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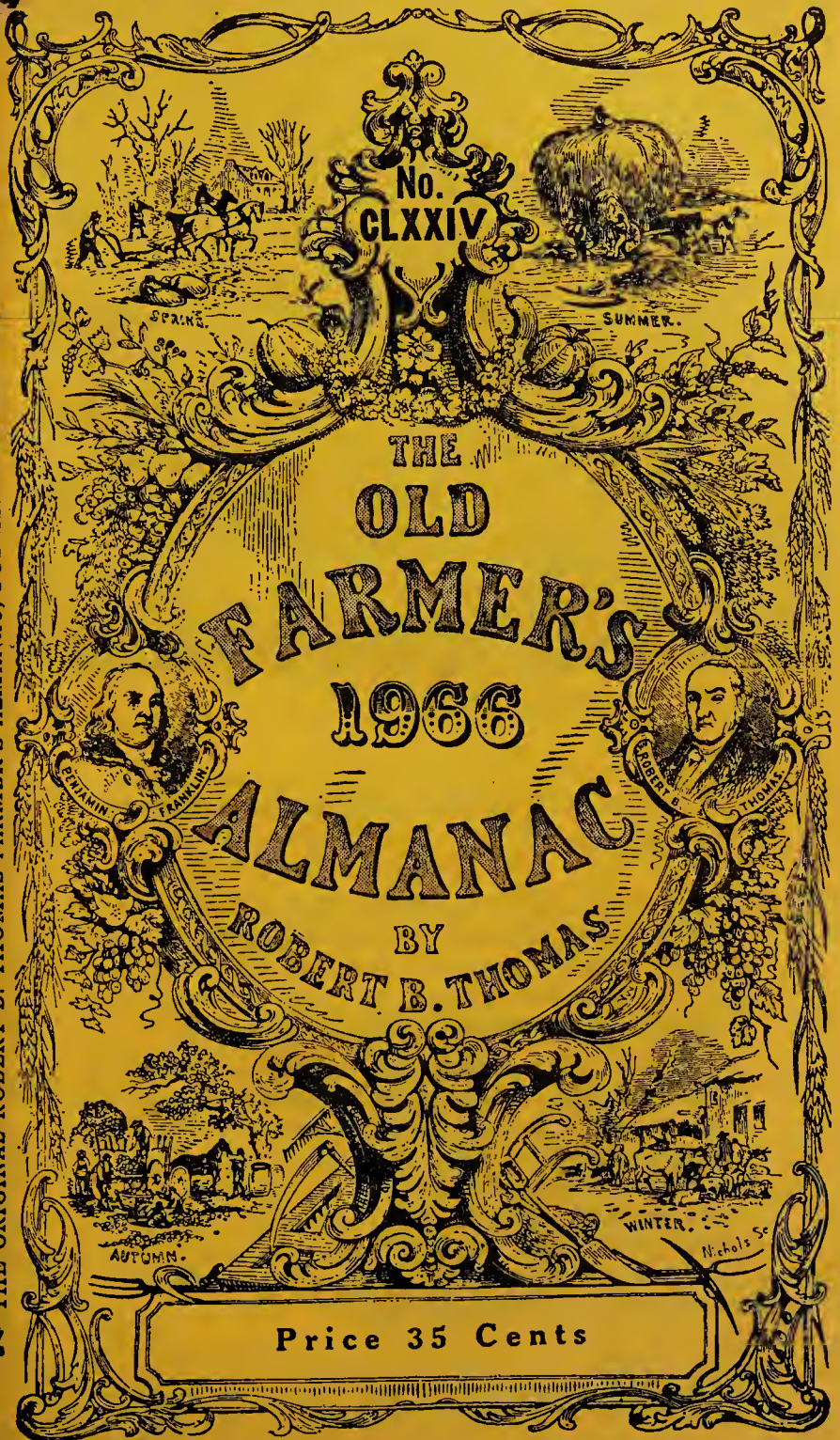

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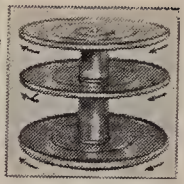

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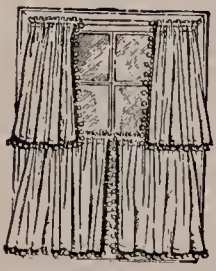

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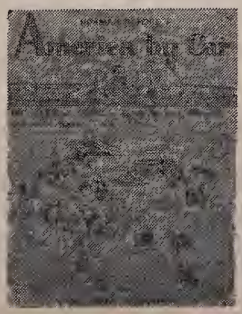

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Index

GLOSSARY OF ASTRONOMICAL TERMS, ETC.

Aph. — Aphelion . . . 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.

Conj. — conjunction . . . moment of closest approach to each other of any two heavenly bodies.

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.

El. — elongation . . . apparent angular distance of a member of the solar system from the Sun as seen from the Earth.

Inf. — Inferior . . . Inferior conjunction is when the Planet is between the Sun and the Earth.

Moon Runs High or Low . . . day of month Moon Souths highest or lowest above the horizon.

Opposition . . . time when Sun, and Moon or Planet appear on opposite sides of the sky (elongation 180 degrees).

Perl. — Perigee . . . Moon reaches point in its orbit closest to Earth.

Peri. — Perihelion . . . Planet revolving about the Sun reaches point in its orbit closest to 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.

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.

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.

Underground Moon . . . one which changes its phases between 12 M. and 1 A.M.

To Patrons

This is the 174th consecutive annual edition of THE OLD FARMER'S ALMANAC(K) . . . the oldest continually published, in the same name and format, periodical in America. This edition is for the year 1966, or Atomic Year 22.

Age, we presume, among other things is an accumulation of memories — and, as such, a measure of progress. A penny for her thoughts turned up this one from Mrs. Irene Bacon of Phoenix, Arizona. She obtained it from Madine Coleman, who had inherited it from her Kentucky grandmother. Madine had saved it for many years as a "Receet for Washing Clothes."

