for finding those of sunrise and sunset except that, for localities outside New England, the constant additional correction taken from Column 3 on page 12 must be applied.

BOSTON		DALLAS	
Moonset	10:06 P.M., E.S.T.	Moonset (Boston)	10:06 P.M.
Key letter	P	Correction (Column P, page 12)	+ :16
		Correction (Column 3, page 12)	+ :04
		Moonset (Dallas)	10:26 P.M., C.S.T.

**Moon Souths.** The time the moon souths in Boston is converted to the time it is due south in a locality other than Boston by applying the appropriate corrections from Columns I and 3 on page 12.

BOSTON		DALLAS	
Moon souths	2:17 P.M.E.S.T.	Moon souths (Boston)	2:17 P.M.
		Correction (Column I, page 12)	+ :43
		Correction (Column 3, page 12)	+ :04
		Moon souths (Dallas)	3:04 P.M., C.S.T.

The other information concerning the Moon contained on the left hand Almanac pages applies without correction throughout the United States.

**Risings and Settings of the Planets.** The times of the rising and setting of the naked eye Planets with the exception of Mercury are given for Boston in the table on page 9. The procedure for converting these times to those of other localities follows that for converting the times of sunrise and sunset given above.

**Planetary Aspects.** The planetary aspects indicated by the symbols and abbreviations on the right hand Almanac pages 15-37, are explained on pages 4, 76 and 77.

TIDES: See page 7.

## WEATHER OUTSIDE NEW ENGLAND

Barring Easterlies and Tropical Storms it may be said that readers of the Almanac living outside of New England and West of the Hudson will experience much the same changes in the weather as those indicated herein . . . provided one day is subtracted for each Time Zone West of Boston.

ALMANAC DATA — OUTSIDE NEW ENGLAND  
 TABLE FOR FINDING TIMES OF SUNRISE, SUNSET, MOONRISE, MOONSET, AND RISING AND SETTING  
 OF PLANETS TO WITHIN 5 MIN. ACCURACY ANYWHERE IN U. S. A.  
 (See explanation on preceding pages 10 and 11.)

	A		B		C		D		E		F		G		H		I		J		K		L		M		N		O		P		Q		Moon			
	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	
Atlanta, Ga.....	+22	+18	+15	+11	+8	+5	+1	-2	-6	-11	-14	-18	-21	-25	-28	-31	-35	+2																				
Butte, Mont.....	+31	+33	+35	+37	+39	+41	+42	+44	+46	+48	+50	+52	+54	+56	+58	+60	+62	+6																				
Charleston, W. Va. ....	+57	+55	+53	+51	+50	+48	+46	+45	+42	+40	+39	+37	+35	+33	+32	+30	+28	+2																				
Chicago, Ill.....	+8	+8	+8	+7	+7	+7	+7	+6	+6	+6	+5	+5	+5	+5	+4	+4	+4	+2																				
Cincinnati, O.....	+66	+64	+63	+61	+60	+59	+57	+56	+54	+52	+51	+49	+48	+46	+45	+44	+42	+2																				
Dallas, Tex.....	+74	+70	+66	+63	+59	+56	+52	+48	+43	+38	+35	+31	+27	+23	+19	+16	+12	+4																				
Denver, Colo.....	+26	+24	+23	+22	+21	+20	+19	+17	+16	+14	+13	+12	+11	+9	+8	+7	+6	+5																				
Des Moines, Ia.....	+34	+33	+33	+33	+32	+32	+32	+31	+31	+30	+30	+29	+29	+29	+28	+28	+28	+3																				
Detroit, Mich.....	+48	+48	+48	+48	+48	+48	+48	+48	+48	+48	+48	+48	+48	+48	+48	+48	+48	+2																				
Indianapolis, Ind.....	+10	+9	+8	+6	+5	+4	+3	+2	+1	-1	-2	-3	-4	-5	-6	-7	-8	+2																				
Jacksonville, Fla.....	+80	+76	+71	+67	+62	+58	+53	+48	+43	+37	+32	+27	+23	+18	+14	+9	+5	+2																				
Los Angeles, Cal.....	+36	+33	+29	+26	+23	+20	+16	+13	+9	+5	+1	-2	-5	-9	-12	-15	-19	+7																				
Louisville, Ky.....	+13	+11	+10	+8	+6	+5	+3	+1	-1	-3	-5	-7	-8	-10	-12	-14	-16	+2																				
Miami, Fla.....	+86	+80	+74	+69	+63	+57	+51	+44	+37	+30	+23	+17	+11	+5	-1	-7	-12	+1																				
Minneapolis-St. Paul, Minn.....	+18	+19	+21	+22	+23	+25	+26	+27	+29	+30	+32	+33	+34	+36	+37	+38	+39	+3																				
New Orleans, La.....	+57	+53	+48	+43	+38	+33	+28	+22	+16	+10	+5	-1	-6	-9	-15	-20	-25	+3																				
New York, N. Y.....	+17	+17	+16	+15	+15	+14	+13	+13	+12	+11	+11	+10	+9	+8	+8	+7	+6	+0																				
Omaha, Neb.....	+44	+43	+43	+42	+42	+41	+41	+40	+40	+39	+39	+38	+38	+37	+37	+36	+35	+4																				
Philadelphia, Pa.....	+25	+24	+23	+22	+21	+20	+19	+18	+17	+15	+14	+13	+12	+11	+10	+9	+8	+1																				
Pittsburgh, Pa.....	+43	+42	+41	+41	+40	+39	+38	+38	+37	+36	+35	+34	+33	+32	+31	+30	+29	+1																				
Raleigh, N. C.....	+53	+50	+47	+45	+42	+40	+37	+34	+31	+27	+24	+22	+19	+16	+14	+11	+8	+1																				
Richmond, Va.....	+42	+40	+38	+36	+34	+32	+30	+28	+26	+23	+21	+19	+17	+15	+13	+11	+9	+1																				
Rochester, N. Y.....	+23	+24	+24	+25	+25	+25	+26	+26	+26	+27	+27	+28	+28	+28	+28	+29	+29	+1																				
St. Louis, Mo.....	+30	+28	+27	+25	+24	+22	+20	+19	+17	+15	+13	+11	+10	+8	+7	+5	+3	+3																				
Seattle, Wash.....	+4	+7	+9	+12	+14	+17	+20	+23	+25	+28	+31	+34	+37	+39	+42	+45	+48	+8																				
Topeka, Kans.....	+51	+49	+48	+46	+45	+44	+42	+41	+39	+37	+36	+34	+33	+31	+30	+29	+27	+4																				

Your town (interpolate between nearest two). SUBTRACT OR ADD these MINUTES to Almanac times given.

## PRINCIPAL HOLIDAYS, ETC. IN 1948

America has no nationwide holidays. Each state determines its own. In the table that follows (\*) indicates these quite generally observed by all states; (\*\*) indicates those for only certain states; and (\*\*\*) indicates days usually observed in some localities though probably not observed as holidays. Only continental United States is covered here. These dates are also all indicated on right hand calendar pages in abbreviated form.

Jan. 1 (*) New Year's Day	May 9 (***) Mother's Day
Jan. 8 (**) Battle of New Orleans	May 10 (**) Memorial Day (N. C. & S. C.)
Jan. 19 (**) Robert E. Lee's Birthday	May 20 (**) Mecklenburg Day (N. C.)
Jan. 26 (**) MacArthur Day (Ark.)	May 22 (***) Nat'l Marine Day
Jan. 29 (**) McKinley's Birthday	May 30 (*) Decoration or Memorial Day
Feb. 8 (**) Arbor Day (Ariz.)	June 3 (**) Jefferson Davis Day (Ala., Ark., Fla., Ga., La., Miss., S. C., Tenn., Tex. & Va.)
Feb. 10 (**) Mardi Gras	June 14 (**) Flag Day (Mo. & Pa.)
Feb. 12 (**) Abraham Lincoln's Birthday	June 15 (**) Pioneer Day (Idaho)
Feb. 14 (**) Admission Day (Arizona)	June 17 (**) Bunker Hill Day (Suffolk County, Mass.)
Feb. 14 (***) Valentine's Day	June 20 (***) Father's Day
Feb. 15 (***) Susan B. Anthony Day	June 20 (**) West Virginia Day
Feb. 22 (*) George Washington's Birthday	July 4 (*) Independence Day
Mar. 1 (**) State Day (Nebraska)	July 13 (**) Forrest's Day (Tenn.)
Mar. 2 (**) Texas Independence Day	July 24 (**) Pioneer Day (Utah)
Mar. 7 (**) Burbank Day (Cal.)	Aug. 1 (**) Colorado Day
Mar. 15 (**) Jackson Day (Tennessee)	Aug. 4 (***) Coast Guard Day
Mar. 17 (**) St. Patrick's or Evacuation Day	Aug. 16 (**) Bennington, Vt. Battle Day
Mar. 25 (**) Maryland Day	Aug. 19 (***) National Aviation Day
Mar. 26 (**) Good Friday (Conn., Del., Fla., La., Md., Minn., N. J., Penn. & Tenn.)	Aug. 30 (**) Huey Long Day (La.)
Mar. 29 (**) Easter Monday (N. C.)	Sept. 6 (*) Labor Day
Apr. 1 (**) State Election (Michigan)	Sept. 9 (**) Admission Day (Cal.)
Apr. 6 (**) Army Day	Sept. 12 (**) Defender's Day (Md.)
Apr. 10 (***) Arbor Day (Neb.) 1872	Sept. 13 (**) Election Day (Me.)
Apr. 12 (**) Halifax Day (N. Car.)	Sept. 17 (***) Constitution Day
Apr. 13 (**) Jefferson Day (Mo., Okla., Va.)	Sept. 26 (***) Am. Indian Day
Apr. 14 (***) Pan American Day	Oct. 6 (**) Missouri Day
Apr. 19 (**) Patriots' Day (Me., Mass.)	Oct. 12 (*) Columbus Day
Apr. 21 (**) San Jacinto Day (Texas)	Oct. 27 (***) Navy Day
Apr. 22 (**) Fast Day (N. H.)	Oct. 31 (**) Nevada Day
Apr. 24 (**) Arbor & Bird Day (Mass.)	Nov. 1 (**) All Saints' Day (La.)
Apr. 26 (**) Memorial Day (Fla., Ga., Miss.)	Nov. 2 (*) Election Day
May 4 (**) R. I. Independence Day	Nov. 11 (**) Armistice Day
	Nov. 23 (**) Repudiation Day (Md.)
	Nov. 25 (*) Thanksgiving Day
	Dec. 7 (**) Delaware Day
	Dec. 21 (***) Forefather's Day
	Dec. 25 (*) Christmas Day



1948]

JANUARY, FIRST MONTH.

ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.		0 /		Days.		0 /		Days.		0 /		Days.		0 /	
	1	23	s.03	7	22 27	13	21 35	19	20 27	25	19 06					
2	22	58	8	22 19	14	21 24	20	20 15	26	18 51						
3	22	53	9	22 11	15	21 14	21	20 02	27	18 36						
4	22	47	10	22 03	16	21 03	22	19 48	28	18 21						
5	22	41	11	21 54	17	20 51	23	19 35	29	18 05						
6	22	34	12	21 44	18	20 39	24	19 20	30	17 49						

- ☾ Last Quarter, 3rd day, 6 h. 13 m., morning, W.
- New Moon, 11th day, 2 h. 44 m., morning, E.
- ☽ First Quarter, 19th day, 6 h. 32 m., morning, E.
- ☀ Full Moon, 26th day, 2 h. 11 m., morning, W.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGE 12, FOR ALL POINTS OUTSIDE NEW ENGLAND.

Day of Year	Day of Month	Day of the Week	☀ Rises		Key	☀ Sets		Key	Length of Days		Sun Past.	Full Sea, Boston.		☽ Rises		Key	☽ Souths.		☽'s Place	Moon's Age
			h.	m.		h.	m.		h.	m.		h.	m.	h.	m.		h.	m.		
1	1	Th.	7	13	P	4	22	B	9	09	13	2 1/2	2 3/4	10 <sup>P</sup> 22	G	4 <sup>A</sup> 09	Vir	20		
2	2	Fr.	7	13	P	4	23	B	9	10	12	3 1/4	3 3/4	11 <sup>P</sup> 33	I	4 59	Vir	21		
3	3	Sa.	7	13	P	4	24	B	9	11	12	4 1/4	4 3/4	—	—	5 44	Lib	22		
4	4	S.	7	13	P	4	25	B	9	12	11	5 1/4	5 3/4	12 <sup>A</sup> 43	J	6 30	Lib	23		
5	5	M.	7	13	P	4	26	B	9	13	11	6 1/4	6 3/4	1 50	L	7 15	Sco	24		
6	6	Tu.	7	13	P	4	27	B	9	14	10	7 1/4	7 3/4	2 58	N	8 02	Sco	25		
7	7	W.	7	13	P	4	28	B	9	15	10	8	8 3/4	4 05	O	8 50	Sag	26		
8	8	Th.	7	13	O	4	29	C	9	16	9	9	9 1/2	5 10	P	9 40	Sag	27		
9	9	Fr.	7	12	O	4	30	C	9	17	9	9 3/4	10 1/4	6 10	Q	10 31	Sag	28		
10	10	Sa.	7	12	O	4	31	C	9	18	9	10 1/2	11	7 <sup>A</sup> 04	Q	11 <sup>A</sup> 23	Cap	29		
11	11	S.	7	12	O	4	32	C	9	20	8	11 3/4	11 3/4	sets	—	12 <sup>P</sup> 14	Cap	0		
12	12	M.	7	12	O	4	33	C	9	21	8	11 3/4	—	5 <sup>P</sup> 41	B	1 02	Aqr	1		
13	13	Tu.	7	11	O	4	34	C	9	23	7	0 1/4	0 1/2	6 43	D	1 49	Aqr	2		
14	14	W.	7	11	O	4	35	C	9	24	7	1	1	7 47	E	2 33	Psc	3		
15	15	Th.	7	11	O	4	36	C	9	26	7	1 1/2	1 3/4	8 48	G	3 15	Psc	5		
16	16	Fr.	7	10	O	4	37	C	9	27	6	2 1/4	2 1/2	9 50	H	3 55	Psc	6		
17	17	Sa.	7	10	O	4	39	C	9	29	6	3	3 1/4	10 53	J	4 36	Ari	7		
18	18	S.	7	09	O	4	40	C	9	31	6	3 3/4	4	11 <sup>P</sup> 57	K	5 18	Ari	8		
19	19	M.	7	09	O	4	41	C	9	32	5	4 1/2	5	—	—	6 02	Tau	9		
20	20	Tu.	7	08	O	4	42	C	9	34	5	5 1/2	5 3/4	1 <sup>A</sup> 04	M	6 49	Tau	10		
21	21	W.	7	07	O	4	43	C	9	36	5	6 1/4	6 3/4	2 15	O	7 42	G'm	11		
22	22	Th.	7	07	O	4	45	C	9	38	4	7 1/4	7 3/4	3 29	P	8 40	G'm	12		
23	23	Fr.	7	06	N	4	46	D	9	40	4	8 1/4	8 3/4	4 45	Q	9 44	Cnc	13		
24	24	Sa.	7	05	N	4	47	D	9	42	4	9	9 3/4	5 55	Q	10 50	Cnc	14		
25	25	S.	7	04	N	4	48	D	9	44	4	10	10 3/4	6 <sup>A</sup> 56	Q	11 <sup>P</sup> 56	Leo	15		
26	26	M.	7	04	N	4	50	D	9	46	3	11	11 1/2	rises	—	—	—	—	—	
27	27	Tu.	7	03	N	4	51	D	9	48	3	11 3/4	—	6 <sup>P</sup> 41	E	12 <sup>A</sup> 58	Leo	16		
28	28	W.	7	02	N	4	52	D	9	50	3	0 1/2	0 3/4	8 00	G	1 55	Vir	17		
29	29	Th.	7	01	N	4	54	D	9	53	3	1 1/4	1 1/2	9 17	H	2 48	Vir	18		
30	30	Fr.	7	00	N	4	55	D	9	55	3	2	2 1/2	10 30	J	3 38	Lib	19		
31	31	Sa.	6	59	N	4	56	D	9	57	3	3	3 1/4	11 <sup>P</sup> 40	L	4 <sup>A</sup> 25	Lib	20		





Bring from the winter woods  
What never the eye can see:  
Flowers that the winter hoods,  
That stand, invisibly,  
In frozen solitudes.

This is the winter daring  
Of what we said would die,  
Far on some winter faring  
From names we knew them by . . .  
Give them the warmth of your caring,  
Prove that death is a lie.

M.	D.	W.	Aspects, Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
1	Th.		Circumcision. Tides { 9.6 10.4	<i>East</i>
2	Fr.		Bloomers introduced 99 years ago ⊕ in Perl on { 9.6 9.9	
3	Sa.		♁♂♂♂♂ Sup. Tides { 9.5 9.4	<i>winds</i>
4	D		2nd a. Christmas. □♂♂ { 9.5 8.9	
5	M.		Take down Bad floods 1896 Tides { 9.5 8.6	
6	Tu.		Epiph. Tides { 9.5 8.3	<i>followed</i>
7	W.		Geo. C. Marshall app. Tides { 9.6 8.2	<i>by</i>
8	Th.		The Battle of New Orleans ♂♂♂. Hol. La. Tides { 9.6 8.2	
9	Fr.		Photography first used 1839 ♂ Stat. in R.A. { 9.7 8.2	<i>snow</i>
10	Sa.		♁ Tides { 9.7 8.2	<i>or rain.</i>
11	D		1st S. af. Epi. ♂♂♂. Tides { 9.7 8.3	
12	M.		Plow Monday Tides { 9.7	<i>Much</i>
13	Tu.		S. S. Lexington Bl. 1840 ♂♀♂. ♁ in Apo. { 8.4 9.6	
14	W.		St. Hilary. Coldest in year ♀ Gr. Hel. Lat. S. { 8.4 9.5	
15	Th.		♂ Stat. in R.A. Tides { 8.5 9.3	<i>colder now.</i>
16	Fr.		18th Amendment enacted 1920 Tides { 8.5 9.0	
17	Sa.		Benl. Franklin Bapt. 1706 ♁ on Eq. Tides { 8.6 8.7	<i>More</i>
18	D		2d S. a. Ep. Tides { 8.7 8.5	<i>snow</i>
19	M.		Robt. E. Lee born south Hol. in Tides { 8.8 8.8	<i>as</i>
20	Tu.		Feed the Birds now Tides { 9.1 8.2	<i>the</i>
21	W.		Steel strike 1946 Tides { 9.4 8.2	<i>cold</i>
22	Th.		Many chimney fires now Tides { 9.3 8.4	<i>streng-</i>
23	Fr.		Phillips Brooks d. 1893 ♂♂♂. Tides { 10.2 8.7	
24	Sa.		Gold disc. Calif. 1848 ♁Runs high. { 10.7 9.1	<i>thens.</i>
25	D		Septuag. S. Conversion St. Paul { 11.1 9.5	
26	M.		St. Matthias ♂♂♂. ♁ in Perl. { 11.4 9.9	
27	Tu.		Very cold 1939 Tides { 11.5	<i>Expect</i>
28	W.		♂♂♂. ♂ Gr. Hel. Lat. N. { 10.1 11.4	<i>thaws</i>
29	Th.		Tides { 10.3 11.0	<i>in some</i>
30	Fr.		Chas. I beheaded 1649 ♂♂♂. ♁ on Eq. { 10.2 10.5	
31	Sa.		Tides { 10.1 9.8	<i>places.</i>

Let the wind growl in the chimney and the sleet rattle on the pane. Well enough that you sit with your feet in the oven. But have you no conscience, man? As sure as blight, borers, weevils, scab, drought, and taxes, the little dumb field mice will be girdling the tender bark of the apple trees you didn't put wire around last fall. The lime spreader, the hay rake, and how many other machines and tools are weathering it out there in your forgotten acres? And what of the last twenty bags of lime that have been sitting out in the corner of the fourteen acre field since last August?

Ease is a poor conscience if it be not well-earned. You will carry the burden of your neglect through till spring, and pay for it thereafter.

How much you can do with this ease of yours. Many times you have boasted that there was nothing you couldn't do. Why not take that saw and hammer now and get to making those cold closets in the cellar, re-board the attic stairs, put down those new planks in the horse barn. And after the big snows, you should be busy shoveling off your roofs. If you run out of jobs, Ma has a lot of them up her sleeve.

Your accounts will be telling you the story of the past year. Make the most of what they have to tell you, and plan accordingly for the coming year.

1948]

FEBRUARY, SECOND MONTH.

ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.			Days.			Days.			Days.			Days.		
	0	'	"	0	'	"	0	'	"	0	'	"	0	'	"
1	17s.	15		7	15	29	13	13	33	19	11	28	25	9	18
2	16	58		8	15	10	14	13	12	20	11	07	26	8	55
3	16	41		9	14	51	15	12	52	21	10	46	27	8	33
4	16	23		10	14	32	16	12	31	22	10	24	28	8	11
5	16	05		11	14	12	17	12	11	23	10	02	29	7	48
6	15	47		12	13	53	18	11	50	24	9	40			

- ☾ Last Quarter, 1st day, 7 h. 31 m., evening, E.
- New Moon, 9th day, 10 h. 2 m., evening, W.
- ☽ First Quarter, 18th day, 8 h. 55 m., evening, W.
- Full Moon, 24th day, 12 h. 16 m., evening, E.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGE 12, FOR ALL POINTS OUTSIDE NEW ENGLAND.

Day of Year	Day of Month	Day of the Week	☉		☽		Length of Days.	Sun First.	Full Sea, Boston.		☽	Key	☽	☽'s	Moon's Age
			Rises.	Key	Sets.	Key			Morn.	Even.					
h.	m.		h.	m.	h.	m.	h.	m.	h.	m.	h.	m.	h.	m.	
32	1	S.	6 58	N	4 58	D	9 59	2	3 <sup>3</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>4</sub>	—	—	5 <sup>A</sup> / <sub>M</sub> 12	Scor	21
33	2	M.	6 57	N	4 59	D	10 02	2	4 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>	12 <sup>M</sup> / <sub>50</sub>	M	5 59	Scor	22
34	3	Tu.	6 56	M	5 00	E	10 04	2	5 <sup>3</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>4</sub>	1 58	O	6 47	Sag	23
35	4	W.	6 55	M	5 01	E	10 06	2	6 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>4</sub>	2 03	P	7 37	Sag	24
36	5	Th.	6 54	M	5 03	E	10 09	2	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>4</sub>	4 05	Q	8 28	Sag	25
37	6	Fr.	6 53	M	5 04	E	10 11	2	8 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>4</sub>	5 01	Q	9 19	Cap	26
38	7	Sa.	6 52	M	5 05	E	10 14	2	9 <sup>1</sup> / <sub>4</sub>	10	5 49	Q	10 10	Cap	27
39	8	S.	6 50	M	5 07	E	10 16	2	10	10 <sup>3</sup> / <sub>4</sub>	6 <sup>A</sup> / <sub>M</sub> 29	P	10 59	Aqr	28
40	9	M.	6 49	M	5 08	E	10 19	2	10 <sup>3</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>4</sub>	sets	—	11 <sup>A</sup> / <sub>M</sub> 46	Aqr	29
41	10	Tu.	6 48	M	5 09	E	10 21	2	11 <sup>1</sup> / <sub>2</sub>	—	5 <sup>P</sup> / <sub>M</sub> 39	E	12 <sup>M</sup> / <sub>31</sub>	Aqr	1
42	11	W.	6 47	M	5 10	E	10 24	2	0	0	6 41	F	1 13	Psc	2
43	12	Th.	6 45	M	5 12	E	10 26	2	0 <sup>1</sup> / <sub>2</sub>	0 <sup>3</sup> / <sub>4</sub>	7 43	H	1 55	Psc	3
44	13	Fr.	6 44	L	5 13	F	10 29	2	1	1 <sup>1</sup> / <sub>4</sub>	8 45	I	2 35	Ari	4
45	14	Sa.	6 43	L	5 14	F	10 32	2	1 <sup>3</sup> / <sub>4</sub>	2	9 48	K	3 16	Ari	5
46	15	S.	6 41	L	5 16	F	10 34	2	2 <sup>1</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>4</sub>	10 <sup>P</sup> / <sub>M</sub> 53	L	3 58	Ari	6
47	16	M.	6 40	L	5 17	F	10 37	2	3	3 <sup>1</sup> / <sub>2</sub>	—	—	4 44	Tau	7
48	17	Tu.	6 39	L	5 18	F	10 40	2	3 <sup>3</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>4</sub>	12 <sup>M</sup> / <sub>01</sub>	N	5 23	Tau	8
49	18	W.	6 37	L	5 19	F	10 42	2	4 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>	1 13	P	6 27	G'm	9
50	19	Th.	6 36	L	5 21	F	10 45	2	5 <sup>3</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>4</sub>	2 25	Q	7 26	G'm	10
51	20	Fr.	6 34	L	5 22	F	10 48	2	6 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	3 35	Q	8 28	Cnc	11
52	21	Sa.	6 33	L	5 23	F	10 50	2	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>2</sub>	4 39	Q	9 33	Cnc	12
53	22	S.	6 31	L	5 24	G	10 53	2	8 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>2</sub>	5 32	Q	10 36	Leo	13
54	23	M.	6 30	K	5 26	G	10 56	2	9 <sup>3</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>4</sub>	6 <sup>A</sup> / <sub>M</sub> 15	O	11 <sup>P</sup> / <sub>M</sub> 36	Leo	14
55	24	Tu.	6 28	K	5 27	G	10 59	3	10 <sup>3</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>4</sub>	rises	—	—	—	—
56	25	W.	6 27	K	5 28	G	11 01	3	11 <sup>1</sup> / <sub>2</sub>	—	6 <sup>P</sup> / <sub>M</sub> 48	G	12 <sup>A</sup> / <sub>M</sub> 32	Vir	15
57	26	Th.	6 25	K	5 30	G	11 04	3	0	0 <sup>1</sup> / <sub>2</sub>	8 05	I	1 24	Vir	16
58	27	Fr.	6 24	K	5 31	G	11 07	3	0 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	9 20	K	2 14	Lib	17
59	28	Sa.	6 22	K	5 32	G	11 10	3	1 <sup>1</sup> / <sub>4</sub>	2	10 33	M	3 02	Lib	18
60	29	S.	6 21	K	5 33	G	11 13	3	2 <sup>1</sup> / <sub>2</sub>	3	11 <sup>P</sup> / <sub>M</sub> 44	N	3 <sup>M</sup> / <sub>M</sub> 51	Scor	19



This darkness before snow  
Is the womb's darkness:  
Wildness and whiteness grow  
There, stranger than we know, —  
As presently will show.

The darkness where they go  
Is the tomb's darkness:  
Again to sleep . . . to grow,  
As presently will show  
In more shapes than we know.

D.M.	D.W.	Aspects, Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
1	D	Srag. S. St. Bridget. {9.8 High	<p>If the snows are not too deep, this is a good month to cut and draw logs from your woodlands. But are you prepared to undertake this work to the best advantage? An increasing number of regions in New England are being served in just this kind of undertaking by the New England Forestry Foundation. A non-profit organization (there may be similar organizations in other sections of the country), the Foundation will charge you a reasonable fee to cruise and survey your timber, make a full written report of your forests with specific recommendations for future handling of it, thinning, reforestation, etc. They will, if you wish, mark the weaker or more mature trees for immediate cutting, find a buyer, see that he pays you before cutting commences, and find a crew to do the actual work. They are prepared to assume permanent management of your forest crop.</p> <p>Where you have found it difficult to undertake all the hazards and headaches of a lumbering operation, this would seem to offer an ideal arrangement for the landowner with even a small acreage in woodland.</p> <p>If you are a practical visionary, you may see in the future landowners everywhere planning for the continuous management of their forest lands. Surely this is one answer to the perpetuation of our forests.</p>
2	M.	Purif. of Mary Groundhog ♀ in ♂. {9.5 Day {8.5	
3	Tu.	81° below—Coldest N. Am. {9.8 Temp. ever—Yukon 1947 {8.0 winds.	
4	W.	Revolutionary War ♂ Gr. Tides {9.1 ceased 1783 ♀ El. E. {7.8	
5	Th.	Lancaster Massacre ♂ ♀ C. {9.1 1676 {7.7 More	
6	Fr.	St. Dorothea. Crides Tides {9.1 low {7.8 comfort-	
7	Sa.	♀ in Tides {9.2 Perl. low {8.0 able indoors.	
8	D	Quin. S. Boy Scouts ♂ h ⊙ {9.4 Fd. 1910 {8.2	
9	M.	Set hens now in Tides {9.5 to 15th C Apo. {8.4	
10	Tu.	Shrove Tur. Mardi ♀ Stat. in {9.5 Gras R.A. {—	
11	W.	Ash Wed. ♂ ♀ C. {8.5 Milder {9.5	
12	Th.	Lincoln's Tides {8.8 Birthday {9.5 but probably	
13	Fr.	Cotton Mather ♂ ♀ C. C on Tides {8.9 b. 1663 Eq. {9.9	
14	Sa.	St. Val. Day Adm. Day {9.0 Ariz. {9.1 snows.	
15	D	1st S. V. Quadrag. Tides {9.1 {8.8	
16	M.	[17 <sup>th</sup> ♂ nearest ⊕] {9.2 This {8.6	
17	Tu.	Auld Deer ♂ Gr. Hel. ♂ ⊙ {9.3 "Worst in year" ♀ Lat. N. {8.8	
18	W.	Michelangelo Ember Tides {9.3 b. 1564 Day {8.1 month	
19	Th.	♂ ⊕ C ♂ ♀ ⊙ inf. {9.5 always {8.1	
20	Fr.	Ember C Runs Tides {9.8 Days high {8.8 has one	
21	Sa.	Card. Spellman given Tides {10.2 fine red hat 1946 {8.8	
22	D	2nd S. V. Washington's Tides {10.6 Birthday {9.3	
23	M.	♂ ⊕ C in ♀ in ♂ h C {11.1 Perl. {9.9	
24	Tu.	Paris Rev. Tides {11.4 1848 {10.4 week.	
25	W.	St. Matthias Tides {11.5 This.	
26	Th.	Mt. Etna ♂ Ψ C C on {10.7 erupted 1947 Eq. {11.4	
27	Fr.	Rockport, Mass. Tides {10.8 Inc. 1840 {10.9 week is	
28	Sa.	Tides {10.6 {10.8 not it.	
29	D	3rd S. in V. ♂ Stat. in Tides {10.3 R.A. {9.6	

A man may be strong  
Yet not mow well



1948]

## MARCH, THIRD MONTH.

## ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.		0 /		Days.		0 /		Days.		0 /		Days.		0 /	
	1	7s. 25	7	5 06	13	2 45	19	0s. 23	25	1 59						
2	7 02	8	4 43	14	2 22	20	0N.01	26	2 22							
3	6 39	9	4 20	15	1 58	21	0 24	27	2 46							
4	6 16	10	3 56	16	1 34	22	0 48	28	3 09							
5	5 53	11	3 32	17	1 10	23	1 12	29	3 33							
6	5 30	12	3 09	18	0 47	24	1 35	30	3 56							

☾ Last Quarter, 2nd day, 11 h. 35 m., morning, W.

● New Moon, 10th day, 4 h. 15 m., evening, W.

☽ First Quarter, 18th day, 7 h. 27 m., morning, E.

○ Full Moon, 25th day, 10 h. 10 m., evening, E.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGE 12, FOR ALL POINTS OUTSIDE NEW ENGLAND.

Day of Year	Day of Month	Day of the Week	☉ Rises. h. m.	☉ Key	☉ Sets. h. m.	☉ Key	Length of Days. h. m.	Sun Fast. in	Full Sea. Boston. h.	☽ Rises. h. m.	☽ Key	☽ Souths. h. m.	☽'s Place	Moon's Arc
61	1	M.	6 19	K	5 34	G	11 15	4	3 $\frac{3}{4}$	3 $\frac{3}{4}$	—	—	4 $\frac{40}{M}$	Sag 20
62	2	Tu.	6 17	K	5 36	G	11 18	4	4 $\frac{1}{4}$	4 $\frac{3}{4}$	12 $\frac{A}{M}$ 54	P	5 31	Sag 21
63	3	W.	6 16	K	5 37	H	11 21	4	5 $\frac{1}{4}$	5 $\frac{3}{4}$	1 58	Q	6 22	Sag 22
64	4	Th.	6 14	J	5 38	H	11 24	4	6 $\frac{1}{4}$	7	2 57	Q	7 14	Cap 23
65	5	Fr.	6 12	J	5 39	H	11 27	4	7 $\frac{1}{4}$	8	3 48	Q	8 06	Cap 24
66	6	Sa.	6 11	J	5 40	H	11 30	5	8	8 $\frac{3}{4}$	4 30	Q	8 56	Cap 25
67	7	<b>S.</b>	6 09	J	5 42	H	11 32	5	9	9 $\frac{1}{2}$	5 05	P	9 43	Aqr 26
68	8	M.	6 07	J	5 43	H	11 35	5	9 $\frac{3}{4}$	10 $\frac{1}{4}$	5 35	N	10 29	Aqr 28
69	9	Tu.	6 06	J	5 44	H	11 38	5	10 $\frac{1}{4}$	10 $\frac{3}{4}$	5 $\frac{A}{M}$ 58	M	11 12	Psc 29
70	10	W.	6 04	J	5 45	H	11 41	6	11	11 $\frac{1}{2}$	sets	—	11 $\frac{A}{M}$ 54	Psc 30
71	11	Th.	6 02	J	5 46	H	11 44	6	11 $\frac{1}{2}$	—	6 $\frac{P}{M}$ 38	I	12 $\frac{P}{M}$ 35	Ari 1
72	12	Fr.	6 01	J	5 48	H	11 47	6	0	0 $\frac{1}{4}$	7 41	J	1 15	Ari 2
73	13	Sa.	5 59	J	5 49	H	11 50	6	0 $\frac{1}{2}$	0 $\frac{3}{4}$	8 46	L	1 58	Ari 3
74	14	<b>S.</b>	5 57	I	5 50	I	11 53	7	1	1 $\frac{1}{2}$	9 53	M	2 42	Tau 4
75	15	M.	5 56	I	5 51	I	11 55	7	1 $\frac{3}{4}$	2 $\frac{1}{4}$	11 $\frac{P}{M}$ 03	O	3 29	Tau 5
76	16	Tu.	5 54	I	5 52	I	11 58	7	2 $\frac{1}{2}$	3	—	—	4 21	G'm 6
77	17	W.	5 52	I	5 53	I	12 01	8	3 $\frac{1}{4}$	4	12 $\frac{A}{M}$ 14	Q	5 17	G'm 7
78	18	Th.	5 50	I	5 54	I	12 04	8	4 $\frac{1}{4}$	5	1 24	Q	6 17	Cnc 8
79	19	Fr.	5 49	I	5 56	I	12 07	8	5 $\frac{1}{4}$	6	2 28	Q	7 19	Cnc 9
80	20	Sa.	5 47	I	5 57	I	12 10	9	6 $\frac{1}{4}$	7	3 24	Q	8 20	Leo 10
81	21	<b>S.</b>	5 45	I	5 58	I	12 13	9	7 $\frac{1}{2}$	8 $\frac{1}{4}$	4 10	P	9 20	Leo 11
82	22	M.	5 43	I	5 59	I	12 16	9	8 $\frac{1}{2}$	9	4 46	O	10 15	Vir 12
83	23	Tu.	5 42	I	6 00	I	12 18	9	9 $\frac{1}{2}$	10	5 17	L	11 08	Vir 13
84	24	W.	5 40	I	6 01	J	12 21	10	10 $\frac{1}{2}$	10 $\frac{3}{4}$	5 $\frac{A}{M}$ 43	K	11 $\frac{P}{M}$ 59	Lib 14
85	25	Th.	5 38	H	6 02	J	12 24	10	11 $\frac{1}{4}$	11 $\frac{1}{2}$	rises	—	—	—
86	26	Fr.	5 36	H	6 04	J	12 27	10	—	0	8 $\frac{P}{M}$ 09	L	12 $\frac{A}{M}$ 49	Lib 15
87	27	Sa.	5 35	H	6 05	J	12 30	11	0 $\frac{1}{2}$	0 $\frac{3}{4}$	9 23	N	1 38	Sco 16
88	28	<b>S.</b>	5 33	H	6 06	J	12 33	11	1 $\frac{1}{4}$	1 $\frac{3}{4}$	10 35	O	2 29	Sco 17
89	29	M.	5 31	H	6 07	J	12 36	11	2	2 $\frac{1}{2}$	11 $\frac{P}{M}$ 48	Q	3 20	Sag 18
90	30	Tu.	5 29	H	6 08	J	12 39	12	2 $\frac{3}{4}$	3 $\frac{1}{4}$	—	—	4 13	Sag 19
91	31	W.	5 28	H	6 09	J	12 41	12	3 $\frac{1}{2}$	4 $\frac{1}{4}$	12 $\frac{A}{M}$ 47	Q	5 $\frac{A}{M}$ 06	Sag 21

MARCH hath 31 days.

[1948



Bird-song! . . . But do not try  
Translation of that speech;  
It is all air and sky  
And such—and who's to teach,  
To any mother's son,  
That lexicon!

D. M.	D. W.	Aspects, Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
1	M.	St. David. C. J. Swan State Day { 9.9 d. 1935 Neb. { 8.8	The only predictable thing about this month is its unpredictability. "March comes in like a lion but goes out like a lamb" will work, as likely as not, in reverse.
2	Tu.	Nantucket Ind. Day { 9.5 Icebound 1907 Texas { 8.1 <i>Bad</i>	
3	W.	Stat. in R.A. ♂ ♀ ☾ { 9.1 R.A. ☽ ☾ { 7.7 <i>blustery</i>	
4	Th.	The Ides Beware of ☾ rides Tides { 8.8 begin Old Collid ☾ low. { 7.5	
5	Fr.	Iceberg Patrol ♂ In Aph. Tides { 8.7 starts out { 7.5	
6	Sa.	Tides { 8.7 { 7.7 <i>weather</i>	
7	C	4th S. in L. ☾ in Burbank { 8.9 Apo. Day Cal. { 8.0	
8	M.	♂ ♀ ☾. Tides { 9.1 { 8.4 <i>continues.</i>	
9	Tu.	Tides { 9.3 { 8.7 <i>Now</i>	
10	W.	Telephone first Blizzard Tides { 9.4 used 1876 of 1888 { 9.0 <i>cold</i>	
11	Th.	J. Applesed ♂ in ☽ Tides { 9.5 d. 1847 in ☽ { 9.5 <i>rain</i>	
12	Fr.	St. Gregory. ☐ ☽ ☾. ☾ on Eq. { 9.2 { 9.4 <i>or</i>	
13	Sa.	First printed Bible 1462 Tides { 9.4 { 8.3 <i>snow.</i>	
14	C	Passion S. (5th) ♂ ♀ ☾. { 9.5 in 1' { 9.6	
15	M.	Caesar ass. Jackson Day Tides { 9.6 BC. 44 Tenn. { 8.3	
16	Tu.	Income taxes due Tides { 9.6 { 8.5 <i>A</i>	
17	W.	St. Patrick Evac. Day ♀ Gr. El. W. ♂ ☽ ☾ { 9.6 { 8.3	
18	Th.	☐ ☽ ☾ ☾ runs high. Tides { 9.5 { 8.1 <i>few</i>	
19	Fr.	Swallows arr. 2 days late { 9.5 Capistrano, Calif. 1947 { 8.2 <i>mild</i>	
20	Sa.	"Give Me Liberty", 1775 ☽ en-ter. Spring begins. { 9.7 { 8.5	
21	C	Palm S. (6th) in Ia. ♂ ♀ ☾. ♂ ☽ ☾. { 10.0 { 9.1	
22	M.	♀ in Apo. Tides { 10.5 { 9.7 <i>days with</i>	
23	Tu.	☾ in Peri. Tides { 10.9 { 10.8 <i>occ. showers.</i>	
24	W.	Purim. (Leap Year) Fast of Tomorrow Esther Tides { 11.2 { 10.8	
25	Th.	Ann. Lady Day. Maundy Thurs. ♂ ♀ ☾ ☾ on Eq. { 11.2 { 11.1	
26	Fr.	Good Fri. { 11.0 [25 <sup>th</sup> Md. Day { 11.2 { 11.1	
27	Sa.	Maple sap runs now ♀ in Peri. { 11.1 { 10.5 <i>Cool again</i>	
28	C	Easter S. Tides { 10.8 { 9.9 <i>for some</i>	
29	M.	Easter Hol. N. Car. Tides { 10.4 { 9.2 <i>time.</i>	
30	Tu.	Alaska Purch. 1867 ♂ Stat. in R.A. Tides { 9.9 { 8.5	
31	W.	♂ ♀ ☾ ☾ low. Tides { 9.4 { 7.9	

The only predictable thing about this month is its unpredictability. "March comes in like a lion but goes out like a lamb" will work, as likely as not, in reverse.