1. Bild fire in back yard to het kettle of rain water.
2. Set tubs so smoke wont blow in eyes if wind is pert.
3. Shave 1 hole cake lie sope in bilin water.
4. Sort things, make 3 piles. 1 pile whlte, 1 pile cullord, 1 pile work brlches and rags.
5. Stur flour in cold water to smooth then thin down wlth blllng water.
6. Rub dirty spots on board, scrub hard-then bile.
7. Rub cullord but dont bile just rench and starch.
8. Take white things out of kettle with broom stick handel then rench, blew and starch.
9. Spred tee towels on grass.
10. Hang old rags on fence.
11. Por rench water in flower bed.
12. Scrub porch with hot sopy water.
13. Turn tubs upside down.
14. Go put on clean dress smooth hair with side combs — brew cup of tee, set and rest and rock a spell and count your blessings.

Few of the 1.5 million Americans who turn 65 each year would prefer the old outdoor wash tubs to the modern washing, drying, and ironing machines. But what a wonderful feeling of ease and accomplishment — things one does not find from nervous machines — in that "rest and rock a spell."

Memories also furnish a remarkable kind of medicine — difficult to find in the hustle and bustle of the present. An anonymous 19th Century poet has described it thus:

Mirth is the medicine of life;
It cures its ills, it calms its strife,
It softly smooths the brow of care
And writes a thousand graces there.

My old hound dog before the hearth, asleep on a wintry night, used to twitch his legs and yelp. Was that perhaps caused by this medicine of mirth — his memory of a particularly wild rabbit chase? Sometimes my grandfather used to laugh aloud in his unintentional sleep after the evening meal beside his kerosene lamp. Was one of those chuckles, I have often wondered, about the day his pigs got out and paid a visit, next door, to an outdoor lawn party our fancy neighbors were having for High Society? Dented fenders, jet plane schedules, dial phones, radio, and television sometimes bring laughs — but not the kind of mirth my old dog — or grandfather — knew.

Still and all, age has no regrets, Few would live their lives over. Most will agree the most heartening thoughts of all are of the struggles and the sacrifices made for those who are now the young.

Loring Andrews has again prepared the astronomical matter in this issue, Benjamin Rice the Farm Calendars, and Abe Weatherwise the weather forecasts. Other contributors are by-lined. The distribution of this edition is close to two million copies, and thanks to our distributors (Triangle Publications), the Almanac looks to its 175th next year with hope and confidence.

Again our gratitude is expressed to the very many friends who are always glad to help us in maintaining the character and popularity of this publication. We trust our own efforts in its behalf may continue to warrant your approbation. Man, however, in these things can only propose. God is the true disposer. In this it is by our works and not our words 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,

May 27, 1965

Robt. B. Thomas.

Last Winter's Weather

(Nov., Dec. 1964—Jan., Feb., Mar., Apr. 1965)

In the 1965 edition of this Almanac, Page 72, Abe Weatherwise suggested that the six Winter months above would average 34.15°—or slightly below normal. At Blue Hill, near Boston, for which this forecast was made, the temperature averaged 33.2°. Abe also predicted 21.23″ of precipitation—Blue Hill had 19.89″—both quite a bit below normal. For snow, Abe foresaw 75.85″—and at Blue Hill it did snow 65.4″. In this connection, Abe felt most of the snow would be in January—and over 50% of it was.

Abe's "day-to-day" forecasts ran 70% correct in November, 70% in December, 47.4% in January, 43.4% in February, 72.7% in March, and 47.3% in April. He'd have done a lot better had not many of the storms he predicted come in, when he said they would, either north or south of his Blue Hill forecasting base.

More disillusioned than any others by storms not coming in where forecasters supposed they would was the northeastern ski community. Its loss from lack of good snow ran close to half a billion dollars.

The records kept by George Hyland, Maintenance Engineer of the Massachusetts Turnpike Authority (Boston to Lee, Mass.) show that 58″ to 87″ of snow fell on the Turnpike during these months, vis-a-vis Abe's 75.85″, and there were some 8 to 10 additional storms involving sleet and rain. Had a crew man on this Turnpike used this Almanac as a guide, he would have been properly forewarned on a little over half of those at the Boston-Chocopee Stations. He used 15,223 tons of salt compared with 12,494 the year before—but less sand. In the interests of highway safety, more salt than sand is now the policy.

A serious drought in the Dust Bowl—and from New Jersey throughout the Northeast (with the exception of December in the East)—continued through the Winter months. Reservoirs, at press time, in the East are at 25% of capacity. Abe's forecast (see next page) indicates that, as far as the East is concerned, above-normal precipitation is to be expected in 1966. The Dust Bowl is something else again. About all that can be said is, as a rule, dry or wet years usually run in triads—and the Dust Bowl, by 1966, will have had its "dry three."

SUMMARY

November 1964

1-30 (exc. 3rd week) heavy rains Cal., Ore., Wash. 15-30 drought ended Ohio R. Valley. 1-30 very dry, Fla.—S.C. Heavy snow Lakes Michigan—Superior areas.

December 1964

1-7, heavy snow Okla.—Ind. Rain in south. 7, cold in East. 15-20, snow, Northeast, Wash., Ore. 25, snow, floods, Cal. W. Ore.

January 1965

12, snow Wash., D.C.—Me. 16-18, snow Nebr., NYC, Boston. 17, ski resorts despair. 18, Fla. freeze. 20, Inaugural clear, heavy snow Cape Cod and around Buffalo. 23-24, heavy snow, Wash-Ore. Critical ice storm Ill. followed by cold wave. 24-25, dust storms Tex.-Fla. 30, floods Pacific NW. Very cold upper Midwest.