Make haste slowly this month and be as cautious about uncovering your strawberries and garden beds as you will be in taking down your snow fences or the snow covers for your shrubs. Even several inches of fresh snow may not hurt your pushing bulbs but hard freezes will. Best to remove mulch only partially and plan to work the rest in later in April.

Have you had your spray machine put in order? How about your spray materials, fertilizers and seeds? Have you got extra points for your plough? If you haven't sawed that pile of cordwood better get at it and store it away. Be at the spreading of manure just as soon as you can. It is a good thing to spread manure over these late snows, for the melting snow will carry the goodness of it right into the soil.

As the frost comes out of the ground, it is easy to pick up loose rocks and stones that will later hold tight or be lost in the grass. Get at the litter of things around the yard and corners of the barn. Now is the time when they are still wet to pull the old leaves out from your hedge.

Your orchard pruning should be about done as you turn the corner into April.

1948]

## APRIL, FOURTH MONTH.

## ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.			Days.			Days.			Days.			Days.		
	0	/		0	/		0	/		0	/		0	/	
	1	4N.	42	7	6	59	13	9	12	19	11	19	25	13	20
	2	5	05	8	7	22	14	9	34	20	11	40	26	13	39
	3	5	28	9	7	44	15	9	55	21	12	00	27	13	58
	4	5	51	10	8	06	16	10	16	22	12	20	28	14	17
	5	6	14	11	8	28	17	10	38	23	12	40	29	14	36
	6	6	37	12	8	50	18	10	58	24	13	00	30	14	54

☾ Last Quarter, 1st day, 5 h. 25 m., morning, E.

● New Moon, 9th day, 8 h. 16 m., morning, E.

☽ First Quarter, 16th day, 2 h. 42 m., evening, E.

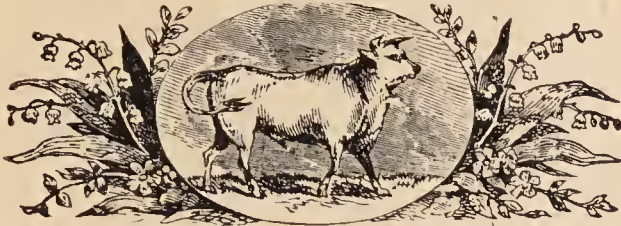
○ Full Moon, 23rd day, 8 h. 28 m., morning, W.

☾ Last Quarter, 30th day, 11 h. 48 m., evening, E.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGE 12, FOR ALL POINTS OUTSIDE NEW ENGLAND.

Day of Year	Day of Month	Day of the Week	☉ Rises. h. m.	Key	☉ Sets. h. m.	Key	Length of Days. h. m.	Sun. Fast.	Full Sea, Boston.		☽ Rises. h. m.	Key	☽ Souths. h. m.	☽ Place	☽'s Moon's Age
									Morn	Even					
92	1	Th.	5 26	H	6 10	J	12 44	12	4 $\frac{1}{2}$	5 $\frac{1}{4}$	-1 $\frac{A}{M}$ 42	Q	5 $\frac{A}{M}$ 59	Cap	22
93	2	Fr.	5 24	H	6 11	J	12 47	12	5 $\frac{1}{2}$	6 $\frac{1}{4}$	2 29	Q	6 50	Cap	23
94	3	Sa.	5 23	H	6 13	J	12 50	13	6 $\frac{1}{2}$	7 $\frac{1}{4}$	3 06	P	7 39	Aqr	24
95	4	S	5 21	G	6 14	K	12 53	13	7 $\frac{1}{2}$	8 $\frac{1}{4}$	3 38	O	8 25	Aqr	25
96	5	M.	5 19	G	6 15	K	12 56	13	8 $\frac{1}{4}$	9	4 04	M	9 09	Psc	26
97	6	Tu.	5 17	G	6 16	K	12 58	14	9 $\frac{1}{4}$	9 $\frac{3}{4}$	4 26	L	9 51	Psc	27
98	7	W.	5 16	G	6 17	K	13 01	14	9 $\frac{3}{4}$	10 $\frac{1}{4}$	4 47	J	10 32	Psc	28
99	8	Th.	5 14	G	6 18	K	13 04	14	10 $\frac{1}{2}$	10 $\frac{3}{4}$	5 $\frac{A}{M}$ 06	I	11 13	Ari	29
100	9	Fr.	5 12	G	6 19	K	13 07	14	11 $\frac{1}{4}$	11 $\frac{1}{2}$	sets	-	11 $\frac{A}{M}$ 55	Ari	0
101	10	Sa.	5 11	G	6 20	K	13 10	15	11 $\frac{3}{4}$	-	7 $\frac{P}{M}$ 44	M	12 $\frac{P}{M}$ 39	Tau	1
102	11	S	5 09	G	6 22	K	13 12	15	0	0 $\frac{1}{2}$	8 54	O	1 26	Tau	2
103	12	M.	5 07	G	6 23	K	13 15	15	0 $\frac{1}{2}$	1	10 06	P	2 17	G'm	3
104	13	Tu.	5 06	G	6 24	K	13 18	16	1 $\frac{1}{4}$	1 $\frac{3}{4}$	11 $\frac{P}{M}$ 17	Q	3 12	G'm	4
105	14	W.	5 04	F	6 25	L	13 21	16	2	2 $\frac{3}{4}$	-	-	4 11	G'm	5
106	15	Th.	5 03	F	6 26	L	13 23	16	3	3 $\frac{1}{2}$	12 $\frac{A}{M}$ 23	Q	5 12	Cnc	6
107	16	Fr.	5 01	F	6 27	L	13 26	16	4	4 $\frac{3}{4}$	1 21	Q	6 12	Cnc	7
108	17	Sa.	4 59	F	6 28	L	13 29	16	5	5 $\frac{3}{4}$	2 08	Q	7 11	Leo	8
109	18	S	4 58	F	6 29	L	13 32	17	6	6 $\frac{3}{4}$	2 46	O	8 06	Leo	9
110	19	M.	4 56	F	6 31	L	13 34	17	7 $\frac{1}{4}$	7 $\frac{3}{4}$	3 18	M	8 58	Vir	11
111	20	Tu.	4 55	F	6 32	L	13 37	17	8 $\frac{1}{4}$	8 $\frac{3}{4}$	4 44	K	9 48	Vir	12
112	21	W.	4 53	F	6 33	L	13 40	17	9 $\frac{1}{4}$	9 $\frac{3}{4}$	5 09	J	10 37	Lib	13
113	22	Th.	4 52	F	6 34	L	13 42	18	10	10 $\frac{1}{2}$	5 $\frac{A}{M}$ 32	H	11 $\frac{P}{M}$ 26	Lib	14
114	23	Fr.	4 50	F	6 35	M	13 45	18	11	11 $\frac{1}{4}$	rises	-	-	-	-
115	24	Sa.	4 49	E	6 36	M	13 48	18	11 $\frac{3}{4}$	-	8 $\frac{P}{M}$ 13	N	12 $\frac{A}{M}$ 15	Sco	15
116	25	S	4 47	E	6 37	M	13 50	18	0	0 $\frac{1}{2}$	9 25	P	1 07	Sco	16
117	26	M.	4 46	E	6 38	M	13 53	18	0 $\frac{3}{4}$	1 $\frac{1}{4}$	10 32	Q	2 00	Sag	17
118	27	Tu.	4 44	E	6 40	M	13 55	18	1 $\frac{1}{2}$	2	11 $\frac{P}{M}$ 32	Q	2 54	Sag	18
119	28	W.	4 43	E	6 41	M	13 58	19	2 $\frac{1}{4}$	2 $\frac{3}{4}$	-	-	3 48	Cap	19
120	29	Th.	4 41	E	6 42	M	14 00	19	3	3 $\frac{3}{4}$	12 $\frac{A}{M}$ 23	Q	4 41	Cap	20
121	30	Fr.	4 40	E	6 43	M	14 03	19	4	4 $\frac{3}{4}$	1 $\frac{A}{M}$ 05	Q	5 $\frac{A}{M}$ 31	Aqr	21





Time, that has come so far,  
 And has so far to go,  
 Whose shapes and gulses are  
 All we have known, or know,  
 Elects, beneath these skies,  
 For this enchanted hour,  
 To be, before our eyes,  
 A stilled, ecstatic flower.

D. M.	D. W.	Aspects, Holidays, Heights of High Water, Weather, Etc.	Farmer's Calendar.
1	Th.	Only fools observe this day L. H. Robbins b. 1877	State Elec. Mich. {8.8 {7.6
2	Fr.	Geo. Washington given Harvard LL.D. 1776	Tides {8.5 {7.5 <i>Now</i>
3	Sa.	Elihu Yale b. 1649	{8.4 {7.6 <i>expect</i>
4	C	Low S. 1st af. E. C	in Apo. {8.4 {7.9 <i>a</i>
5	M.	Army Day	Tides {8.6 {8.3
6	Tu.	Roses and currants hat styles 1905	Tides {8.8 {8.7 <i>rainy</i>
7	W.	on Eq.	Tides {9.1 {9.1
8	Th.	March into Egypt	Tides {9.2 {9.4 <i>spell.</i>
9	Fr.	Co. to colonize Virginia fd. 1606	Tides {9.3 {9.7
10	Sa.	2nd S. af. E. Gr. Hel. Lat. S.	{9.9 {9.2 <i>Some</i>
11	C	F.D.R. d. 1945	Hol. N. Car. Tides {10.1 {9.0
12	M.	6 ♀ C. Hol. Okla. Va.	Tides {10.1 {8.8 <i>nice</i>
13	Tu.	Pan American Day	Gr. El. E. {10.0 {8.5
14	W.	Inc. Taxes due	Stat. in R. A. C. {9.9 {8.3
15	Th.	Ave. date last killing frost	Tides {9.7 {8.3 <i>warm</i>
16	Fr.	Minot's Light dest. 1851	Stat. in R. A. {9.6 {8.5
17	Sa.	3rd S. a. E.	Gr. Hel. Lat. N. {9.7 {8.9
18	C	Patriots' D.	in Hol. — Me. Perl. Mass. {9.9 {9.5
19	M.	Great snow 1717	Tides {10.2 {10.1 <i>days</i>
20	Tu.	6 Ψ C. on Eq.	Hol. Texas Tides {10.5 {10.6
21	W.	Fast Day (N. H.)	Witches around tonight Tides {10.6 {11.0
22	Th.	St. George.	Partial eclipse Tides {10.6 {11.2 <i>Good</i>
23	Fr.	D. S. T. begins in some places	Passover Arbor Day Mass. {10.3 {—
24	Sa.	4th S. a. E. St. Mark.	{11.1 {9.9 <i>planting</i>
25	C	1st Arbor Day Nebr. 1872	Hol. — Fla. Ga. Miss. {10.8 {9.4
26	M.	Audubon b. 1780	6 ♀ C. Tides {10.4 {8.8 <i>weather</i>
27	Tu.	Hirohito b. 1901	Mars conceived C. rides low. {9.8 {8.8 <i>now</i>
28	W.	Tawawa R. ice loosening	6 ♀ C. Sup. 6 ♀ C. {9.3 {7.9
29	Th.	♀ in ♂	Tides {8.8 {7.7
30	Fr.		

Now will you hear the cry of hawks and see the bluebirds in the orchards. The woodchuck will busy himself with his earth, the deer browse on the new meadow grass, the mink hunt along the little forest streams. Once again over the moonlit hill will echo the bark of the fox. Along the swamps where the fresh green ferns have begun to uncurl, red-winged blackbirds will sway and chatter and bob on the cat-o-nine-tails. On the school bench young fry will dream of little trouts and ice cream cones and circuses and swimming holes. Teacher will have the first pansies in front of her on the desk, just where the first red apple appears in fall. The organ and the monkey will appear and the junk man bestir himself. Some folks will spend their nooning on sunny banks, hats over eyes. Lots of others will wish they could.

Cedarwood and mothballs—thunder again and big drops on the dust of country roads—wind and crows—cheepers in the swamp—screens and old folks rocking in the sun—a snow flurry and lawn mowers—buds and frost—picnics, grass fires, violets. This will be our April with its ageless reawakenings and rebirths as poignant and strange and hot to the blood as young love.

1948]

MAY, FIFTH MONTH.

## ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.			Days.			Days.			Days.			Days.		
	0	/		0	/		0	/		0	/		0	/	
1	15	N	12	7	16	56	13	18	29	19	19	52	25	21	02
2	15		30	8	17	12	14	18	44	20	20	04	26	21	12
3	15		48	9	17	28	15	18	58	21	20	16	27	21	22
4	16		05	10	17	44	16	19	12	22	20	28	28	21	32
5	16		22	11	17	59	17	19	25	23	20	40	29	21	41
6	16		39	12	18	14	18	19	39	24	20	51	30	21	50

- New Moon, 8th day, 9 h. 30 m., evening, W.
- ☾ First Quarter, 15th day, 7 h. 55 m., evening, W.
- Full Moon, 22nd day, 7 h. 37 m., evening, E.
- ☾ Last Quarter, 30th day, 5 h. 43 m., evening, W.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGE 12, FOR ALL POINTS OUTSIDE NEW ENGLAND.

Day of Year	Day of Month	Day of the Week	☉ Rises.		Key	☉ Sets.		Key	Length of Days.	Sun $\frac{Sun}{Part}$	Full Sea, Boston.		☾ Rises.	Key	☾ Souths.	☾'s Place	Moon's Age
			h.	m.		h.	m.				Morn.	Even.					
122	1	Sa.	4	39	E	6	44	M	14 05	19	4 $\frac{3}{4}$	5 $\frac{3}{4}$	1 $\frac{A}{M}$ 39	O	6 $\frac{A}{M}$ 19	Aqr	22
123	2	S.	4	37	E	6	45	M	14 08	19	5 $\frac{3}{4}$	6 $\frac{1}{2}$	2 06	N	7 04	Aqr	23
124	3	M.	4	36	D	6	46	N	14 10	19	6 $\frac{3}{4}$	7 $\frac{1}{2}$	2 30	M	7 47	Psc	24
125	4	Tu.	4	35	D	6	47	N	14 13	19	7 $\frac{3}{4}$	8 $\frac{1}{4}$	2 51	K	8 28	Psc	25
126	5	W.	4	33	D	6	48	N	14 15	19	8 $\frac{1}{2}$	9	3 11	J	9 09	Ari	26
127	6	Th.	4	32	D	6	50	N	14 17	19	9 $\frac{1}{4}$	9 $\frac{1}{2}$	3 30	H	9 50	Ari	27
128	7	Fr.	4	31	D	6	51	N	14 20	20	10 $\frac{3}{4}$	10 $\frac{1}{4}$	3 $\frac{A}{M}$ 51	G	10 34	Ari	28
129	8	Sa.	4	30	D	6	52	N	14 22	20	10 $\frac{3}{4}$	10 $\frac{3}{4}$	sets	-	11 $\frac{A}{M}$ 20	Tau	29
130	9	S.	4	29	D	6	53	N	14 24	20	11 $\frac{1}{4}$	11 $\frac{1}{2}$	7 $\frac{P}{M}$ 52	P	12 $\frac{P}{M}$ 10	Tau	1
131	10	M.	4	27	D	6	54	N	14 27	20	-	0	9 05	Q	1 05	G'm	2
132	11	Tu.	4	26	D	6	55	N	14 29	20	0 $\frac{1}{4}$	0 $\frac{3}{4}$	10 15	Q	2 04	G'm	3
133	12	W.	4	25	D	6	56	N	14 31	20	1	1 $\frac{1}{2}$	11 $\frac{P}{M}$ 17	Q	3 05	Cnc	4
134	13	Th.	4	24	C	6	57	O	14 33	20	1 $\frac{3}{4}$	2 $\frac{1}{2}$	-	-	4 07	Cnc	5
135	14	Fr.	4	23	C	6	58	O	14 35	20	2 $\frac{3}{4}$	3 $\frac{1}{2}$	12 $\frac{A}{M}$ 08	Q	5 06	Leo	6
136	15	Sa.	4	22	C	6	59	O	14 37	20	3 $\frac{3}{4}$	4 $\frac{1}{2}$	12 49	P	6 02	Leo	7
137	16	S.	4	21	C	7	00	O	14 39	20	4 $\frac{3}{4}$	5 $\frac{1}{2}$	1 21	N	6 54	Vir	8
138	17	M.	4	20	C	7	01	O	14 41	20	5 $\frac{3}{4}$	6 $\frac{1}{2}$	1 49	L	7 44	Vir	9
139	18	Tu.	4	19	C	7	02	O	14 43	20	7	7 $\frac{1}{2}$	2 13	J	8 31	Lib	10
140	19	W.	4	18	C	7	03	O	14 45	20	8	8 $\frac{1}{2}$	2 35	I	9 18	Lib	11
141	20	Th.	4	17	C	7	04	O	14 47	20	9	9 $\frac{1}{4}$	2 58	G	10 06	Scor	12
142	21	Fr.	4	16	C	7	05	O	14 49	20	9 $\frac{3}{4}$	10	3 $\frac{A}{M}$ 23	E	10 56	Scor	13
143	22	Sa.	4	15	C	7	06	O	14 51	19	10 $\frac{1}{2}$	10 $\frac{3}{4}$	rises	-	11 $\frac{P}{M}$ 48	Sag	14
144	23	S.	4	15	C	7	07	O	14 52	19	11 $\frac{1}{2}$	11 $\frac{1}{2}$	8 $\frac{P}{M}$ 15	Q	-	-	-
145	24	M.	4	14	C	7	08	P	14 54	19	-	0	9 19	Q	12 $\frac{A}{M}$ 42	Sag	15
146	25	Tu.	4	13	B	7	09	P	14 56	19	0 $\frac{1}{4}$	0 $\frac{3}{4}$	10 14	Q	1 36	Cap	16
147	26	W.	4	12	B	7	10	P	14 57	19	1	1 $\frac{1}{2}$	11 00	Q	2 31	Cap	17
148	27	Th.	4	12	B	7	11	P	14 59	19	1 $\frac{3}{4}$	2 $\frac{1}{2}$	11 $\frac{P}{M}$ 38	P	3 23	Cap	18
149	28	Fr.	4	11	B	7	12	P	15 00	19	2 $\frac{1}{2}$	3 $\frac{1}{4}$	-	-	4 12	Aqr	19
150	29	Sa.	4	11	B	7	12	P	15 02	19	3 $\frac{1}{4}$	4	12 $\frac{A}{M}$ 08	O	4 58	Aqr	20
151	30	S.	4	10	B	7	13	P	15 03	19	4 $\frac{1}{4}$	5	12 33	M	5 41	Psc	21
152	31	M.	4	09	B	7	14	P	15 05	18	5	5 $\frac{3}{4}$	12 $\frac{A}{M}$ 54	L	6 $\frac{A}{M}$ 23	Psc	22





1948]

JUNE, SIXTH MONTH.

## ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.		0 /		Days.		0 /		Days.		0 /		Days.		0 /																																												
	1	22N.07	7	22 48	13	23 14	19	23 26	25	23 23	2	22 15	8	22 53	14	23 17	20	23 27	26	23 21	3	22 22	9	22 58	15	23 20	21	23 27	27	23 19	4	22 29	10	23 03	16	23 22	22	23 27	28	23 16	5	22 36	11	23 07	17	23 24	23	23 26	29	23 12	6	22 42	12	23 11	18	23 25	24	23 25	30

- New Moon, 7th day, 7 h. 55 m., morning, E.
- ☽ First Quarter, 14th day, 12 h. 40 m., morning, E.
- ☾ Full Moon, 21st day, 7 h. 54 m., morning, W.
- ☾ Last Quarter, 29th day, 10 h. 23 m., morning, W.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGE 12, FOR ALL POINTS OUTSIDE NEW ENGLAND.

Day of Year	Day of Month	Day of the Week	☀		Key	☽		Key	Length of Days.		Sun East.	Full Sea. Boston.		D	Key	D		D's Place	Moon's Age
			Rises.	h. m.		Sets.	h. m.		h.	m.		h.	m.			h.	m.		
153	1	Tu.	4 09	B	7 15	P	15 06	18	6	6 <sup>3</sup> / <sub>4</sub>	1 <sup>A</sup> <sub>M</sub> 14	J	7 <sup>A</sup> <sub>M</sub> 03	Psc	23				
154	2	W.	4 09	B	7 16	P	15 07	18	7	7 <sup>1</sup> / <sub>2</sub>	1 34	I	7 44	Ari	24				
155	3	Th.	4 08	B	7 16	P	15 08	18	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>4</sub>	1 53	G	8 26	Ari	25				
156	4	Fr.	4 08	B	7 17	P	15 09	18	8 <sup>1</sup> / <sub>2</sub>	9	2 15	F	9 11	Tau	26				
157	5	Sa.	4 07	B	7 18	P	15 10	18	9 <sup>1</sup> / <sub>2</sub>	9 <sup>3</sup> / <sub>4</sub>	2 40	D	9 59	Tau	28				
158	6	S.	4 07	B	7 18	P	15 11	17	10 <sup>1</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>4</sub>	3 <sup>A</sup> <sub>M</sub> 11	B	10 53	G'm	29				
159	7	M.	4 07	B	7 19	P	15 12	17	11	11	sets	—	11 <sup>A</sup> <sub>M</sub> 51	G'm	0				
160	8	Tu.	4 06	B	7 20	P	15 13	17	11 <sup>3</sup> / <sub>4</sub>	11 <sup>3</sup> / <sub>4</sub>	9 <sup>P</sup> <sub>M</sub> 06	Q	12 <sup>P</sup> <sub>M</sub> 53	Cnc	1				
161	9	W.	4 06	B	7 20	P	15 14	17	—	0 <sup>1</sup> / <sub>2</sub>	10 03	Q	1 57	Cnc	2				
162	10	Th.	4 06	B	7 21	P	15 15	17	0 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	10 48	P	2 59	Leo	3				
163	11	Fr.	4 06	B	7 21	P	15 15	16	1 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>4</sub>	11 24	O	3 57	Leo	4				
164	12	Sa.	4 06	B	7 22	P	15 16	16	2 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub>	11 <sup>P</sup> <sub>M</sub> 53	M	4 51	Vir	5				
165	13	S.	4 06	B	7 22	P	15 17	16	3 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>4</sub>	—	—	5 42	Vir	6				
166	14	M.	4 06	A	7 23	Q	15 17	16	4 <sup>1</sup> / <sub>2</sub>	5	12 <sup>A</sup> <sub>M</sub> 18	K	6 29	Lib	7				
167	15	Tu.	4 06	A	7 23	Q	15 18	16	5 <sup>1</sup> / <sub>2</sub>	6	12 41	I	7 16	Lib	8				
168	16	W.	4 06	A	7 24	Q	15 18	15	6 <sup>1</sup> / <sub>2</sub>	7	1 03	H	8 03	Scor	10				
169	17	Th.	4 06	A	7 24	Q	15 18	15	7 <sup>1</sup> / <sub>2</sub>	8	1 27	F	8 51	Scor	11				
170	18	Fr.	4 06	A	7 24	Q	15 18	15	8 <sup>1</sup> / <sub>2</sub>	8 <sup>3</sup> / <sub>4</sub>	1 53	D	9 41	Sag	12				
171	19	Sa.	4 06	A	7 24	Q	15 19	15	9 <sup>1</sup> / <sub>2</sub>	9 <sup>3</sup> / <sub>4</sub>	2 24	C	10 33	Sag	13				
172	20	S.	4 06	A	7 25	Q	15 19	15	10 <sup>1</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>2</sub>	3 <sup>A</sup> <sub>M</sub> 01	A	11 <sup>P</sup> <sub>M</sub> 27	Sag	14				
173	21	M.	4 06	A	7 25	Q	15 19	14	11	11 <sup>1</sup> / <sub>4</sub>	rises	—	—	—	—				
174	22	Tu.	4 07	A	7 25	Q	15 19	14	11 <sup>3</sup> / <sub>4</sub>	—	8 <sup>P</sup> <sub>M</sub> 55	Q	12 <sup>A</sup> <sub>M</sub> 21	Cap	15				
175	23	W.	4 07	A	7 25	Q	15 18	14	0	0 <sup>1</sup> / <sub>2</sub>	9 35	P	1 14	Cap	16				
176	24	Th.	4 07	A	7 25	Q	15 18	14	0 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>4</sub>	10 08	O	2 05	Aqr	17				
177	25	Fr.	4 07	A	7 26	Q	15 18	13	1 <sup>1</sup> / <sub>4</sub>	2	10 35	N	2 52	Aqr	18				
178	26	Sa.	4 08	A	7 26	Q	15 18	13	2	2 <sup>3</sup> / <sub>4</sub>	10 57	L	3 37	Aqr	19				
179	27	S.	4 08	A	7 26	Q	15 17	13	2 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>2</sub>	11 18	K	4 19	Psc	20				
180	28	M.	4 09	A	7 26	P	15 17	13	3 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>4</sub>	11 37	I	4 59	Psc	21				
181	29	Tu.	4 09	B	7 25	P	15 16	13	4 <sup>1</sup> / <sub>2</sub>	5	11 <sup>P</sup> <sub>M</sub> 56	H	5 39	Ari	22				
182	30	W.	4 10	B	7 25	P	15 16	12	5 <sup>1</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>4</sub>	—	—	6 <sup>A</sup> <sub>M</sub> 20	Ari	23				





1948]

JULY, SEVENTH MONTH.

ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.			Days.			Days.			Days.			Days.		
	0	/		0	/		0	/		0	/		0	/	
1	23	N.	06	7	22	33	13	21	47	19	20	47	25	19	35
2	23		01	8	22	26	14	21	38	20	20	36	26	19	22
3	22		56	9	22	19	15	21	28	21	20	24	27	19	08
4	22		51	10	22	12	16	21	19	22	20	13	28	18	54
5	22		46	11	22	04	17	21	09	23	20	00	29	18	40
6	22		40	12	21	56	18	20	58	24	19	48	30	18	26

- New Moon, 6th day, 4 h. 9 m., evening, W.
- ☽ First Quarter, 13th day, 6 h. 30 m., morning, E.
- Full Moon, 20th day, 9 h. 31 m., evening, E.
- ☾ Last Quarter, 29th day, 1 h. 11 m., morning, E.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGE 12, FOR ALL POINTS OUTSIDE NEW ENGLAND.

Day of Year	Day of Month	Day of the Week	☉ Rises		Key	☽ Sets		Key	Length of Days		Sun Fast.	Full Sea, Boston.		☽ Rises	Key	☽ Souths.		☽'s Place	Moon's Age
			h.	m.		h.	m.		h.	m.		Morn.	Even.			h.	m.		
183	1	Th.	4	10	B	7	25	P	15	15	12	6 $\frac{1}{4}$	6 $\frac{1}{2}$	12 $\frac{A}{M}$ 17	G	7 $\frac{A}{0}$ 2	Tau	24	
184	2	Fr.	4	11	B	7	25	P	15	15	12	7	7 $\frac{1}{2}$	12 40	E	7 48	Tau	25	
185	3	Sa.	4	11	B	7	25	P	15	14	12	8	8 $\frac{1}{4}$	1 07	C	8 38	Tau	26	
186	4	S.	4	12	B	7	25	P	15	13	12	9	9	1 42	A	9 34	G'm	27	
187	5	M.	4	12	B	7	24	P	15	12	12	9 $\frac{3}{4}$	10	2 $\frac{A}{M}$ 28	A	10 35	G'm	28	
188	6	Tu.	4	13	B	7	24	P	15	11	11	10 $\frac{1}{2}$	10 $\frac{3}{4}$	sets	—	11 $\frac{A}{M}$ 39	Cnc	29	
189	7	W.	4	14	B	7	24	P	15	10	11	11 $\frac{1}{2}$	11 $\frac{1}{2}$	8 $\frac{P}{M}$ 41	Q	12 $\frac{P}{M}$ 44	Cnc	1	
190	8	Th.	4	14	B	7	23	P	15	09	11	—	0 $\frac{1}{4}$	9 22	O	1 46	Leo	2	
191	9	Fr.	4	15	B	7	23	P	15	08	11	0 $\frac{1}{2}$	1	9 54	M	2 43	Leo	3	
192	10	Sa.	4	16	B	7	22	P	15	07	11	1 $\frac{1}{4}$	2	10 21	K	3 36	Vir	4	
193	11	S.	4	16	B	7	22	P	15	05	11	2 $\frac{1}{4}$	2 $\frac{3}{4}$	10 45	J	4 26	Vir	5	
194	12	M.	4	17	B	7	21	P	15	04	10	3 $\frac{1}{4}$	3 $\frac{3}{4}$	11 08	H	5 13	Lib	6	
195	13	Tu.	4	18	B	7	21	P	15	03	10	4 $\frac{1}{4}$	4 $\frac{3}{4}$	11 31	F	6 01	Lib	7	
196	14	W.	4	19	B	7	20	P	15	01	10	5 $\frac{1}{4}$	5 $\frac{3}{4}$	11 $\frac{P}{M}$ 56	E	6 49	Scor	8	
197	15	Th.	4	20	B	7	20	P	15	00	10	6 $\frac{1}{4}$	6 $\frac{3}{4}$	—	—	7 38	Scor	9	
198	16	Fr.	4	20	B	7	19	P	14	58	10	7 $\frac{1}{4}$	7 $\frac{1}{2}$	12 $\frac{A}{M}$ 26	C	8 29	Sag	10	
199	17	Sa.	4	21	B	7	18	P	14	57	10	8 $\frac{1}{4}$	8 $\frac{1}{2}$	1 00	B	9 22	Sag	11	
200	18	S.	4	22	B	7	18	P	14	55	10	9 $\frac{1}{4}$	9 $\frac{1}{4}$	1 42	A	10 15	Cap	12	
201	19	M.	4	23	C	7	17	O	14	54	10	10	10 $\frac{1}{4}$	2 $\frac{M}{M}$ 32	A	11 $\frac{P}{M}$ 08	Cap	13	
202	20	Tu.	4	24	C	7	16	O	14	52	10	10 $\frac{3}{4}$	10 $\frac{3}{4}$	rises	—	—	—	—	
203	21	W.	4	25	C	7	15	O	14	50	10	11 $\frac{1}{2}$	11 $\frac{1}{2}$	8 $\frac{M}{M}$ 09	P	12 $\frac{M}{M}$ 00	Cap	14	
204	22	Th.	4	26	C	7	14	O	14	49	10	—	0	8 38	N	12 48	Aqr	15	
205	23	Fr.	4	27	C	7	13	O	14	47	10	0 $\frac{1}{4}$	0 $\frac{3}{4}$	9 01	M	1 33	Aqr	16	
206	24	Sa.	4	28	C	7	13	O	14	45	10	0 $\frac{3}{4}$	1 $\frac{1}{2}$	9 22	K	2 16	Psc	17	
207	25	S.	4	29	C	7	12	O	14	43	10	1 $\frac{1}{2}$	2	9 41	J	2 57	Psc	18	
208	26	M.	4	30	C	7	11	O	14	41	10	2 $\frac{1}{4}$	2 $\frac{3}{4}$	10 00	L	3 36	Ari	19	
209	27	Tu.	4	31	C	7	10	O	14	39	10	3	3 $\frac{1}{2}$	10 19	G	4 16	Ari	21	
210	28	W.	4	32	C	7	09	O	14	37	10	3 $\frac{3}{4}$	4 $\frac{1}{4}$	10 41	F	4 57	Ari	22	
211	29	Th.	4	33	C	7	08	O	14	35	10	4 $\frac{1}{2}$	5	11 05	D	5 40	Tau	23	
212	30	Fr.	4	34	C	7	06	N	14	33	10	5 $\frac{1}{2}$	6	11 $\frac{P}{M}$ 36	B	6 27	Tau	24	
213	31	Sa.	4	35	D	7	05	N	14	31	10	6 $\frac{1}{2}$	6 $\frac{3}{4}$	—	—	7 $\frac{A}{M}$ 19	G'm	25	



1948]

## AUGUST, EIGHTH MONTH.

## ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.		0 /		Days.		0 /		Days.		0 /		Days.		0 /																																												
	1	17 <sup>N</sup> .56	7	16 20	13	14 34	19	12 40	25	10 38	2	17 41	8	16 03	14	14 15	20	12 20	26	10 17	3	17 25	9	15 45	15	13 57	21	12 00	27	9 56	4	17 09	10	15 28	16	13 38	22	11 40	28	9 35	5	16 53	11	15 10	17	13 18	23	11 10	29	9 14	6	16 36	12	14 52	18	12 59	24	10 59	30

● New Moon, 4th day, 11 h. 13 m., evening, W.

☽ First Quarter, 11th day, 2 h. 40 m., evening, E.

○ Full Moon, 19th day, 12 h. 32 m., evening, E.

☾ Last Quarter, 27th day, 1 h. 46 m., evening, W.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGE 12, FOR ALL POINTS OUTSIDE NEW ENGLAND.

Day of Year	Day of Month	Day of the Week	☉ Rises. h. m.	☉ Key	☉ Sets. h. m.	☉ Key	Length of Days. h. m.	Sun. First. m.	Full Sea, Boston. Morn. h. Even. h.	☽ Rises. h. m.	☽ Key	☽ Souths. h. m.	☽ Place	☽'s Moon's Age
214	1	S	4 36	D	7 04	N	14 29	10	7 <sup>1</sup> / <sub>2</sub> 7 <sup>3</sup> / <sub>4</sub>	12 <sup>A</sup> <sub>15</sub>	A	8 <sup>A</sup> <sub>16</sub>	G'm	26
215	2	M	4 37	D	7 03	N	14 26	10	8 <sup>2</sup> / <sub>2</sub> 8 <sup>3</sup> / <sub>4</sub>	1 06	A	9 18	Cnc	27
216	3	Tu	4 38	D	7 02	N	14 24	10	9 <sup>1</sup> / <sub>4</sub> 9 <sup>1</sup> / <sub>2</sub>	2 <sup>A</sup> <sub>11</sub>	A	10 23	Cnc	28
217	4	W	4 39	D	7 01	N	14 22	10	10 <sup>1</sup> / <sub>4</sub> 10 <sup>1</sup> / <sub>2</sub>	sets	—	11 <sup>A</sup> <sub>27</sub>	Leo	29
218	5	Th	4 40	D	6 59	N	14 20	10	11 11 <sup>1</sup> / <sub>2</sub>	7 <sup>P</sup> <sub>51</sub>	N	12 <sup>P</sup> <sub>28</sub>	Leo	1
219	6	Fr	4 41	D	6 58	N	14 17	10	11 <sup>3</sup> / <sub>4</sub> —	8 21	L	1 24	Vir	2
220	7	Sa	4 42	D	6 57	N	14 15	10	0 <sup>1</sup> / <sub>4</sub> 0 <sup>3</sup> / <sub>4</sub>	8 46	J	2 17	Vir	3
221	8	S	4 43	D	6 55	N	14 13	10	1 1 <sup>1</sup> / <sub>2</sub>	9 10	I	3 07	Lib	4
222	9	M	4 44	D	6 54	M	14 10	11	2 2 <sup>1</sup> / <sub>2</sub>	9 34	G	3 56	Lib	5
223	10	Tu	4 45	E	6 53	M	14 08	11	2 <sup>3</sup> / <sub>4</sub> 3 <sup>1</sup> / <sub>4</sub>	9 59	E	4 45	Scor	6
224	11	W	4 46	E	6 51	M	14 05	11	3 <sup>3</sup> / <sub>4</sub> 4 <sup>1</sup> / <sub>4</sub>	10 27	C	5 34	Scor	7
225	12	Th	4 47	E	6 50	M	14 03	11	4 <sup>3</sup> / <sub>4</sub> 5 <sup>1</sup> / <sub>4</sub>	11 00	B	6 25	Sag	8
226	13	Fr	4 48	E	6 49	M	14 00	11	5 <sup>3</sup> / <sub>4</sub> 6 <sup>1</sup> / <sub>4</sub>	11 <sup>P</sup> <sub>40</sub>	A	7 18	Sag	9
227	14	Sa	4 49	E	6 47	M	13 58	11	7 7 <sup>1</sup> / <sub>4</sub>	—	—	8 11	Cap	10
228	15	S	4 50	E	6 46	M	13 55	12	8 8 <sup>1</sup> / <sub>4</sub>	12 <sup>A</sup> <sub>27</sub>	A	9 04	Cap	11
229	16	M	4 51	E	6 44	M	13 54	12	9 9	1 21	A	9 56	Cap	12
230	17	Tu	4 52	E	6 43	M	13 50	12	9 <sup>3</sup> / <sub>4</sub> 9 <sup>3</sup> / <sub>4</sub>	2 22	A	10 45	Aqr	13
231	18	W	4 53	E	6 41	M	13 48	12	10 <sup>1</sup> / <sub>2</sub> 10 <sup>1</sup> / <sub>2</sub>	3 <sup>M</sup> <sub>25</sub>	B	11 <sup>P</sup> <sub>31</sub>	Aqr	14
232	19	Th	4 55	E	6 40	L	13 45	13	11 11 <sup>1</sup> / <sub>4</sub>	rises	—	—	—	—
233	20	Fr	4 56	F	6 38	L	13 42	13	11 <sup>3</sup> / <sub>4</sub> 11 <sup>3</sup> / <sub>4</sub>	7 <sup>P</sup> <sub>27</sub>	L	12 <sup>A</sup> <sub>14</sub>	Psc	15
234	21	Sa	4 57	F	6 37	L	13 40	13	— 0 <sup>1</sup> / <sub>4</sub>	7 47	J	12 56	Psc	16
235	22	S	4 58	F	6 35	L	13 37	13	0 <sup>1</sup> / <sub>2</sub> 0 <sup>3</sup> / <sub>4</sub>	8 05	I	1 36	Psc	17
236	23	M	4 59	F	6 33	L	13 35	14	1 1 <sup>1</sup> / <sub>2</sub>	8 24	H	2 15	Ari	18
237	24	Tu	5 00	F	6 32	L	13 32	14	1 <sup>3</sup> / <sub>4</sub> 2	8 44	F	2 55	Ari	19
238	25	W	5 01	F	6 30	L	13 29	14	2 <sup>1</sup> / <sub>2</sub> 2 <sup>3</sup> / <sub>4</sub>	9 07	D	3 37	Tau	20
239	26	Th	5 02	F	6 29	L	13 27	14	3 <sup>1</sup> / <sub>4</sub> 3 <sup>1</sup> / <sub>2</sub>	9 34	C	4 21	Tau	21
240	27	Fr	5 03	F	6 27	L	13 24	15	4 4 <sup>1</sup> / <sub>4</sub>	10 09	A	5 10	Tau	22
241	28	Sa	5 04	F	6 25	L	13 21	15	5 5 <sup>1</sup> / <sub>4</sub>	10 53	A	6 04	G'm	23
242	29	S	5 05	G	6 24	K	13 18	15	6 6 <sup>1</sup> / <sub>4</sub>	11 <sup>P</sup> <sub>49</sub>	A	7 02	G'm	24
243	30	M	5 06	G	6 22	K	13 16	16	7 7 <sup>1</sup> / <sub>4</sub>	—	—	8 04	Cnc	25
244	31	Tu	5 07	G	6 20	K	13 13	16	8 8 <sup>1</sup> / <sub>4</sub>	12 <sup>A</sup> <sub>59</sub>	A	9 <sup>A</sup> <sub>07</sub>	Cnc	26





1948] SEPTEMBER, NINTH MONTH.

## ASTRONOMICAL CALCULATIONS.

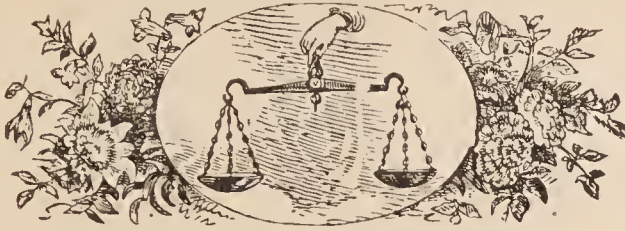
☉'s Declination.	Days.			Days.			Days.			Days.			Days.		
	0	/		0	/		0	/		0	/		0	/	
1	8N	09		7	5	56	13	3	39	19	1	20	25	1	00
2	7	47		8	5	33	14	3	16	20	0	57	26	1	23
3	7	25		9	5	11	15	2	53	21	0	34	27	1	46
4	7	03		10	4	48	16	2	30	22	0N	10	28	2	10
5	6	41		11	4	25	17	2	07	23	0s	13	29	2	33
6	6	18		12	4	02	18	1	44	24	0	36	30	2	56

- New Moon, 3rd day, 6 h. 21 m., morning, E.
- ▷ First Quarter, 10th day, 2 h. 5 m., morning, W.
- Full Moon, 18th day, 4 h. 43 m., morning, W.
- ◐ Last Quarter, 26th day, 12 h. 7 m., morning, W.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGE 12, FOR ALL POINTS OUTSIDE NEW ENGLAND.

Day of Year	Day of Month	Day of the Week	☺ Rises. h. m.	Key	☺ Sets. h. m.	Key	Length of Days. h. m.	Sun Fast.	Full Sea. Boston. Morn Even	☾ Rises. h. m.	Key	☾ Souths. h. m.	☾'s Place	☾'s Moon's Age
245	1	W.	5 08	G	6 19	K	13 10	16	9 9 <sup>1</sup> / <sub>4</sub>	2 <sup>A</sup> 18	B	10 <sup>A</sup> 08	Leo	27
246	2	Th.	5 09	G	6 17	K	13 07	16	9 <sup>3</sup> / <sub>4</sub> 10 <sup>1</sup> / <sub>4</sub>	3 <sup>M</sup> 41	D	11 <sup>A</sup> 07	Leo	28
247	3	Fr.	5 10	G	6 15	K	13 05	17	10 <sup>3</sup> / <sub>4</sub> 11	sets	—	12 <sup>P</sup> 02	Vir	29
248	4	Sa.	5 12	G	6 13	K	13 02	17	11 <sup>1</sup> / <sub>2</sub> —	7 <sup>P</sup> 10	I	12 55	Vir	1
249	5	<b>S.</b>	5 13	G	6 12	K	12 59	17	0 0 <sup>1</sup> / <sub>4</sub>	7 34	H	1 45	Lib	2
250	6	M.	5 14	G	6 10	K	12 56	18	0 <sup>3</sup> / <sub>4</sub> 1 <sup>1</sup> / <sub>4</sub>	7 59	F	2 35	Scor	3
251	7	Tu.	5 15	G	6 08	K	12 54	18	1 <sup>3</sup> / <sub>4</sub> 2	8 26	D	3 26	Scor	4
252	8	W.	5 16	G	6 07	J	12 51	18	2 <sup>1</sup> / <sub>2</sub> 2 <sup>3</sup> / <sub>4</sub>	8 58	B	4 16	Scor	5
253	9	Th.	5 17	H	6 05	J	12 48	19	3 <sup>1</sup> / <sub>2</sub> 3 <sup>3</sup> / <sub>4</sub>	9 36	A	5 12	Sag	6
254	10	Fr.	5 18	H	6 03	J	12 45	19	4 <sup>1</sup> / <sub>4</sub> 4 <sup>3</sup> / <sub>4</sub>	10 22	A	6 06	Sag	7
255	11	Sa.	5 19	H	6 01	J	12 42	19	5 <sup>1</sup> / <sub>2</sub> 5 <sup>3</sup> / <sub>4</sub>	11 <sup>P</sup> 15	A	7 00	Cap	9
256	12	<b>S.</b>	5 20	H	6 00	J	12 40	20	6 <sup>1</sup> / <sub>2</sub> 6 <sup>3</sup> / <sub>4</sub>	—	—	7 52	Cap	10
257	13	M.	5 21	H	5 58	J	12 37	20	7 <sup>1</sup> / <sub>2</sub> 7 <sup>3</sup> / <sub>4</sub>	12 <sup>M</sup> 14	A	8 42	Aqr	11
258	14	Tu.	5 22	H	5 56	J	12 34	21	8 <sup>1</sup> / <sub>2</sub> 8 <sup>3</sup> / <sub>4</sub>	1 16	B	9 29	Aqr	12
259	15	W.	5 23	H	5 54	J	12 31	21	9 <sup>1</sup> / <sub>4</sub> 9 <sup>1</sup> / <sub>2</sub>	2 20	C	10 13	Aqr	13
260	16	Th.	5 24	H	5 53	J	12 28	21	10 10 <sup>1</sup> / <sub>4</sub>	3 23	E	10 55	Psc	14
261	17	Fr.	5 25	H	5 51	J	12 25	22	10 <sup>1</sup> / <sub>2</sub> 10 <sup>3</sup> / <sub>4</sub>	4 <sup>M</sup> 26	G	11 <sup>P</sup> 35	Psc	15
262	18	Sa.	5 26	H	5 49	J	12 22	22	11 <sup>1</sup> / <sub>4</sub> 11 <sup>1</sup> / <sub>4</sub>	rises	—	—	—	—
263	19	<b>S.</b>	5 27	I	5 47	I	12 20	22	11 <sup>3</sup> / <sub>4</sub> —	6 <sup>P</sup> 30	H	12 <sup>M</sup> 15	Ari	16
264	20	M.	5 29	I	5 45	I	12 17	23	0 0 <sup>1</sup> / <sub>4</sub>	6 51	F	12 55	Ari	17
265	21	Tu.	5 30	I	5 44	I	12 14	23	0 <sup>1</sup> / <sub>2</sub> 0 <sup>3</sup> / <sub>4</sub>	7 11	E	1 36	Tau	18
266	22	W.	5 31	I	5 42	I	12 11	23	1 <sup>1</sup> / <sub>4</sub> 1 <sup>1</sup> / <sub>2</sub>	7 36	C	2 19	Tau	19
267	23	Th.	5 32	I	5 40	I	12 08	24	2 2 <sup>1</sup> / <sub>4</sub>	8 08	A	3 06	Tau	20
268	24	Fr.	5 33	I	5 38	I	12 05	24	2 <sup>3</sup> / <sub>4</sub> 3	8 47	A	3 57	G'm	21
269	25	Sa.	5 34	I	5 37	I	12 03	24	3 <sup>1</sup> / <sub>2</sub> 3 <sup>3</sup> / <sub>4</sub>	9 38	A	4 53	G'm	22
270	26	<b>S.</b>	5 35	I	5 35	I	12 00	25	4 <sup>1</sup> / <sub>2</sub> 4 <sup>3</sup> / <sub>4</sub>	10 40	A	5 52	Cnc	23
271	27	M.	5 36	I	5 33	I	11 57	25	5 <sup>1</sup> / <sub>2</sub> 5 <sup>3</sup> / <sub>4</sub>	11 <sup>P</sup> 53	A	6 52	Cnc	24
272	28	Tu.	5 37	I	5 31	I	11 54	25	6 <sup>1</sup> / <sub>2</sub> 7	—	—	7 53	Leo	25
273	29	W.	5 38	I	5 30	H	11 51	26	7 <sup>1</sup> / <sub>2</sub> 8	1 <sup>M</sup> 09	B	8 51	Leo	26
274	30	Th.	5 39	J	5 28	H	11 48	26	8 <sup>1</sup> / <sub>2</sub> 9	2 <sup>M</sup> 34	E	9 <sup>A</sup> 46	Vir	27





The mind, airy and wide and blue,  
 Idle, and still . . . and thoughts like birds,  
 Aimless, and slow, in all they do,  
 Thoughts without words . . .  
 No motion, else; no sound of any kind:  
 It is a summer evening of the mind.

D.M.	D.W.	Aspects, Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
1	W.	St. Giles. Tides { 9.2 10.9	Clear.
2	Th.	♂ ♀ Gr. El. Tides { 9.9 11.3	to see over and done with.
3	Fr.	11 Days Lost ♀ in ☾ Peri. { 10.4 11.6	So many things can happen in September, at the very lip of the harvest cup—can happen and do. Looking back on September 1938 and September 1943 (blackly remembered for the great New England hurricanes) you will state simply, "Those weren't 'months'; they were 'catastrophes'."
4	Sa.	Moses. ♂♂ ☾ on { 10.9 11.3	Frosty
5	C	14th S.a. ♀. Worst hay ♂ ♀☾ { 11.6 11.1	
6	M.	Labor Day. ♂♂ ☾ { 11.3 11.1	some
7	Tu.	Audover Theo. Soc. Tides { 10.8 10.8	places.
8	W.	Nat. Virgin Mary { 10.1 10.4	Watch out
9	Th.	Galveston Tides { 9.3 9.9	now
10	Fr.	Hurricane 1900 Jason Fairbanks hung 1801 ♂ ♀☾ Tides { 8.6 9.4	
11	Sa.	Henry Hudson Ent. Hudson R. 1609 ☾ rides { 8.0 9.1	for
12	C	16th S.a. T. ♂ ♀☾ Hol. Md. { 7.8 8.9	heavy
13	M.	Election Day Maine ☐ ♀☾ Tides { 7.8 8.9	
14	Tu.	Holy Cross Day, World Fair Tunbridge, Vt. Tides { 8.0 9.0	
15	W.	Tides { 8.8 9.2	[14th ♀ in Aph.] gales.
16	Th.	St. Euphemia. ☾ in Apo. Tides { 8.6 9.3	
17	Fr.	St. Lambert. Constitution Day { 8.9 9.5	Milder
18	Sa.	Trees are blushing Harvest moon { 9.2 9.5	for a
19	C	16th S.a. ♀. ☾ on Eq. Tides { 9.4 9.4	bit.
20	M.	1938 Hurricane 17 to 21 Tides { 9.5 9.6	
21	Tu.	St. Mathew. Tides { 9.4 9.7	
22	W.	☉ en. ☽ AUTUMN 10 22 BEGINS. P.M. Day { 9.2 9.7	Ember
23	Th.	Days and nights nearly equal ☐ ☽☾ { 8.9 9.7	Much
24	Fr.	American Indian Day John Baptist conceived Day { 8.6 9.6	
25	Sa.	Ember Day ♀ Gr. ELE. ♂☾ { 8.3 9.5	colder.
26	C	18th S.a. T. D.S.T. ends ☾ high. { 8.1 9.4	
27	M.	Tides { 8.1 9.5	[26th Underground moon] High
28	Tu.	Tides { 8.4 9.8	winds
29	W.	St. Michael. ♂ ♀☾ ♂ ♀☾ { 8.9 10.2	
30	Th.	St. Jerome. Tides { 9.6 10.7	

Better not do any mowing this month in the orchard, however, between the trees, possibly, but certainly not under them for fear of knocking off the fruit.  
 After the rowan it is well to top dress your lands.

1948]

## OCTOBER, TENTH MONTH.

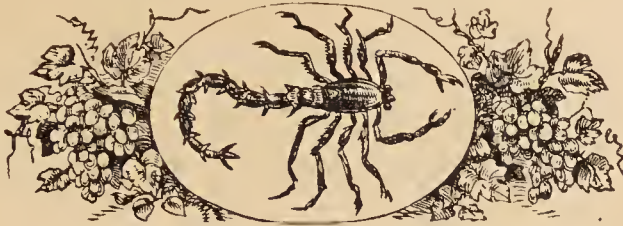
## ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.		0 /		Days.		0 /		Days.		0 /		Days.		0 /	
	1	3s.	20	7	5	39	13	7	55	19	10	07	25	12	14	
	2	3	43	8	6	02	14	8	17	20	10	29	26	12	34	
	3	4	06	9	6	24	15	8	39	21	10	50	27	12	55	
	4	4	29	10	6	47	16	9	01	22	11	11	28	13	15	
	5	4	53	11	7	10	17	9	23	23	11	32	29	13	35	
	6	5	16	12	7	32	18	9	45	24	11	53	30	13	54	

- New Moon, 2nd day, 2 h. 42 m., evening, W.
- ☽ First Quarter, 9th day, 5 h. 10 m., evening, E.
- ☾ Full Moon, 17th day, 9 h. 23 m., evening, E.
- ☾ Last Quarter, 25th day, 8 h. 41 m., morning, W.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGE 12, FOR ALL POINTS OUTSIDE NEW ENGLAND.

Day of Year	Day of Month	Day of the Week	☉		☽		Length of Days.	Sun East.	Full Sea.		☽	☽	☽'s	Moon's Arc						
			Rises.	Key	Sets.	Key			Morn.	Even.					Rises.	Key	Souths.	Place		
h.	m.	h.	m.	h.	m.	h.	m.	h.	m.	h.	m.	h.	m.							
275	1	Fr.	5	40	J	5	26	H	11	46	26	9 <sup>1</sup> / <sub>2</sub>	10	3 <sup>A</sup> <sub>M</sub> 54	G	10 <sup>A</sup> <sub>M</sub> 39	Vir	28		
276	2	Sa.	5	42	J	5	24	H	11	43	27	10 <sup>1</sup> / <sub>2</sub>	10 <sup>3</sup> / <sub>4</sub>	sets	—	11 <sup>A</sup> <sub>M</sub> 30	Lib	0		
277	3	S.	5	43	J	5	23	H	11	40	27	11 <sup>1</sup> / <sub>4</sub>	11 <sup>3</sup> / <sub>4</sub>	5 <sup>P</sup> <sub>M</sub> 57	G	12 <sup>P</sup> <sub>M</sub> 21	Lib	1		
278	4	M.	5	44	J	5	21	H	11	37	27	—	0	6	24	E	1	12	Scor	2
279	5	Tu.	5	45	J	5	19	H	11	34	28	0 <sup>1</sup> / <sub>2</sub>	0 <sup>3</sup> / <sub>4</sub>	6	54	C	2	06	Scor	3
280	6	W.	5	46	J	5	17	H	11	31	28	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	7	30	B	3	00	Sag	4
281	7	Th.	5	47	J	5	16	H	11	29	28	2 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>4</sub>	8	14	A	3	56	Sag	5
282	8	Fr.	5	48	J	5	14	H	11	26	29	3	3 <sup>1</sup> / <sub>4</sub>	9	05	A	4	52	Cap	6
283	9	Sa.	5	49	J	5	12	H	11	23	29	4	4 <sup>1</sup> / <sub>4</sub>	10	03	A	5	46	Cap	7
284	10	S.	5	50	K	5	11	G	11	20	29	5	5 <sup>1</sup> / <sub>4</sub>	11 <sup>P</sup> <sub>M</sub> 06	B	6	37	Cap	8	
285	11	M.	5	52	K	5	09	G	11	17	29	6	6 <sup>1</sup> / <sub>4</sub>	—	—	7	26	Aqr	9	
286	12	Tu.	5	53	K	5	07	G	11	15	30	7	7 <sup>1</sup> / <sub>4</sub>	12 <sup>A</sup> <sub>M</sub> 10	C	8	11	Aqr	10	
287	13	W.	5	54	K	5	06	G	11	12	30	8	8	1	14	D	8	53	Psc	11
288	14	Th.	5	55	K	5	04	G	11	09	30	8 <sup>3</sup> / <sub>4</sub>	9	2	16	F	9	34	Psc	12
289	15	Fr.	5	56	K	5	03	G	11	06	30	9 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>2</sub>	3	18	G	10	13	Ari	13
290	16	Sa.	5	57	K	5	01	G	11	04	30	10	10 <sup>1</sup> / <sub>4</sub>	4 <sup>M</sup> <sub>M</sub> 20	I	10	53	Ari	14	
291	17	S.	5	59	K	4	59	G	11	01	31	10 <sup>1</sup> / <sub>2</sub>	11	rises	—	11 <sup>P</sup> <sub>M</sub> 34	Ari	15		
292	18	M.	6	00	K	4	58	G	10	58	31	11 <sup>1</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>2</sub>	5 <sup>P</sup> <sub>M</sub> 16	E	—	—	—		
293	19	Tu.	6	01	K	4	56	G	10	55	31	11 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	5	40	D	12 <sup>M</sup> <sub>M</sub> 18	Tau	16	
294	20	W.	6	02	L	4	55	F	10	53	31	0 <sup>1</sup> / <sub>4</sub>	0 <sup>1</sup> / <sub>4</sub>	6	10	B	1	04	Tau	17
295	21	Th.	6	03	L	4	53	F	10	50	31	0 <sup>3</sup> / <sub>4</sub>	1	6	46	A	1	54	G'm	18
296	22	Fr.	6	05	L	4	52	F	10	47	32	1 <sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>4</sub>	7	33	A	2	48	G'm	20
297	23	Sa.	6	06	L	4	50	F	10	45	32	2 <sup>1</sup> / <sub>4</sub>	2 <sup>1</sup> / <sub>2</sub>	8	31	A	3	46	Cnc	21
298	24	S.	6	07	L	5	49	F	10	42	32	3 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>4</sub>	9	39	A	4	45	Cnc	22
299	25	M.	6	08	L	4	47	F	10	39	32	4 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>	10 <sup>M</sup> <sub>M</sub> 54	B	5	44	Leo	23	
300	26	Tu.	6	09	L	4	46	F	10	37	32	5 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	—	—	6	41	Leo	24	
301	27	W.	6	11	L	4	45	F	10	34	32	6 <sup>1</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>2</sub>	12 <sup>M</sup> <sub>M</sub> 12	D	7	36	Vir	25	
302	28	Th.	6	12	L	4	43	F	10	31	32	7 <sup>1</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	1	30	F	8	27	Vir	26
303	29	Fr.	6	13	L	4	42	F	10	29	32	8 <sup>1</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>4</sub>	2	48	H	9	18	Lib	27
304	30	Sa.	6	14	M	4	41	F	10	26	32	9	9 <sup>1</sup> / <sub>2</sub>	4	06	J	10	07	Lib	28
305	31	S.	6	16	M	4	39	F	10	24	32	10	10 <sup>1</sup> / <sub>2</sub>	5 <sup>M</sup> <sub>M</sub> 23	K	10 <sup>M</sup> <sub>M</sub> 58	Scor	29		



How the eye drinks up  
All color, here!  
in this desperate way  
Draining the cup,—  
As well she may,  
Now, at the near  
Turn of the year.

D.M.	D.W.	Aspects, Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
1	Fr.	St. Remigius. ☾ in Tides {10.3	<p>This is the month when apples really begin to flow to market. Perhaps you growers this year are ready to experiment with new sorts of packaging. The use of small cartons done up in cellophane has proved successful the last year or two. Apples so packed are infinitely more presentable on the fruit counter than when shown in the customary jumbled field pack. There is no question but what most of the bruising of our fruit is due to careless handling in the bushel packs. The storekeeper expects a large percentage of loss in these packs and the shopper is the one who pays for this. The grower for the good of his product should then get behind better handling, better packaging, a more attractive display of the fruit.</p> <p>Get as much manure spread on your land now as you have time for, and, unless the land be especially thin, plow it in.</p> <p>Take a little time off and attend the fairs. It will be a good thing for the whole family; and really, it is part of your business to do so.</p> <p>Don't let the potatoes stay too long in the ground, particularly if it be wet this month.</p> <p>Better get the young stock off the pastures before the grass withers. Under the best conditions stock will fatten readily this month.</p>
2	Sa.	Scallop season ♂Ψ ☾ on {10.9 Mild	
3	C	19th S.a. ♂. {11.3 [4th ♀ in ♂] for	
4	M.	St. Fr. of Assisi. ♂♀☾ ♀ Gr. Hel. {—	
5	Tu.	Jewish New Year ♂♂☾ ♂Ψ ☾ {10.3	
6	W.	Fast of Gedaliah ♂ Stat.in Hol. R.A. Mo. {10.3	
7	Th.	♂ ♀☾ ♀ Stat.in R.A. {9.6 10.4 season.	
8	Fr.	Korean Alphabet Inv. 1446 ♂♀☾ ☾ rides low. {8.9 9.8	
9	Sa.	St. Denis, Abraham Tides {8.3 9.2 Fine	
10	C	19th S.a. ♀. Misslon Sunday Tides {7.9 8.3	
11	M.	1000 Virgins Tides {7.7 8.5 fall	
12	Tu.	Columbus Day, Hol. N. Dak. Wisc. Tides {7.3 8.5	
13	W.	Yom Kippur ☾ in Apo. {8.1 8.6 weather.	
14	Th.	81 day dry spell began Oct. 1, 1946 ☾ Tides {8.4 8.8	
15	Fr.	10 days lost 1582 ☾ Tides {7.8 9.0	
16	Sa.	11 Nazi war criminals hung 1946 ☾ on Eq. Tides {9.1 9.1	
17	C	21st S.a. ♂. Hunter's moon Succoth Tides {9.4 9.2 Watch	
18	M.	St. Luke, Little Summer ☾ Tides {9.7 9.2 out	
19	Tu.	Cornwallis surr. 1781 ♂♀☾ Inf. Tides {9.9 for	
20	W.	Ernest Thompson Seton d. 1946 (23) ☾ Tides {9.1 10.0	
21	Th.	Constitution launched 1797 ☾ Tides {8.9 10.0	
22	Fr.	Capistrano swallows fly away ☾ Tides {8.7 9.9 storms.	
23	Sa.	♂♂☾ ♀ in ♂☾ ☾ Runs high Tides {8.5 9.8	
24	C	21st S.a. ♀. Ave. date first killing frost Tides {8.3 9.6	
25	M.	St. Crispin, 'Shmini Atzereth Tides {8.3 9.5 Much	
26	Tu.	Providence fire 1853 Simchath Torah Tides {8.4 9.5 more	
27	W.	Navy Day ♂☾☾ ☾ Tides {8.8 9.7 comfortable	
28	Th.	Simon & Jude in. ☾ Stat.in R.A. Tides {9.4 10.0	
29	Fr.	♂♀☾ ☾ in Per. ☾ on Eq. {10.0 10.3 indoors.	
30	Sa.	Old Time Ball Reading, Vt. ♂Ψ ☾ ♂♀☾ {10.4 10.6	
31	C	23rd S.a. ♂. All Hallow's Eve Nev. Tides {11.1 10.6	



1948]

NOVEMBER, ELEVENTH MONTH.

## ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.		0 /		Days.		0 /		Days.		0 /		Days.		0 /	
	1	14s. 33	7	16 24	13	18 04	19	19 33	25	20 50						
2	14 52	8	16 41	14	18 20	20	19 47	26	21 01							
3	15 11	9	16 58	15	18 35	21	20 00	27	21 12							
4	15 30	10	17 15	16	18 50	22	20 13	28	21 23							
5	15 48	11	17 32	17	19 05	23	20 26	29	21 33							
6	16 06	12	17 48	18	19 19	24	20 38	30	21 43							

- New Moon, 1st day, 1 h. 2 m., morning, E.
- ☽ First Quarter, 8th day, 11 h. 46 m., morning, E.
- Full Moon, 16th day, 1 h. 31 m., evening, E.
- ☾ Last Quarter, 23rd day, 4 h. 22 m., evening, W.
- New Moon, 30th day, 1 h. 44 m., evening, W.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGE 12, FOR ALL POINTS OUTSIDE NEW ENGLAND.

Day of Year	Day of Month	Day of the Week	☀		Key	☾		Key	Length of Days.		Sun Past.	Full Sea. Boston.		☽		Key	☽		Moon's Arc
			Rises.	h. m.		Sets.	h. m.		h. m.	h. m.		Morn.	Even.	Sets.	h. m.		Souths.	h. m.	
306	1	M.	6 17	M	4 38	E	10 21	32	10 <sup>3</sup> / <sub>4</sub>	11 <sup>1</sup> / <sub>4</sub>	sets	—	11 <sup>A</sup> / <sub>M</sub> 50	—	11 <sup>A</sup> / <sub>M</sub> 50	—	—	—	0
307	2	Tu.	6 18	M	4 37	E	10 19	32	11 <sup>1</sup> / <sub>2</sub>	—	5 <sup>P</sup> / <sub>M</sub> 23	B	12 <sup>P</sup> / <sub>M</sub> 45	B	12 <sup>P</sup> / <sub>M</sub> 45	—	—	—	1
308	3	W.	6 19	M	4 35	E	10 16	32	0 <sup>1</sup> / <sub>4</sub>	0 <sup>1</sup> / <sub>4</sub>	6 04	A	1 41	A	1 41	—	—	—	3
309	4	Th.	6 20	M	4 34	E	10 14	32	1	1	6 53	A	2 38	A	2 38	—	—	—	4
310	5	Fr.	6 22	M	4 33	E	10 11	32	1 <sup>3</sup> / <sub>4</sub>	2	7 50	A	3 35	A	3 35	—	—	—	5
311	6	Sa.	6 23	M	4 32	E	10 09	32	2 <sup>1</sup> / <sub>2</sub>	2 <sup>3</sup> / <sub>4</sub>	8 52	A	4 29	A	4 29	—	—	—	6
312	7	S.	6 24	M	4 31	E	10 06	32	3 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>4</sub>	9 57	B	5 19	B	5 19	—	—	—	7
313	8	M.	6 26	M	4 30	E	10 04	32	4 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>	11 <sup>P</sup> / <sub>01</sub>	D	6 06	D	6 06	—	—	—	8
314	9	Tu.	6 27	N	4 28	D	10 02	32	5 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>	—	—	6 49	—	—	—	—	—	9
315	10	W.	6 28	N	4 27	D	9 59	32	6 <sup>1</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>2</sub>	12 <sup>A</sup> / <sub>04</sub>	E	7 30	E	7 30	—	—	—	10
316	11	Th.	6 29	N	4 26	D	9 57	32	7 <sup>1</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	1 06	G	8 10	G	8 10	—	—	—	11
317	12	Fr.	6 31	N	4 25	D	9 55	32	8	8 <sup>1</sup> / <sub>4</sub>	2 07	H	8 50	H	8 50	—	—	—	12
318	13	Sa.	6 32	N	4 24	D	9 53	32	8 <sup>3</sup> / <sub>4</sub>	9	3 09	J	9 30	J	9 30	—	—	—	13
319	14	S.	6 33	N	4 23	D	9 51	31	9 <sup>1</sup> / <sub>4</sub>	9 <sup>3</sup> / <sub>4</sub>	4 14	K	10 13	K	10 13	—	—	—	14
320	15	M.	6 34	N	4 23	D	9 48	31	10	10 <sup>1</sup> / <sub>2</sub>	5 <sup>A</sup> / <sub>M</sub> 20	M	10 59	M	10 59	—	—	—	15
321	16	Tu.	6 36	N	4 22	D	9 46	31	10 <sup>1</sup> / <sub>2</sub>	11	rises	—	11 <sup>P</sup> / <sub>M</sub> 48	—	—	—	—	—	16
322	17	W.	6 37	N	4 21	D	9 44	31	11 <sup>1</sup> / <sub>4</sub>	11 <sup>3</sup> / <sub>4</sub>	4 <sup>P</sup> / <sub>M</sub> 45	A	—	—	—	—	—	—	—
323	18	Th.	6 38	N	4 20	D	9 42	31	11 <sup>3</sup> / <sub>4</sub>	—	5 29	A	12 <sup>A</sup> / <sub>M</sub> 42	A	12 <sup>A</sup> / <sub>M</sub> 42	—	—	—	17
324	19	Fr.	6 39	N	4 19	D	9 40	31	0 <sup>1</sup> / <sub>2</sub>	0 <sup>1</sup> / <sub>2</sub>	6 25	A	1 40	A	1 40	—	—	—	18
325	20	Sa.	6 40	O	4 19	C	9 38	30	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	7 31	A	2 40	A	2 40	—	—	—	19
326	21	S.	6 42	O	4 18	C	9 36	30	2	2 <sup>1</sup> / <sub>4</sub>	8 44	A	3 39	A	3 39	—	—	—	20
327	22	M.	6 43	O	4 17	C	9 34	30	3	3 <sup>1</sup> / <sub>4</sub>	10 01	C	4 37	C	4 37	—	—	—	21
328	23	Tu.	6 44	O	4 17	C	9 33	29	3 <sup>3</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>4</sub>	11 <sup>P</sup> / <sub>M</sub> 18	E	5 31	E	5 31	—	—	—	22
329	24	W.	6 45	O	4 16	C	9 31	29	4 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>	—	—	6 23	—	—	—	—	—	23
330	25	Th.	6 46	O	4 16	C	9 29	29	5 <sup>3</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>4</sub>	12 <sup>A</sup> / <sub>M</sub> 33	G	7 12	G	7 12	—	—	—	24
331	26	Fr.	6 48	O	4 15	C	9 28	29	6 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>4</sub>	1 48	I	8 00	I	8 00	—	—	—	25
332	27	Sa.	6 49	O	4 15	C	9 26	28	7 <sup>3</sup> / <sub>4</sub>	8 <sup>1</sup> / <sub>4</sub>	3 03	K	8 48	K	8 48	—	—	—	26
333	28	S.	6 50	O	4 14	C	9 24	28	8 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>4</sub>	4 18	L	9 38	L	9 38	—	—	—	27
334	29	M.	6 51	O	4 14	C	9 23	28	9 <sup>1</sup> / <sub>2</sub>	10 <sup>1</sup> / <sub>4</sub>	5 <sup>A</sup> / <sub>M</sub> 33	N	10 31	N	10 31	—	—	—	28
335	30	Tu.	6 52	O	4 13	C	9 21	27	10 <sup>1</sup> / <sub>2</sub>	11	sets	—	11 <sup>A</sup> / <sub>M</sub> 26	—	—	—	—	—	29

NOVEMBER hath 30 days.

[1948



The bough, being widowed in this wise,  
Still does not wear the look of grief:  
The starkness is a way of strength,  
Confronting the disastrous skies,  
Beyond the losing of the leaf.

It is ourselves who count the cost:  
The rich bough plundered of its own,  
Leaf-music perished from the air . . .  
The bough translates the treasure lost  
The ecstasies of strength atone.

D. M.	D. W.	Aspects, Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
1	M.	All Saints. ☉ Total Hol. Ecl. Tides {11.4	This is the month of harvest home and may this year see the bins of plenty overflow everywhere. And may the cup of hope be filled once more.
2	Tu.	Gen. Election Day Tides {11.4 Colder	
3	W.	St. Hubert. ♂♂☾ Tides {10.1 and 11.2	Well may the farmer reflect upon these things. In very truth the tiller of the soil, the grower of food, holds in his palm the destinies of the world. Our great industrial centers are completely dependent on him to feed the millions that in turn feed and guide the machines that produce the goods—the prosperity of the world. Let a man walk long with famine and he shall know many other hungers—hate, revenge, despair.
4	Th.	♀ Gr. el. ♂♂☾ Tides {9.7 and 10.8 signs	
5	Fr.	Fawkes Republ. win Day Congress 1946 ☾ Tides {9.1 and 10.2 of	At this season every sense is keened and quickened—The sultry sameness of the dog-days of August is over and done. November is all contrasts, sun and cloud shadows, the crackle of leaves in still forests, the sharp smell of smoke in the evening damp, black limbs on white moons, the first icy touch of snow on unmittened hands.
6	Sa.	St. Leonard. {8.6 [7th♀ in Peri. Snow	
7	C	24th S. a. T. ♀ Gr. Hel. Lat. N. Tides {8.2 or 9.1	Certainly if we do nothing else we should see now that all is snug and ready for winter. The countryman will still bank his house well with leaves or boughs. Cellars and sheds will still be crammed with wood, nor will the wise farmer deny himself the promise of several well-filled cider barrels. If winter is just around the corner, let it come.
8	M.	Good time for fall pruning H. C. Lodge d. 1924 Tides {8.0 rain.	
9	Tu.	Dr. Livingstone found 1871 ☾ in Apo. Tides {7.9 8.4 8.0 8.8	At this season every sense is keened and quickened—The sultry sameness of the dog-days of August is over and done. November is all contrasts, sun and cloud shadows, the crackle of leaves in still forests, the sharp smell of smoke in the evening damp, black limbs on white moons, the first icy touch of snow on unmittened hands.
10	W.	Armistice Day Tides {8.3 High	
11	Th.	St. Martin. ♂♀☽☾ on Eq. Tides {8.6 8.4 winds	At this season every sense is keened and quickened—The sultry sameness of the dog-days of August is over and done. November is all contrasts, sun and cloud shadows, the crackle of leaves in still forests, the sharp smell of smoke in the evening damp, black limbs on white moons, the first icy touch of snow on unmittened hands.
12	Fr.	Indian Summer begins Tides {8.9 8.6	
13	Sa.	24th S. a. ♀. if conceived before full of the moon. Tides {9.6 8.8 Some	At this season every sense is keened and quickened—The sultry sameness of the dog-days of August is over and done. November is all contrasts, sun and cloud shadows, the crackle of leaves in still forests, the sharp smell of smoke in the evening damp, black limbs on white moons, the first icy touch of snow on unmittened hands.
14	C	King's Name Day, Belgium J. T. Coolidge d. 1945 Tides {9.9 8.8 nice	
15	M.	Sea coal first used 1303 St. Paul wolves kill 3, 1891 Tides {10.1 8.8	At this season every sense is keened and quickened—The sultry sameness of the dog-days of August is over and done. November is all contrasts, sun and cloud shadows, the crackle of leaves in still forests, the sharp smell of smoke in the evening damp, black limbs on white moons, the first icy touch of snow on unmittened hands.
16	Tu.	Runs high Tides {10.2 8.7 10.8 days.	
17	W.	♂♂☾ ☾ Tides {8.7 10.2	At this season every sense is keened and quickened—The sultry sameness of the dog-days of August is over and done. November is all contrasts, sun and cloud shadows, the crackle of leaves in still forests, the sharp smell of smoke in the evening damp, black limbs on white moons, the first icy touch of snow on unmittened hands.
18	Th.	Bthday OFA & others Pres. at Temple Tides {8.6 10.0	
19	Fr.	26th S. a. T. "As this day so the winter" Tides {8.6 9.8	At this season every sense is keened and quickened—The sultry sameness of the dog-days of August is over and done. November is all contrasts, sun and cloud shadows, the crackle of leaves in still forests, the sharp smell of smoke in the evening damp, black limbs on white moons, the first icy touch of snow on unmittened hands.
20	Sa.	St. Cecelia. so the winter Tides {8.6 9.8	
21	C	St. Clement. ♂♂☾ Hol. Ind. Tides {8.7 9.7	At this season every sense is keened and quickened—The sultry sameness of the dog-days of August is over and done. November is all contrasts, sun and cloud shadows, the crackle of leaves in still forests, the sharp smell of smoke in the evening damp, black limbs on white moons, the first icy touch of snow on unmittened hands.
22	M.	Robin Hood d. 1247 Tides {8.9 9.6 Un-	
23	W.	Thanksgiving. St. Catherine in Peri. Tides {9.2 9.5	At this season every sense is keened and quickened—The sultry sameness of the dog-days of August is over and done. November is all contrasts, sun and cloud shadows, the crackle of leaves in still forests, the sharp smell of smoke in the evening damp, black limbs on white moons, the first icy touch of snow on unmittened hands.
24	Th.	♂♀☾ ☾ on Eq. Tides {9.7 9.6 settled	
25	Fr.	Beards first shaved 1357 Tides {10.2 9.7 and change-	At this season every sense is keened and quickened—The sultry sameness of the dog-days of August is over and done. November is all contrasts, sun and cloud shadows, the crackle of leaves in still forests, the sharp smell of smoke in the evening damp, black limbs on white moons, the first icy touch of snow on unmittened hands.
26	Sa.	1st S. in Ad. ☐♂☾ ♂♀☾ Tides {10.8 9.8	
27	C	Always rains Wayneburg, Pa. ♀ Gr. Hel. Lat. N. Tides {10.9 9.8 able	At this season every sense is keened and quickened—The sultry sameness of the dog-days of August is over and done. November is all contrasts, sun and cloud shadows, the crackle of leaves in still forests, the sharp smell of smoke in the evening damp, black limbs on white moons, the first icy touch of snow on unmittened hands.
28	M.	St. Andrews. ♂♂☾ ♀ in ☽ Tides {11.1 9.6	



1948] DECEMBER, TWELFTH MONTH.

## ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.		0 /		Days.		0 /		Days.		0 /		Days.		0 /	
	1	21	s.	52	7	22	39	13	23	11	19	23	26	25	23	23
2	22	01	8	22	46	14	23	15	20	23	27	26	23	21		
3	22	10	9	22	52	15	23	18	21	23	27	27	23	19		
4	22	18	10	22	57	16	23	20	22	23	27	28	23	16		
5	22	26	11	23	02	17	23	23	23	23	26	29	23	13		
6	22	33	12	23	07	18	23	24	24	23	25	30	23	09		

☾ First Quarter, 8th day, 8 h. 57 m., morning, E.

☾ Full Moon, 16th day, 4 h. 11 m., morning, W.

☾ Last Quarter, 23rd day, 12 h. 12 m., morning, W.