February 1965

1, snow NYC. 2, dust storm Tex. 22, snow Northeast. 26, storms 21 states—Ill.—N.H.

March 1965

17, 22 tornadoes Ala.; blizzard Mich. 20, snow Northeast. 27, snow Minn. (bringing Winter total to double normal).

April 1965

2, snow Nantucket; 2-9, 37 tornadoes So. side Lake Mich., esp. Ohio. 11, terr. tornadoes Ind. 16, floods Minn. St. Paul. 18, New England only, snowstorm. 30, Miss. R. flooding Iowa.

Weather Forecast 1965-6

1. This forecast is made for a tweive-inch-square spot at the summit of Blue Hill, a few miles south of Boston, latitude 42°13′ N, longitude 71°07′ W, eievation 629 feet.
2. To adapt this forecast to other locations:
   a) The temperature will be approx. 5° lower for each 100 miles north of 42° iat.; 5° higher for each 100 miies south of 42° lat.
   b) For each 1,000 feet of aititude above 629 feet, the temperature will be about 3.3° cooler.
   c) In each time zone *west* of the Eastern Time Zone, you may expect the weather to arrive one day earlier than the forecast says it will, i.e., Pacific Coast weather will arrive 3 days earlier.
3. The table on Page 80 applies to everywhere, without adjustment.
4. The correction tables, Pages 81–5, apply only to sunrise, sunset, etc., and *not to weather.*
5. There are doggerel verses on the right-hand calendar pages (Pages 11–33) for each month. These appear in *italics* running down these pages, next to the Farm Calendars. These verscs coincide with the prose forecasts given below except in some instances where they extend over longer periods.

   Example: See page 11. Opposite the dates January 13–18 you will note the italic reads *Worst January thaw you ever saw.* This means the thaw may come in anytime between these two dates, and corresponds to the similar prose forecast for the same dates (see below under Jan. (1966)): **"January thaw, rain 2".**"
6. Finaliy . . . as no scientist, aiive or dead, has ever deveioped an infaliible method for weather prediction more than 48 hours ahead, these forecasts below are at best just weather indications or trends. You can piace *full* reliance on the astronomical data in this Almanac but, as to weather, well, as the editor of this Almanac wrote in his Preface for his edition of 1793, "You shall see when it arrives what it is."

THE YEAR

(January 1–December 31, 1966)

The next year (1966), will bring 52.66" precipitation. This is 5.43" above normal and, except for July, August and November, not a year of drought. The average temperature will be 47.7° (or about one degree below normal). July will be hot as well as dry, but August reai cool, along with December (1966).

THE WINTER

(November 1965–Aprii 1966)

Next winter's weather, beginning November 1, 1965 and ending April 30, 1966, will produce 91" of snow (or 26.6" above normal); 31.11" of precipitation (5.86" above normal); and will average 33.67° (or about 3.5° below normai). Detaiis follow, and the storms to watch are set in bold face type. December and February are the two bad months.,

THE FOURTEEN MONTHS

Nov. (1965): Temp. 42.6° (.6° above normal.) Precip. 7" (2.47" above normal,) of which snow is 6" (3.84" above normal).

1, ciear; 2–5, 1" snow, 1" rain; 6–7, clear; 8–10, 1.5" rain, 2" snow; 11–15, clear and cool; 16–20, **severe storm and gales,** 2.5" **rain;** 21–22, overcast; 23–24, 1" rain, 2" snow, high tides; 25–26, cold and clear; 27–30, 1" rain, 2" snow.

Dec. (1965): Temp. 30° (1.2° below normal). Precip. 2.89" (1.07" beiow normal), of which snow is 8" (4.7" beiow normal).

1, rain .5"; 2–8, clear and cold; 9–12, rain .5", snow 2"; 13–14, windy, high tides; 15–17, rain .5", snow 1"; 18–19, clear and cold; 20–21, rain .5", snow 1"; 22–23, overcast; 24–26, **rain .89", snow 4";** 27–31, overcast, high winds.

Jan. (1966): Temp. 27.8° (.8° above normal). Precip. 5.36" (.87" above normal), of which snow is 26" (11.1" above normal).

1–3, rain-slect, 1", snow 6"; 4–5, clear-cold; 6–10, windy, high tides, rain 1", snow 8"; 11–12, clear; 13–18, **January thaw, rain 2"**; 19–21, very cold; 22–24, **1" precip. (snow 10")**; 25–28, cold-windy; 29–31, miider, rain .36", snow 2".

Feb.: Temp. 24.4° (3° below normai). Precip. 4.65" (.92" above

Continued on page 72

ECLIPSES FOR THE YEAR 1966

There are four eclipses, two of the Sun and two of the Moon, during 1966.

I. A Penumbral Eclipse of the Moon, May 4, 1966. This eclipse, not visible from the United States, will be seen, at its beginning, from Africa, central and eastern Europe, Asia except the northeastern part, the Indian Ocean, Australia, Indonesia, the western Pacific Ocean, and Antarctica. The end of the eclipse will be visible from South America, the Atlantic Ocean, Africa, Europe, the western half of Asia, the Indian Ocean, and Antarctica.

II. An Annular Eclipse of the Sun, May 20, 1966. This eclipse is not visible from the United States. In either annular or partial phase it is to be seen from the eastern Atlantic Ocean, throughout Europe and Asia, and Africa as far south generally as the equator. The annular phase can be observed along a path which begins just north of the equator near longitude 30°W, extends thence northeastward to and across the hump of Africa to the Mediterranean. Its path across the Mediterranean extends, generally speaking, from Tripoli, past the southern tip of Greece, to the Bosphorus, whence it passes across the southern end of the Black Sea, touches the northern tip of the Caspian Sea, and crosses China to its end-point about 250 miles south of Peiping.