● New Moon, 30th day, 4 h. 44 m., morning, E.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGE 12, FOR ALL POINTS OUTSIDE NEW ENGLAND.

Day of Year	Day of Month	Day of the Week	☉		Key	☾		Key	Length of Days.	Sun East.	Full Sea, Boston.		☾	Key	☾	☾'s	Moon's			
			h.	m.		h.	m.				Morn	Even						h.	m.	h.
336	1	W.	6	53	O	4	13	C	9	20	27	11 $\frac{1}{4}$	11 $\frac{3}{4}$	4 $\frac{P}{M}$ 40	A	12 $\frac{P}{M}$ 23	Sag	1		
337	2	Th.	6	54	O	4	13	C	9	19	26	—	0	5	34	A	1	20	Cap	2
338	3	Fr.	6	55	O	4	13	C	9	17	26	0 $\frac{1}{2}$	0 $\frac{3}{4}$	6	36	A	2	16	Cap	3
339	4	Sa.	6	56	O	4	12	C	9	16	26	1 $\frac{1}{4}$	1 $\frac{1}{2}$	7	41	B	3	09	Aqr	4
340	5	S	6	57	P	4	12	B	9	15	25	2 $\frac{1}{4}$	2 $\frac{1}{4}$	8	46	C	3	58	Aqr	5
341	6	M.	6	58	P	4	12	B	9	14	25	3	3	9	51	E	4	43	Aqr	6
342	7	Tu.	6	59	P	4	12	B	9	13	24	3 $\frac{3}{4}$	4	10	53	F	5	26	Psc	7
343	8	W.	7	00	P	4	12	B	9	12	24	4 $\frac{3}{4}$	4 $\frac{3}{4}$	11 $\frac{P}{M}$ 55	H	6	06	Psc	8	
344	9	Th.	7	01	P	4	12	B	9	11	23	5 $\frac{1}{2}$	5 $\frac{3}{4}$	—	—	—	6	45	Ari	9
345	10	Fr.	7	02	P	4	12	B	9	10	23	6 $\frac{1}{4}$	6 $\frac{3}{4}$	12 $\frac{A}{M}$ 56	I	7	25	Ari	10	
346	11	Sa.	7	03	P	4	12	B	9	09	23	7 $\frac{1}{4}$	7 $\frac{1}{2}$	1	57	K	8	06	Ari	11
347	12	S	7	04	P	4	12	B	9	09	22	8	8 $\frac{1}{4}$	3	02	L	8	50	Tau	12
348	13	M.	7	04	P	4	12	B	9	08	22	8 $\frac{3}{4}$	9 $\frac{1}{4}$	4	09	N	9	38	Tau	13
349	14	Tu.	7	05	P	4	13	B	9	08	21	9 $\frac{1}{4}$	10	5	19	F	10	30	G'm	14
350	15	W.	7	06	P	4	13	B	9	07	21	10	10 $\frac{3}{4}$	6 $\frac{A}{M}$ 30	Q	11 $\frac{M}{M}$ 28	G'm	15		
351	16	Th.	7	06	P	4	13	B	9	07	20	10 $\frac{3}{4}$	11 $\frac{1}{2}$	rises	—	—	—	—	—	
352	17	Fr.	7	07	P	4	14	B	9	06	20	11 $\frac{1}{2}$	—	5 $\frac{M}{M}$ 18	A	12 $\frac{A}{M}$ 28	Cnc	16		
353	18	Sa.	7	08	P	4	14	B	9	06	19	0 $\frac{1}{4}$	0 $\frac{1}{4}$	6	32	A	1	30	Cnc	17
354	19	S	7	08	P	4	14	B	9	06	19	1	1	7	49	C	2	30	Leo	19
355	20	M.	7	09	P	4	15	B	9	06	18	1 $\frac{3}{4}$	2	9	08	E	3	27	Leo	20
356	21	Tu.	7	09	P	4	15	B	9	06	18	2 $\frac{3}{4}$	3	10	24	G	4	20	Vir	21
357	22	W.	7	10	P	4	16	B	9	06	17	3 $\frac{1}{2}$	4	11 $\frac{P}{M}$ 38	H	5	10	Vir	22	
358	23	Th.	7	10	P	4	16	B	9	06	17	4 $\frac{1}{2}$	5	—	—	—	5	57	Lib	23
359	24	Fr.	7	11	P	4	17	B	9	06	16	5 $\frac{1}{2}$	6	12 $\frac{A}{M}$ 52	J	6	45	Lib	24	
360	25	Sa.	7	11	P	4	17	B	9	06	16	6 $\frac{1}{2}$	7	2	06	L	7	33	Scor	25
361	26	S	7	12	P	4	18	B	9	06	15	7 $\frac{1}{2}$	8	3	19	N	8	23	Scor	26
362	27	M.	7	12	P	4	19	B	9	07	15	8 $\frac{1}{4}$	9	4	33	O	9	16	Sag	27
363	28	Tu.	7	12	P	4	19	B	9	07	14	9 $\frac{1}{4}$	10	5	45	Q	10	11	Sag	28
364	29	W.	7	12	P	4	20	B	9	08	14	10	10 $\frac{3}{4}$	6 $\frac{A}{M}$ 52	Q	11	08	Sag	29	
365	30	Th.	7	13	P	4	21	B	9	08	13	11	11 $\frac{1}{2}$	sets	—	—	12	04	Cap	0
366	31	Fr.	7	13	P	4	22	B	9	09	13	11 $\frac{1}{2}$	—	6 $\frac{P}{M}$ 25	A	12 $\frac{A}{M}$ 59	Cap	1		



Now that the light is rose,  
And winter's only flower  
Colors the dark hills,

And he will leave the light  
There . . . or think as much,  
Not knowing, not he, even,

The man's thought slows  
To the slow-fading hour;  
His tumult stills.

The flower beyond sight,  
Beyond scent, or touch,  
He has brought home from heaven.

D.M.	D.W.	Aspects, Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
1	W.	Nat'l Youth Day in Portugal $\delta\delta\psi$ Tides $\begin{cases} 11.0 \\ 9.4 \end{cases}$	We hope that you have kept your farm diary this year as well as careful accounting of your expenses. There is little gain in spending if you do not know where the money goes. A daily record of hours spent on each phase of your work will prove the wisdom of it in dollars and cents.
2	Th.	$\delta\psi\psi\psi\psi\psi$ rides low. $\begin{cases} 10.8 \\ 9.1 \end{cases}$ Colder	
3	Fr.	Mary Baker Eddy 1910 Tides $\begin{cases} 9.1 \\ 10.5 \end{cases}$ and	Let a man stick to his last. How foolish, for instance, that an ambitious orchard grower should shackle himself with barn chores and a lot of livestock. Or that a man whose barn and fences are primarily constructed for the raising of sheep, should confuse himself by going in heavily on the same land for steers or cattle.
4	Sa.	John L. Lewis fined 1946 Tides $\begin{cases} 8.3 \\ 10.0 \end{cases}$ stormy	
5	C	2d S. in Ad. Tides $\begin{cases} 8.5 \\ 9.5 \end{cases}$	To any farmer we would say:—Beware of too many pets. We do not speak of your dog and your cat, but of your dogs and cats, pet pigs and bottle fed lambs that you will never have the heart to kill and tame raccoons and de-skunked skunks and wing-tipped crows. No sense in saying the boy and girl take care of them. Let the boy and girl put that time in working for you.
6	M.	St. Nicholas. Tides $\begin{cases} 8.3 \\ 9.0 \end{cases}$	
7	Tu.	Pearl Harbor Tides $\begin{cases} 8.2 \\ 8.6 \end{cases}$	So with your accounting, you will count yourself a practical man, but at Christmas time pray forget to be so. Give from the heart, not the head. To each member of the family give less what is needed than what is longed for beyond expectations. So you will have peace in your heart, and joy in the home throughout the New Year.
8	W.	Conception in Apo. Tides $\begin{cases} 8.2 \\ 8.4 \end{cases}$	
9	Th.	Virgin Mary on Eq. $\begin{cases} 8.2 \\ 8.1 \end{cases}$ North	To any farmer we would say:—Beware of too many pets. We do not speak of your dog and your cat, but of your dogs and cats, pet pigs and bottle fed lambs that you will never have the heart to kill and tame raccoons and de-skunked skunks and wing-tipped crows. No sense in saying the boy and girl take care of them. Let the boy and girl put that time in working for you.
10	Fr.	Hugh Bewitt Banished 1640 Damon Runyon d. 1946 Tides $\begin{cases} 8.4 \\ 8.1 \end{cases}$ winds	
11	Sa.	♀ in Aph. Tides $\begin{cases} 8.7 \\ 8.1 \end{cases}$ blow	To any farmer we would say:—Beware of too many pets. We do not speak of your dog and your cat, but of your dogs and cats, pet pigs and bottle fed lambs that you will never have the heart to kill and tame raccoons and de-skunked skunks and wing-tipped crows. No sense in saying the boy and girl take care of them. Let the boy and girl put that time in working for you.
12	C	3d S. in Ad. $\delta\psi\psi$ Sup. Tides $\begin{cases} 9.0 \\ 8.1 \end{cases}$	
13	M.	St. Lucy. Tides $\begin{cases} 9.3 \\ 8.8 \end{cases}$	To any farmer we would say:—Beware of too many pets. We do not speak of your dog and your cat, but of your dogs and cats, pet pigs and bottle fed lambs that you will never have the heart to kill and tame raccoons and de-skunked skunks and wing-tipped crows. No sense in saying the boy and girl take care of them. Let the boy and girl put that time in working for you.
14	Tu.	George Washington died 1799 Tides $\begin{cases} 9.7 \\ 8.4 \end{cases}$ Calm	
15	W.	Bill of Rights 1791 Tides $\begin{cases} 10.0 \\ 8.5 \end{cases}$ and	To any farmer we would say:—Beware of too many pets. We do not speak of your dog and your cat, but of your dogs and cats, pet pigs and bottle fed lambs that you will never have the heart to kill and tame raccoons and de-skunked skunks and wing-tipped crows. No sense in saying the boy and girl take care of them. Let the boy and girl put that time in working for you.
16	Th.	The Halycon $\delta\psi\psi$ runs high. Tides $\begin{cases} 10.3 \\ 8.7 \end{cases}$	
17	Fr.	is Stat. in R.A. Tides $\begin{cases} 10.5 \\ 8.1 \end{cases}$ milder.	To any farmer we would say:—Beware of too many pets. We do not speak of your dog and your cat, but of your dogs and cats, pet pigs and bottle fed lambs that you will never have the heart to kill and tame raccoons and de-skunked skunks and wing-tipped crows. No sense in saying the boy and girl take care of them. Let the boy and girl put that time in working for you.
18	Sa.	breeding Thorne Glacier disc. 1930 Tides $\begin{cases} 8.8 \\ 10.6 \end{cases}$	
19	C	4th S. in Ad. Tides $\begin{cases} 8.9 \\ 10.5 \end{cases}$ Cold	To any farmer we would say:—Beware of too many pets. We do not speak of your dog and your cat, but of your dogs and cats, pet pigs and bottle fed lambs that you will never have the heart to kill and tame raccoons and de-skunked skunks and wing-tipped crows. No sense in saying the boy and girl take care of them. Let the boy and girl put that time in working for you.
20	M.	Forefather's Day tomorrow $\delta\psi\psi$ in Peri. $\begin{cases} 9.0 \\ 10.8 \end{cases}$	
21	Tu.	St. Thomas. WIN. 5.34 BEG. P.M. en. $\begin{cases} 9.1 \\ 10.1 \end{cases}$	To any farmer we would say:—Beware of too many pets. We do not speak of your dog and your cat, but of your dogs and cats, pet pigs and bottle fed lambs that you will never have the heart to kill and tame raccoons and de-skunked skunks and wing-tipped crows. No sense in saying the boy and girl take care of them. Let the boy and girl put that time in working for you.
22	W.	1st real snow 1946—21st Day Ember $\begin{cases} 9.3 \\ 9.8 \end{cases}$ [21] $\delta\psi\psi$	
23	Th.	$\delta\psi\psi$ $\delta\psi\psi$ $\begin{cases} 9.4 \\ 9.5 \end{cases}$ increases.	To any farmer we would say:—Beware of too many pets. We do not speak of your dog and your cat, but of your dogs and cats, pet pigs and bottle fed lambs that you will never have the heart to kill and tame raccoons and de-skunked skunks and wing-tipped crows. No sense in saying the boy and girl take care of them. Let the boy and girl put that time in working for you.
24	Fr.	Ember Day $\begin{cases} 9.6 \\ 9.2 \end{cases}$ [23] rd on Icy roads	
25	Sa.	Christmas. Tides $\begin{cases} 9.8 \\ 9.1 \end{cases}$ un-	To any farmer we would say:—Beware of too many pets. We do not speak of your dog and your cat, but of your dogs and cats, pet pigs and bottle fed lambs that you will never have the heart to kill and tame raccoons and de-skunked skunks and wing-tipped crows. No sense in saying the boy and girl take care of them. Let the boy and girl put that time in working for you.
26	C	1st S. at Ch. St. Stephen $\begin{cases} 9.8 \\ 9.0 \end{cases}$ in $\psi$	
27	M.	St. John. Chanukah Tides $\begin{cases} 10.8 \\ 8.9 \end{cases}$ pleasant	To any farmer we would say:—Beware of too many pets. We do not speak of your dog and your cat, but of your dogs and cats, pet pigs and bottle fed lambs that you will never have the heart to kill and tame raccoons and de-skunked skunks and wing-tipped crows. No sense in saying the boy and girl take care of them. Let the boy and girl put that time in working for you.
28	Tu.	C. J. Connick d. 1945 $\delta\psi\psi$ Tides $\begin{cases} 10.5 \\ 8.9 \end{cases}$	
29	W.	Childermas. Tides $\begin{cases} 10.6 \\ 8.9 \end{cases}$ low. Rain	To any farmer we would say:—Beware of too many pets. We do not speak of your dog and your cat, but of your dogs and cats, pet pigs and bottle fed lambs that you will never have the heart to kill and tame raccoons and de-skunked skunks and wing-tipped crows. No sense in saying the boy and girl take care of them. Let the boy and girl put that time in working for you.
30	Th.	87 cons. zero days beg. N.D. 1934 $\delta\psi\psi$ $\begin{cases} 10.5 \\ 8.9 \end{cases}$ or	
31	Fr.	$\delta\psi\psi$ (Gr. Hel. Lat. S. $\delta\psi\psi$ $\begin{cases} 10.4 \\ 8.9 \end{cases}$ snow.	

*Continued from page 6*

serious floods and published the interesting Snow Depth Map which appears herewith on page 6. Fortunately, Spring was late and long—preventing the feared floods and to all appearances helping all around except the all important pollination work in the orchards by the bees who apparently like it warm, early.

## NEXT WINTER'S WEATHER

The past four winters—first "mild," then "turbulent," then "wet," and last year "old fashioned" in most places, followed the predictions of Mr. Weatherwise. This coming winter he forecasts as "white, long, and cold" but cautions, in addition—something he has rarely done—that the summer of 1948 may be one of severe crop failures . . . recalling that this coming summer falls in a year of great sun spot activity as did the cold summer of 1816 when great spots could be seen on the sun and it snowed in July. Sunspot activity is said to run in 22 year cycles which makes this year of 1948 the sixth high activity year since 1816, 132 years ago. We pass along Mr. Weatherwise's caution to you for whatever interest it may hold. As we have long said, you shall know the season's nature only when it is upon you.

## APPLIED CLIMATOLOGY

The United States Weather Bureau has a new service operated under Merrill Barnard, Chief of the Division of Climatological and Hydrologic Services, Washington 25, D. C. This new service is a direct development of uses found for climatological data during the war. The new techniques, for example, were successfully used by the Armed Forces to select the week of the year when an invasion attempt would be least likely to be hindered by adverse weather conditions. In this new service, Applied Climatology, the observations of past weather are analyzed as may be required to assist in answering a specific problem such as the

Selection of Industrial Sites,

Preparation of Purchasing Schedules for Seasonal Goods,

Design of Building Codes,

Planning distribution of Perishables,

Synchronizing crop planting and harvesting with most favorable Market Conditions,

Evaluating Marine Risks.

Since the Weather Bureau is a public agency, it can not undertake the solution of specific problems, not of general public interest, for private individuals, firms or agencies at public expense.

The Bureau lawfully can, however, make statistical analyses of weather records—when a climatological analysis is not available from other sources—for private interests provided the Government is reimbursed. Under this procedure the following steps are to be taken:

Discussion of the Weather Problem and Methods of Data Processing.

Estimate of Cost.

Application to Secretary of Commerce for Project Approval.

Formulation of Simple Contract.

Delivery of Certified Check for Estimated Cost.

Accomplishment of Project.

Adjustment of Actual Cost to Estimate.

The Bureau is careful to explain that Applied Climatology is an applied science and rests on the "established fact that the weather of the future will be reflected by the weather of the past. This does not mean that the weather of a particular year, month, or day, will repeat itself with the regularity of the almanac. It has been long demonstrated that weather does not occur with the regularity of cycles.

"Applied Climatology provides basic information for planning many operations in terms of a 'calculated weather risk'—the ranges of probabilities and the extremes within which the operation should be conducted, and expressed, not in climatological terms such as rainfall or temperature but in the operators' own terms such as tons of fuel required, acre feet of irrigation water needed, etc. Considerable emphasis is placed by the Weather Bureau on that fact that such 'calculated weather risks' are not long range weather forecasts to be applied to weather immediately ahead."



## WHY WE HAVE LEAP YEAR

Leap Year comes upon us every fourth year. You probably know less about its origin than about the popular myths which have come to surround it. That it is called Leap Year is not, as many suppose, somehow connected with the fact that unattached females may propose to males at this time (and probably leap at the opportunity)—it is so called because the added day (February 29) makes every day after it "leap over" the day of the week in which it would come in common years.

Before going into the calendar reason for Leap Year, let us consider a little further this business of unattached females. For some obscure reason a law was passed in Scotland way back in 1288 which gave unwedded females the right to propose marriage to any male not married or engaged. France and then Genoa and Florence in the fifteenth century legalized this quaint custom. In Scotland, at least, any unattached man refusing the offer had to pay a penalty of one pound or less (according to his means) to the female proposing. Elsewhere, a silk dress seems to have been the penalty. This must have been quite a "racket," and we suppose many unprepossessing girls gathered pounds and silks enough to last them a lifetime. Of course, nowadays only the reports of such old-time goings on are attached to Leap Year. However, our advice to susceptible or weak-willed males is to take to the woods and remain there until 1949.

In New England there is a special superstition for Leap Year. Beans grow on the wrong side of the pod. You, reader, can easily check this for yourself . . . once you have determined which is the "right" side of the pod.

Now as to the true origin of Leap Year. Our calendar goes directly back to Julius Caesar, and is known as the Julian Calendar. He thought it up one evening in 45 B.C. between campaigns. The basis for the calendar was the fact that in one year the earth made one complete revolution about the sun, at the same time spinning on its axis. The trouble is in one entire revolution about the sun it does not turn an exact number of times on its axis. If it did, we should not have to give you this long-winded explanation of Leap Year. Each year would have been exactly 365 days of 24 hours. Caesar from his easy chair noted that the actual time for each year was  $365\frac{1}{4}$  days or 365 days and 6 hours, and so he decreed that the Roman year should normally consist of 365 days but that every fourth should contain 366.

We wish that were all there were too it. Unfortunately it isn't. The true period of the earth's revolution around the sun is not  $365\frac{1}{4}$  days as Caesar with his love for round figures tossed at us but 365 days, 6 hours, 9 minutes and 9.5 seconds. This is the sidereal year (pronounced sighed-eery-all) and is the time taken by the sun to complete the circuit of the heavens from a given star back to the same star.

However, the year we use in everyday life, is based on the seasons and is about twenty minutes shorter than the sidereal year. Its length is 365 days, 5 hours, 48 minutes, 46 seconds. Thus the average year in the Julian calendar was 11 minutes and 14 seconds or 0.0078 day too long. This causes an error of about three days every 385 years, and in the course of 1000 years the Julian calendar loses nearly 8 days. It was Pope Gregory XIII who decreed that the rule of adding an extra day every fourth year should be followed except in the case of those century years whose number is not divisible by 400. Thus the year 2000 remains a leap year, but 2100, 2200, and 2300 will have only 365 days.

Well, that's Leap Year for you. Don't forget to check up on your bean pods.

## FEW LONG HOLIDAY WEEKENDS IN 1948

Last year was bad enough about dealing out Monday holidays so that tired workers could spread rest periods over a weekend and Monday but this year is worse. There are none except Patriots' Day and Labor Day. New Year's Day, Lincoln's Birthday, Bunker Hill Day, Armistice Day, and Thanksgiving all fall on Thursdays; Washington's Birthday, Memorial Day, Independence Day on Sundays; St. Patrick's is on a Wednesday, and Christmas comes on Saturday. In 1947, there were two long holiday weekends—that of Memorial Day and July 4th.

## FAST AND THANKSGIVING DAYS

The celebration of Fast and Thanksgiving Days begins early. In the Roman Empire, the Victory of Constantine was commemorated at Constantinople always on September 24th as was a day of gratitude for cessation of earthquakes celebrated at Alexandria on July 21. Holinshed's Chronicles tell of a fast season during the reign of Henry the Third, A.D. 1258—and the deliverance of the Royal Family from the diabolical Gunpowder Plot on November 5th, 1605, brought about a proclamation that this day be kept one of "public thanksgiving to Almighty God" which has lasted from that day to this.

When Gregory the Great, in the year 598 despatched Augustine on his mission to Ethelbert, king of Kent, the observances of the Roman Church went with him. The pagan Saxons, however, in substituting the Christian festivals for their heathen feasts were allowed to retain most of the pagan manner of celebration. It was not until very late in the day—practically until our own Pilgrims sailed for these shores that our Christian forefathers came to insist that the Sabbath and other Holy Days be observed in a religious rather than roisterous manner.

It was the Puritan reaction against the non-religious observance of these days in the Mother country which explain much if not most of the severity of their religious observance once they were safely on this side of the water.

At the time of the Mayflower voyage the Court of King James had set fashions greatly to the liking of the peasant Sabbath.

"The priestes and clerkes to daunce have no shame;

The frere or monke in his frocke and cowle

Must daunce, and the doctor lepeh to play the foole."

Some of the prevailing immodest customs would scarcely bear recording.

Added to the strictly religious observance of the Sabbath and other Church Days in New England, there soon came into being other Fast and Thanksgiving Days. One of these was in 1623 when for six long weeks beginning the third week of May "there scarce fell any drop of rain," and there was great heat. A day was appointed for "every good man to enter privately into an examination with his own estate between God and his conscience . . . and to humble ourselves before the Lord by fasting and prayer." This exercise lasted some eight or nine hours and on the next morning began a spell of rain which lasted for 14 days. Such was the bounty and goodness of God. The date of that first fast day, was Wednesday, July 16, 1623 (Old Style Calendar)—corroboration for which we will find in the diary of Bradford, forefather of the present Governor of Massachusetts. The 30th of the same month was appointed one of thanksgiving. In May, 1629, the good ship Talbot with above "a hundred planters as passengers" bound for America encountered grief on board (the death of the minister's child) as well as contrary winds. It is said the 21st was set aside as a day of consecration. Calm prevailed throughout the day but favorable wind sprang up towards nightfall on that day now thought of as the one of which the first sea fast was ever held. Again in the Spring of 1633, the settlers experienced another severe drought. Upon the observance of "poring out water before the Lord . . . at that very instant the Lord showered down water on the Gardens." Thanksgiving was held in this year on October 16th—the first public thanksgiving of the Bay Colony in which the gathering of the harvest bore a conspicuous part. The public fast day of December 13th, 1638, did not ameliorate the weather or the internal difficulties of the local ministers for which it was chiefly held. A great storm arose that very night of wind and snow. The following April 4th was accordingly agreed upon by the General Court on which these same . . . "novelties, . . . contempt of authorities, . . . and troubles in other part . . ." might be prevailed against. The troubles referred to fashions (sleeve, ruffles, laces) certain Bostonians were attempting to wear to establish themselves in the New World as gentlemen inasmuch as they had been unable in the Old to gain such distinction. Democracy prevailed in the banishment of this attempt at class division—and Mr. Vane, the Royal Governor who had so unfortunately acquiesced in it in allowing Mrs. Hutchinson to carry his arguments for it even unto the pulpit. And gradually most of these days, if for no other reason than their increasing number, fell out of favor.

In general it may be said that our annual Thanksgiving Day now observed as a National custom dates back to about forty years after the memorable harvest feast of the Puritans in 1633. As the years progressed the different states held this Thanksgiving on different Fall

*(Continued on page 91)*

## GESTATION AND REPRODUCTION TABLE

	Proper age for first mating	Period of power of reproduction in years	No. of females for one male	Period of gestation and incubation		
				Shortest days	Mean days	Longest days
Mare . . . . .	3 yrs.	10 to 12	20 to 30	325	336	352
Stallion . . . . .	4 "	12 to 15		235	282	300
Cow . . . . .	18-24 mos.	10 to 14	30 to 40	145	147	152
Bull . . . . .	12-18 "	10 to 12		110	114	120
Ewe . . . . .	18 "	6	8 to 12	147	151	155
Ram . . . . .	12-14 "	7		356	367	378
Sow . . . . .	9 "	6	20 to 30	309	315	325
Boar . . . . .	9 "	6		58	63	67
She Goat . . . . .	18 "	6	6 to 8	58	60	64
He Goat . . . . .	18 "	5		25	30	35
Ass . . . . .	3 yrs.	10 to 12	30	19	21	24
Jack . . . . .	4 "	12 to 15		24	26	30
She Buffalo . . . . .	18-24 mos.	8	12 to 18	28	30	32
Bitch . . . . .	16-18 "	8		27	30	33
Dog . . . . .	12-16 "	8	5 to 6	16	18	20
She Cat . . . . .	12 mos.	6		25	28	30
He Cat . . . . .	12 "	10	5 to 6	20	23	25
Doe Rabbit . . . . .	6 "	5 to 6		40	42	45
Buck Rabbit . . . . .	6 "	5 to 6	5 to 6	22	30	34
Cock . . . . .	6 "	5 to 6		19	21	24
Hen . . . . .	6 "	5 to 6	24	26	30	
Turkey . . . . .			28	30	32	
Duck . . . . .			27	30	33	
Goose . . . . .			16	18	20	
Pigeon . . . . .			25	28	30	
Pea Hen . . . . .			20	23	25	
Guinea Hen . . . . .			40	42	45	
Swan . . . . .						
Hen or Duck's Eggs . . . . .				22	30	34

## DURATION AND FREQUENCY HEAT SEASON

	<i>In heat for</i>	<i>Reoccurs if not bred</i>
Mares	2 to 11 days	3 to 6 weeks
Cows	1 to 2 days	3 weeks
Ewes	2 days	17-28 days
Sows	3 days	21 days
Bitches	5-7 days	6 months
Cats	3-12 days	4 months

## AVERAGE DATES FIRST AND LAST KILLING FROSTS

Boston . . . . .	Apr. 14 — Oct. 26	Richmond . . . . .	Mar. 31 — Nov. 2
Albany . . . . .	Apr. 24 — Oct. 15	Raleigh . . . . .	Mar. 27 — Nov. 5
Harrisburg . . . . .	Apr. 9 — Oct. 28	Macon . . . . .	Mar. 14 — Nov. 14
Cincinnati . . . . .	Apr. 8 — Oct. 23	Del Rio . . . . .	Feb. 23 — Nov. 27
Toledo . . . . .	Apr. 22 — Oct. 18	Helena . . . . .	May 7 — Sept. 29
Chicago . . . . .	Apr. 16 — Oct. 19	Santa Fe . . . . .	Apr. 25 — Oct. 19
Detroit . . . . .	Apr. 28 — Oct. 15	Tucson . . . . .	Mar. 11 — Nov. 9
Duluth . . . . .	May 6 — Oct. 5	Yuma . . . . .	Jan. 20 — Dec. 20
Bismarck . . . . .	May 11 — Sept. 21	Portland, Ore. . . . .	Mar. 15 — Nov. 21
Omaha . . . . .	Apr. 14 — Oct. 15	San Francisco . . . . .	Jan. 13 — Dec. 29
Portland, Maine . . . . .	Apr. 19 — Oct. 17	Parkersburg . . . . .	Apr. 17 — Oct. 18
Hartford . . . . .	Apr. 20 — Oct. 13	Oklahoma City . . . . .	Mar. 30 — Nov. 3
Evansville . . . . .	Apr. 5 — Oct. 29	Denver . . . . .	May 3 — Oct. 10
Cairo . . . . .	Mar. 31 — Oct. 29	Spokane . . . . .	Apr. 14 — Oct. 13
Minneapolis . . . . .	Apr. 27 — Oct. 10	Salt Lake City . . . . .	Apr. 18 — Oct. 20
Concord, N. H. . . . .	May 7 — Oct. 3		



## DIGEST OF LATEST AVAILABLE FISH AND GAME LAWS

Open seasons include both dates. "Rabbit" includes "hare"; "quail" includes "partridge" in South; "grouse" includes Canada grouse, sharp-tailed, ruffed (known as partridge in North and pheasant in South) and other members of family except prairie chickens, ptarmigan and sage hen. The Fish and Game Commissions of each state have verified these figures (except where indicated) but as many states do not complete laws for 1948 until after our press date, VERIFY in every case for changes even though the changes from year to year are not as a rule sensational. Limits are daily except those in italics which are seasonal.

Migratory Bird Laws for 1947 will not be released until August. For details consult local authorities or write Department of Interior, Fish & Wildlife Service, Chicago 54, Illinois.

♂ males only. † local exceptions. ‡ non-resident exceptions. # Pounds. x unverified.

State and Species	Seasons	Limits, Season	State and Species	Seasons	Limits, Season
<b>Alabama</b>			<b>Colorado</b>		
Deer	Nov. 20-Jan. 10 † ♂	3	Deer	Oct. 11-Oct. 26†	†
Rabbit	Oct. 1-Feb. 20		Elk	Oct. 11-Oct. 26†	†
Squirrel	{ N-Oct. 1-Jan. 1 S-Oct. 15-Jan. 15		Bear	Oct. 11-Oct. 26†	†
Opossum, Rac- coon	Oct. 1-Feb. 20		Quail	Closed	
Muskrat (fur), Otter	Nov. 20-Jan. 31		Pheasant	Nov. 16-not set	
Quail	Nov. 20-Feb. 20		Rabbit	Oct. 1-Feb. 1	
Turkey	{ Nov. 20-Jan. 1 ♂† Mar. 20-Apr. 15	5	All fish	May 25-Oct. 1	20
Bass	No closed season	10	(Lakes under 7000)	ft. open all year)	
W.I., str. bass	No closed season	15	<b>Connecticut</b>		
Bream	No closed season	30	Rabbit	Nov. 1-Dec. 31	30
Crappie, wh. pch.	No closed season	20	Squirrel	Oct. 23-Nov. 27	30
Rck, bass, g.-eye	No closed season	20	Quail	Dates not set	18
W.-eye pike	No closed season	15	Pheasant ♂	Oct. 23-Nov. 27	15
			Grouse	Oct. 23-Nov. 27	15
			Trout	Apr. 17-July 15	10
			Lake trout	Apr. 17-Aug. 31	3
			Pickereel	Apr. 17-Feb. 9	6
			Wall-eye	Apr. 17-Feb. 9	6
			Bass, black	July 1-Oct. 31	10
			Bass, striped	No closed season	10
			Perch	Apr. 17-Feb. 9	15
			Salmon, sockeye	Apr. 17-Aug. 31	5
			Shad	Apr. 20-July 15	
			Alewives	Mar. 1-May 31	
<b>Alaska</b>			<b>Delaware</b>		
Deer	Sept. 1-Nov. 15 ♂†	2†	Rabbit	Nov. 15-Dec. 31	
Moose	{ N-Sept. 1-20, S.-Dec. 1-7 ♂†	1	Squirrel	Sept. 15-Nov. 1	
Bear, br. & grz.	Sept. 1-June 20†	2	Quail	Nov. 15-Dec. 31	
Bear, black	{ E. of 138° Sept. 1-June 20†	2	Pheasant	Nov. 15-Dec. 31 ♂	6
Polar Bear	No closed season†		Bass	June 25 Feb. 1	6
Caribou	{ Aug. 20-Sept. 30† Dec. 1-15	1†	Pike, pkl. w. eyed pike	June 25 Mar. 1	6
Mountain goat	Sept. 1-Oct. 31†	1†	Trout	Apr. 16 Aug. 15	6
Mountain sheep	Aug. 20-31 ♂†	1			
Rabbit	No closed season†				
Grouse & Ptarm'gn	†	10			
Trout & grayling	†	†			
<b>Arizona</b>			<b>Florida</b>		
Deer	{ N-Oct. 10- Oct. 25 ♂† S-Nov. 1- Nov. 17 ♂†	1	Deer, male	Nov. 20-Dec. 31† ♂	2
Rabbit	No closed season†		Squirrel	Nov. 20-Jan. 31†	13
Abert Squirrel <sup>o</sup>	No open season		Quail	Nov. 20-Jan. 31†	12
Turkey	No open season		Turkey	Nov. 20-Feb. 15†	4
Quail	Nov. 16-Nov. 30†	10	Bass, black	May-Feb. 28	8
Trout	May 24-Sept. 30†	10	Bream	June 1-Mar. 31†	20
Bass	No closed season	10	Speckled perch	June 1-Mar. 31†	20
Bluegill	No closed season	20	<b>Georgia</b>		
Chan. Catfish	No closed season	10	Deer	Oct. 15-Jan. 15† ♂	2
			Bear	Nov. 20-Feb. 28†	
			Squirrel	Sept. 15-Jan. 15†	
			Quail	Nov. 20-Feb. 28	
			Grouse	Nov. 20-Jan. 15	
			Turkey	Nov. 1-Feb. 28†	2
			Rabbit	No closed season	
			Bass, striped	No closed season†	10
			Bass, black	No closed season†	10
			Bass, rock	No closed season†	10
			Bass, Ky. or r- eye	No closed season†	10
			Bream, perch	No closed season†	25
			Crappie	No closed season†	15
			Pickereel	No closed season†	15
			Wall-eye <sup>d</sup> pike	No closed season†	3
			Muskellunge	No closed season†	2
			Trout	Apr. 1-Nov 15†	10
<b>Arkansas</b>			<b>Idaho</b>		
Deer	{ Nov. 2-Mon- Sat. nito June 1-June 15†	1	Deer, elk	Local seasons	1
Squirrel	{ Sept. 1-Jan. 1† Dec. 1-Jan. 15		Antelope	Local seasons	
Quail	Closed		Bear	Jan. 1-Dec. 31†	1
Turkey	May 16-Mar. 15	15	Goat	Local seasons	1
Bass	May 1-Oct. 31	6	Sheep	No open season†	
Trout	No closed season	6	Quail	Local seasons.	
Pike	No closed season	6	Pheasant	Local seasons	
Jack salmon	No closed season	6			
<b>California</b>					
Deer	Aug. 7-Sept. 15 ♂†	2			
Antelope	Limited ♂				
Bear	Oct. 15-Dec. 31†	2			
Rabbit	Nov. 15-Dec. 31	15			
Quail	Nov. 20-Dec. 15	10			
Pheasant	Nov. 20-27 ♂				
Trout (exc. gldn.) (Sp. wutr soas.)	May 1-Oct. 31	15			
Trout, golden	July 1-Sept. 30†	20			
Salmon	†	2			
Bass, black	May 29-Oct. 31†	10			
Bass, striped	No closed season	5			