III. A Penumbral Eclipse of the Moon, October 29, 1966. The entire duration of this eclipse will be visible from the United States except for its ending which will occur after the moon has set for observers along the east coast. The eclipse begins at 2.54 A.M. and ends at 7.32 A.M., while mid-eclipse occurs at 5.13 A.M., all times Eastern Standard Time. The beginning of the eclipse will be visible in North and South Americas, the western Atlantic Ocean, the Pacific Ocean, New Zealand, the northeastern part of Asia, and the Arctic. The end of the eclipse will be seen from North America (except its east coast), the Pacific Ocean, Australia, New Zealand, Indonesia, Asia except the western part, the eastern half of the Indian Ocean, and the Arctic.

IV. **A Total Eclipse of the Sun, November 12, 1966.** The area of visibility of this eclipse lies almost entirely in the southern hemisphere. As a partial eclipse of small extent it will be visible along most of the Gulf Coast of the United States and the southern half of Florida at sunrise. Its broad area of visibility covers all of Latin America except northwestern Mexico, the eastern Pacific Ocean, the Atlantic Ocean from the equator to Antarctica, and Africa below latitude 10°S. The path of totality, about 30 miles wide at its maximum breadth, extends from a point just north of the equator at longitude 104°W. to one about 1000 miles east and south of Capetown, South Africa. It lies entirely over the waters of the eastern Pacific and south Atlantic Oceans except for its swath across South America which extends from the west coast at Lima, Peru to the east coast just south of Rio Grande do Sol, near the border between Brazil and Uruguay. The maximum duration of the total phase is 1 m. 37 s.

EARTH IN PERIHELION AND APHELION, 1966

The Earth will be in Perihelion on January 3rd, distant from the Sun 91,344,000 miles. The Earth will be in Aphelion on July 4th, distant from the Sun 94,445,000 miles.

FULL MOON DAYS

	1966	*1967*	*1968*	*1969*	*1970*		*1966*	*1967*	*1968*	*1969*	*1970*
Jan.	7	26	15	3	22	July	2	21	9	28	18
Feb.	5	24	14	2	21	Aug.	1–30	19	8	27	16
Mar.	6	25	14	4	22	Sept.	29	18	6	25	15
Apr.	5	24	12	2	21	Oct.	29	18	6	25	14
May	4	23	12	2–31	20	Nov.	27	17	4	23	13
June	3	22	10	29	19	Dec.	27	16	4	23	12

1966 Holidays WEATHER

†Are recommended as "with pay" holidays—regardless of regular periods—for all commercial employees. (*) Quite generally observed. (**) State holidays only. (***) Observed some places though probably not holidays.

All dates are also included in abbreviated form on the Calendar Pages (11-33).

Jan. 1 (*†) New Year's, **Sat., Rain, Sleet, Snow**
Jan. 8 (**) Battle of New Orleans
Jan. 15 (**) Arbor Day (Fla.)
Jan. 19 (**) Robert E. Lee's Birthday (South)
Jan. 26 (**) MacArthur (Ark.)
Jan. 30 (**) F.D.R.'s Day (Ky.)
Feb. 12 (*) Lincoln's Birthday (13 States) **Sat., Snowy**
Feb. 14 (**) Admission Day (Ariz).
Feb. 14 (***) Valentine's Day
Feb. 15 (***) Susan B. Anthony
Feb. 22 (*†) George Washington's Birthday, **Tues., Stormy**
Feb. 22 (**) Mardi Gras. Ala., Fla. La.)
Mar. 1 (**) State Day (Nebr.)
Mar. 2 (**) Texas Ind. Day
Mar. 7 (**) Burbank Day (Cal.)
Mar. 15 (**) Jackson Day (Tenn.)
Mar. 17 (**) St. Patrick's or Evacuation Day (Boston)
Mar. 25 (**) Maryland Day
Mar. 26 (**) Kuhio Day (Haw.)
Mar. 30 (**) Seward's Day (Alas.)
Apr. 2 (**) Arbor Day (Ariz.)
Apr. 8 (**) Good Friday (Ark., Cal., Conn., Del., Fla., Ill., Ind., La., Md., Minn., N. J., N. D., Penn. & Tenn.) **Windy, Rainy**
Apr. 11 (**) Easter Mon. (N. C.)
Apr. 12 (**) Halifax Day (N. C.)
Apr. 13 (**) Jefferson Day (Ala., Mo., Nebr.. Okla., Va.)
Apr. 19 (**) Patriots' Day (Me., Mass.) **Tues., Showers**
Apr. 21 (**) San Jacinto (Tex.)
Apr. 22 (**) Okla. Day. Arbor Day (Nebr.)
Apr. 25 (**) Fast Day (N. H.), **Mon., Stormy**
Apr. 26 (**) Memorial Day (Fla., Ga., Miss.)
Apr. 29 (*) Nat'l Arbor Day
Apr. 30 (**) Arbor Day (Utah)
May 3 (**) R. I., Indep. Day
May 8 (***) Mother's Day
May 10 (**) Mem. Day (N. & S. C.)
May 20 (**) Mecklenburg (N. C.)
May 21 (**) Armed Forces Day
May 30 (*†) Decoration or Memorial Day, **Mon., Very Wet**
June 3 (**) Jefferson Davis Day (Ala., Fla., Ga., Ky., La., Miss., S. C., Tenn., Tex.)
June 11 (**) Kamehameha (Haw.)
June 14 (**) Flag Day (Pa.)
June 15 (**) Pioneer Day (Idaho)
June 17 (**) Bunker Hill (Suffolk Co., Mass.), **Fri., Lovely**
June 19 (***) Father's Day
June 20 (**) West Virginia Day
July 4 (*†) Independence, **Mon., Hot, Wet**
July 13 (**) Forrest's Day (Tenn.)
July 24 (**) Pioneer Day (Utah)
Aug. 1 (**) Colorado Day
Aug. 14 (**) Victory (R. I.)
Aug. 16 (**) Bennington, Vt. Bat.
Aug. 30 (**) Huey Long (La.)
Sept. 5 (*†) Labor Day, **Mon., Clear**
Sept. 9 (**) Admission Day (Cal.)
Sept. 12 (**) Defender's (Md.)
Sept. 16 (**) Cherokee (Okla.)
Sept. 17 (***) Citizenship Day
Sept. 23 (***) Am. Indian Day
Oct. 10 (**) Okla. Hist. Day
Oct. 11 (**) Pulaski Day (Nebr.)
Oct. 12 (*†) Columbus (All States exc. 10), **Wed., Rain**
Oct. 18 (**) Alaska Day
Oct. 24 (***) United Nations Day
Oct. 31 (**) Nevada Day
Nov. 1 (**) All Saints' Day (La.)
Nov. 4 (**) Will Rogers (Okla.)
Nov. 11 (*†) Veterans' (All States exc. 4) **Fri., Clear**
Nov. 12 (***) Sadie Hawkins Day
Nov. 23 (**) Repudiation (Md.)
Nov. 24 (*†) Thanksgiving Day **Thurs., Clear, Cold**
Dec. 10 (**) Wyoming Day
Dec. 15 (***) Bill of Rights Day
Dec. 21 (***) Forefathers' Day
Dec. 25 (*†) Christmas Day, **Sun., Stormy**

LONG HOLIDAY WEEKENDS

Of long holidays in 1966, there will be Washington's Birthday, which falls on a Tuesday, giving you Feb. 18–22; Easter (Sun., Apr. 10), taking Good Friday, you have April 8–11; Memorial Day, a Monday, allows May 27–31; July 4, a Monday, affords July 1–5; Labor Day, Monday, offers Sept. 2–6; Veterans' Day, a Friday, makes from Nov. 11–14; Thanksgiving, Nov. 24–28; and Christmas, a Sunday, gives Dec. 23–26 to many. New Year's is a Saturday, so is Lincoln's. Columbus Day is a Wednesday. New Hampshire, of course, gets a break and one more long weekend in its Fast Day (Mon. April. 25).

1965

JANUARY.

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FEBRUARY.

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APRIL.

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JUNE.

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JULY.

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AUGUST.

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SEPTEMBER.

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OCTOBER.

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DECEMBER.

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1966

JANUARY.

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FEBRUARY.

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MARCH.

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MAY.

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JUNE.

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JULY.

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AUGUST.

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SEPTEMBER.

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NOVEMBER.

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13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	–	–	–
–	–	–	–	–	–	–

DECEMBER.

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

1967

JANUARY.

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

FEBRUARY.

S	M	T	W	T	F	S
–	–	–	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	–	–	–	–
–	–	–	–	–	–	–

MARCH.

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

APRIL.

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

MAY.

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

JUNE.

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

JULY.

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

AUGUST.

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

SEPTEMBER.

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

OCTOBER.

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

NOVEMBER.

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

DECEMBER.

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

Introduction

STANDARD TIME IS USED THROUGHOUT THIS ALMANAC

Add 1 hr April 24, (deduct it Oct. 30) for Daylight Saving Time
For States which retain September D.S.T. Closing Date, Deduct it Sept. 25.

Chronological Cycles for 1966.

Golden Number . .	10	Solar Cycle	15	Roman Indiction . .	4
Epact	8	Dominical Letter* . .	B	Year of Julian Period	6679

**The Dominical Letter is used instead of the usual "S" for "Sunday" by almanac makers for determining at a glance (a) the year of the almanac, (b) on what day of the week any day of the month will fall.*

Movable Feasts and Fasts for 1966.

SeptuagesimaSun.	Feb. 6	Good Friday	Apr. 8	Whitsunday	May 29
Shrove Sunday	Feb. 20	Easter Sunday	Apr. 10	Trinity Sunday	June 5
Ash Wednesday	Feb. 23	Low Sunday	Apr. 17	Corpus Christi	June 9
1st Sun. in Lent	Feb. 27	Rogation Sun.	May 15	1st Sunday in Advent	Nov. 27
Palm Sunday	Apr. 3	Ascension Day	May 19		

THE SEASONS OF 1966

Winter (1965)	December 21	8.41 P.M. (Sun enters Capricornus)
Spring (1966)	March 20	8.53 P.M. (Sun enters Aries)
Summer	June 21	3.33 P.M. (Sun enters Cancer)
Fall	September 23	6.43 A.M. (Sun enters Libra)
Winter	December 22	2.29 A.M. (Sun enters Capricornus)

Names and Characters of the Principal Planets.

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

Names and Characters of the Aspects.

☌ Conjunction, or in the same degree.
□ Quadrature, 90 degrees.
☍ Opposition, or 180 degrees.
☊ Dragon's Head, or Ascending Node.
☋ Dragon's Tail, or Descending Node.

Calendar Page Explanations and Signs

On the right hand pages you will find every now and again the symbols given above conjoined in groups of three to give you what is happening in the heavens. See Glossary, Page 2. Example: ☌♃☾ on Page 11, opposite Jan. 5 means Jupiter (♃) and the moon (☾) are on that day in conjunction (☌), or nearest to each other.

Weather Forecasts

See Page 5 . . . and the *italics* running down the center of Pages 11–33. For every time zone west of Boston, the weather will arrive *one day earlier* than the forecast says it will. The *italics* on Pages 11–33 may be spread over more than one day. This means the indicated weather may come in anytime during the days covered. Also see Page 80.

Planting Tables

See Page 36. Usual planting dates as well as those most *favored by the moon* are given for most parts of the U.S.A. Favorable signs are also included. See Pages 10–32 for the days on which these occur. Also see Page 38.

Astrology Signs and Meanings

See Pages 38–41 for birth date superstitions as well as those pertaining to brush cutting, weaning, planting, marriage, etc.