<b>Idaho (cont.)</b>					
Hun. partridge	Local seasons				
Sage hen	Local seasons				
Pheasant	Local seasons				
Trout	May 21-Nov. 15†	25			
		or			
		15#			
		1			
Bass (l-mouth)	July 1-Apr. 30†	15			
		or			
		15#			
		1			
Bass (s-mouth)	No open season				
Salmon (steelhd.)	Local seasons	2			
<b>Illinois</b>					
Rabbit	Nov. 11-Jan. 31				
Squirrel	Aug. 15-Nov. 15†				
Quail	Nov. 11-Dec. 11				
Pheasant	Nov. 11-Nov. 20†				
Bass, black	May 15-Mar. 31†	10			
Bass (rk., wrmth. wh., yel.)		50			
crappies,	No closed season	(75			
sunf., blue-		in			
gills		ag-			
Buffalo, bullhd.,		g.)			
eatf., carp,					
shphd.	No closed season				
Trout	Apr. 1-Sept. 30	8			
Perch	No closed season				
Pickrel	May 1-Feb. 28	10			
Wall-eyed pike		in			
		ag-			
		g.)			
Lake tr., white-	No closed season				
fish					
<b>Indiana</b>					
Rabbit	Nov. 10-Jan 10				
Squirrel	Dates not set				
Quail	Nov. 10-Dec. 20				
Pheasant	Dates not set				
Hun. partridge	Nov. 10-Dec. 20				
Bluebill, rd-		25			
eared sunf.,		in			
crappie, rock	June 16-Apr. 30	ag-			
bass		g.)			
Bass, silv. or		6			
yel., bl., Ky.,	June 16-Apr. 30	in			
wh. or str.		ag-			
		g.)			
Pike-perch	June 16-Apr. 30	6			
Pike or pickrel	June 16-Apr. 30	6			
Yellow perch	June 16-Apr. 30				
Trout	May 1-Aug. 31	15			
Chan. catfish	No closed season				
<b>Iowa</b>					
Rabbit	Aug. 1-Mar. 1	10			
Squirrel	Sept. 15-Nov. 15	6			
Pheasant	Oct. 28-Oct. 30†				
Quail	Nov. 1-Nov. 30				
Hungarian					
partridge	Nov. 12-Nov. 14†	8			
Trout	May 1-Oct. 31	8			
Northern pike	May 15-Nov. 30†	8			
Bass	June 15-Nov. 30†	5			
Pike, sand or					
saug., w.-eyed	May 15-Nov. 30†	8			
Bullheads	No closed season	25			
Yell. pch. and					
bass, yellow					
str., silver	May 15-Nov. 30†	15			
Crp., cal. bass	June 15-Nov. 30†	15			
Catfish	Apr. 15-Nov. 30†	15			
<b>Kansas</b>					
Squirrel	June 15-Nov. 30	10			
Quail	Intermittent				
Pheasant	Oct. 30, 31-Nov. 1, 23	3			
Bass	May 26-Apr. 24	10			
<b>Kentucky</b>					
Rabbit	Nov. 20-Jan. 15	8			
Squirrel	Aug. 15-Nov. 30	6			
Quail	Nov. 20-Jan. 15	10			
Ruffed Grouse	Dec. 1-Dec. 15	2			
Bass, black	May 30-Apr. 30	10			
Trout	May 30-Apr. 30	10			
W.-eyed pike,		15			
sand pike or	May 30-Apr. 30	15			
sauger					
<b>Kentucky (cont.)</b>					
Striped bass	May 30-Apr. 30				15
Crappie	May 30-Apr. 30				15
Rock bass	May 30-Apr. 30				15
Muskellunge	May 30-Apr. 30				
Furberrers	Dec. 1-June 30				
<b>Louisiana</b>					
Deer	Nov. 1-Jan. 10†				2
Bear	Nov. 1-Jan. 1				5
Rabbit	Oct. 1-Mar. 1				
Squirrel	Oct. 1-Jan. 15				120
Quail	Dec. 1-Feb. 20				120
Turkey	Apr. 1-Apr. 15 ♂				1
Bass, black,	No closed season				15
yel., white	No closed season				25
Crappie	No closed season				25
Sunfish	No closed season				50
<b>Maine</b>					
Deer	Oct. 21-Nov. 30†				1
Bear	No closed season				
Rabbit	Oct. 1-Feb. 28†				
Squirrel	Oct. 1-Oct. 31				
Pheasant	Oct. 1-Nov. 15				12
Grouse	Oct. 1-Nov. 15				
Salmon, togue(a)	Ice out-Sept. 30				25
Salmon, togue(b)	Ice out-Sept. 15				25
Salmon, togue(c)	Ice out-Aug. 15				25
Trout (a)	Ice out-Sept. 30				25
Trout (b)	Ice out-Sept. 15				25
Trout (c)	Ice out-Aug. 15				25
Wh. perch (a)	Ice out-Sept. 30				25
Wh. perch (b)	Ice out-Sept. 15				25
Wh. perch (c)	Ice out-Aug. 15				25
Black bass (a)	June 21-Sept. 30				25
Black bass (b)	June 21-Sept. 15				25
Black bass (c)	June 21-Aug. 15				25
Black bass (fly)	June 1-20				3
Pickrel	No closed season				10†
a-Lakes & ponds					
b-Riv. abv.					
tidewtr.					
c-Brooks, streams					
<b>Maryland</b>					
Deer	Dec. 1-6 ♂†				1
Rabbit	Nov. 15-Dec. 31†				
Squirrel	{Sept. 15-Oct. 15				
Quail	{Nov. 15-Dec. 31†				
Grouse	{Nov. 15-Dec. 31†				
Pheasant	{Nov. 15-Dec. 31†				
Turkey	{Nov. 15-Dec. 31†				
Trout	Apr. 15-July 15				10
Bass-non-tdl.	July 1-Nov. 30				10
Str. (rek.) bass,	Mar. 15-Nov. 30				10
non-tdl. wtrs.	Mar. 15-Nov. 30†				10
Wall-eyed pike	July 1-Nov. 30				10
Pike, pickrel	July 1-Nov. 30				10
Perch	July 1-Nov. 30				10
Catfish	Feb. 15-Nov. 30†				10
<b>Massachusetts</b>					
Deer	Dec. 2-Dec. 7†				1
Rabbit, hare	Oct. 20-Feb. 15†				5-3
Squirrel	Oct. 20-Nov. 20				15
Quail	Oct. 20-Nov. 20				20
Grouse	Dates not set				15
Pheasant	Oct. 20-Nov. 20 ♂				6
Bass	July 1-Feb. 15				5
Raccoon	Oct. 10-Jan. 1				2
Opossum	Oct. 10-Jan. 1				2
Pike	Apr. 15-Feb. 15				5
Muskellunge	Apr. 15-Feb. 15				5
Pickrel	Apr. 15-Feb. 15				10
Pike perch	Apr. 15-Feb. 15				5
Salmon	Apr. 15-Feb. 15				5
Trout	Apr. 15-July 31†				12
Bluegls., cal.					
bass, crappie,					
hrnd. pout,					
sunfish, yel.	Apr. 15-Feb. 15				20
pch.					
<b>Michigan</b>					
Deer	Nov. 15-Nov. 30†				1
Deer (bow &	Oct. 15-Nov. 5				1
arrow)					
Bear	Nov. 15-Nov. 30†				1
Rabbit	{U-Oct. 1-Mar. 1				50
Squirrel	{L-Oct. 15-Jan. 31†				50
Grouse, prairie	{L-Oct. 15-Nov. 5†				25
chicken	{U-Oct. 1-Oct. 20†				15
Pheasant	{L-Oct. 15-Nov. 5†				15
	{L-Oct. 15-Nov. 5†				8

<b>Michigan (cont.)</b>					
Woodchuck	L-Oct. 15-Jan. 31†				
Trout	Apr. 24-Sept. 16†	15†			
Bass	June 25-Dec. 31†	5†			
No. pike, pk. pch.	June 25-Dec. 31†	5			
Muskellunge	May 15-Mar. 15	25=			
Lake trout	No closed season	25			
White bass	No closed season				
Crappie, rk.					
bass, yel. pch.	} June 25-Feb. 28†	} 25†			
bluegills, sunfish					
Whitefish	No closed season	7			
<b>Minnesota</b>					
Deer (Bow and Arrow)	Oct. 16-Nov. 1†	1			
Deer	Nov. 15-Nov. 25†	1			
Bear	No closed season				
Squirrel	Oct. 15-Dec. 31				
Quail	Oct. 28-Nov. 12†				
Pheasant	Oct. 28-Nov. 12 †				
Hun. partridge	Oct. 21-Oct. 27†				
W.-eyed pike, saugers, gt. no. pike, pickerel	} May 15-Feb. 15†	} 8			
Muskellunge					
Bass	May 15-Feb. 15†	2			
Trout	June 20-Nov. 30†	6			
Lake Trout	May 1-Sept. 15†	15			
	Jan. 1-Feb. 15†	5			
	May 1-Sept. 30†				
Crappies, sunfish wh. & rk. bass	May 15-Feb. 15†	15			
Catfish	May 15-Feb. 15†	10			
Bullheads	May 15-Feb. 15†	50			
Whitefish	May 15-Feb. 15†				
Buffalo	May 15-Feb. 15†				
<b>xMississippi</b>					
Deer	{ Nov. 20-Dec. 1†	} 1			
Bear	{ Dec. 20-Jan. 1†				
Rabbit	No open season				
Squirrel	Same as Game				
Quail	Local seas. 5 zones				
Turkey	Dec. 10-Feb. 20†				
Bass	Apr. 1-Apr. 20 †	1			
Crappie	May 1-Feb. 28	15			
White perch	May 1-Feb. 28	15			
Sunfish	May 1-Feb. 28	50			
<b>Missouri</b>					
Deer	Nov. 5, 6				
Archery	{ Oct. 24-26	} 1†			
	{ Cty. only				
Squirrel	May 30-Oct. 31				
Quail	Nov. 10-30	15†			
Rabbits, groundhogs	{ Jan. 1-Oct. 31	} 15†			
Will-eyed pike	{ Nov. 10-Dec. 31				
Bass, black	May 30-Dec. 31	4			
Trout	May 30-Dec. 31	8			
Bass, wh., yel.	May 30-Dec. 31†	8			
Bass, warmth, rk.	May 30-Dec. 31	12			
Crappie	May 30-Dec. 31	12			
Channel cat	Mar. 15-Dec. 31	12			
	{ Mar. 15 May 31	} 8			
	{ July 15-Dec. 31				
Blue gl., bl. pch.	Mar. 15-Dec. 31	12			
<b>Montana</b>					
Deer	Oct. 15-Nov. 15† †	1†			
Bear, bl. & br.	Apr. 15-Nov. 15†	1†			
Bear, grzly.	Oct. 15-Nov. 15	1†			
Elk	Oct. 19-Dec. 9†	1†			
Goat	Oct. 1-31	1			
Grouse					
Quail, turkey	} Dates not set	}			
Suzhen					
Hun. partridge					
Pheasant					
All game fish	May 25-Nov. 15	15			
<b>Nebraska</b>					
Rabbit	Dates not set	10			
Squirrel	Dates not set	5			
Pheasant	Dates not set	5			
Trout	Apr. 1-Oct. 1	10			
Bass, black	No closed season†	10			
Crappie, sunf., rock bass	No closed season†	15			
Bullheads	No closed season†	15			
Catfish	No closed season†	10			
<b>Nebraska (cont.)</b>					
Perch	No closed season†				
Pike, w.-eye, saug. no'thn.	No closed season†				5
<b>Nevada</b>					
Deer	Dates not set				
Rabbit	Dates not set				
Quail	Dates not set				
Pheasant	Dates not set				
All game fish	Local seasons				25
<b>New Hampshire</b>					
Deer	Oct. 15-Dec. 21†				1
Bear	No closed season				
Rabbit, hare	Oct. 1-Feb. 15				
Squirrel	Oct. 1-Nov. 1				
Quail	No open season				
Grouse	Oct. 1-Dec. 1				25
Pheasant	Oct. 15-Nov. 16 †				10
Trout, brook	May 1-Sept. 1†				15
Lake Trout	Jan. 1-Sept. 1†				2
Salmon	Apr. 15-Sept. 1†				2
Trout, golden	Apr. 15-Sept. 1				4
Bass	July 1-Nov. 1†				10#
Muskellunge,	May 28-Nov. 1				
Pike-perch	May 28-Nov. 1†				10#
Pickerel	May 28-Jan. 16†				
<b>New Jersey</b>					
Deer	Dec. 17-Dec. 21 †				1
Rabbit, squirrel	Nov. 10-Dec. 15				6
Quail	Nov. 10-Dec. 15†				10
Grouse	Nov. 10-Dec. 15				3
Pheasant	Nov. 10-Dec. 15 †				30
Trout	Apr. 15-July 15†				10†
	Sept. 1-Sept. 30†				
	May 20-Nov. 30†				10
	Jan. 5-Jan. 27†				
Pike, pick'l, pike-perch	} June 15-Nov. 30†	}			10
Bass, bl., Oswego, white					
Calico, rock bass, crappie	} June 15-Nov. 30†	}			20
Bass, striped					
Wh., yel. pch., catf., sunf.	June 1-Feb. 28				
	No closed season				
<b>New Mexico</b>					
Deer	Nov. 10-Nov. 21† †				1
Elk	(Ltd.) Oct. 26-Nov. 3				1†
Bear	Nov. 10-Nov. 21†				
Antelope	Shooting by permit †				
Turkey	Nov. 10-Nov. 21†				2
Squirrel	Nov. 10-Nov. 21				5
Trout					20
Bass, pike pch.					15#
Crappie	Apr. 1-15				20
Sunf., ring pch. and bream	May 15-Nov. 30				
Chan. catf.					20
Bull' d., yel. and mud catfish	No closed season				20
<b>New York</b>					
Deer	† †				1
Bear	†				1
Rabbit	Oct. 17-Jan. 31†				6†
Squirrel	Oct. 17-Nov. 18†				5
Quail	Nov. 1-15†				4†
Grouse	{ Dates not set	}			
Pheasant †	{ " " "				
Black bass	{ " " "				
Striped bass	July 1-Nov. 30†				6†
Muskellunge	No closed season				
Salmon, Idlckd.	July 1-Dec. 1†				†
Salmon, chinook	Apr. 1-Sept. 10				2
Pike-perch	Apr. 1-Sept. 10				3
Pickerel	May 1-Mar. 1†				10†
Gt. no'n. pike	May 1-Mar. 1†				10†
Trout, brk., br., r'bow	May 1-Mar. 1†				10†
Lake trout	†				10+
Bullheads	Apr. 1-Sept. 10				3†
Whitefish	No closed season†				†
Perch, white	Apr. 1-Sept. 10†				†
Perch, yellow	No closed season				25†
	No closed season†				
<b>Long Island</b>					
Rabbit, squirrel	Oct. 17-Jan. 31				6





<b>Utah (cont.)</b>				<b>West Virginia</b>			
Bass	May 15-Oct. 31†	15		Deer	Dates not set		
Trout	June 15-Oct. 31†	15		Rabbit	Dates not set		
Salmon	June 15-Oct. 31†	15		Squirrel	Dates not set		
<b>Vermont</b>				Quall	Dates not set		
Deer	Nov. 10-Nov. 20	1		Grouse	Dates not set		
Squirrel	Oct. 1-Oct. 31	4		Turkey	Dates not set		
Rabbit	Oct. 1-Feb. 28	3		Bear	Dates not set		
Quall	No open season			Woodchuck	Dates not set		
Grouse	Oct. 1-Nov. 9	4		Trout, rnbw., brown	Apr. 26-July 15	10	
Pheasant	Oct. Sat. & Wed. ♂	2-4		Trout, brook	Apr. 26-July 15	15	
Bear	June 1-Dec. 31	20		Bass	June 28-Nov. 30	8	
Trout	May 1-Aug. 14	20		Pikeerel	June 28-Apr. 30		
Lake trout, salmon	May 1-Aug. 31	2		Muskellunge, w. eyed pike	June 28-Apr. 30		
Bass	July 1-Nov. 30	5		Rk. bass, crapple, sunf., bluegill	June 28-Apr. 30	15	
Muskellunge	June 15-Apr. 14	25†		Catfish	June 28-Apr. 30	10	
Pike-perch	May 1-Mar. 14	25†		Perch	June 28-Apr. 30	10	
Pikeerel	May 1-Mar. 14	25†					
Smelt	June 1-Mar. 31	25†					
<b>Virginia</b>				<b>Wisconsin</b>			
Deer	Nov. 20-Jan. 5† ♂	1		Deer	Nov. 23-Dec. 1† ♂	1	
Bear	Nov. 20-Jan. 5†	1		Deer (bow & arrow)	Sept. 28-Nov. 14	1	
Elk	Closed season			Bear	No closed season†		
Rabbit	Nov. 20-Jan. 20†	75		Raccoon	Oct. 23-Nov. 30		
Squirrel	Sept. 15-Sept. 30	75		Rabbit	Oct. 19-Jan. 15	3	
Quall	Nov. 20-Jan. 20	135		Squirrel	Oct. 19-Nov. 30	3	
Grouse	Nov. 20-Jan. 20†	15		Grouse	No open season		
Pheasant	} Same as quall	20		Pheasant	Oct. 19-Nov. 28†		
Turkey		4		Hun. partridge	No open season		
				Quall	Oct. 21-28†	4	
Bass	{ W: June 20-Dec. 31			Bass, black	June 20-Jan. 15†	7	
Trout	{ E: June 20-Mar. 15	10		Trout	May 17-Sept. 7†	15	
	{ Apr. 20-July 31	12		Lake trout	Apr. 15-Sept. 30†	5	
Pike	{ W: Same as bass	20		Wall eyed pike, sauger			
Crapple	{ E: No closed season			No. pike, pick'l	May 18-Jan. 15†	7†	
Bream	{ No closed season			Muskellunge	May 18-Jan. 15†	7†	
	{ No closed season	25		Bass, other	May 18-Jan. 15†	25	
				Catfish	May 18-Jan. 15†	15	
<b>Washington</b>				Bullheads	Apr. 15-Jan. 15†	25	
Deer	Oct. 8-Nov. 5† ♂	1		Other panfish	May 18-Jan. 15†	25†	
Bear	{ E: Same as deer	1					
	{ W: Closed during Elk season			<b>Wyoming</b>			
Elk	Nov. 3-Nov. 11 ♂†	1		Deer	Local season† ♂	1	
Rabbit	Oct. 13-Feb. 28†	5		Moose	Local seasons ♂	1	
Grouse	Oct. 13-14†	2		Elk	Local season† ♂	1	
Quall	Oct. 13-30	10		Bear	Local seasons	1	
Pheasant	Oct. 13-30	3		Sheep	Local seasons† ♂	1	
Hungarian partridge	No open season			Antelope	Local seasons†	2	
Steelhead	Dec. 1-Mar. 1†	3		Pheasant	Local seasons		
Other game fish				Trout	Apr. 1-Oct. 31†	20	
Low'd lakes	Apr. 1-Nov. 30			Grayling	Apr. 1-Oct. 31†	20	
Gen'l season	May 26-Oct. 31	20		Bass	Apr. 1-Oct. 31†	20	

### MIGRATORY BIRD LAWS

After biological investigations and consultations with State game administrators, Secretary of the Interior Krug adopted, and President Truman approved in August, 1946 drastic amendments to the laws on migrating birds. The duck hunting season was reduced from 80 to 45 days, the daily bag limit from 10 to 7, and possession limit from 20 to 14. These amendments were made to avoid imminent disaster threatened by a 50 per cent increase in the number of hunters from 1944 to 1946 coupled with a 36 per cent decrease in the number of ducks. Although 1948 regulations will not be available until September, 1948, the salient features of the 1946 rules may be of interest to some.

**Waterfowl:** October 5 to November 18 in North; October 26 to December 9 in Intermediate; November 23 to January 6 in South. Kentucky is now in South—Iowa, Montana, Ohio—intermediate. Daily bag and possession for geese has been reduced to 2 of any kind. The length of the shooting day for waterfowl, coots, rails, and gallinules runs from one half hour before sunrise to one half hour before sunset.

**Rails and Gallinules:** Same as waterfowl and coot seasons in Maine, Wisconsin, Massachusetts, and New York.

**Wood Duck:** No open season in Arizona, Colorado, Kansas, Massachusetts, Nebraska, Nevada, North Dakota, Utah, or Wyoming.

**Canada Geese:** No open season in Minnesota, Wisconsin, Michigan, Iowa, Illinois, Indiana, Ohio, Missouri, Kentucky, Tennessee, Arkansas, Louisiana, Mississippi, or Alabama.

**Snow Geese:** No open season in Wyoming.

**FOR FULL DETAILS, WRITE:** Fish & Wildlife Service, Dept. of Interior, Chicago 54, Illinois.

## ANECDOTES AND PLEASANTRIES

### THEY DIDN'T SAY IT

"Go West, young man." Attributed to Horace Greeley.

The famous editor used this admonition in a New York Tribune editorial after reading it in the *Terre Hante (Ind.) Express* in 1851. When it became popular Greeley tried to give credit to the originator, John Babson Lane Soule, but it was too late.

"Everybody talks about the weather but nobody does anything about it." Attributed to Mark Twain.

Charles Dudley Warner, editor of the *Hartford Courant*, is now believed to have coined this epigram. Mark Twain did say, "If you don't like the weather in New England, just wait a few minutes."

"They shall not pass!" Attributed to Marshall Petain.

Instead of Petain, the man who uttered this historic challenge was his successor in command at Verdun in World War I, Gen. Robert George Nivelle.

"Lafayette, we are here." Attributed to General Pershing.

Not the commander of the AEF but Col. C. E. Stanton of his staff said that.

"The forgotten Man." Attributed to the late President Roosevelt.

The forgotten man in this case seems to be the author of the expression, Prof. William Graham Sumner of Yale.

"Praise the Lord and pass the ammunition." Attributed to Captain William Maguire of the United States Navy.

Another Navy chaplain, Lieut. Howell Forgy, gave this battle cry which inspired a popular song. *Dow Richardson*

"Diffrunt people, diffrunt 'pinions;

Some like apples, some like in-yuns." *Arthur Guiterman*

### AN ODE TO THE SHANGHAIS

It's pretty nearly a century ago now that a certain editor started bravely in to compose a poem to an ostrich. His inspiration, however, appeared to give out after he had written the first stanza, which, nevertheless, he published as follows:

Feathered giraffe! who lent you wings?

Who furnished you those legs?  
How could such everlasting things

As those, come out of eggs?

... "Sometimes," said Uncle Eben, "a man gives hissef credit foh bein' resigned to fate, wheu he has simply settled down to bein' good and lazy."

### CAPE COD ANECDOTE

In earlier Cape Cod days, wrecks along the backshore provided rich pickings for the Cape Codders. On a stormy Sunday it was the custom in Eastham, so the story goes, to station a watcher on the beach while the rest of the town attended to sabbath service.

One Sunday as the preacher reached his Ninthly or Tenthly the watcher burst through the meeting house door, a gust of a northeaster on his heels.

"There's a ship ashore on the back side," he shouted, and for a moment all was confusion until the preacher's loud voice and raised hand stilled the tumult.

"Just a miunte, brethren. Before you go I have just three words to say." By this time he was walking rapidly down the aisle, buttoning his coat. As he reached the door his hat went on. "Now start fair," he shouted.

### GOING BACK

I am a prominent business man. I am well decorated with pins and Jewelry of the best lodges and clubs.

I employ many hands, and "When I

Say Goeth, They Goeth (or did Before the days of Senator Wagner).

One day the cashier of the bank forgot

And almost smiled at me.

But each summer I go back to The Old Country. And as I approach

The Great Stone Face my stature Sorter shrinks; and my identity Gets kinder hazy; to the natives

I am only Herb Young's boy.

And I prefer it that way.

*Ray C. Young in Yankee*

Every square mile in the United States is struck by lightning an average of ten times a year according to Westinghouse engineers.

Did you know that a three-colored cat is always a female? P. T. Barnum years and years ago offered \$1000 for a male three-colored cat. He never got one.



### PRESCRIPTION FOR SPRING

Of the infusions used medically by our ancestors, sassafras tea deserves to be remembered longest because it brought a new and pleasant taste to the spring of the year. Boneset tea on the other hand was never anything but a bitter taste. Some other herbs made aromatic or earthy medicine, but never such a brew as sassafras, embodying the impulses of the season and the fresh vigor of the outdoors.

Gosnold's voyagers reported that sassafras "cured one of our company that had taken a great surfeit by eating the bellies of dogfish." This was one of the mildest of the recommendations for the root of the sassafras tea, and for two hundred years voyagers came to the region of Martha's Vineyard in search of the marvelous and fragrant remedy. The price, in Gosnold's day, was three shillings the pound and 336 English pounds the ton of root.

No longer a tree of "high price and profit," the sassafras remains one of our most distinguished countryside citizens, and should be remembered particularly in the spring. Anyone who desires to try the prescription of our founding fathers may find himself a small bit of sassafras root—no more is necessary—and steep the root bark as he would tea. Whether this will clear the blood and banish the humors of winter, we do not know. If not, there is no reason to believe that sassafras has lost its virtue since the day of our great grandfathers; perhaps mankind has lost something—faith or the country touch, or understanding with the earth.

• Vineyard Gazette

### NEW ENGLAND WEATHER

In a long since famous address at a dinner of the New England Society of New York someone told of the visitor to New England who figured out that conditions for the next day would be "something about like this: probably northeast to southwest winds, varying to the southward and westward and eastward and points between, high and low temperatures, swapping around from place to place; probable areas of rain, snow, hail, and drouth, succeeded or preceded by earthquakes, with thunder and lightning. . . . You fix up for the drouth; you leave your umbrella in the house and sally out and two to one you get drowned."

### FARM PROVERBS

Two sparrows on the same ear of corn are not long friends.

He who has a straw tail is always afraid of its catching fire.

Let every one mind his own business, and the cows will be well-tended.

Better on the heath with an old cart than at sea in a new ship.

Mules make a great fuss about their ancestors having been horses.

To wash an ass's head is but loss of time and soap.

### R YEW A PORE SPELER?

The following to be found in the ancient town books of Derryfield (later Manchester, N. H.) must set some sort of record for the manufacture of words: "At amectien of the free houlderes and in habitentes of the town of Derryfield hild juely ye 20; 1752 agriebel to the forgowin warnin' met at the houes of obiell Barker Lette."

### RUMOR

"There must be some truth in it because it is all over town."

Reminds us of a wise old Yankee to whom a young man repeated some of the stories that were "going around." "Well, son," he said, "ye could be in a better business."

### HARD TO TELL

A man who went away from home some time ago to attend a convention of church people was struck with the beauty of the little town in which the gathering was held. He had plenty of time and while wandering about, walked into the village cemetery. It was a beautiful place, and the delegate walked around among the graves. He saw a monument, one of the largest in the cemetery, and read with surprise the inscription on it:—

"A Lawyer, and an Honest Man."

The delegate scratched his head and looked at the monument again. He read the inscription over and over. Then he walked all around the monument and examined the grave closely. Another man in the cemetery approached and asked him.

"Have you found the grave of an old friend?"

"No," said the delegate; "but I was wondering how they came to bury those two fellows in the same grave."

## WORD CHARADES

(Answers appear on page 94)

1

My first for naught has been employed,  
 A verb the thrifty most avoid,  
 And you and I must make my last;  
 When Vulcan from my whole was cast,  
 He had my second ever after,  
 Provoking all the Gods to laughter.

2

I built my house upon my last.  
 So sudden was its fall,  
 And so surprisingly my first,  
 It must have been my all.

3

My first is all-embracing, right  
 and left and front and back,  
 And my second may be many or  
 a unit, but alack!  
 My first and third without my  
 second moan and sigh; but  
 once it's there,  
 My whole incites to mirth, to  
 wit, to banishment of care;  
 A constant guide, a cheerful  
 friend throughout the chang-  
 ing year;  
 Seed-time and harvest shall not  
 fail with this companion dear.

4

The sky is overcast,  
 The sun its light withdraws,  
 While rumblings of the blast  
 Quick serve to give us pause,  
 Till with my first each breast is  
 filled  
 And every heart seems well-nigh  
 stilled,  
 With lightning dazed and thun-  
 der thrilled.

Anon my last draws near  
 With threatening aspect clad  
 And mortals quake with fear  
 While havoc 'dire and sad  
 It works, when, risen to a gale  
 It pours alike o'er hill and dale  
 Destructive floods and deadly  
 hail.

And thus when man seeks rest  
 From toil, and fain would find  
 "Dame Nature" at her best—  
 To mischief least inclined,  
 E'en in my whole she takes de-  
 light,  
 While Sirius rages day and night  
 In filling timid souls with fright.

5

My first hard by the waters cool  
 are seen  
 Leaving my second in the crystal  
 flood;  
 While close at hand you'll find,  
 beside the road,  
 My whole a symphony in gold  
 and green.

6

My first 'tis safe to say is never  
 out,  
 My second and my third go out  
 in doubt,  
 My whole, some people get put  
 out about.

7

My first asserts your power to do,  
 My second that you've done it.  
 Pray be my whole and tell us  
 now  
 All that you know about it.

8

Break! Break! Break!  
 My first on the rocks and the  
 sand,  
 May I never be vexed for the  
 want of next  
 In the touch of a beautiful  
 hand.  
 Break! Break! Break!  
 And shove the ship on the  
 shore.  
 My whole shall abide on the top  
 of the tide.  
 Till the wind shall blow no  
 more.

(Original Charades by  
 L. B. R. Briggs)

9

My first, a scared river  
 Flows to a sunless sea,  
 My next was doomed forever  
 To be followed by a bee.  
 My third I do that you can guess  
 my whole,  
 Which Cadmus out of Egypt  
 stole.

10

They say that my first is the seat  
 of the mind;  
 If man be not my second, his  
 forces soon fail;  
 But, a strange thing to tell, if he  
 both combined,  
 His reason and strength are of  
 little avail.

## OLD FASHIONED PUZZLES

(Answers appear on page 94)

### Conundrums

1. Why is a man who makes pens a wicked man?
2. Why is a hen immortal?
3. Why are teeth like verbs?
4. Who was the strongest man mentioned in the Bible?
5. When a boy falls out of the window what does he always fall against?
6. Why is a dog dressed warmer in summer than in winter?
7. What is that which we often return but never borrow?
8. What is that which works when it plays and plays when it works?
9. What is that which is lengthened by being cut at both ends?
10. How does a postage stamp have the advantage of a small boy?

### Enigma

It moves backwards and forwards, and upward and downward,

Earthward and heavenward, toward and onward;

'Tis of silver or gold, or a metal much baser;

It regulates time, and keeps thieves in their place, sir.

It has wards, though no guardian, save of your self, And it takes care of all things, excepting itself.

### Puzzles

What two letters express that which all should try to do, but which not many in these ages attain, although it is not much beyond middle age?

Arrange the numbers from two to ten in three columns so that they add up 18 down, across, and diagonally, without repeating any number.

Two children were discussing their pocket-money. "If you were to give me a cent," said Johnny, "I should have twice as much as you." "That would not be fair division," said Tommy; "you had better give me a cent, and then we shall be just alike." How much money had each?

### Anagrams

1

I am a word of letters four,  
I am as old at least as the earth,  
I fly as on the winged wind,  
No man o'er estimates my worth.  
If you should completely turn  
From head to foot my name  
about,

Although for ages I have lived,  
Immediately you put me out.

2

A sombre color I am found,  
And as to dirt I little show it;  
But if you fairly turn me round  
I grow refined and am a poet.

3

Emblem of majesty am I  
Which "shows the force of temporal power,"  
But twist me about and I become  
A thing which makes e'en monarchs cower.

4

The mariner knows me, I give him a name;  
My home's in the mountains, in ocean the same.  
No hook ever caught me, no bait ever lured;  
It is only when stranded that I am secured.  
But turn me about and none I precede  
And often am taken to satisfy greed;  
But when I'm concrete I'm made from a tree  
And stoutest apparel is moulded on me.

### Riddles

1

Small though I am, great objects I achieve,  
And oft the wisest of mankind deceive.  
Patriots and law-givers by me their sway  
Maintain, and lead the nation to obey.  
Mine are those gifts and mine those powers refined  
Which from the brute distinguish human kind.  
I give new pleasures when the song goes round,  
And charm the hearers with melodious sound.

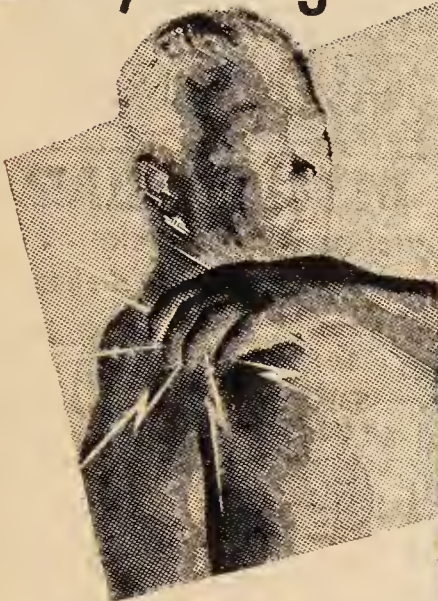
2

Although I'm interviewed each day  
I cannot tell a word folks say.  
I'm speechless but not silent, though  
I make a noise where'er I go.  
I do not always tell the truth,  
Yet I am not to blame forsooth.  
For those who do in me confide  
I oft important things decide.  
Though I have not a doctor's skill,  
Yet I'm consulted when one's ill.  
If you can now one's name divine,  
I pray you tell me, reader, mine.



# Sore, aching shoulder muscles?

*Here's relief!*



Painful, aching muscles often follow unaccustomed exercise. Fatigue acids may have settled in them. That's why they hurt! But you can help nature help you by rubbing those sore muscles with Absorbine Jr. Increasing local circulation in those areas will bring a supply of fresh blood which helps carry fatigue acids away and your stiff, weary muscles limber up again.

Keep Absorbine Jr. on hand at all times. It's grand relief! \$1.25 a bottle at your drugstore.

*Help nature drive out fatigue acids with Absorbine Jr.*

W. F. Young, Inc.  
Springfield, Mass.



## Absorbine Jr.

**Kills Athlete's Foot Organisms on Contact**

AMERICA'S FAVORITE  
SANDWICH SPREAD

THE ORIGINAL



**UNDERWOOD DEVILED HAM**  
is *SUPERB* for Sandwiches and Snacks . . .  
but have you tried these tested, tempting dishes?

*New! Quick! Delicious!*

### DEVILED HAM-NIPS

1 3-ounce package of cream cheese  
1 can UNDERWOOD Deviled Ham

Blend ingredients together until smooth. Add other seasonings with curry if desired. Spread on finger-length pieces of hot buttered toast.

*So different!*

### DEVILED HAM STUFFED EGG SALAD

3 hard-cooked eggs 1 teaspoon prepared mustard  
1 sliced tomato A few drops lemon juice  
1 head lettuce  
1 tablespoon melted butter French dressing  
1 can UNDERWOOD Deviled Ham

Cut eggs in halves lengthwise. Take out yolks carefully, mash to a smooth paste with UNDERWOOD Deviled Ham, mustard, lemon juice and melted butter. Refill whites of eggs with this mixture. Place a half egg on a slice of tomato and serve on lettuce leaves with French dressing.

*QUICK...and EASY!*

### POACHED EGGS à la UNDERWOOD DEVILED HAM

Here are eggs with a difference — and so simple to make!

Just spread UNDERWOOD DEVILED HAM on hot buttered toast. Then place a poached egg on each slice and serve immediately.

You'll want "repeats"!

*Quick as a wink!*

### DEVILED HAM CANAPÉ

Cut bread in squares, rounds, diamond shapes,  $\frac{1}{4}$  inch thick, toast to delicate brown, spread liberally with UNDERWOOD DEVILED HAM. Sprinkle with grated cheese and brown in hot oven. Delicious!

*A new favorite!*

### DEVILED HAM-QUICKS

1 cup prepared biscuit mix  $\frac{1}{2}$  cup water  
1 can UNDERWOOD Deviled Ham  $\frac{1}{4}$  teaspoon each cayenne pepper and salt

Combine ingredients. Drop by spoonfuls on ungreased cookie sheet. Bake in hot oven (400° F.) about 10 minutes. Serve hot. Makes about 2 dozen.

*So Easy!*

### DEVILED HAM with Scrambled Eggs

Scramble the desired number of eggs in your favorite manner and just before they are done, mix in the contents of a can of UNDERWOOD DEVILED HAM.

# RECIPES AND HOUSEHOLD HINTS

By NANCY DIXON

## Brunswick Stew

2 onions	2 teaspoons Worcestershire sauce
2 T bacon fat	1 pound fresh lima beans
2½ pound frying chicken	1 can corn niblets
Salt and pepper	2 T butter
3 cups water	½ cup bread crumbs
3 tomatoes	

Brown onions in bacon fat. Cut chicken into serving portions, season and brown. Pour off fat and place chicken and onion in heavy kettle. Add water and Worcestershire sauce. Cook slowly over low heat for half hour. Add lima beans, okra and corn. Simmer for one hour, add butter and bread crumbs and cook for one half hour longer.

## Breaded Sweet Potatoes

Cut boiled sweet potatoes into lengthwise slices. Dip into beaten egg and then roll in crumbs and fry in deep hot fat (375 degrees). Fry until brown and then drain on brown paper.

## Baked Stuffed Potato and Egg

1 large baking potato	1 T butter
2 T milk	Pepper
¼ teaspoon salt	1 egg

Wash the potato well and brush with oil. Bake until done. Slice off top, remove potato from shell and add butter and milk. Season well and whip until fluffy. Re-stuff leaving enough space to hold egg. Put potato in the oven and cook until egg reaches desired doneness.

## Lemon Cercal Pudding

1½ cups hot wheat cereal	1 T melted butter
¾ cup sugar	1 egg well beaten
¼ cup lemon juice	

Combine all ingredients and beat until smooth. Turn into greased individual molds and bake in a 350 degree or moderate oven for 20 minutes. Cool and chill. Serve with whipped cream.

As important as the skill used in the actual preparation of food is the skill used in the purchase. Simple rules to follow when buying:

## Fruits

**Apples:** Choose firm apples of good color and flavor. Immature apples are poor in color and flavor. Over ripe apples are mealy and poor in flavor.

**Apricots:** Select firm, plump, uniformly colored fruit. Immature fruit is a greenish yellow and hard. Ripe extremely perishable.

**Bananas:** Buy yellow ripe or full-ripe fruit. Avoid soft mushy fruit, blackened area or mold. Have best flavor if harvested green.

**Blackberries:** Should have a bright, clean, fresh plump appearance and an even full color. Adhering green caps an indication of unripe fruit.

**Blueberries:** Deep full color and plumpness an indication of good quality. Berries held long after picking are usually shriveled.

**Cherries:** Sweet cherries for eating. Tart cherries for cooking. Plumpness and bright color are an indication of quality. Over ripe fruit is soft and dark. Avoid fruit with small brown flecks.

**Cranberries:** Look for a fresh, plump, shiny red skin. Should be firm.

**Grapefruit:** Should be firm, not soft and flabby. Should be heavy for their size. Russet tinge on skin does not affect flavor. Decay can be seen at ends as evidenced by soft discoloration.

**Grapes:** Grapes for juice should be ripe but free from mold. Grapes on the stem should be firm and highly colored and should adhere to stem.

**Lemons:** Select heavy ones with smooth skins. Avoid spongy fruit.

**Limes:** Select rich green fruit. Yellow fruit is not sufficiently acid. Surface blemishes do not affect fruit.

**Oranges:** Choose heavy fruit for the size. Avoid puffy wrinkled skin.



**Peaches:** Firm and fresh looking with a white or yellowish ground for pink tint. Decay spreads rapidly. Worminess is shown by small holes. Green ground color indicates unripe fruit.

**Pears:** Buy soft at base of stem for immediate consumption. Buy firm but not hard fruit. Select smooth, shiny skin.

**Pineapples:** Ripe pineapple has a dark yellow-orange color with flat eyes. If picked when immature fruit will not ripen and hence will be hard and pithy.

**Plums:** Ripe fruit is plump and yields to slight pressure. Brownish spots on side indicates sunburn and indicates poor flavor.

**Quince:** Good fruit is hard and completely free of blemish. Unripe fruit is green and you'll find will lack flavor.

**Rhubarb:** Choose thick yet crisp and tender stalks. Pink to red in color.

**Strawberries:** Select solid red berries with attached caps. Look for bright red color free from green spots. Berries should be firm but not hard.

**Watermelons:** Misshapen melons are usually of poor quality. Look for a smooth symmetrical shape with a green bloom on the surface and yellow in the underside. Decay occurs at stem and spreads rapidly. Inside should be firm, watery and deep rich melon color.

**General Hints:** Make your own selection of fruit. Do not handle unnecessarily. Do not buy simply because the price is low. Consider the fruits in season. Locally grown products are lower in price, as a rule.

### Vegetables

**Asparagus:** Select thick tender stalks with firm but close compact tips. Angular stalks are apt to be woody and pithy.

**Beets:** Should be smooth skinned and free from shrivel. Beets left too long in the field will have short necks and will be covered with scars.

**Broccoli:** Select stalks that are tender and firm and support compact heads without evidence of flowering. Avoid yellowing leaves.

**Brussels Sprouts:** Select firm, compact sprouts that have a fresh green color. Dirty appearance may indicate plant lice.

**Cabbage:** Look for reasonably solid head. Early cabbage will not be as firm as winter cabbage. If base of some of the outer leaves have separated from stem, cabbage may have strong flavor.

**Carrots:** Select smooth, well shaped carrots with good color. Avoid wilted or forked carrots. Excessive masses of leaf stems indicate large, flavorless cores.

**Cauliflower:** Choose white, clean and compact heads. Avoid spreading clusters.

**Celery:** Brittle enough to snap easily. Avoid pithy, stringy stalks.

**Chicory:** Crisp, fresh and tender. Tough plants may be bitter.

**Corn:** Dry straw colored husks are indicative of age or damage. Wormy corn can be detected by peeling back husk and examining kernels.

**Cucumbers:** Firm and deep green in color. Over-ripeness shown by puffiness and hard seeds.

**Eggplant:** Heavy and free from blemish and a uniform dark color. Soft or flabby eggplant often bitter.

**Kale:** Dark and bluish-green in color. Avoid wilted or yellow leaves.

**Mushrooms:** Select white, firm, clean caps free from mold or soft spots. Mushrooms darken with age.

**Parsnips:** Select smooth parsnips of medium size. Soft, flabby roots are pithy or fibrous. Large roots have woody cores.

**Peas:** Young, tender and sweet. Pod should be bright green and velvety. Avoid wet and mildewed pods.

**Peppers:** Select firm, thick fleshed peppers of fresh appearance. Avoid surface blemishes.

**Squash:** Summer squash should be fresh and heavy for its size. Rind should be crisp but easily punctured. Watch for soft stems.