Planets

See Pages 34–35. Which planet is shining so brightly for you? These pages will help you to know. Also, the configurations these planets are making with each other is given in the symbols on Pages 11–33. Astrologers as well as students of the varying strength of radio and television signals find these configurations useful.

Tides

See Pages 10–32 for the times of morning and evening high tides, Pages 11–33 for the heights of these tides. Page 83 gives the corrections needed for your locality.

For Your Locality

See Pages 81–85 for adjustment of sunrise, sunset, moon, planets, etc., to where you live. These corrections apply to all astronomy tables in this Almanac which, incidentally, uses Boston as its base. However, these corrections do not apply to the weather forecasts. For the latter, see Page 5. (The table on Page 80 applies everywhere without correction.) If these corrections seem too complicated for you, send a stamped self-addressed envelope to THE OLD FARMER'S ALMANAC, Dublin, N. H. 03444, and we'll do them for you, free of charge.

1966] JANUARY, First Month.

ASTRONOMICAL CALCULATIONS.

☉'s Declination.

Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /
1	23s.00	7	22 22	13	21 28	19	20 20	25	18 57
2	22 55	8	22 14	14	21 18	20	20 07	26	18 42
3	22 49	9	22 06	15	21 07	21	19 54	27	18 27
4	22 43	10	21 57	16	20 56	22	19 40	28	18 11
5	22 36	11	21 48	17	20 44	23	19 26	29	17 55
6	22 29	12	21 38	18	20 32	24	19 12	30	17 39

○ Full Moon, 7th day, 12 h. 17 m., morning, W.
☾ Last Quarter, 13th day, 3 h. 00 m., evening, W.
● New Moon, 21st day, 10 h. 47 m., morning, E.
☽ First Quarter, 29th day, 2 h. 49 m., evening, E.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGES 81-85, FOR ALL POINTS OUTSIDE NEW ENGLAND

Day of Year	Day of Month	Day of Week	☉ Rises h. m.	Key	☉ Sets h. m.	Key	Length of Days h. m.	Sun Fast m.	Full Sea, Boston. Morn h.	Full Sea, Boston. Eve h.	☽ Rises h. m.	Key	☽ Sets h. m.	Key	☽ Place	☽ Age
1	1	Sa.	7 13	O	4 23	C	9 10	12	$5\frac{3}{4}$	$6\frac{1}{4}$	$12^{P}_{M}25$	G	$12^{A}_{M}57$	J	TAU	10
2	2	B	7 13	O	4 24	C	9 11	12	$6\frac{1}{2}$	7	12 50	F	2 04	L	TAU	11
3	3	M.	7 13	O	4 26	C	9 12	11	$7\frac{1}{2}$	8	1 19	E	3 14	M	G'M	12
4	4	Tu.	7 13	O	4 26	C	9 12	11	$8\frac{1}{4}$	9	1 57	C	4 27	N	G'M	13
5	5	W.	7 13	O	4 27	D	9 13	10	$9\frac{1}{4}$	$9\frac{3}{4}$	2 45	B	5 40	O	CNC	14
6	6	Th.	7 13	N	4 28	D	9 14	10	10	$10\frac{3}{4}$	3 45	B	6 51	P	CNC	15
7	7	Fr.	7 13	N	4 29	D	9 16	9	11	$11\frac{1}{2}$	4 57	B	7 54	P	—	—
8	8	Sa.	7 13	N	4 30	D	9 17	9	$11\frac{3}{4}$	—	6 15	D	8 45	O	LEO	16
9	9	B	7 13	N	4 31	D	9 18	9	$0\frac{1}{2}$	$0\frac{3}{4}$	7 36	E	9 27	M	LEO	17
10	10	M.	7 13	N	4 32	D	9 19	8	$1\frac{1}{4}$	$1\frac{1}{2}$	8 54	G	10 00	L	VIR	18
11	11	Tu.	7 12	N	4 33	D	9 21	8	$2\frac{1}{4}$	$2\frac{1}{2}$	10 10	H	10 28	K	VIR	19
12	12	W.	7 12	N	4 34	D	9 22	7	3	$3\frac{1}{2}$	$11^{P}_{M}22$	J	10 53	I	LIB	21
13	13	Th.	7 12	N	4 35	D	9 23	7	4	$4\frac{1}{2}$	—	–	11 18	H	LIB	22
14	14	Fr.	7 11	N	4 36	D	9 25	7	5	$5\frac{1}{2}$	$12^{A}_{M}32$	K	$11^{A}_{M}42$	G	SCO	23
15	15	Sa.	7 11	N	4 37	D	9 27	6	6	$6\frac{1}{2}$	1 42	L	$12^{P}_{M}08$	E	SCO	24
16	16	B	7 10	N	4 39	D	9 28	6	7	$7\frac{1}{2}$	2 50	M	12 38	D	SCO	25
17	17	M.	7 10	N	4 40	D	9 30	6	8	$8\frac{1}{2}$	3 57	N	1 13	C	SGR	26
18	18	Tu.	7 09	N	4 41	D	9 32	5	$8\frac{3}{4}$	$9\frac{1}{2}$	5 00	O	1 55	C	SGR	27
19	19	W.	7 09	N	4 42	D	9 33	5	$9\frac{1}{2}$	$10\frac{1}{4}$	5 58	P	2 43	B	CAP	28
20	20	Th.	7 08	N	4 43	D	9 35	5	$10\frac{1}{4}$	11	6 48	P	3 38	C	CAP	29
21	21	Fr.	7 07	N	4 45	D	9 37	4	11	$11\frac{1}{2}$	7 32	O	4 36	C	AQR	0
22	22	Sa.	7 07	N	4 46	D	9 39	4	$11\frac{3}{4}$	—	8 07	N	5 38	D	AQR	1
23	23	B	7 06	N	4 47	D	9 41	4	$0\frac{1}{4}$	$0\frac{1}{4}$	8 37	M	6 40	E	AQR	2
24	24	M.	7 05	N	4 48	D	9 43	4	$0\frac{3}{4}$	1	9 02	L	7 42	F	PSC	3
25	25	Tu.	7 04	N	4 50	E	9 45	3	$1\frac{1}{2}$	$1\frac{1}{2}$	9 24	K	8 43	G	PSC	4
26	26	W.	7 04	M	4 51	E	9 47	3	2	$2\frac{1}{4}$	9 45	J	9 43	I	ARI	5
27	27	Th.	7 03	M	4 52	E	9 49	3	$2\frac{3}{4}$	3	10 05	I	10 46	J	ARI	6
28	28	Fr.	7 02	M	4 53	E	9 52	3	$3\frac{1}{2}$	$3\frac{3}{4}$	10 27	H	$11^{P}_{M}49$	K	ARI	7
29	29	Sa.	7 01	M	4 55	E	9 54	3	$4\frac{1}{4}$	$4\frac{1}{2}$	10 49	F	—	–	TAU	8
30	30	B	7 00	M	4 56	E	9 56	2	5	$5\frac{1}{2}$	11 16	E	$12^{A}_{M}56$	L	TAU	9
31	31	M.	6 59	M	4 57	E	9 58	2	6	$6\frac{1}{2}$	$11^{A}_{M}49$	D	$2^{A}_{M}04$	N	G'M	10

JANUARY hath 31 days. [1966

Nae mair the flow'r in field or meadow springs;
Nae mair the grove with airy concert rings,
Except perhaps the grosbeak's whistling glee,
Proud o' the height o' some bit half-lang tree.
Burns

D. M.	D. W.	Aspects, Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
1	Sa.	Circumcision. Venus near Peak Brilliance	Some thirty years ago the Fish and Game Department got interested in reintroducing beaver to our parts. The idea originated from the fact that Maine had a nuisance beaver surplus — flooding highways and Aroostook potatoes — and wanted them out. So our game wardens went up and got a lot of live beavers — free. We welcomed them. Beaver ponds would help the fishing (only partly true) and make a lot of water handy for forest fires; and maybe eventually beaver pelts would mean revenue to local trappers (I hoped not). Now, thirty years later, their multiplication has been miraculous. We look down from super highways to their dams; our little streams tumble between their ponds; from the air the somber flow of dark forests are bright with waters never gathered before. Somehow, all the bother of flooded roads and felled trees has become acceptance. With the price of beaver pelts down to pond bottom, and no incentive to trappers, the stranger lives with us in peace. And the facts and myths of brother beaver make for such good, idle, curious thinking. Every schoolboy knows a beaver is forever at his cutting, else his teeth will grow long and curly, and his mouth won't shut, and he will be drowned in his own pond. And, of course, I know that too. But to dwell of a bitter winter night in the secret snugness of a beaver house, on a dry, warm shelf of willow, is a fancy that especially indulges my senility.
2	B	2nd a. Ch. Holy Name {8.9 8.0	*Sneezes*
3	M.	♀ Stat. in R.A. • ⊕ in Peri {9.8 8.2	*then*
4	Tu.	Latest Sunrises Jan. 1–10, 7.13 Tides {9.8 8.5	*freezes*
5	W.	Twelfth Night ☌☽☾ Tides {10.8 8.9	*noses &*
6	Th.	Epiphany. ☾ runs high {10.8 9.2	*kneeses.*
7	Fr.	Full Underground Cold Moon • Maids should marry tomorrow	*Snows*
8	Sa.	☌♀♂ • ☾ in Peri. Hol. La. {11.4 —	*blow back*
9	B	1st a. Ep. Arctic Snowy Owls return	*into your*
10	M.	Plough Monday • Portland Head Light 1st Me. Coast 1791	*track.*
11	Tu.	☌☊☾ Milan Cath. Fin. 1965 {10.0 10.7	*No cheer*
12	W.	☾ on Eq. • Parallel with November 30 {9.9 10.1	*here.*
13	Th.	*'Tis hard for an empty sack to stand upright* {9.9 9.5	*Worst*
14	Fr.	St. Hilary Coldest in Year Tides {9.8 8.9	*Jan.*
15	Sa.	☌♆☾ See Lev. XIX 2, 3 {9.7 8.5 Hol. Fla.	*thaw*
16	B	2nd a. Ep. Lucky Day Tides {9.6 8.2	*you*
17	M.	*Small leaks sink many great ships* Tides {9.6 8.1	*ever*
18	Tu.	Vermont admitted to Union 1791 • Lucky Day {9.6 8.1	*saw.*
19	W.	☾ rides low Dr. Dooley 1961 • Hol. South	*Pass the*
20	Th.	*Shad climb greased poles easier than sinners get to Heaven*	*anti-*
21	Fr.	Druid's New Year • Influenza around 1966	*freeze please.*
22	Sa.	If clear expect a good year • Panama Treaty '03	*Double*
23	B	3rd a. Ep. ☌♂☾ • ☾ in Apo.	*shovel*
24	M.	Churchill D. 1965 • Unlucky Day {8.5 9.5	*trouble.*
25	Tu.	Conv. of St. Paul ☌♄☾ {8.5 9.3	*Drafts*
26	W.	☌♀☉ Inf. • Tea Table Wars • Hol. Ark.	*waft*
27	Th.	☾ on Eq. Raccoons Mating Tides {8.6 8.7	*aft &*
28	Fr.	*A bad oyster, like marriage, is not known until too late* {8.6 8.4	*abaft.*
29	Sa.	Zepps bomb Paris, 1916 • Tom Paine B. 1737	*Indication*
30	B	4th a. Ep. F.D.R. B. 1882 Hol. Ky. {8.8 7.9	*of*
31	M.	Cape Horn 1st doubled 1616 {9.0 7.9	*precipitation.*

ASTRONOMICAL CALCULATIONS.