**Turnips:** Select smooth skinned turnips with fresh green tops.

**Zucchini:** Small, crisp zucchini. Wilted ones will have poor flavor.

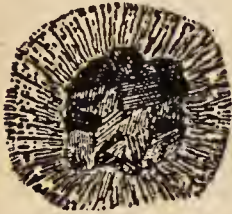
**General Hints:** Fresh, firm, tender vegetables free from bruises and other imperfections. Best flavor and lower price when vegetables are in season. Always notice color as well as firmness.

**Cure of Meat in Household:** As soon as received from the market remove from wrapper and place UNCOVERED in coldest part of refrigerator where the temperature will not go below 45 degrees Fahrenheit.

### FRANCONIA NOTCH ITEMS

It was in October, 1916, that E. H. Geddiss, Quincy, Massachusetts, granite craftsman, anchored the forehead stone of the "Old Man of the Mountain" in its granite cliff that it might be preserved for prosperity. The day President Harding died (August 1923) the Profile House & Cottages burned down thus paving the way for the present 5000 acre Franconia Notch state reservation.

### \$--BELIEVE IN LUCK?--\$

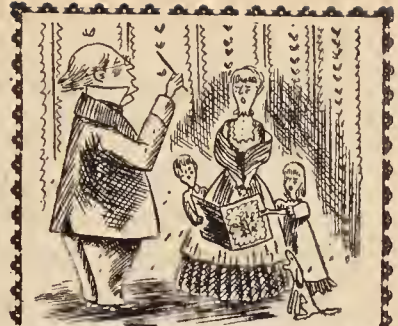


Carry a pair of GENUINE BRAHMA RED LIVE HIGHLY MAGNETIC LODE-STONES! Legend reposes, Occult Oriental ancients superstitiously carried two Live Lodestones as MOST POWERFUL MAGNETIC

"LUCKY" CHARMS, one to "attract" Good Luck in Money, Games, Love, Business, Work, etc., the other to "prevent" Bad Luck, Losses, Evil, Trouble, Harm, etc. Believe in Luck? Carry a Pair of these curious Genuine Brahma Red Live Lodestones! We make no supernatural claims. \$1.97 Postpaid for the two, with all information. \$1.97 and 27c extra if C.O.D. Satisfaction GUARANTEED or Money Returned. Order yours NOW!

ASTROL CO., Dept. H-75 Main P.O.  
Box 72, BROOKLYN, N.Y.

NOTICE! Beware of Imitations! We absolutely GUARANTEE these Genuine Brahma Lodestones are ALIVE! We believe they are just what you want, the REAL THING--POWERFUL DRAWING, EXTRA HIGHLY MAGNETIC! Fully Guaranteed. Copyright 1937--A. Co.



### "Slippery Elm Lozenges!"

#### CHANT THE PIFFIN FAMILY

"The whole family can warble to their heart's content," says Mrs. Piffin, "because The Country Store now has those famous Slippery Elm Lozenges, so demulcent to the throat. They've been made by the Thayer people for 100 years, and they're absolutely indispensable for singers and speakers. I remember them as a young girl. If my throat were rough, I'd simply take a Slippery Elm, and people said I sang like an angel, or was it a chaffinch."

Special Country Store box  
of 34 or more Slippery Elm Lozenges,  
25c postpaid.

Send for General Catalogue.

The Country Store, Inc.  
F. H. TRUMBULL  
CONCORD, MASS.

## DYE-UP HOOKED RUG MATERIALS

*Clothing and Home Furnishings with "Perfection" Dyes*

Order direct from manufacturer. ORDINARY TYPE for Wool, Cotton, Silk, Linen, Viscose Rayon and mixtures thereof; 3 pkgs. 25c — 16 for \$1.00 (your choice of colors). For garments, hosiery and furnishings of acetate rayon, nylon, etc., or of unknown composition, get the BRAND-NEW PERFECTION ALL-FIBRE DYE at 15c per package. ALL ORDERS FILLED POSTPAID.

PERFECTION DYES, DOVER-FOXCROFT, MAINE



*Soothes Your Throat*

AVAILABLE

AT YOUR DRUG STORE

\* \* \*  
HENRY THAYER COMPANY

*Brighton, Mass.*  
ESTABLISHED 1847



*New Shipment . . .*

## EAST INDIAN CHAIR CANE

Fine	\$3.25 per Hank
Medium	3.75 per Hank
Common	4.25 per Hank

**POSTPAID**

### GO CART SHOP

R586 Pleasant St., New Bedford, Mass.

## BROKEN JEWELRY WANTED

All kinds. Highest prices paid for jewelry, rings, spectacles, gold teeth, diamonds, broken and usable watches, etc. Cash mailed promptly. Write for FREE shipping container.

### LOWE'S

Dept. OA, Holland Bldg., St. Louis, Mo.

## KNOW YOUR SOIL AND SAVE MONEY

Why use excessive fertilizer and lime? For Two Dollars, we can tell you the nutrient content of your soil. For information write: Dept. A, Suburban Service Laboratories, Box 208, Glenside, Penna.

### CYPHER CONTEST

Re: Cypher Contest, page 55, The 1947 Old Farmer's Almanac(k). No contestant came anywhere near solving this simple cypher. The answer was: 11 equals first line, first word (Hudson's), 31 is third line, first word (Blankets), 193 is 19th line, third word (Follow), 195 is 19th line, fifth word (Fashion), making the decyphered line for the number 1131193195 read: "Hudson's Blankets Follow Fashion." As no solution was received the \$25.00 prize will be added to the prize money for solution of a somewhat easier cypher in this edition. To wit, 951123456 is the cypher which represents the first line of verse—you send us the second line. All submissions remain our property—three prizes, \$25 first, \$15 second, \$10 third. Contest closes March 1, 1948. Decision of judges is final. Solutions should be sent to Yankee, Inc., Dublin, New Hampshire—Cypher Dept. In case of tie, prizes will be split.

## BE MR. WEATHERWISE,

### THIS WEATHER VANE INDICATES ON AN INDOOR DIAL!

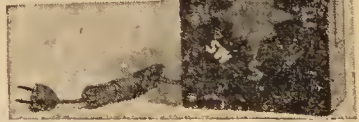


- Shows direction and shift of wind
- Shuts itself off when wind dies
- Uses less current (A.C.) than electric clock
- Complete with fifty feet of cable
- Convenient, Accurate, and Dependable
- Fully guaranteed.
- Easily installed

Send Check to  
THE CAPE  
WIND-INDICATOR  
Kildeer Rd.,  
Harwichport,  
Cape Cod Mass.

**\$3750**

postpaid in U.S.



## WEATHER and ASTRONOMY

*for the FARM...for the HOME...for the SCHOOL*

— *Build your own weather station* —

Barometers

Hygrometers

Rain and

Thermometers

Wind Instruments

Snow Gages

*Inquire about the low-cost SPITZ PLANETARIUM for your community*

# SCIENCE ASSOCIATES

Dept. F, 401 North Broad Street, Philadelphia 8, Pa.





# B&M

*Genuine*  
New England Brick-Oven  
**BAKED BEANS**

*Baked in  
Open Pots*



Supremely  
good baked beans  
from famous  
"Down East" ovens

**H**ERE are genuine, New England baked beans at their extra-flavorful best. Beans baked in strict accordance with the old-time recipe. Baked (not steamed) for one entire day, in brick ovens and open bean pots. Baked mealy and tender, with lots of pork and spicy sauces in B & M's famous ovens "Down East" in Portland, Maine. Why not serve 'em to your family today? Burnham & Morrill Company, Portland 2, Maine.

# APPROXIMATE PLANTING, GROWING, AND HARVESTING TABLES

I. LATITUDE OF BOSTON, MASSACHUSETTS

(ADD ONE WEEK EVERY 100 MILES NORTH OR 500 FEET ELEVATION).

Date to plant \*\*\*\*\*. Time of Growing ooooo. Harvest Season xxxx.

Most early planting dates are for starting seedlings indoors.

E means Early. L means Late.

Crop	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Seeds Per Acre	Moon Most Favorable
Barley				****	****	****	oooo	oooo	xxxx	x			2-3 bu.	4.9-23
Beans	E			****	****	oooo	oooo	xxxx					1-1½ bu.	5.8-22
	L					**	**oo	oooo	xxxx	xx				5.15-22
Beets	E			**	**oo	oooo	xx						6 lbs.	4.9-23
	L			**	**oo	oooo	xxxx						1 oz. 75 ft.	7.6-20
	L						**	**oo	oooo	xx				
Broccoli	E			***	**oo	oooo	oooo	xxxx	xxx					4.9-23
	L					**	**oo	oooo	oooo	xxxx				7.6-20
Brussels Sprouts	E			**	****	oooo	oooo	ooo					½ lb.	5.8-22
Cabbage	E		***	****	oooo	oooo	xxxx	xxxx	**oo	oooo	xx		½ lb.	4.9-23
	L					**	**oo	oooo	oooo	xxxx				6.21
Carrots	E			**	**oo	oooo	xxxx	xx					2½-3lbs.	5.8-22
	L					**	**oo	oooo	oooo	xxxx			1 oz. 150 ft.	6.6-21
Cauliflower	E			**	**oo	oooo	oooo	oooo	xxxx				5 oz.	5.8-22
	L					**	**oo	oooo	oooo	oooo	xx		1 oz. 3M plants	6.6-21
Celery	E					****	oooo	oooo	oooo	xxxx			4-8 oz.	
	L					**	**oo	oooo	oooo	oooo	xxxx	x	1 oz. 4M plants	7.13-20
Corn, Sweet	E				**	****	oooo	oooo	xxx				8 qt.	5.18-22
	L				**	oooo	oooo	oooo	xxxx	xx				6.14-21
Cucumbers	E				***	****	oooo	xxxx					2-3 lbs.	6.7-21
	L												1 oz.-50 hills	
Egg Plant						****	oooo	oooo	xx					6.7-21
Endive	E			**	**oo	oooo	oooo	xxx						6.7-21
	L					***	oooo	oooo	xxx					4.15-23
Kale	E			**	oooo	xxxx	x	****	**oo	oooo	xxx			6.7-21
	L					**	**oo	oooo	oooo	oooo	xxxx	xxxx		5.8-22
Leek	E			**	**oo	oooo	oooo	oooo	oooo	xxxx	xxxx	xxxx	1 oz.	5.8-22
Lettuce	E			**	**oo	x	****	oooo	xx				150 ft.	6.14-21
	L					****	oooo	oooo	xx				1 oz. for 80 hills	6.7-21
Melon, Musk	E					****	**oo	oooo	oooo	xxxx	xx		1 oz. for 100 ft. of drill	5.8-22
Onion					****	**oo	oooo	oooo	oooo	xxxx	xxxx	xxxx	1 oz. for 100 ft. of dr.	5.8-22
Parsley				**	**oo	oooo	oooo	oooo	xxxx	xxxx	xxxx		1 qt. 60 ft. of dr.	4.15-23
Parsnip			*	****	oooo	oooo	oooo	oooo	xxx	xxxx	xxxx	xxxx	1 oz. 100 ft. of dr.	5.8-22
Peas	E			**	**oo	oooo	xxxx						1 qt. 60 ft. of dr.	4.15-23
	L						**	**oo	oooo	xx				7.13-20
	L						**	**oo	oooo	xxxx				8.15-19
Pepper					**	****	oooo	oooo	oooo	oooo	xxx		1 qt. 200 hills	6.14-21
Pumpkin				*	**oo	oooo	oooo	oooo	oooo	oooo	xxx		1 qt. 200 hills	6.14-21
Potato				**	**oo	oooo	oooo	oooo	oooo	xxxx	x		8-20 bu.	4.15-23
Radish	E			**	oooo	x							1 oz. 100 ft. of dr.	4.15-23
	L				**	oooo	xx		**	oooo	xx			5.15-20
Spinach	E			***	oooo	oooo	xxxx	**	****	**oo	oooo	xx		8.15-19
	L						**	****	**oo	oooo	xx			4.10-23
Swiss Chard				**	**oo	oooo	oooo	xxxx	xxxx	xxxx	xxx			8.4-16
Squash				**	**oo	oooo	oooo	oooo	xxxx	xxxx	xxx			4.23
Summer					**	**oo	oooo	oooo	xxxx	xxxx	xxx		2 lbs. 1 oz. for 30 hills	5.15-22





Table II -- Continued

Crop	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Seeds Per Acre	Moon Most Favorable
Tomato				***	0000	0000	00XX	XXXX	XXX					4.16
Turnip	E			***	0000	0000	XXXX	X						4.16-23
	L							**0	0000	0000	0XXX	XXXX		9.10-18
Wheat		0000	0000	0000	0000	0000	0000	XXXX	XX**	**0	0000	0000		16.9-17

## APPROXIMATE PLANTING, GROWING, AND HARVESTING TABLES

III. LATITUDE OF ATLANTA, GEORGIA.

(Add one week every 100 miles north or 500 feet elevation).

Date to Plant \*\*\*\*\*. Time of Growing 0000. Harvest Season XXXX.

E means Early. L means Late.

Crop	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Seeds Per Acre	Moon Most Favorable
Barley				****	**0	0000	0000	0000	0000	XXXX	X			3.10-18
Beans	E			**	*000	0000	00XX	XXXX						8.11-19
	L								***	0000	0XXX	X	See	2.18-24
Beets	E	***	0000	0000	XXXX								Table	9.10-18
	L								***	0000	00XX	XXXX		2.18-24
Broccoli	E	**	**00	0000	XXXX								I	8.11-19
	L							***	0000	0000	0XXX	XXXX		
Brussels Sprouts	E	**	**0	0000	0000	000X	XXXX	X						2.18-24
	L	xxx					**	0000	0000	0000	0000	0XXX		7.15-20
Cabbage	E	***	*000	0000	000X	XX								3.10-18
	L	xx					**	0000	0000	0000	0000	XXXX		7.15-20
Carrots	E	**	*000	0000	XXXX	X								2.18-24
	L							****	*000	0000	0000	00XX		8.11-19
Cauliflower	E	**	*000	0000	0000	XXXX								2.18-24
	L	xxx	xx						***	0000	0000	0000		9.10-18
Celery				**	0000	0000	0000	0000	XXXX					4.16-23
Corn	E		**0	0000	0000	XXXX	XX							3.10-18
	L		**	**00	0000	000X	XXXX							
Cucumber	E			***	0000	000X	XXXX							4.16-23
	L			***	0000	000X	XXXX	**	0000	0000	XXX			7.15-20
Egg Plant				***	0000	0000	0000	0000	0000	XXX				4.16-23
Endive	E	**	**0	00XX	XX			00XX	XXX					2.18-24
	L							**	*000	0XXX	XXXX	X		8.19
Kale	E	**	*000	0000	XXXX					***	0000	0XXX	XXXX	9.10-18
	L									***	0000	0XXX	XXXX	2.18-24
Leek	E	**	****	**0	0000	0000	00XX	XXXX	XXXX	XXXX	XXXX	XXXX		2.18-24
	L	**	*000	XXXX					***	000X	XXXX			2.18-24
Lettuce	E			**	*000	0000	0000	00XX	XXX					9.10-18
	L			**	**0	0000	0000	0000	XXXX	XX				3.15-18
Melon, Musk	E	0000	0000	0000	000X	XXXX	0000	XXXX	XX			***		3.15-18
	L			**	**0	0000	0000	0000	XXXX	XX				12.8-16
Parsley	E	xxxx	xxxx	X	0000	0000	0000	XXXX	XXXX	XXXX				2.18-24
	L	xxxx	xxxx	X	0000	0000	0000	XXXX	XXXX	XXXX	0000	000X	XXXX	8.19
Parsnip	E	xxx	xxxx	X	0000	0000	0000	XXXX	XX					2.18-24
	L	**	*000	0000	XXXX	XXXX	X		0000	0000	0000	XXXX	XXXX	7.13-20
Peas	E	**	*000	0000	XXXX	XXXX	X							1.19-26
	L							**	0000	0000	XXX			8.19
Peppers				***0	0000	0000	0000	00XX	XXXX	XX				4.16-23
Potato	E	***	****	*000	0000	0000	0000	XXXX	XX					1.19-26
	L			***	0000	0000	0000	0000	0000	XXXX	XX			4.16-23
Pumpkins				***	0000	0000	0000	XXXX	XXXX	XX				4.16-23
Radish	E	*	****	*000	XXX			***0	0000	XXXX	XX			4.16-23
	L	xx		**	000X	XX				***0	00XX	XX		
Spinach	E	**	**00	000X	XXXX	X					**	000X	XXXX	
	L							***0	0000	XXXX				2.18-24
Swiss Chard	E	**	**00	0000	0000	XXXX	XXXX	XXXX	XXXX	XX				8.11-19
	L	xxxx	xxxx	xxx				**	*000	0000	XXXX			2.18-24
Squash				**	*000	0000	00XX	XXXX						8.19
Summer				***	0000	0000	00XX	XXXX						9.10-18
Tomato				***	0000	0000	00XX	XXXX						9.10-18
Turnip	E	**	**00	0000	00XX	XX								2.18-24
	L	xxx						****	**00	0000	XXXX			9.10-18
Wheat		0000	0000	0000	0000	0000	0000	XXXX	XXXX	XX**	****	*000		9.10-18



## The Most Beautiful Fence Ever Made

GET this strong, solid fence of hewn chestnut. It is beautiful. And it reduces fencing cost two ways:

1. Cuts labor cost on installation. Easy to put up. Posts ready-notched. Rails fitted.

2. Reduces maintenance cost. No need to stain or paint. Weathers to a beautiful finish. (Often used as a decorative fence on estates.)

*Two-rail fence.* 10-ft. section, includes 1 post, \$3.70. Extra post, \$1.75.

*Three-rail fence.* 10-ft. section, in-

cludes 1 post, \$4.60. Extra post, \$1.85. Corner post \$2.95.

*Four-rail fence.* 10-ft. section, includes 1 post, \$5.50. Extra post \$1.95. Corner post \$3.15.

These prices are F.O.B. Hartford, Conn. as of Dec. 1, 1947. Regular discounts, 3% carry, 5% cash. Also please ask about quantity discounts. Mail us your order now. Or, if you're near one of our stores, phone or come in.

The Capitol City Lumber Company, 1400 Park Street, Hartford, Conn., telephone 5-0111.

## SEND FOR THIS

HOW to  
BREAK  
and  
TRAIN  
HORSES

# FREE!



Make money with horses. Every farmer, every lover of horseflesh should have a copy of this booklet. If you want to know how to break, train and make money with horses, write today for full information FREE, together with my special offer of a course in Animal Breeding. If you are interested in Gaiting and Riding the saddle horse, check here. Do it today—now. You'll never regret it.

## BEERY SCHOOL OF HORSEMANSHIP

Dept. 108-A

Pleasant Hill, Ohio

### HOW FAST IS SOUND?

Josh Billings says it depends upon the noise: "The sound of a dinner-horn, for instance, travels half a mile in a second, while an invitashun tew get up in the morning I've known to be three quarters uv an hour going 2 pairs uv stairs, and then not have strength to be heard."

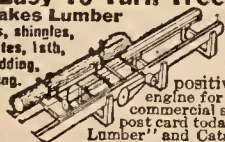
## ONE-MAN SAWMILL LESS THAN \$200<sup>00</sup>

Easy To Turn Trees Into Money

Makes Lumber  
ties, shingles,  
crates, lath,  
studding,  
siding.

BELSAW MODELS  
in 10 to 24 foot sawing  
lengths. MECHANICAL  
FEED, accurate set works and  
positive dogs. Use tractor or old auto  
engine for low cost power. Thousands used for  
commercial sawing. Pays for itself quickly. Send  
post card today for FREE booklet, "How To Make  
Lumber" and Catalog of Woodworking Equipment.

**BELSAW MACHINERY CO.,** 878 Field Bldg.  
315 Westport Road Kansas City 2, Mo.



## STATE EXTENSION DIRECTORS

Consult these men about your garden and farm problems. They know the answers.

(Courtesy—L. A. Schlap—Division of Extension Information)

<b>State</b>	
Alabama:	P. O. Davis, Alabama Polytechnic Institute, Auburn.
Arizona:	C. U. Piekrell, University of Arizona, Tucson.
Arkansas:	(Lippert S. Ellis, College of Agriculture, University of Arkansas, Fayetteville. *(Aubrey D. Gates, Associate Director, P. O. Box 391, Little Rock.
California:	B. H. Crocheron, College of Agriculture, University of California, Berkeley 4.
Colorado:	F. A. Anderson, Colorado Agricultural and Mechanical College, Fort Collins.
Connecticut:	R. K. Clapp, Associate Director, University of Connecticut, Storrs.
Delaware:	(G. L. Schuster, University of Delaware, Newark. *(G. M. Worrillow, Associate Director, University of Delaware, Newark.
Florida:	A. P. Spencer, Agricultural Extension Service, Experiment Station, Gainesville.
Georgia:	Walter S. Brown, Georgia State College of Agriculture, Athens.
Idaho:	D. R. Theophilus, College of Agriculture, University of Idaho, Moscow.
Illinois:	H. P. Rusk, College of Agriculture, University of Illinois, Urbana.
Indiana:	H. J. Reed, Purdue University, LaFayette.
Iowa:	H. H. Kildee, Iowa State College of Agriculture and Mechanic Arts, Ames.
Kansas:	H. J. C. Umberger, Kansas State College of Agriculture and Applied Science, Manhattan.
Kentucky:	T. P. Cooper, College of Agriculture, University of Kentucky, Lexington 29.
Louisiana:	H. C. Sanders, Louisiana State University and Agricultural and Mechanical College, University Station, Baton Rouge 3.
Maine:	A. L. Deering, College of Agriculture, University of Maine, Orono.
Maryland:	T. B. Symons, University of Maryland, College Park.
Massachusetts:	W. A. Munson, Massachusetts State College, Amherst.
Michigan:	R. J. Baldwin, Michigan State College of Agriculture and Applied Science, East Lansing.
Minnesota:	Paul E. Miller, Department of Agriculture of the University of Minnesota, University Farm, St. Paul 8.
Mississippi:	L. I. Jones, Mississippi State College, State College.
Missouri:	J. W. Burch, College of Agriculture, University of Missouri, Columbia.
Montana:	R. B. Tootell, Montana State College of Agriculture and Mechanic Arts, Bozeman.
Nebraska:	W. H. Brokaw, College of Agriculture, University of Nebraska, Lincoln 1.
Nevada:	C. W. Creel, Agricultural Extension Division, University of Nevada, Reno.
New Hampshire:	H. B. Stevens, University of New Hampshire, Durham.
New Jersey:	(W. H. Martin, State College of Agriculture and Mechanic Arts of Rutgers University, New Brunswick. *(L. G. Cook, Associate Director, College of Agriculture, New Brunswick.
New Mexico:	A. B. Fite, New Mexico College of Agriculture and Mechanic Arts, State College.
New York:	L. R. Silmons, New York State College of Agriculture, Ithaca.
North Carolina:	I. O. Schaub, State College Station, Raleigh.
North Dakota:	E. J. Haslerud, North Dakota Agricultural College, State College Station, Fargo.



Ohio:	H. C. Ramsower, College of Agriculture, Ohio State University, Columbus 10.
Oklahoma:	Shawnee Brown, Oklahoma Agricultural and Mechanical College, Stillwater.
Oregon:	W. A. Schoenfeld, Oregon State Agricultural College, Corvallis.
Pennsylvania:	J. M. Fry, Pennsylvania State College, State College.
Rhode Island:	H. O. Stuart, Rhode Island State College, Kingston.
South Carolina:	D. W. Watkins, Clemson Agricultural College of South Carolina, Clemson.
South Dakota:	George I. Gilbertson, Director, South Dakota State College of Agriculture and Mechanic Arts, Brookings.
Tennessee:	C. E. Brehm, College of Agriculture, University of Tennessee, Knoxville 7.
Texas:	Ide P. Trotter, Agricultural and Mechanical College of Texas, College Station.
Utah:	W. W. Owens, Utah State Agricultural College, Logan.
Vermont:	J. E. Carrigan, College of Agriculture, University of Vermont, Burlington.
Virginia:	L. B. Dietrick, Virginia Polytechnic Institute, Blacksburg.
Washington:	E. V. Ellington, State College of Washington, Pullman.
West Virginia:	J. O. Knapp, College of Agriculture, West Virginia University, Morgantown.
Wisconsin:	W. W. Clark, Associate Director, College of Agriculture, University of Wisconsin, Madison 6.
Wyoming:	A. E. Bowman, College of Agriculture, University of Wyoming, Laramie.

\*All general correspondence is conducted by the associate director.

## A TABLE FOR TELLING THE WEATHER THROUGH ALL THE LUNATIONS OF EACH YEAR FOREVER

Moon	Time of Change	In Summer	In Winter
	From Midnight to 2 A.M.	Fair	Hard frost, unless wind be S. or W.
	From 2 A.M. to 4 A.M.	Cold, with frequent showers	Snow and stormy
	From 4 A.M. to 6 A.M.	Rain	Rain
	From 6 A.M. to 8 A.M.	Wind and Rain	Stormy
	From 8 A.M. to 10 A.M.	Changeable	Cold Rain if wind be W.; Snow if E.
	From 10 A.M. to Noon	Frequent Showers	Cold & high wind.
	From Noon to 2 P.M.	Very rainy	Snow or rain.
	From 2 P.M. to 4 P.M.	Changeable	Fair & mild.
	From 4 P.M. to 6 P.M.	Fair	Fair.
	From 6 P.M. to 8 P.M.	Fair — if wind N.W. Rain — if S. or S.W.	Fair & frosty if wind N. or N.E.; Rain or snow if wind S. or S.W.
	From 8 P.M. to 10 P.M.	Same as from 6 P.M. to 8 P.M.	
	From 10 P.M. to Midnight	Fair	Fair & frosty.

The nearer the time of the moon's change, first quarter, full, or last quarter is to midnight, the fairer the weather will be during the seven days following. (10 P.M. — 2 A.M.).

The nearer to noon the more foul or wet weather is to be expected. (10 A.M. to 2 P.M.).

Spring and autumn are affected nearly in the same ratio as summer and winter.



Rich, flavory, fresh White House Coffee vacuum packed in air-tight tins and jars, or buy it in the triple-sealed package for economy.

Send three (3) tin, jar, or package tops, or 10-cents, for a pretty blue White House standard coffee measure.

## WHITE HOUSE COFFEE

Box 1871 BOSTON, (5) MASS.

## Tables of Measures

### (English Units)

#### Linear Measure

- 1 foot=12 inches
- 1 yard=3 feet
- 1 rod=5½ yards=16½ feet
- 1 mile=320 rods=1760 yards=5280 feet
- 1 nautical mile=6080 feet
- 1 knot=1 nautical mile per hour
- 1 furlong=¼ mile=660 feet=220 yards
- 1 league=3 miles=24 furlongs
- 1 fathom=2 yards=6 feet
- 1 chain=100 links=22 yards
- 1 link=7.92 inches
- 1 hand=4 inches
- 1 span=9 inches

#### Square Measure

- 1 square foot=144 square inches
- 1 sq. yard=9 sq. feet
- 1 sq. rod=30¼ sq. yards=272¼ sq. feet
- 1 acre=160 sq. rods=43560 sq. ft.
- 1 sq. mile=640 acres=102400 sq. rods
- 1 sq. rod=625 square links
- 1 sq. chain=16 square rods
- 1 acre=10 square chains

#### Cubic Measure

- 1 cubic foot=1728 cubic inches
- 1 cubic yard=27 cu. feet
- 1 register ton (shipping measure)=100 cubic feet
- 1 U. S. shipping ton=40 cu. ft.
- 1 cord=128 cubic feet
- 1 U. S. liquid gallon=4 quarts=231 cubic inches
- 1 imperial gal.=1.20 U. S. gals.=0.16 cubic feet
- 1 board foot=144 cubic inches

### (Metric Units)

#### Linear Measure

- 1 centimeter=10 millimeters
- 1 decimeter=10 centimeters
- 1 meter=10 decimeters
- 1 dekameter=10 meters
- 1 hektometer=10 dekameters
- 1 kilometer=10 hektometers
- 1 inch=2.54 centimeters
- 1 meter=39.37 inches
- 1 yard=0.914 meters
- 1 mile=1609 meters=1.61 kilometers

#### Square Measure

- 1 square centimeter=100 square millimeters
- 1 sq. decimeter=100 sq. centimeters
- 1 sq. meter=100 sq. decimeters=1 centar
- 1 ar=100 centars
- 1 hektar=100 ars
- 1 sq. kilometer=100 hektars
- 1 sq. centimeter=0.15 sq. inches
- 1 sq. meter=1.20 sq. yards
- 1 sq. kilometer=0.39 sq. miles
- 1 hektar=2.47 acres
- 1 sq. inch=6.45 sq. cm.
- 1 sq. yard=0.84 sq. m.
- 1 sq. mile=2.59 sq. km.
- 1 acre=0.40 hektars

#### Cubic Measure

- 1 cubic centimeter=1000 cubic millimeters
- 1 cu. decimeter=1000 cu. centimeters
- 1 cu. meter=1000 cu. decimeters
- 1 cu. yard=0.76 cubic meters
- 1 cu. meter=1.31 cubic yards
- 1 liter=1.06 U. S. liquid quarts
- 1 hektoliter=100 liters=26.42 U. S. liquid gallons
- 1 U. S. liquid quart=0.94 liters
- 1 U. S. liquid gallon=3.76 liters

## Weights

#### Avoirdupois

- 1 pound=16 ounces
- 1 hundredweight=100 pounds
- 1 ton=20 hundredweight=2000 pounds
- 1 long ton=2240 pounds

#### Troy

- (Used in weighing gold, silver, jewels)
- 1 pennyweight=24 grains
  - 1 ounce=20 pennyweight
  - 1 pound=12 ounces

#### Apothecaries


- 1 scruple=20 grains
- 1 dram=3 scruples
- 1 ounce=8 drams
- 1 pound=12 ounces

#### Metric

- 1 centigram=10 milligrams
- 1 decigram=10 centigrams
- 1 gram=10 decigrams
- 1 dekagram=10 grams
- 1 hektogram=10 dekagrams
- 1 kilogram=10 hektograms
- 1 metric ton=1000 kilograms
- 1 kilogram=2.20 pounds
- 1 pound avoirdupois=0.45 kilograms



**F**rom Maine  to Florida 

millions know that  is a

great name on the road 

on the farm 

and in the home 

**AMERICAN OIL COMPANY**

From Maine to Florida

## RECENT TRENDS IN FUNGICIDES

By E. J. Rasmussen

Dept. of Horticulture, University of N. H.

The control of diseases on plants by the application of chemicals in the form of sprays and dusts is not as old a practice as one might think from the important place it holds today in food production. It dates back to about 1880, when Bordeaux was found to be effective in the control of mildew on grape plants. Later, about 1906, lime-sulfur was found to be satisfactory for the control of apple scab, and these two were the most commonly used fungicides until a few years ago.

Materials such as bordeaux and lime-sulfur not only controlled plant diseases but often caused serious defoliation and injury to the fruit to which they were applied. Plant physiologists became interested in the effect of spray materials on plants several years ago. Through their research it was found that lime-sulfur, for instance, interfered with the function of the foliage to manufacture plant food, reduced the size of leaves, and often caused serious defoliation and reduced yields of fruits.

The results of the work by plant physiologists on the harmful effects of spray materials on plants stimulated interest in the development of new materials which would control diseases but be less toxic to plants, and today better materials are available.

The fungicides which are largely replacing bordeaux and lime-sulfur in plant disease control are wettable sulfurs, proprietary copper compounds, and synthetic organic materials.

**Wettable Sulfur.** Wettable sulfurs are elemental sulfurs of very fine particle size to which a wetting agent has been added. They are available in paste and powder forms and are sold under various trade names. The brands with the smaller particle size (8 microns and smaller; a micron is equal to 1/25000 of an inch) and a high percentage of sulfur are the most effective in disease control. Wettable sulfurs are suggested for the control of apple scab, brown rot of stone fruit, and black spot on roses. The dry wettable forms are usually applied at the rate of 4 to 8 pounds to 100 gallons of spray.

**Proprietary Copper Compounds.** The proprietary copper compounds are stable copper materials in the form of basic sulfates, oxychlorides, oxides, and silicates. They are sold under trade names and are suggested for the control of cherry leaf spot on sour cherry, grape black rot, pear scab, potato blight, and various diseases on vegetables.

**Synthetic Organic Fungicides.** Synthetic organic fungicides are the most recent development in plant disease control materials. They are complex organic materials and are sold under patented trade names. Over 50 of these materials were used in an experimental way for disease control on plants in 1946. A few of the promising ones are mentioned here.

Ferrie dimethyl dithiocarbamate sold as Fermate and Karbam is a black sooty powder. This material is one of the most promising of the new fungicides for the control of apple scab, cedar rust, cherry leaf spot, brown rot of stone fruits, and black spot on roses, anthracnose on raspberry, and early blight of tomato.

Dichloronaphthoquinone, sold as Phygon, was found effective in the control of apple scab and cherry leaf spot in 1946. It causes considerable injury to potato when used for blight control, resulting in low yields. It is a yellow powder and irritating to the skin.

Phenyl mercuri triethanol ammonium lactate is sold as Puratized Agricultural Spray. This material was reported in 1946 to be effective in the control of pear scab, apple scab and grape black rot. It contains mercury and must not be used on plants or fruits used for food when there is danger of a poisonous residue. It is sold in liquid form and used at the rate of 1/2 to 1 pint to 100 gallons of spray.

Zinc dimethyl dithiocarbamate, sold as Zincate, Zerlate, Methasan, and Karbam (white), is a white powder.

This material was found effective for the control of cherry leaf spot, pear scab, brown rot of peach, early blight of tomato, celery blight, and anthracnose of tomato.

The development of better spraying and dusting equipment and better fungicides and insecticides is a real advancement in pest control.

*Ed. Note: DDT, about which so many have heard so much, apparently is not a fungicide. It is an insecticide.*

# Listen To "BLACKIE"

Presenting

## YANKEE YARNS

THRILLING, COLORFUL TALES  
OF NEW ENGLAND

WBZ Boston - WCSH Portland - WLBZ Bangor - WRDO Augusta

COMPILED AND NARRATED BY

### Alton Hall Blackington

EVERY FRIDAY NIGHT—7:30 P.M.

Presented For Your Enjoyment by

## FIRST NATIONAL STORES

### The NEW ENGLAND COOK BOOK

300 Fine Old Recipes

25c.

Wherever books are sold . . . Or sent  
postpaid 30c . . . Stamps accepted.  
Culinary Arts Press, P. O. Box 1182,  
Reading, Penna.

#### Cure for Snoring

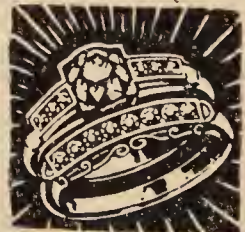
A Maine man whose wife snored so badly he could not sleep had a flexible tube made about ten inches long and when his wife went to sleep he fastened one end of it to her nose, and the other to one of her ears. Just as she commenced to snore the sound was carried to her ear and woke her. . . . Another remedy is a clothespin on the nose of the snorer.

*Smart, Simulated*

### DIAMOND RINGS

Beautiful wedding and engagement rings set with sparkling simulated diamonds. Genuine gold plate on sterling silver. Send no money! Pay postman on delivery plus C.O.D. charges. Save charges send remittance with order. Send ring size.

\$1.95 each  
or both  
for \$3.50  
Tax Included



VOGUE JEWELERS, Dept. OFA, 1003 Locust, St. Louis, Mo.



## THE ARTIFICIAL INSEMINATION OF CATTLE

The artificial insemination of cattle is no new thought, for the need has long been seen. To the average farmer without convenient or reliable local bull service for his cows, this is a Godsend. But it is more than a convenient arrangement. When semen from bulls proved as to quality is used in artificial insemination, we have the basis for heavier milk production and increasingly better grades of cattle. By "proven sires" is meant those bulls that have through their offspring proved a greater milk producing line than was shown by the dams. Once "proved," these sires through artificial insemination, can serve many times more cows than in the ordinary service function, for nature in this respect is wasteful.

The method of gathering semen artificially used to be simply to draw out from a serviced cow the surplus semen and place this in a test tube or use it immediately to inseminate other cows. However, this method was obviously unsanitary, and offered no little chance of the spread of diseases—for a chain of animals were more or less involved in physical contact. Today trained handlers have been taught how to prepare a "sleeve" with warm water compartments heated to body temperature. Into this the bull ejaculates and from this the semen is drawn for future use.

The semen may be kept in refrigeration from 5 to 7 days. This means keeping it at just above freezing temperatures either by fasteuing the test tubes to ice-filled receptacles or by suspending tubes in iced thermoses. In this way the life of the sperm is subdued and preserved. Semen thus held is diluted one part to 20 with a prepared egg yolk dilutant.

Many states now have an artificial insemination program or are about to have. Centres will each serve 1000-2000 cattle. The New England States are pretty well started in the work, its men especially trained at Cornell or elsewhere to carry on the work.

The chief reasons a herd owner should join up with an artificial insemination program is that it does bring proven quality bulls to his herd, offers a stop-gap to disease, and in the long run is far cheaper and more convenient than the "old-fashioned" bull service. Here is one sure-fire herd innovation that the dairyman cannot lose by.

## GROWTH OF TIMBER

J. M. ATTRIDGE, Forester, New England Forestry Foundation

Few people are familiar with actual growth in a stand of timber where increment is measured in terms of board feet per acre per year. Maximum yields of timber can be realized only by maintaining a high volume of growing stock. This point is illustrated in Table I, which is applicable to the average woodland in southern New Hampshire, as determined by the New England Forestry Foundation.—

Table I*			Table II	
Growing Stock you have per acre (board feet)	Your board-foot Growth	Growth Percent	DBH	Growth Percent
1,000	120	8.1	8	11.8
2,000	160	7.3	10	9.0
3,000	205	6.6	12	7.0
4,000	240	6.2	14	5.7
5,000	270	5.7	16	4.5
6,000	295	5.3	18	3.7
7,000	320	5.0	20	3.1
8,000	345	4.7	22	2.7
9,000	375	4.5	24	2.4
10,000	410	4.3	26	2.1
11,000	445	4.1	28	1.8
12,000	485	4.0		
13,000	540	3.9		
14,000	605	3.7		

\* In trees measured 8" DBH and up.

Growth of timber is commonly expressed in board feet per acre or growth percent. It is interesting to note in Table II, the rate of

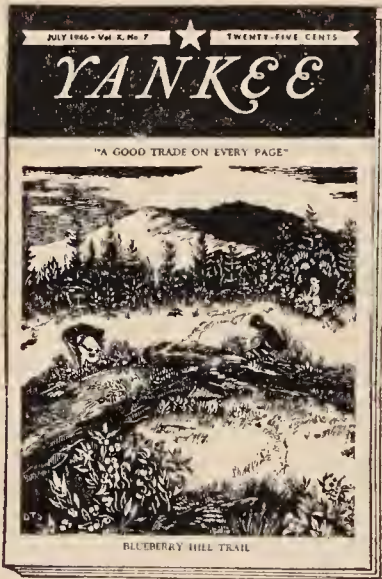
(Continued on page 73)

## WANT TO MAKE A GOOD TRADE!

Could you use 9,999 potential customers . . .

for as little as \$9.99?

# YANKEE Magazine



is one of the liveliest of all market-places. In its famous *Original Yankee Swappers' Columns* and Display advertisements, people are trading everything from wives to battle-ships, from buttons to banjos. Most of the "ads" are fascinatingly "different" reading. Accompanied as they are by fine fiction, America's best poetry, beautiful photographs and drawings,—anecdotes, human interest features, etc.—excellently printed on glossy paper—you get full value for your money.

YANKEE's subscribers use this magazine to further their own businesses, hobbies, and pursuits of pleasure. You can do this too. Our offer is three one inch ads, and a year's subscription—all for \$9.99—You send us \$1.59 for the subscription—and the copy for your ads (1 inch high by 2 $\frac{5}{8}$  inches

wide), tell us which months you want the ads to appear *and* we send you bill for each (\$2.80) when it is published. YANKEE practises what it preaches. YANKEE advertisements and subscriptions cost *less* now than before the war. Now you know that is a good trade.

If you'd rather have a "look" first, ask us for a Sample Copy (no charge) or enclose a dollar for 7 months trial subscription. A postcard will do if you'd rather have us send bill.



## YANKEE, Incorporated

Dublin, New Hampshire

[Publishers of Yankee magazine *and* The Old Farmer's Almanac(k)]

## SCIENTISTS AT WORK

Courtesy in part Experiment Station Record—U. S. Department of Agriculture

**Soilless Gardens.** Still carried on this year will be the soilless gardens such as were installed on many a desert island during the war. But those gardens were furthered with all that the government could offer in the way of pesticides and fertilizers. Our soilless gardens this year will be the back yards of gravel and sand that many a temporary tenant of many a temporary housing unit will attempt to cultivate. How shall these deserts flourish?

**Prairie Grasses.** Slow but sure, if you give them time—that's the story of government sown prairie grasses. According to a government report: "Prairie grasses never looked to be a good prospect the first year. The good prairie perennials were apparently lost in a jungle of weedy growth. Sorted out by botanical species, the good grasses did not yield in the first year more than one-twentieth of what they did the second season. By the third year they were victorious competitors, kept the weeds down, and yielded five times as much as in the second season, and 100 times as much as the first year. This was not a single season's experience, but the average for five years."

**Frozen Fruit Juices.** In view of the extraordinary demand for such products, experimental work has pretty well reached the commercial stage in frozen apple juice, orange and apricot puree mixtures, plum juices, orange juice, grapefruit and prune juice blends, tomato juice and blends, punch syrups, sour cherry, apple and apricot and fruit nectars.

**Your Home Freezer.** Many farmers are looking forward to the time when they may build in a home freezing unit—one that will be a real "walk in" unit—a place to hang whole carcasses as well as behind closed partitions, to store furs, etc. We have only scratched the possibility of this idea. Why haven't we more "home-freezer" rooms? We are only awaiting the time when we can construct them economically.

**Onion Sets Skillfully Stunted.** Few readers may stop to think that onion sets are one of the real oddities of the garden supply business. They come from a crop deliberately and skillfully overcrowded, so overcrowded that growth is checked. The bulbs are stunted and may grow into shapes different from their natural rotundity. Then the crop is harvested, cured, and stored for about half a year. In the spring the stunted bulbs are replanted with favorable spacing. They grow again and form the favored early green onion of spring. Or they may be left to mature as full size vegetable bulbs.

**Freezing Muscadine Grapes.** Due to the highly perishable tendencies of Muscadine grapes, only the juice has been used commercially. A general method has been found for utilizing the entire grape by deseeding, removing excess tartness of the skins, tenderizing, packing with sugar, and freezing. This method provides a wide application in the home and in the commercial field.

**Using The Whole Tree.** The Weyerhaeuser Timber Co. (largest in the world) whose operations are carried on in some two million acres of western forests, has developed ways of using most of the trees they fell. Usually in the lumber industry only about a third of a felled tree becomes lumber—the rest just left to rot or wasted in the sawmills. The Weyerhaeuser Co. salvages sawdust by pressing it into the shape of fireplace logs. These are known as Prestologs. Under the name of Silvacon, the company is turning out no less than five bark products, to be used variously as a soil mulch, in the manufacture of phenolic resin and fiber paints, and as a plywood adhesive.

**Early Chicks Lay Early Eggs.** It is the early hatched chick (from late February to early April) that is of an age and stage of develop-



ment best able to take advantage of the long hours of June and July daylight to grow and mature to the point of egg laying. Well-proven now that these chicks do start laying in a shorter time from hatching out than chicks maturing in the shorter days of fall or late summer.

**Farm Facts.** About one out of every five persons in the U. S. lives on a farm and another fifth of our population lives in rural areas strictly dependent upon farms. The farm population includes about a third of all children in the nation, and when one of these grows up and moves to the city he automatically subsidizes it to the extent of some \$2,000, the amount of money out of farm income that it cost to grow and educate him.

Nearly 750,000 farm dwellings had to be abandoned during the war. Only about half the existing farm homes have electricity, a little more than a fourth have running water, about a sixth have bath and toilet, and fewer than that have central heating.

**Food Values.** A letter from the U. S. Department of Agriculture says in part: "Just as surely as we now buy grade AA, A, B, and C eggs, the day will come when we will buy eggs with a guaranteed vitamin and mineral content. Eggs or butter vary in their vitamin content, depending on the completeness of the ration the cow or chicken is fed. When that time of guaranteed vitamin and mineral content arrives, it will be extremely important for every farmer to feed his livestock correctly. We will then have to make sure that his soil contains the essentials for food value, in order that the crops and livestock products he sells may contain the factors necessary for health."

**Cattle Fever Tick Doomed.** The Bureau of Animal Industry in its 40 years' fight to eliminate cattle fever, see now the original quarantine area at less than one percent its original size and annual losses reduced from some \$40,000,000 to less than \$400,000 annually.

**Super-Colossal Egg.** In Glen Cove, N. Y., on April 3 last year was laid the world's largest egg. A black and white Brahmin owned by Evans Mealing delivered herself of this wonder. It measured 7½ inches in circumference and weighed 15 ounces. The hen kept right on laying.

**New Marketing Methods for Strawberries and Peaches.** South Carolina and Tennessee growers find that the complete enclosure of berries in quart baskets by overwrapping and heat sealing in cellophane retarded mold development and dehydration. Overwrapping with flexible transparent films encouraged purchasing by store patrons. The complete covering prevented spilling and shifting of the fruit and reduced crushing in transit and losses by pilfering. Wrapped quarts were handled more easily by patrons and in general stimulated purchases.

**Hay Driers.** Drying hay in barns artificially by duct systems has progressed considerably over the last decade and is now the subject of a report on hay driers in Virginia. There are 247 driers in use in the state, all of which were reported on by their owners, only one unfavorably.

**Boron Deficiency in Apples.** The New England Experimental Farm has the following recommendations to make for the use of borax for the control of internal cork in apples. Trials of borax added to the soil indicated one pound per tree to be effective and the results probably to last for five years. Most suitable time for application is June through August. Best results were found where borax was immediately hoed into the soil, though this would scarcely be feasible in extensive orchards. The keeping quality of storaged apples from trees previously suffering from B deficiency showed a marked improvement.

**Vanishing American Soil.** "When John Smith and Miles Standish came to these shores, the topsoil averaged about nine inches in depth. Today, due to the ripping and wearing action of the water and wind on unprotected land and to the removal of organic matter—the result of land abuse—topsoil averages about six inches in depth for the

nation as a whole. In some places it is all gone." (Secretary of Agriculture Anderson.)

**Our Changing Climate.** From 1932 to 1945 data on the weather of our country shows a more or less regular rise in temperature for the first few years of that period, but a trend the last few years to a leveling off with even a suggestion of impending reversal.

**Orchard and Truck Garden Heater Experiments.** An experimental orchard and garden heater developed at Michigan State College can keep the temperature of plants over a one acre plot 8 degrees Fahrenheit warmer than surrounding area temperatures at a cost of 75 cents per hour.

This will prove most useful in protecting the high-cost-per-acre crops such as fruits, berries, truck gardens and flowers. The oil-burning heater is designed so that radiant (infra-red) heat warms the plants directly without greatly warming the air, thus resulting in a large economy of fuel. Cost of the experimental model was \$250, but engineers believe that a burner large enough to protect one acre can be produced for one-third to one-half that figure. Tests continue to increase the efficiency of the model.

**Should Tomato Plants be Pruned and Staked?** As reported from the Minnesota Experimental Station, the yields of (1) unstaked and unpruned, (2) staked but not pruned, and (3) staked and pruned tomato plants were 16.62, 15.96, and 11.77 tons per acre, respectively. When early yields (first five pickings) were considered, the respective figures were 1.33, 1.41 and 1.57 tons. Furthermore, fruits on the pruned and staked plants averaged larger in size.

**Roach Repellent Cement.** Of interest in connection with flooring—especially for buildings or rooms used for food storing will be the use of grey-colored Hubbellite cement. It is found to have to a marked degree the power to repel German, American and Oriental cockroaches. There is no report as to effectiveness on the Irish, South American, Portuguese and Brooklyn varieties.

*(Continued from page 69)*

growth for trees of various diameters in typical stands of timber in southern New Hampshire. The annual increment of wood in a tree or in a stand is comparable to interest earned by an investment, in that the principal or forest capital compounds itself. This is true because each layer of wood is being added to a constantly increasing girth. Since growth rate decreases with the age of a tree, it is practical to predict growth only for short periods of 5-10 years.

It is quite possible for every forest owner to find out for himself the amount of his growing stock in board feet, but he must have available a scale stick and volume table, with simple instructions for the use of both. A set of scale sticks with full instructions and Volume Table may be had for something over a dollar by sending, among other places, to the Federal Land Bank in Springfield, Mass. Other Federal Land Banks the country over will offer the same service. Information and Tables may also be had from County Foresters everywhere as well as the New England Forestry Foundation.

White pine is the fastest growing commercial species in the New England Region. Growth of 1000 board feet per acre per year has been recorded in a few well-managed stands of white pine. Authorities predict that, ultimately, on extensive areas, in stands of well-stocked white pine the growth should not be less than 700 feet board measure, per acre per year. Growth in mixed stands, and pure stands of other species will be considerably less, varying according to soil conditions and stocking. Some of our fast growing hardwoods are red oak, basswood and ash. Red oak is an exceptionally fast grower on productive north slopes.

The aim of every forest owner should be to retain as much growing stock as is economically feasible, until the maximum carrying capacity is reached. Then, the volume of timber to be cut should correspond with the increment occurring between cutting intervals, preferably every 5-10 years depending upon accessibility.

# HUDSON'S BAY

## "Point"

# BLANKETS

*"Points" of Interest  
in the Outdoor World*

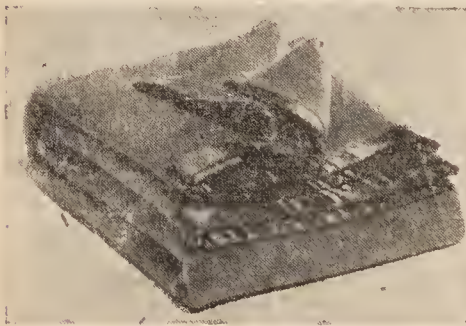
All through the fur-trading country, as far back as 1779, the number of "points" on an Hudson's Bay Blanket indicated its value in beaver skins.

Today, all over the world, they're still "points" of value. For genuine Hudson's Bay "Point" Blankets are prized by sportsmen everywhere for their deep, downy, water-shedding nap — their everlasting dyed-in-the-wool beauty and toughness.

None genuine without the Seal of Quality. There's hardly a man who won't thrill with pride to own a pair of genuine Hudson's Bay "Point" Blankets. Write for color illustrated folder to the Esmond Mills, Incorporated, Esmond, R. I. Sole U. S. Distributors.



# Esmond BLANKETS



DO wedding invitations baffle you? Are anniversaries a problem because of indecision as to what to give?? ES Mond BLANKETS make grand gifts. Dependable Esmond quality Blankets are an investment in warmth and comfort for years. Their cost -- less than 1¢ a night.

Esmond Blankets are choice gifts for any event.

WEDDINGS  
EASTER  
HOSTESS

ANNIVERSARIES  
MOTHER'S DAY  
NEW BABIES

SHOWERS  
BIRTHDAYS  
GRADUATION

Send for "The Story of Bunny Esmond" to delight the little ones. Enclosed in the book will be a small sample of the superb all wool Esmond "Silver Fox" Blanket. Write to

THE ESMOND MILLS, Incorporated  
Esmond, Rhode Island



## BUD FISHER

### Creator of A. Mutt and J. Jeff

The first New England railroads went into operation in 1834. As late as 1842 the inhabitants of Dorchester, Massachusetts, voted in Town Meeting that these lines would be an "incalculable evil." In 1841, Robert B. Thomas included the railroads for the first time on his "Old Farmer's Almanac" Map of New England—thus admitting them to some sort of parity with the Stage Coaches.

Bud Fisher published the first American Comic strip in 1907. Though some readers still refuse parity for the comic-strip with the rest of the paper, it cannot be denied it has gained a major place in American publishing. The American News Company sale alone amounted to 69 million copies of comic books in 1942, 144 million in 1944, and 169 million in 1946 or over a copy for every living American man, woman, and child.

The "Old Farmer's Almanac" thus comes somewhat late in the day to the recognition of this truly American phenomena in publishing herewith this story of Bud Fisher, first American Comic Strip artist.

Back in 1907, horse players were just as avid for a winner as they are today. Bud Fisher, ever observant of the behaviorism of his fellow humans, saw in this field an opportunity for a comic artist that was a surer thing than the best bet of the day. Fisher lived in San Francisco at the time and the gee-gees were running at Emeryville, across the bay.

Born in Chicago, Harry Conway "Bud" Fisher had attended Hyde Park High School where he starred on the relay team. He had illustrious company, for such athletes as Walter Eckersall and Tom Hammond were also there at the time. He attended the University of Chicago for three months and when his family moved to Reno, went along but made San Francisco his destination.

When the comic strip idea first came to Fisher, he was only 21, but he was two years older than that before he finally convinced John P. Young, then managing editor of the San Francisco **Chronicle**, that his idea was worth a gamble. Fisher's enthusiasm and perseverance won. He caught Mr. Young in a genial mood one night and approached him with some sample drawings.

"What's that?" Mr. Young asked Fisher as he peered at the cartoons and pointed to the thin, weak-chinned character that was soon to make comic strip history.

"That's me," Bud replied. "A. Mutt."

"He looks funny. We'll publish it."

This was the start of Augustus Mutt and the first comic strip ever published. Fisher had purposely given Mutt a long nose in sympathy to the horse players who were always adding body English to the pony they played, in the hope said horse would get his nose in front at the finish. Mutt was supposed to pick a horse a day and Fisher made him a composite of all the bettors he observed. He portrayed their varied methods of trying to dope out a winner and A. Mutt soon had a big audience. There was a familiar note here that all horse-players responded to. His cartoons gained greater popularity when the horses picked began to win, much to the bookies' chagrin.

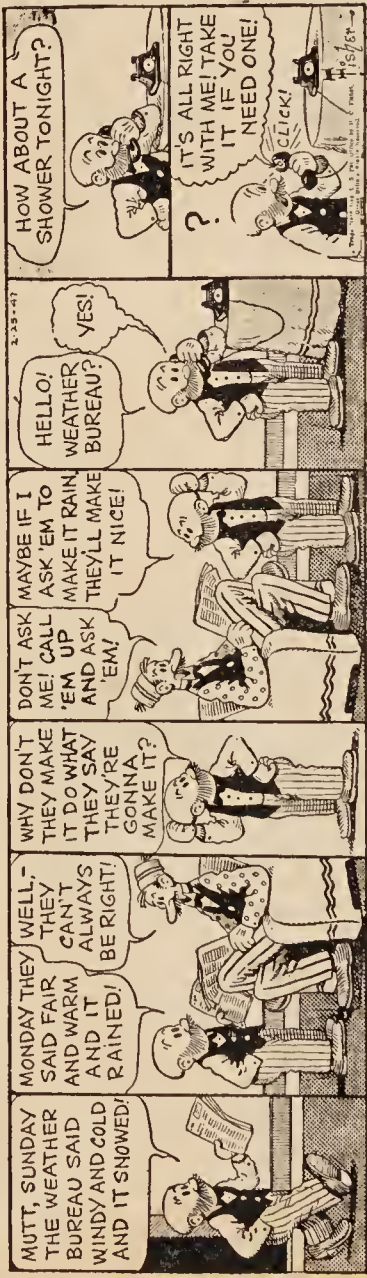
Fisher's selections were strictly for gags not speed. That is, the name of the horse would fit in with the humorous situation he intended to portray so that the effect would be double-barrelled. To anyone but a horse player, such a hit-and-miss proposition seems like a quick way to the poor house. But A. Mutt had luck. His horses won and soon yelling newsboys were selling the paper on the strength of Mutt's selections.

On one occasion Mutt was in a hospital, recovering from an injury, looking over the day's entries. He glanced at the sky, the sun was shining. He looked back at the list of horses. There it was, a hunch bet—Bright Skies. Mutt threw away his crutches, leaped into the bay and swam to the track just in time to plank down five dollars on the horse to win. He came in at odds of 300 to 1. Mutt was made and his body and balloons were by Fisher.

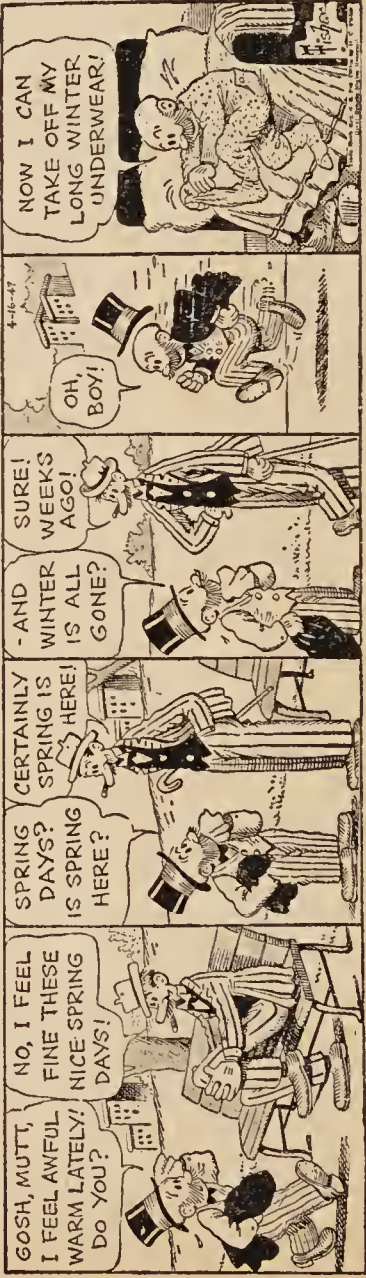
During one stretch, Fisher picked so many winners he tried to taper off. But his long shots persisted in bounding down the stretch in front.

Before long, the San Francisco **Examiner** offered Fisher a job at more money and he accepted. He copyrighted the title and character in his own name and added little Jeff to the comic. This was at the time when the sport pages were filled with news of the coming John-

# A BATH ONCE IN A WHILE—SHOWER OR OTHERWISE—IS OKAY



# DOESN'T EVEN THE IDEA MAKE YOU ITCH?



son-Jeffries fight. Mutt had been sent to an asylum and there met the diminutive and bewiskered Jeff, who claimed he was James J. Jeffries, heavyweight champion of the world. Jeff's claims were a challenge to Mutt to make the little fellow come off a bad second in any engagements the two had. Because it is human nature to side with the weak, Jeff soon had the sympathy of the public.

Mr. Hearst transferred Fisher to New York and Mutt and Jeff began to appear in all the Hearst newspapers. By this time the strip was nationally popular and Fisher was anxious to obtain more money. His contract called for \$200 a week the first year, \$250 a week for the second, third and fourth years, and \$300 for the fifth year. One, when visiting



# JEFF EVIDENTLY DON'T BELIEVE IN AN ASSEMBLY LINE



# SO WHAT? NEITHER COULD YOU EAT AT THAT AGE



the New York American officers, Fisher was puffing away nervously at a cigarette. There was a sign in building prohibiting smoking and when some executive called Mr. Fisher's attention to this, Bud's indifference nettled the man.

"Do you work here?" he inquired. "Yes," Fisher replied.

"Then you're fired," spouted the executive.

"Mister," said Fisher calmly. "I don't know who you are but if you can make that discharge stick, I'll give you a thousand dollars."

When his contract with Hearst expired in 1913, Fisher signed a contract with John N. Wheeler, enterprising New York newspaperman, to syndicate the strip at \$1,000 a week and share in the profits. Hearst did not give up without a fight and a long law suit



followed. Various artists were employed by the American to draw the strip while the court fight was going on. The court finally granted Fisher exclusive right to produce Mutt and Jeff and protection from unfair competition of others reproducing them.

The fact that Fisher had copyrighted the strip a few years before was a stone wall which Hearst's experienced lawyers could not dent. By this victory, Fisher gained not only wealth for himself but made it possible for many comic artists who came after him to gain greater returns than they ever thought possible. Still in fairness to Hearst, Fisher admitted later that he had done more to raise the pay of newspapermen and artists than any other publisher.

Syndicated on a wide scale by Mr.

IF YOU DON'T KNOW WHERE YOU ARE YOU CAN'T GET LOST



AND THAT AIN'T HAY BROTHER, NO HOW



4-29-47

4-29-47

4-29-47







Use Tip-Ons for Identification. Attractive and useful in many ways; printed with your name and address on high grade gummed paper. They are neatly packed in three handy dispenser boxes of 100 each. 300 white or assorted pastels for \$1.00 "Flick Your Thumb—Out They Come." No C. O. D.'s please.

*Mail Orders Filled. Postpaid \$1.00*

## The Paul Revere Shop

1782 Massachusetts Avenue  
Dept. F.A., Lexington 73, Mass.

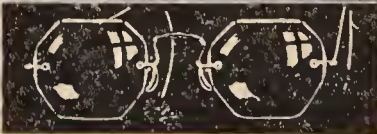
If your child liked "Ben of Old Monbegan" by Sidney Baldwin, then read aloud "Young Prince Hubert," "Robin Rides Away," and "Princess Hildegarde."

**One Dollar Postpaid**

**THE SMILING COW Camden, Maine**

**BUY FROM THE OLDEST ESTABLISHED  
FIRM IN THE UNITED STATES SELLING  
EYE GLASSES BY MAIL**

As Low  
As  
**\$1.95**  
For  
Satisfaction



Write Today for Free Catalog. Send No Money  
**ADVANCE SPECTACLE COMPANY**  
537 S. Dearborn St., Dept. OF-8, Chicago, Ill.

dininish. He gradually built up a stable of 50 horses, many of them stakes winners. He paid close to \$60,000 for Sporting Blood, Latonia Handicap winner, Nellie Morse, named after Mr. Fisher's mother, won the Preakness. Mr. Mutt won the Saratoga Cup and another horse Cartoonist, showed great promise as a two-year-old which never materialized later. One day Bud invited Mr. Wheeler and Ring Lardner to Saratoga where his Hyperion was running with Sandeup. It looked like a sure thing until the horse bolted and threw Sande and all three for a loss.

Forty years have gone by since Mutt and Jeff was first published but the strip is still popular. Bud Fisher continues to take an enthusiastic interest in his work. During this time it has appeared in many countries and in many languages. From his wide experience, Fisher analyzes the successful ingredients of a real comic as a combination of funny drawing, funny situations and funny lines with funny situations as the most important.

*(Released by The  
Boll Syndicate, Inc.)*

\* \* \*

## WEATHER

Some claim that Mark Twain said of our weather, "If you don't like it, wait a minute." Mark Twain was given credit for such a remark by his original publishers—but it does not appear in his published works.



## THE BURNING BOY

Still unexplained is the greatest curiosity of the 19th century—little Jerry Hibbert of New Orleans who was seen to be on fire by a reporter from the *New Orleans Times Democrat*. Sitting there in the back gallery of his house, with his legs crossed and in a perfect state of nudity, chubby Jerry was enveloped in a flame red with heat. Just about this time his nurse came in screaming the boy was on fire. Water was thrown over him but to no purpose. Then they wrapped him in a blanket but it was useless. Jerry continued to burn right along. The incident created quite a commotion in the house and baffled the ingenuity of the inmates. Just then, however, the door swung open, and gusts of wind came in, and Jerry went out.

After a while it got around among the neighbors that this curious burning boy was nearby. In fact, many children and nurses at times saw the boy but no credence was given to their stories. Thus those who had seen and believed became used to the phenomena and, among themselves, occasionally you would hear them say — "Little Jerry is afire again," and that would be an end to the talk. It was not until the *Times Democrat* reporter overheard this remark one morning and went to see for himself that the public began to take real notice.

## Refit and Tighten FALSE TEETH



With  
AMAZING **PLASTI-LINER**

If your plates are loose and slip or hurt; **refit them better than new**, with this pliable, non-porous strip. Just lay on plate, bite and it molds perfectly, hardens for lasting fit and comfort. Ends forever the mess, bother and expense of temporary applications that last only a few hours or few months. Will not injure plates, and **guaranteed to give satisfaction or your money back**. Write for Plasti-Liner today. Pay postman \$1.25 for one reliner, \$2.25 for both upper and lower—or send money, save C.O.D. charges. **PLASTI-LINER CO., Dept. 65A, Buffalo 2, N. Y.**

## TOMBSTONES

**DIRECT TO YOU \$995**

Genuine Beautiful Rockdale Monuments, Markers. Satisfaction or MONEY BACK. Freight paid. Write for our FREE Catalog and compare prices.

up  
**EASY**  
Terms



**ROCKDALE MONUMENT CO.**

Dept. 67

JOLIET, ILLINOIS

## Old Stamps Wanted

I WILL PAY \$100.00 EACH for 1924 1c green Franklin stamps, rotary perforated eleven (up to \$1000.00 each if unused). Send 6c Today for Large Illustrated Folder showing Amazing prices paid.

Vernon Baker, (OFA-48), Elyria, Ohio.

## COLOR YOUR HAIR THE MODERN WAY

Is gray hair adding years to your looks? Does it hurt you socially or in business? Color and shampoo your hair at the same time, at home, any shade, entire head or new growth. Thousands, women and men, use Shampo-Kolor and their closest friends cannot tell, as it leaves the hair so natural looking. Will not rub off. Permits permanent. Caution: Use only as directed on label, Free Booklet. Valligny Prod., Inc., Dpt. 72-R, 254 W. 31 St., N. Y. C.

## BROKEN JEWELRY WANTED

All kinds. Highest cash prices paid for jewelry, rings, spectacles, gold teeth, diamonds, broken and usable watches, etc. Cash mailed promptly. Write for FREE shipping container.

**LOWE'S**

Dept. FA, Holland Bldg., St. Louis, Mo.

STANDARD TIME IS USED THROUGHOUT THIS ALMANAC

## POSTAL RATES.—DOMESTIC

*New legislation is being proposed as we go to press, which may affect these rates.*

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.

Letters and Written and Sealed Matter, 3 cents for each ounce, local and non-local, except that drop letters are subject to 1 cent for each ounce when deposited for local delivery at offices not having letter-carrier service, provided they are not collected or delivered by rural or star-route carriers.

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.)

Special Rates for Books.—Books (containing no advertising matter other than incidental announcements of books) all zones: 3 cents a pound plus 1 cent up to and including 16 pounds; 17 to 27 pounds, 3 cents a pound plus 2 cents; 28 to 38 pounds, 3 cents a pound plus 3 cents; 39 to 49 pounds, 3 cents a pound plus 4 cents; 50 to 61 pounds, 3 cents a pound plus 5 cents; 62 to 70 pounds, 3 cents a pound plus 6 cents.

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

Books, catalogues mailed in packages not exceeding 8 oz. in weight (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

Weight in Lbs.	Local	ZONES							
		1-2 Up to 150 miles	3 150 to 300 miles	4 300 to 600 miles	5 600 to 1,000 miles	6 1,000 to 1,400 miles	7 1,400 to 1,800 miles	8 Over 1,800 miles	
1	\$0.08	\$0.09	\$0.10	\$0.11	\$0.12	\$0.13	\$0.15	\$0.16	
2	.09	.11	.12	.15	.18	.20	.24	.27	
3	.09	.12	.14	.18	.23	.27	.33	.38	
4	.10	.13	.16	.22	.28	.34	.42	.49	
5	.10	.14	.18	.25	.34	.41	.52	.61	
6	.11	.15	.20	.29	.39	.48	.61	.72	
7	.11	.16	.22	.32	.44	.56	.70	.83	
8	.12	.17	.24	.36	.50	.63	.79	.95	
9	.12	.18	.26	.39	.56	.70	.89	1.06	
10	.13	.19	.28	.43	.61	.77	.98	1.17	
11	.13	.20	.30	.46	.66	.84	1.07	1.29	
12	.14	.22	.32	.50	.72	.92	1.16	1.40	
13	.14	.23	.34	.54	.77	.99	1.26	1.51	
14	.15	.24	.36	.58	.82	1.06	1.35	1.63	
15	.15	.25	.38	.61	.89	1.13	1.44	1.74	
16	.16	.26	.40	.65	.94	1.21	1.53	1.85	
17	.16	.27	.42	.68	.99	1.28	1.63	1.97	
18	.17	.28	.44	.72	1.05	1.35	1.72	2.08	
19	.17	.29	.46	.75	1.10	1.42	1.81	2.19	
20	.18	.30	.48	.79	1.15	1.49	1.91	2.31	
21	.18	.31	.50	.82	1.21	1.57	2.00	2.42	
22	.19	.33	.53	.87	1.27	1.64	2.09	2.53	
23	.19	.34	.55	.90	1.32	1.71	2.18	2.65	
24	.20	.35	.57	.94	1.37	1.78	2.28	2.76	
25	.20	.36	.59	.97	1.43	1.85	2.37	2.87	
26	.21	.37	.61	1.01	1.48	1.93	2.46	2.99	
27	.21	.38	.63	1.04	1.53	2.00	2.55	3.10	
28	.22	.39	.65	1.08	1.60	2.07	2.65	3.21	
29	.22	.40	.67	1.11	1.65	2.14	2.74	3.33	
30	.23	.41	.69	1.15	1.70	2.21	2.83	3.44	
31	.23	.42	.71	1.18	1.75	2.29	2.93	3.55	
32	.24	.44	.73	1.23	1.81	2.36	3.02	3.67	
33	.24	.45	.75	1.26	1.86	2.43	3.11	3.78	
34	.25	.46	.77	1.30	1.92	2.50	3.20	3.89	
35	.25	.47	.79	1.33	1.95	2.58	3.30	4.01	

Continued on Page 86

## FLOODS . . . 1947

The floods (see page 6) which many feared would result from a quick run off of New England's snow cover did not materialise in March or April. However, the heavy rains predicted by this Almanac for May and June did bring on in some places, catastrophic results.

On June 3rd, the City of Rutland, Vermont, suffered serious damage when the East Pittsford dam (and pond behind it) gave way. Fortunately no lives were lost but the railroad alone suffered damage of over a million dollars.

Farm losses—especially on corn—were extremely heavy as a result of heavy June rains in the Southwest. The Mississippi River climbed to its highest crest (over 39.2 feet) in 103 years at St. Louis while the Red Cross reported some 33,000 made homeless by the rampaging rivers in Illinois, Missouri, Iowa, and Nebraska. At the height of this flood, St. Louis also experienced one of its worst earthquakes.

Some salvage of the corn loss, caused by late planting and consequent probable immaturity before the Fall frosts, came about as a result of a Department of Agriculture finding that the young corn could be silaged at almost as good a price as mature corn would bring as feed.

Previous flood records of the Mississippi are 39.14—set at St. Louis on April 30, 1944 and the unofficial peak of 41.39 in 1844.

Maurice Sinclair Sherman, editor and publisher of *The Hartford Courant*, died at the Hartford Hospital on June 27, 1947. He was a veteran of more than 50 years in the New England newspaper business—served in capacities from reporter to publisher. His family's loss will be widely and deeply felt.

## "I DON'T WANT A PENNY If I Can't Relieve Your RHEUMATIC - ARTHRITIC PAINS" *says Paul Case*

That's how I run my business. If I don't help you, I don't want a penny, of your money, But I believe I can help you.

My Combination Method has brought blessed relief to thousands who were suffering the tortures of rheumatism, arthritis, neuritis, sciatic pains. The chances are that I can bring you the same glorious relief. If I can't I don't want a penny from you.

Formula 1 is for the palliative relief of pain and contains a standard ingredient widely prescribed by most physicians for this purpose. This ingredient, together with 3 others are quickly absorbed into the blood stream and relieves pain, no matter where it may be—in joints, muscles, nerve sheaths.

Formula 2 contains standard ingredients for the relief of excess stomach acidity and to help keep your bowels open—a valuable extra help.

If you are suffering from those aches and pains, usually associated with rheumatism, arthritis, neuritis, neuralgia, sciatica, I urge you to clip and mail the coupon today—right now!

You need not send money—just as soon as I receive your order, I'll ship it parcel post. When the postman delivers the package containing both formulae, pay him \$2.00 plus postage and C.O.D. charges. If you send check or money order, with the order I'll pay all postage charges.

Remember, If you aren't helped within 10 days after taking my medicines, according to directions on the package, I'll refund every penny you paid. Clip the coupon now.

-----CLIP & MAIL NOW-----

Mr. PAUL CASE, Dept. O.F.A., Brockton 64, Mass.

I want to try your famous Combination Method for the palliative relief of pain, due to rheumatism, arthritis, neuritis, neuralgia. Send it to me. I'll pay postman \$2.00 plus postage and C.O.D. charges.

I am enclosing \$2.00. You are to pay all postage, check here.

NOTE: The 10 day money back guarantee applies only to original orders received from this ad.

NAME.....

ADDRESS.....

CITY.....STAT2.....



## LOOK PRETTY, PLEASE

### Teen-age Good Grooming

By RUTH W. BAKER, Associate Editor of *The American Girl*

Maybe you're perfect—a raving beauty. You brush your pearly teeth, run a comb through your raven curls, and sail off to be elected president of your club or queen of the winter carnival! If that's the kind of a story-book character you are, fine. You're lucky, and we all envy you. But you're missing something, too. You're missing the fun of learning to dramatize your good features, to minimize the less good ones. And you'll never have the thrill of seeing how a simple, sensible good-grooming routine can bring an outer attractiveness and an inner poise that make people on the street look at you twice.

Speaking of beauty routines, have you checked yours over lately? Why don't we review it quickly now while the family are out at the movies and you're lying there, luxuriating in a piney bubble bath.

First, of course, you say you've figured out your figure ages ago. If chubbiness is your worry, you order an orangeade instead of a double chocolate frosted. The string-bean type? Then you steer clear of those vertically striped dresses, and take pains to sit down to a man-sized breakfast every morning. Yes, your heels are well-cobbled, your dickyays are sparkling white, and your walk is queenly—but hold on a minute. Let's be systematic about this checkup of ours. Let's start at the top of the list—with your hair, that would be.

Auburn, blonde, or black; short or long, the important questions about hair are these: Is it immaculate and is it well brushed? Does your hairdo suit your face, your personality, and is it so simple that it doesn't keep you a slave to the hairdresser in skiing weather? If you've naturally curly hair, consider a soft feather cut or new, easy-to-manage Eton-boy bangs. If yours is a straight and shining long bob, don't let it grow too bushy or lengthy, but have an expert's scissors keep it becomingly shaped. And whatever your coiffure, give it 100 strokes with a stiff brush every night and learn to do your own shampooing—avoiding cake soap, rinsing until the hair squeaks, and adding a dash of cologne to that last rinse for extra glamour before a special date. Towel your hair almost dry then, and after that shape your hairdo with a freshly-washed comb and brush. They're labeled "strictly personal," by the way.

Beauty is skin deep, they say, but don't forget that the best skin programs come under the department of the interior, meaning regular, well-balanced meals, outdoor exercise, eight or nine hours' sleep every night, and lots of drinking water. A clear complexion calls for plenty of washing water, too, mild soap, and a good-old-fashioned rough washcloth. If you've a normal skin, work warm suds right into your face once a day, rinsing carefully with warm, then cool water. For oily skin, next pat your nose, chin, and forehead with clean cotton that's been dipped in a mild astringent. Overly dry skin? Make certain your water isn't too hot or your soap too harsh or your methods of drying too slipshod and then look into a special dry-skin cream that contains lanolin. For a serious skin condition, go to your doctor and follow his advice.

Now look at your hands. They speak for themselves, you know, smooth, well-manicured ones telling a persuasive tale of charm and good-grooming. Here again, good old cleanliness is the best basis for action; warm water, soap, and a firm nailbrush your cleverest ammunition. After each washing, dry your hands carefully, then push back the cuticle—but gently—with your towel. Especially in the winter months finish up with a dose of hand cream or lotion and treat your cuticle regularly to a nail oil or vaseline which discourages hang nails. Shape your nails with an emery board, tapering the tips in a pretty, natural oval which follows the curve of the half moon at the base of your nail.

Your faithful feet come next on the list and surely they deserve the most intelligent care you can give. Though sloppy mooseasins may be tops with your gang this season, choose a firm, well-fitting shoe instead; buy hose that is 1/2" longer than your longest toe; dry carefully between each toe after baths and swims; walk Indian style—toes straight ahead.

Sound effects count, too—don't minimize their importance in your total picture! Have a recording of your voice made the next time you go in to town and as you play it back, frankly analyze the sound you

(Continued on page 85)

Let Me Send You  
FULL SIZE PACKAGES



PAY US NOTHING

**FREE**



Big Box of Products sent so you can test and show friends in spare time. Housewives wild over bargains and premium offers. No experience needed to start. Pay Generous Profits. I furnish everything needed, FREE f.o.b. factory. Rush name for outfit today. Hurry!

BLAIR, Dept. 348-DA, Lynchburg, Virginia

### LIFE SENTENCE

For the first time in 156 years you can now buy for yourself or as a gift for a young, middle aged, or old friend, a life subscription to The Old Farmer's Almanac for Five Dollars by notifying YANKEE, Incorporated, Dublin, New Hampshire, U. S. A. that you wish same and enclosing your remittance with your request—there being no deduction for those over 80 as Almanac readers have a way of living forever and we have no desire to get "stuck."

## FULL SIZE, BOLT CUT REMNANTS

**EVERY PIECE A FULL 30 INCH WIDTH  
IN ONE-QUARTER TO 4 YARD LENGTHS**

Cut from new bolts of dress goods; fast colors. Prints, percales, gingham. Do not confuse this offer with other so-called "remnant" bundles which include small scraps, odds-and-ends pieces. **MONEY-BACK GUARANTEE:** if you are not satisfied, return your bundle and we shall immediately refund your money plus postage. **ORDER WITH CONFIDENCE** from the largest supplier of remnants and quilt pieces in America. Join our tens of thousands of satisfied customers. We ship C.O.D. **SEND NO MONEY.**

4 lbs. (approx. 20 yds.) **\$2.98**

### LARGE SIZE QUILT PIECE REMNANTS

Fine quality pieces that are a little too small to fit in our full-size Remnant bundle—hundreds of uses. **\$1.69** plus postage

**THE SEWING CIRCLE** 4 lbs., approx. 20 yds.  
Dept. 213, Box 505, St. Louis 3, Mo.

## FREE... BARGAIN CATALOG of BOOKS

**25,000 books** of all publishers listed in our 53rd Annual Bargain Catalog of 320 pages. Old-time favorites—latest "best sellers." Reference, Fiction, Juvenile, History, Scientific, etc. Supplying schools, colleges, libraries and thousands of individual customers. **Send postcard today for our new 1948 catalog, "Bargains in Books."** **THE BOOK SUPPLY CO.,**  
Dept. 356 564-566 West Monroe St., Chicago 6, Ill.

(Continued from page 84)

make. Is it high and nasal? Ask your dramatics coach or singing teacher how you can pitch it lower. Words all run together, g's dropped sloppily? Slow down, my friend, and try making a conscious effort to imitate the diction of a fine radio voice you admire—like Helen Hayes'.

As for your vocabulary, that speaks volumes for what you are. When you run across a nice new word, look it up in the dictionary for meaning and pronunciation—and then spring it in history recitation day after tomorrow. Chances are the whole class will sit up and take new notice of you. And what will they see? A well-groomed girl of course. Well groomed from head to toe!

Continued from Page 82  
ZONES

Weight in Lbs.	Local	1-2 Up to 150 miles	3 150 to 300 miles	4 300 to 600 miles	5 600 to 1,000 miles	6 1,000 to 1,400 miles	7 1,400 to 1,800 miles	8 Over 1,800 miles
36	\$0.26	\$0.48	\$0.81	\$1.37	\$2.03	\$2.65	\$3.39	\$4.12
37	.26	.49	.83	1.40	2.08	2.72	3.48	4.23
38	.27	.50	.85	1.44	2.14	2.79	3.57	4.35
39	.27	.52	.88	1.47	2.19	2.86	3.67	4.46
40	.28	.53	.90	1.51	2.25	2.94	3.76	4.57
41	.28	.54	.92	1.55	2.30	3.01	3.85	4.69
42	.29	.56	.94	1.59	2.36	3.08	3.94	4.80
43	.29	.57	.96	1.62	2.41	3.15	4.04	4.91
44	.30	.58	.98	1.66	2.46	3.22	4.13	5.03
45	.30	.59	1.00	1.69	2.52	3.30	4.22	5.14
46	.31	.60	1.02	1.73	2.58	3.37	4.32	5.25
47	.31	.61	1.04	1.76	2.63	3.44	4.41	5.37
48	.32	.62	1.06	1.80	2.69	3.51	4.50	5.48
49	.32	.63	1.08	1.83	2.74	3.58	4.59	5.59
50	.33	.64	1.10	1.87	2.79	3.66	4.69	5.71
55	.35	.70	1.21	2.05	3.07	4.02	5.15	6.27
60	.38	.75	1.31	2.24	3.34	4.38	5.61	6.84
65	.40	.81	1.41	2.41	3.62	4.74	6.08	7.41
70	.43	.87	1.51	2.60	3.88	5.10	6.54	7.97

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 the same as for the third zone.

(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 84 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.

(d) For special rates on catalogs and other similar printed advertising matter, consult postmaster.

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

Library Books. — Books sent by authorized libraries to readers and when returned by such readers, for delivery within the first three zones or the State in which mailed: 4 cents for the first pound and 1 cent for each additional pound up to and including 47 pounds; 52 cents for 48 pounds and 1 cent for each additional pound up to and including 70 pounds.

SPECIAL HANDLING. (Fourth Class Matter Only.)

Parcels of 4th Class Matter endorsed "Special Handling" will be given the most expeditious treatment practicable (but not Special Delivery) upon payment, in addition to regular postage: Up to 2 lbs. 10c; Over 2 to 10 lbs. 15c; Over 10 lbs. 20c.

SPECIAL DELIVERY FEES

	First Class	Second, Third or Fourth Class
Up to 2 pounds.....	13c	17c
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: United States Special Delivery Fees are applicable on articles prepaid at the letter rate of postage. Newfoundland and Labrador 20c prepaid in addition to regular postage on letters or articles only prepaid at the letter rate.

Domestic Registered Mail — Fees for Indemnity limited to:

\$5.....	20c	\$300.....	65c	\$800.....	\$1.20
50.....	25c	400.....	80c	900.....	1.25
75.....	35c	500.....	95c	1,000.....	1.35
100.....	40c	600.....	\$1.05		
200.....	55c	700.....	1.15		

Registered mail is subject to surcharges under certain conditions. Consult postmaster.

Domestic Insured Mail (third and fourth classes) Fees for Indemnity limited to:

\$5.....	3c	\$25.....	10c	\$50.....	15c	\$200.....	25c
----------	----	-----------	-----	-----------	-----	------------	-----

Domestic C. O. D. Mail — Unregistered (third and fourth classes) and sealed domestic mail of any class bearing postage at the first-class rate: Fees for collections and indemnity limited to:

\$2.50.....	15c	\$25.00.....	30c	\$100.00.....	50c
5.00.....	20c	50.00.....	40c	150.00.....	55c
				200.00.....	60c

C. O. D. Mail — Registered (sealed matter of any class bearing first-class postage). Consult postmaster for fees and limits of indemnity.

POSTAL MONEY ORDER

From \$0.01 to \$2.50.....	6	From \$20.01 to \$40.....	15
From \$2.51 to \$5.....	8	From \$40.01 to \$60.....	18
From \$5.01 to \$10.....	11	From \$60.01 to \$80.....	20
From \$10.01 to \$20.....	13	From \$80.01 to \$100.....	22

POSTAL NOTES

1c to \$10..... Fee 5c

ARMED FORCES OVERSEAS

Three cents an ounce, regular, or five cents an ounce, air, care of U. S. Postmaster or Fleet Post Office at Ports of Embarkation.



# INTERNAL BATHS END YEARS OF DISTRESS

## Baffled at 47—Feels Like a Young Man at 77

Imagine how thrilling it must be for a man feeling half-sick, half-alive for years, suddenly to find himself restored to new happiness and vitality. How wonderful he must feel to realize at last he may be able to say good-bye to the headaches, biliousness, sluggishness, that all-in feeling, due to chronic constipation suffered through many years.

But such a man was Leopold Aul and as explained in his own words, "One day when I was feeling especially bad and as nervous as a cat, I met an old friend of mine. He noticed how fagged out I looked and how rapidly I seemed to be aging. 'Why don't you take Internal Baths?' he asked, 'they did wonders for me'."

### WHAT IS AN INTERNAL BATH?

Thereupon Mr. Aul began investigating Internal Baths. He found that a bona-fide Internal Bath to be the administration into the lower intestine of pure warm water—Nature's greatest cleansing agent—to which is added J.B.L. Cleansing Powder. Through the use of the J.B.L. Cascade five quarts of the cleansing solution is sent gently swirling throughout the entire length of the colon. In fifteen minutes your impacted colon is thoroughly cleansed of its whole foul mass, the putrefying delayed waste is loosened and washed away. Often the relief is immense—often a new sense of vigor and well-being sweeps over you.

Naturally, Mr. Aul did buy a J.B.L. Cascade. It proved a turning point in his life. Gone, according to his testimony, was the worry and distress that had hitherto overshadowed his whole life, sapped his ambition.



### Read Mr. Aul's Astounding Letter

"I am now 77 years young, have owned a Cascade for over thirty years. When I first started using the J.B.L. Cascade I was a victim of constipation and at my wits' end as to what to do about it. Tried most everything that was recommended and prescribed for me for years without results. I now feel that Internal Bathing was responsible for bringing back my health and for keeping it ever since. I use the Cascade occasionally now but I would not part with it for \$1,000. Have sincerely recommended it to everyone suffering from the ill effects of constipation."

(Signed) Leopold Aul

### SEND FOR THIS FREE BOOKLET

Investigate yourself the merits of Internal Bathing. Simply fill in and mail the coupon below and receive, absolutely FREE your copy of "Why We Should Bathe Internally." This instructive 24-page booklet may open your eyes to many surprising facts about constipation and its many attributed ills, reveals too, how many thousands of Internal Bathers have gained new health and vigor through this drugless treatment. MAIL YOUR COUPON TODAY:

TYRRELL'S HYGIENIC INSTITUTE Inc. Dept. FA-48  
152 West 65th Street, New York, N. Y.

Send me, without cost or obligation, your illustrated book on internal ills and the proper use of the famous Internal Baths—"Why We Should Bathe Internally."

Name \_\_\_\_\_ Street \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

See also pages 82 and 86

## 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: Argentina, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Haiti, Honduras (Republic), Labrador, Mexico, Newfoundland, Nicaragua, Panama, Paraguay, Peru, Salvador, El; Spain and possessions; Uruguay, Venezuela.

**Post Cards.**—Single post cards for places enumerated above 2 cents. Single post cards for all other foreign destinations 3 cents. Maximum size 6x4¼ inches, minimum size 4x2¾ inches.

**Printed Matter.**—1½ cents for each two ounces or fraction. Limit of weight: Inquire at Post Office.

**Maximum dimensions.**—Inquire at local Postoffice.

### INTERNATIONAL PARCEL POST.

Because of the varying rates and conditions, as well as frequent changes, applicable to foreign countries, it is important that a qualified postal employee handle parcel post transactions. Therefore, parcel post packages for foreign destinations must not be posted in a letter box; such packages should be taken to the main post office or to one of the larger classified stations and handed to a postal clerk.

## AIR MAIL: DOMESTIC AND FOREIGN

(All rates per one half ounce unless otherwise indicated. For Armed Forces—see preceding page.)

**A. 5 cents:** (Per ounce) Canada, Mexico; Armed Forces or Civilian personnel with Army or Navy Postoffice addresses Continental United States, Alaska, Canal Zone, Canton Islands, Guam, Hawaii, Porto Rico, and U. S. Virgin Islands.

**B. 8 cents:** Cuba.

**C. 10 cents:** Central and South America, West Indies, British and French Guiana, British Honduras, Surinam, Bermuda and Newfoundland.

**D. 15 cents:** Great Britain, Europe and other Islands in waters around it, U.S.S.R., Vatican City, Algeria, Egypt, Iceland, Libya, Morocco, Tunis, Turkey.

**E. 25 cents:** All other localities.

Weight limit is 4 lbs., 6 oz. except: Germany, 1 oz., Philippines, 1 lb., China, French Indo China, Manchuria, 2 oz., Newfoundland and Labrador, 60 lbs.,—APO addresses, 2 oz.

The new legislation, if enacted, will raise airmail rates 1 cent per ounce, publication and bulk rates, third class, parcel post, special delivery (from 13 to 15¢), money orders and various other classifications in varying amounts.

**CONSULT YOUR POSTMASTER FOR CONFIRMATION.**

## UNIFIED NATIONAL DEFENSE

Unified defense—or the placing of all of America's armed forces under one head—came about by law passed in the closing days of the 1947 Congress. Under this law, the President will be the head of a new National Security Council which will have the say on defense policies. James V. Forrestal, former Secretary of the Navy, was appointed in July the first secretary of the new unified department. Other appointments include that of John L. Sullivan of Manchester, New Hampshire, as Secretary of the Navy Department; Kenneth C. Royall as Secretary of the Army; W. Stuart Symington as Secretary of the Air Forces. As all of these appointments were made by President Truman after Congress recessed, they have to be confirmed later by that body. At some later date there will be other appointments made such as Army, Air, and Navy Chiefs of Staff, directors of a Central Intelligence Agency, national resources board, munitions board, research and development board. The 1949 Almanac will carry these appointments, but inasmuch as our press date falls earlier than the November elections, these results will not be reported until the 1950 edition.

## FEAR

When British ships are commissioned, the ceremony is much as it was hundreds of years ago. After prayers and hymn, the Captain reads the lesson and then comes the bidding—the most ancient part of the ceremony.

"Bless our ship," says the Captain.

"Bless her," replies the ship's company.

"Who do you fear, seeing that God the Father is with you?" asks the Captain.

"We fear nothing," replies the ship's company, with a noticeable emphasis on the word "nothing."

Twice more the Captain asks the same question and each time the response comes clearly:

"We fear nothing."

Which reminds us of an old Irish saying; namely, that "the only man one need fear is the man who is afraid."

A man, we have observed, usually does not tote a gun, or shoot a human being, unless he is downright scared.

## SOMETHING NEW

**Make Your Own STUFFED DOLLS.**  
Easy to make. We supply a Hand Painted **DOLL FACE** with **MOVABLE EYES**. 4 Beautiful faces for \$1 postpaid. Special prices on Dozen or Gross lots. Be Wise — Economize. Make a Hobby pay for you. **WE ALSO SELL ALL TYPES OF GLASS EYES.**

**MODERN GLASS & WIRE SUPPLY CO.**  
245B South Street, New York 2, N. Y.

### EXTRA LARGE SIZE

# QUILT PIECES

**FREE 4 POUNDS \$1.49** plus postage

- 500 yards Thread
- Pattern Book With every package

All new remnants cut from colorful bolts of expensive dress goods. No small scraps. **SATISFACTION GUARANTEED** or we make full refund including postage. You must be satisfied; keep the free thread and colorful pattern book regardless. Shipped C.O.D. **SEND NO MONEY.**

**THE QUILTING BEE, Dept. 145** P. O. Drawer 449 St. Louis 3, Mo.

## ARE YOU LONELY?

Thousands of lonely men and women everywhere are finding true happiness through introductions by mail. All ages, religions. I'll show you **PROOF** of my results. Simply send your name and address on a penny post card or letter for my **FREE** sealed particulars in a plain envelope. Write **NOW!**

**Nancy Jordan, P. O. Box 466-OF, San Francisco, Calif.**



## CLASSIFIED ADVERTISEMENTS

**HAND PAINTED FLOWER CARDS.** A box of 12 cards—6 different wild flowers designs postpaid for \$1.00—Bacon Otto Press, 69 High Street, Newburyport, Mass.

**EARN MONEY WITH** Colorful Handmade Jewelry—free circular tells how. Nothing complicated, dollar starts you. Plastic Works, 712 Kimball, Danville 24, Ill.

**VISIT ROSE COTTAGE** for beautiful designs and supplies for creating hooked rugs. Monday—Friday 2 to 5 P.M. Send for free literature. Pearl K. McGown, West Boylston, Mass.

**MUSIC BOXES.** All types bought sold and expertly repaired. Albums of modern phonograph records of old music box melodies now available. A, Bornand, 333 5th Ave., Pelham 65, N. Y.

**MONUMENTS.** Service to all America. Old Reliable company. 30,000 satisfied customers. Big 68-page catalog free. United States Marble & Granite Co., Oneco, Dept. A70, Florida.

**CHINCHILLAS.** "South American," Breeding stock only \$800 per pair. O Pat Chinchilla Fur Ranch, 6013 W. 26th St., Cicero 50, Illinois.

**SQUARE DANCERS.** callers, recreation leaders, folklorists, read and praise Rosin the Bow, the square and folk dance magazine. 10 issues \$1.50. Rod LaFarge, 115F Cliff St., Paterson 2, N. J.

**LOOK HERE** Wanted. Men to start in business on our capital. Sell some 200 farm-home Products. Thousands of our dealers now make quick sales, big profits. For particulars write Rawleigh's, Dept. 1948-192-OFA, Freeport, Ill.

**WANTED ANTIQUE** Firearms. U.S. Flintlocks. Colt and other cap and ball revolvers. Buy, sell, trade. Arthur Fortin, 34 Camden, North Andover, Mass.

**"BIBLE STUDIES,"** 70 Lessons on What the Bible teaches, only 25c Complete. People's Christian Bulletin, Box 87-F, Cathedral Station, New York 25, N. Y.

**ORANGE COUNTY,** Country Properties, within 60 miles of New York City, from \$3000 up. Send for list. Paul Boynton, Farm Broker, Warwick, New York.

**OLD-FASHIONED** Mulled Cider; Hand-fashioned New England Stoneware, early American designs; Unusual Gift Packages. Wholesale, retail. Frances Hall Perrins, Old Homestead Orchards, Westford, Mass.

**WANTED: OLD LETTERS** written before postage stamps were used; also envelopes and letters bearing stamps mailed before 1870. Ernest S. Park, Wolfeboro, New Hampshire.

**BOOKKEEPING AND** Tax Service handled by mail for business men and farmers. For details, write Hoosier Business Service, Lebanon, Indiana.

**MERCHANDISE FOR** the home at bargain basement prices. Send for free catalogue. Write American Enterprises, Box 595, Grand Central Station, New York 17, N. Y.

**OUTDOORSMEN.** Add profits to your pleasures by collecting medicinal Herbs, Roots, Barks, etc. Full instructions with active cash buyers \$1. Postpaid. J. S. Kelly, A9, Looneyville, West Va.

**10 NICE ANCIENT** Indian arrowheads; \$1.00 Ancient Stone Tomahawk \$1.00 Four perfect ancient bird arrowheads \$1.00; List Free. Lear's, Box 569, Galveston, Texas.

**JUST BUTTONS.** Magazine for Button Collectors. See interesting and rare buttons. Receive up-to-date, authentic information. 12 issues \$1.50. 104 Newton, Hartford, Connecticut.

**THE STORY OF CONNECTICUT**—500 pages, wealth of early and modern illustration, authentic, beautifully bound in blue and gold. Postpaid two dollars. Lewis S. Mills, 56 Broad St., East Hartford 8, Conn.

**FELLOW WORKERS** — Why Worry About Money? National opportunity to become independent with business of your own. Details Free. P. Padney, 307 York St., Jersey City 2, N. J.

**LIGHTNING ROD SYSTEMS.**

Protect now with Electra's Certified Lightning Protection. Electra Protection Co., Inc., 11 No. Pearl St., Albany 7, N. Y.

**YES, MEN'S SHOES** in sizes 11½ to 16. Widths AA to EEE. Finest quality, moderate prices. Free Circular. Write King-Size 276, Brockton, Massachusetts.

**HERE'S VALUE! SHARP** Surgical Steel, Double edge Razor Blades. 100 only \$1.00 postpaid. Free Sample. Write: Daving Products, 542A Fifth Ave., New York City 19.

**I BUY OLD GUNS,** powder horns, and powder flasks in good condition. Wilton Meyer, Box 3591, Long Beach, California.

**PUREBRED WHITE MUSCOVY'S** Ducks, Drakes, Eggs. You will enjoy "raising" these big, beautiful birds, and those "delicious" Muscovy dinners. Brookside Poultry Farms, Richmondville, N. Y. 11.

**COINS & STAMPS.** WE buy and sell and appraise. Write us. Coin and Stamp Store, 209 So. Church St., Rockford 50, Ill.

**NEW LIQUID PLASTIC**

Earns money for you at home. Make plastic containers for the drug and cosmetic trade. Terrific demand. *You Make Them. WE SELL THEM.* You can earn a minimum of \$50.00 per week at home.

No machinery, tools, or experience required. We supply raw materials and instructions; or you can come to our laboratory and receive personal instruction and contract.

Write for full details

**TRAVACO LABORATORIES**  
P.O. Box 1883, Boston 5, Mass.

**"DECORATING COUNTRY TIN"**

Our new BOOKLET of Instructions now ready. 32 pages including seven authentic Brush Stroke and Stencil designs with full color directions. Price \$1.00 postpaid.

CATALOGUE of HANDMADE undecorated REPRODUCTION TIN free upon request. Stamp appreciated.

**THE COUNTRY LOFT, Dept. Y**  
720 Main Street Hingham, Mass.

**WRITING PAPER**  
**200 SHEETS & 100 ENVELOPES**  
**\$1.75 postpaid**

Your name and address printed carefully on **QUALITY, WHITE, RAG BOND PAPER**

Choice of color and type. Samples.

**THE BACON OTTO PRESS**  
69 High Street Newburyport, Mass.

**JACK JOHNSON'S**

**CAPE COD ALMANAC,** unusual stories and pictures of the "land of the early American." \$1. Jack Johnson, Orleans, Mass.

**EYE GLASSES BY MAIL**

**FREE**... of extra charge: Eye Glass Case, Wiper, Eye Glass Cleaner with Each Order!

**30-DAY TRIAL OFFER** POSITIVE MONEY-BACK GUARANTEE  
**NEWEST STYLES.** Write today for **FREE** Catalog, Full Information, Low Prices, Scientific Sight Test Chart!

**LEE EYE GLASSES CO.**

4148 Easton; Dept. P-1; St. Louis 13, Missouri



**LOW AS \$1.95 AND UP**

**EYEGLASS  
CLEANING  
TISSUES**



Specially treated, patented tissues clean off any smear perfectly—leave no lint. And they prevent misting. These handy, vest pocket booklets provide clear vision, make wonderful gifts. Give them—and use them!

**9 BOOKLETS (year's supply) SEND \$1**  
**CLEAN-OMIST, Box 660, Oradell, N. J.**

(Continued from page 40)

days. In one year alone, that of 1891, fifty proclamations were issued—forty-four states and six territories most of them for the fourth Thursday of November, and indeed, this day had been pretty well agreed upon, until the contrariness of the late Mr. Roosevelt again divided the states. Fortunately, by action of Congress the fourth Thursday again prevails—this year on November 25th.

New Hampshire is the only state which at present observes the Pilgrim custom of an annual spring Fast Day.

## GLOSSARY OF ASTRONOMICAL TERMS, ETC.

- abol.** . . . abolished
- Age**, . . . age
- An. Ecl.** . . . see Eclipse, Annular.
- Aph.** — **Apheilion** . . . Planet revolving about Sun reaches point in its orbit farthest away from the Sun.
- Apo.** — **Apogee** . . . Moon reaches point in its orbit farthest from Earth.
- Apprise** . . . if during eclipse Moon passes only through the penumbra.
- b.** — born.
- Aspect** . . . description of the relative position of two or more bodies in the solar system. These are described by signs, etc., on the calendar pages thus  $\odot \sigma \gamma$ , etc. By consulting the meaning of the signs and aspects on page 4, you will arrive at the meaning for the "sign language" used on pages 15-37, viz., Conjunction ( $\odot$ ) of Mars ( $\sigma$ ) and the Jupiter ( $\gamma$ ) occurs on this day. (See par. 2, page 4.)
- Conj.** — **conjunction** . . . moment of closest approach to each other of any two heavenly bodies.
- conscr.** . . . consecrated.
- d.** . . . died.
- declination** (see top left hand calendar pages) . . . measure of angular distance any celestial object lies perpendicularly north or south of celestial equator. Exactly analogous to terrestrial latitude. OFA gives declination at time each day the Sun is due South.
- Dominal Letter** . . . used in reckoning civil calendars.
- Eclipse** . . . conjunction or opposition of sun and moon occurs with moon at or near a node.
- Eclipse, annular** . . . when sunlight shows around the Moon during the eclipse.
- Eclipse, lunar** . . . opposition of Sun and Moon with moon at or near node.
- Eclipse, solar** . . . conjunction of Sun and Moon with Moon at or near node.
- Ecliptic** . . . that circle in which the plane of the orbit of the Earth about the Sun would if extended cut the celestial sphere — or the apparent path of the Sun in the sky in a year due to the Earth's revolution about the Sun each year.
- El.** — **elongation** . . . apparent angular distance of a member of the solar system from the Sun as seen from the Earth.
- Epact** . . . used in reckoning ecclesiastical calendars, age of calendar moon Jan 1.
- Eq.** . . . equator.
- Equinox, autumnal** . . . Sun passes from northern to southern hemisphere. Fall.
- Equinox, vernal** . . . sun passes from southern to northern hemisphere. Spring.
- E.S.T.** . . . Eastern Standard Time.
- Feasts and Fasts** . . . In the religious calendars, many "observable" days change each year with the date Easter falls on. The OFA endeavors to list the important Protestant, Catholic, and Jewish observances.
- fd.** . . . founded.
- Full Sea** (Morn and Eve) . . . the time the tide is high in the morning and in the evening at Commonwealth Pier, Boston. A correction table in the OFA also adjusts this time for other places. (See page 7.)
- Gr. El.** . . . greatest elongation.
- Geocentric** . . . measure of celestial longitude and latitude when observer is at center of the Earth.
- Golden Number** . . . used in reckoning civil calendars.
- Heliocentric** . . . measure of celestial longitude and latitude when observer is at center of the Sun.
- Inf.** — **Inferior** . . . Inferior conjunction is when the Planet is between the Sun and the Earth.
- Julian Period** . . . First year was 4713 B.C. Its length is 7980 years.
- k.** . . . killed.
- Key** . . . columns of letters marked thus refer to correction table on page 12 so that the times given may be adjusted to localities other than Boston.
- Lat.** — latitude.
- Moon's Age** . . . average time elapsing between new moons (max.  $29\frac{1}{2}$  days). Calculated when Moon is due South.
- (D) **First Quarter** . . . moon in quadrature East or one half of the side of the moon toward the earth is illuminated.
- (O) **Full Moon** . . . moon reaches opposition.
- (Q) **Last Quarter** . . . moon in quadrature West.
- (●) **New Moon** . . . Sun and Moon in conjunction.
- Moon's Phases** . . . Aspects of Moon and Sun.
- Moon's Place** . . . Moon's position in the Zodiac when due South or which "sign" it is in. See page 4 — par. 3.
- Moon Rise and Set** . . . as used in the OFA apply only to risings and settings between sunset and sunrise . . . or during the night.
- Moon Runs High or Low** . . . day of month Moon Souths highest or lowest above the horizon.
- Moon Souths** . . . Moon exactly above South point of observer's horizon.
- Node** . . . when a Planet or Moon in its motion crosses the ecliptic.



- Node, Ascending** . . . Planet or Moon crosses ecliptic from South to North.  
**Node, Descending** . . . Planet or Moon crosses ecliptic from North to South.  
**Occultations** . . . eclipses of Stars by the Moon.  
**Opposition** . . . time when Sun, and Moon or Planet appear on opposite sides of the sky (elongation 180 degrees).  
**O.S. — Old Style** . . . was when calendar was eleven days "out of whack." In September, 1752, the 3rd was reckoned as the 14th, to make present calendar.  
**Penumbra** . . . concentric area of partial shadow around the umbra.  
**Peri. — Perigee** . . . Moon reaches point in its orbit closest to Earth.  
**Peri. — Perihellon** . . . Planet revolving about the Sun reaches point in its orbit closest to Sun.  
**Quadrature** . . . Moon or Planet lies a quarter turn of the sky from the Sun.  
**R.A. — Right Ascension** . . . the measure Eastward along the celestial equator of any celestial body from the vernal equinox to the point where the circle which passes through the object perpendicular to the celestial equator intersects the latter.  
**Rain** . . . drops large enough to splatter on the old man's bald head.  
**Rej.** — rejects.  
**Roman Indiction** . . . used in reckoning ecclesiastical calendars.  
**Seasons** . . . boundary points are the two solstices and two equinoxes.  
**Snow** . . . when a cat's tracks are visible on the barn roof.  
**Solar Cycle** . . . used in reckoning civil calendars.  
**Solstice, Summer** . . . point at which the Sun is farthest north of the celestial equator, passing overhead on the Tropic of Cancer. Beginning of Summer.  
**Solstice, Winter** . . . limit of Sun's journey south of the celestial equator, passing overhead on the Tropic of Capricorn. Beginning of Winter.  
**Star, Evening** . . . above horizon at Sunset.  
**Star, Morning** . . . above horizon at Sunrise.  
**Stat. — stationary** . . . when the apparent movement of a Planet against the background of Stars stops — just before same comes to opposition.  
**Sunrise and Sunset** . . . visible rising and setting of Sun's upper limb across the unobstructed horizon of an observer whose eyes are 15 feet above ground level.  
**Sun Fast** . . . the times given in this column must be subtracted from your Sun Dial to arrive at the correct time.  
**Sup. — Superior** . . . Superior Conjunction is when the Sun is between the Planet and the Earth.  
**Tides, heights of** . . . at Commonwealth Pier, Boston. See correction table on page 7 for adjustments for other places.  
**Twilight** . . . begins or ends when stars of the sixth magnitude disappear or appear at the Zenith — or the Sun is appr. 18 degrees below the horizon.  
**Umbra** . . . deep shadow through which the Moon passes during eclipse.  
**Weather Indications** . . . in italics on the right hand calendar pages indicate the weather over, as a rule, three or four days time as shown by the spread of the words down the page.  
**w.** . . . with.  
**Zenith** . . . point in heavens directly over observer's head.  
**Zodiac** . . . sixteen degree sky road outside of which moon and planets never wander. It is divided into twelve equal divisions called the Signs of the Zodiac, and forms much of the basis of some astrology — and superstition. See page 4 — par. 3.

### LENGTH OF TWILIGHT

Subtract from time of sunrise for dawn.

Add to time of sunset for dark.

Latitude	25°N	31°N	37°N	43°N	48°N
	to 30°N	to 36°N	to 42°N	to 47°N	to 49°N
	h m	h m	h m	h m	h m
Jan. 1 to Apr. 11	1 20	1 26	1 33	1 42	1 50
Apr. 11 to May 3	1 23	1 28	1 39	1 51	2 04
May 3 to May 15	1 26	1 34	1 47	2 02	2 22
May 15 to May 26	1 29	1 38	1 52	2 13	2 42
May 26 to July 23	1 32	1 43	1 59	2 27	—
July 23 to Aug. 4	1 29	1 38	1 52	2 13	2 42
Aug. 4 to Aug. 15	1 26	1 34	1 47	2 02	2 22
Aug. 15 to Sept. 6	1 23	1 28	1 39	1 51	2 04
Sept. 6 to Dec. 31	1 20	1 26	1 33	1 42	1 50

## INDEX

THE OLD FARMER'S ALMANAC(K) contains a wealth of information. Those who do not understand the signs, symbols, references, etc., are urged to consult pages 4, 7, 10-12, 92, 93.

Agricultural Extension Stations . . . . .	62	Juice, Frozen . . . . .	71
Aldebaran . . . . .	8	Leap Year . . . . .	39
Anecdotes . . . . .	47	Letters, To Editor . . . . .	2
Aphelion, Earth in . . . . .	4	Marketing, Method . . . . .	72
Aspects . . . . .	4, 15-37	Measures, Table of . . . . .	65
Astronomy . . . . .	4, 8, 9, 14-37	Moon, Age, Place, Rise, South, Size, Harvest, Hunter, Invasion, Underground . . . . .	14-37
Authors, This Edition . . . . .	2	Planting Guide . . . . .	58-60
Boron . . . . .	72	Weather Table . . . . .	63
Calculations & Corrections		Mutt & Jeff . . . . .	75
Within New England . . . . .	4	Onion Sets . . . . .	71
Outside New England . . . . .	7, 10-12	Perihelion, Earth in . . . . .	4
Calendar, 1948 . . . . .	5, 15-37	Planets, Rise, Set . . . . .	4, 9, 15-37
1949 . . . . .	5	Planting Tables . . . . .	58
World . . . . .	5	Pleasanttries . . . . .	27, 76
Charades . . . . .	49	Poetry . . . . .	1, 15-37, 47
Chicks, Early . . . . .	71	Postal Rates, Domestic . . . . .	82, 86
Chronological Cycles . . . . .	4	Foreign . . . . .	88
Dates, Historical . . . . .	15-37	Puzzles . . . . .	50
Day of Year, Month, Week . . . . .	14-37	Reclpes . . . . .	53
Days, Length of . . . . .	14-36	Roaches . . . . .	73
Editor's Note . . . . .	2	Scientific Progress . . . . .	69, 71
Egg, Large . . . . .	72	Seasons . . . . .	4
Election Days . . . . .	13-37	Seeds, No. Needed For Crop . . . . .	58
Explanations . . . . .	4, 10-12, 39, 92	Stars, Morning & Evening . . . . .	9
Facts, Farm . . . . .	72	Summer, 1816 . . . . .	8
Farmer's Calendars . . . . .	15-37	Sun, Rise, Set, Declination, Fast, Slow . . . . .	14-36
Fast & Feast Days . . . . .	4, 15, 37, 40	Spots . . . . .	38
Fisher, Bud . . . . .	75	Thanksgiving, Days of . . . . .	40
Fishing Laws . . . . .	42-43	Tides, High, Low . . . . .	14-36
Floods . . . . .	6	Height . . . . .	15-37
Forecasts, Long Range . . . . .	2, 6, 15-37	Timber, Growth of . . . . .	69
Frosts . . . . .	41	Tomato Plants . . . . .	73
Fruits, When to Buy . . . . .	53	Twilight, Length of . . . . .	93
Fungicides . . . . .	67	Vegetables, When To Buy . . . . .	54
Game Laws . . . . .	42-46	Weather	
Gestation Periods . . . . .	41	Change in . . . . .	73
Glossary . . . . .	92	Forecast:	
Grass, Prairie . . . . .	71	Daily (see italics) . . . . .	15-37
Grooming, Teen Age . . . . .	84	Long Range . . . . .	2, 6, 11, 15, 37, 38
Heat, Animals in . . . . .	41	Moon Table . . . . .	63
Heaters, Garden & Orchard . . . . .	73	Winter, 1947-48 . . . . .	6
Holidays, Church, State . . . . .	13, 15-37	Zodiac, Signs . . . . .	4
Weekend . . . . .	39	Moon's Place in . . . . .	14-36
Holy Days . . . . .	15-37		
Household Hints . . . . .	53		
Insemination, Cattle . . . . .	69		

## ANSWERS TO WORD CHARADES (See Page 49)

1. Olympus. 2. Quicksand. 3. Almanac. 4. August. 5. Cowslip. 6. Injury. 7. Candid. 8. Surface. 9. Alphabet. 10. Headstrong.

## ANSWERS TO OLD FASHIONED PUZZLES (See Page 50)

## Answers to Conundrums

1. He makes men steel pens, and says they do right.
2. Because his son never sets.
3. Because they are regular, irregular, and defective.
4. Jonah, because the whale could not keep him down.
5. Against his will.
6. Because in winter he wears a fur coat, and in summer he wears a fur coat and pants.
7. Thanks.
8. A fountain.
9. A ditch.
10. It never gets licked but once.

## Answer to Enigma

Key.

## Answers to Puzzles

1. XL
2. 3-8-7  
10-6-2  
5-4-9
3. Johnny, 7 cents  
Tommy, 5 cents

## Answers to Anagrams

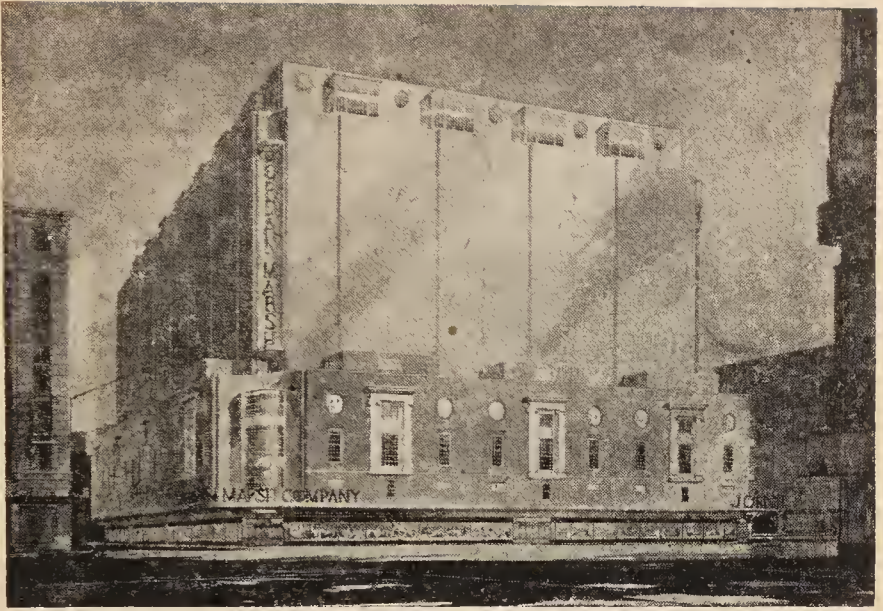
1. Time-Emit
2. Drab-bard
3. Sceptre-spectre
4. Salt-last

## Answers to Riddles

1. Tongue.
2. A watch.
3. To-morrow.

## ANSWER TO CYPHER, Page 55, 1947 edition

Esmond ad, page 75: line 1, word 1, — Hudson's; 1. 3, wd. 1, — Blankets; 1. 19, wd. 3, — follow; 1. 19, wd. 5 — fashion. No contestant solved this cypher.



## We're Building A New Store On. NEW ENGLAND SOLIDARITY

We've launched our Post-War Dream. Construction has begun on our fabulous new building which upon its completion will be the most modern in the world. And as the wonders of our new building unfold we shall adhere to the standards which have guided us through our 96-year history and remain friend, neighbor, citizen, merchant, to all of New England.



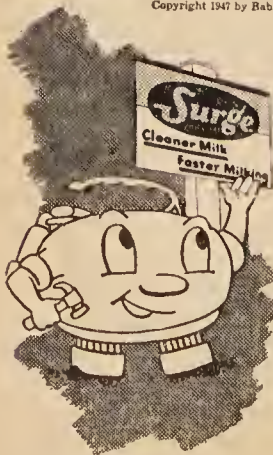
*Jordan Marsh*  
NEW ENGLAND'S LARGEST STORE



A lot of People in a lot of Places  
like the ***SURGE!***



Copyright 1947 by Babson Bros. Co.



... Ask  
your Neighbor about  
***Surge*** Money Making  
Milking!

**BABSON BROS. CO.**

2843 West Nineteenth Street, Chicago, Illinois



Send for  
Valuable  
Free Booklet

# "ARM & HAMMER" and "COW BRAND" BAKING SODAS

- Both are U.S.P. Bicarbonate of Soda, classified as official remedies by the Council on Pharmacy and Chemistry of the American Medical Association.
- Both are acceptable as dentifrices by the Council on Dental Therapeutics of the American Dental Association.
- For generations, of course, they have been recognized as essential aids to good cookery.

Keep a package in the medicine cabinet as well as in the kitchen

**CHURCH & DWIGHT CO., Inc.**

10 Cedar St., New York 5, N. Y.

Business Established in 1846

**ARM & HAMMER WASHING SODA OR SAL SODA**  
is completely soluble in water and is very effective in cleaning operations. Total solubility also prevents its clogging of drains, traps, etc.

**To clean with ease use  
ARM & HAMMER WASHING SODA**





SPRING.



SUMMER.

For 93 years

The Boston Five Cents Savings Bank  
 . . . New England's largest savings in-  
 stitution . . . has provided safety for  
 savings and sound home-financing.

*Choose your own banking  
 day and hours . . . save time  
 and money . . . with our  
 Banking-by-Mail service.*

It's easy to open an account . . . deposit  
 and withdraw money . . . with our  
 simplified Bank by Mail plan.  
 Write or 'phone today.



BENJAMIN FRANKLIN



GEORGE WASHINGTON



AUTUMN.



WINTER.



**THE BOSTON FIVE CENTS SAVINGS BANK**  
 30 SCHOOL STREET, BOSTON, MASSACHUSETTS







TRENT UNIVERSITY



0 1164 0215132 2

AY 81 .F306 1948  
Old farmer's almanac

ISSUED TO

913029