☉'s Declination.

Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /
1	17s. 05	7	15 18	13	13 21	19	11 16	25	9 05
2	16 48	8	14 59	14	13 00	20	10 54	26	8 42
3	16 30	9	14 40	15	12 40	21	10 33	27	8 20
4	16 13	10	14 20	16	12 19	22	10 11	28	7 57
5	15 55	11	14 01	17	11 58	23	9 49		
6	15 36	12	13 41	18	11 37	24	9 27		

○ Full Moon, 5th day, 10 h. 58 m., morning, W.
☾ Last Quarter, 12th day, 3 h. 53 m., morning, E.
● New Moon, 20th day, 5 h. 50 m., morning, E.
☽ First Quarter, 28th day, 5 h. 16 m., morning, W.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGES 81-85, FOR ALL POINTS OUTSIDE NEW ENGLAND

Day of Year	Day of Month	Day of Week	☉ Rises h. m.	Key	☉ Sets h. m.	Key	Length of Days h. m.	Sun Fast m.	Full Sea, Boston. Morn h.	Full Sea, Boston. Eve. h.	☽ Rises h. m.	Key	☽ Sets h. m.	Key	☽ Place	☽ Age
32	1	Tu.	6 58	M	4 59	E	10 01	2	7	7½	12P M30	C	3A M16	O	G'M	11
33	2	W.	6 57	M	5 00	E	10 03	2	7¾	8½	1 23	B	4 27	P	CNC	12
34	3	Th.	6 56	M	5 01	E	10 05	2	8¾	9½	2 28	B	5 33	P	CNC	14
35	4	Fr.	6 55	M	5 02	E	10 08	2	9¾	10½	3 43	C	6 30	O	LEO	15
36	5	Sa.	6 53	M	5 04	E	10 10	2	10½	11¼	5 05	D	7 17	N	—	—
37	6	B	6 52	M	5 05	E	10 13	2	11½	—	6 27	F	7 55	M	LEO	16
38	7	M.	6 51	M	5 06	E	10 15	2	0	0½	7 48	G	8 26	K	VIR	17
39	8	Tu.	6 50	M	5 08	E	10 18	2	1	1¼	9 05	I	8 53	J	VIR	18
40	9	W.	6 49	L	5 09	F	10 20	1	1¾	2¼	10 18	J	9 19	H	LIB	19
41	10	Th.	6 47	L	5 10	F	10 23	1	2¾	3	11P M30	L	9 44	G	LIB	20
42	11	Fr.	6 46	L	5 12	F	10 25	1	3½	4	—	—	10 10	F	SCO	21
43	12	Sa.	6 45	L	5 13	F	10 28	1	4½	5	12A M41	M	10 40	D	SCO	22
44	13	B	6 43	L	5 14	F	10 31	1	5½	6	1 49	N	11 13	C	SGR	23
45	14	M.	6 42	L	5 15	F	10 33	2	6½	7	2 54	O	11A M53	C	SGR	24
46	15	Tu.	6 41	L	5 17	F	10 37	2	7½	8¼	3 54	P	12P M39	B	CAP	25
47	16	W.	6 39	L	5 18	F	10 39	2	8½	9	4 46	P	1 31	B	CAP	26
48	17	Th.	6 38	L	5 19	F	10 41	2	9¼	10	5 31	O	2 29	C	CAP	27
49	18	Fr.	6 37	L	5 21	F	10 44	2	10	10½	6 09	O	3 30	D	AQR	28
50	19	Sa.	6 35	L	5 22	F	10 47	2	10¾	11¼	6 40	N	4 32	E	AQR	29
51	20	B	6 34	L	5 23	G	10 50	2	11¼	11¾	7 06	M	5 34	F	PSC	0
52	21	M.	6 32	K	5 24	G	10 52	2	—	0	7 29	K	6 36	G	PSC	1
53	22	Tu.	6 31	K	5 26	G	10 55	2	0½	0½	7 50	J	7 37	H	PSC	2
54	23	W.	6 29	K	5 27	G	10 58	2	1	1¼	8 10	I	8 38	J	ARI	3
55	24	Th.	6 28	K	5 28	G	11 01	2	1½	1¾	8 31	H	9 41	K	ARI	4
56	25	Fr.	6 26	K	5 29	G	11 03	3	2	2½	8 53	G	10 45	L	TAU	5
57	26	Sa.	6 24	K	5 30	G	11 06	3	2¾	3¼	9 17	E	11P M52	M	TAU	6
58	27	B	6 23	K	5 32	G	11 09	3	3½	4	9 46	D	—	—	G'M	7
59	28	M.	6 21	K	5 33	G	11 12	3	4½	5	10A M23	C	1A M02	N	G'M	9

FEBRUARY hath 28 days. [1966

A dove-gray cloud, tender as tears or dew,
From one lone hearth exhaling, hangs unstirred,
Like the poised ghost of some unnamed great bird
In the ineffable pallor of the blue.

Roberts

D.M.	D.W.	Aspects, Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
1	Tu.	St. Bridget ☌☾ *Groundhogs'*	
2	W.	Pur. of M. Candlemas or Groundhog Day *shadows*	
3	Th.	Four Chaplains ☾ runs high {10.3 8.8 *cover icy*	
4	Fr.	Beware of accidents all day tomorrow {10.9 9.4 *meadows.*	
5	Sa.	The Full Snow Moon ☾ in Peri. • ☌☿☉ Sup.	
6	B	Sept. S. Men, like melons, are hard to know *Skiers*	
7	M.	☌☉☾ Rained 4.01". 1941 Waterbury, Conn. {10.3 11.5 *ahoy!*	
8	Tu.	☾ on Eq. Begun in anger, endeth in shame *powder you'll*	
9	W.	Sundials 9–13 close to correct U.S.W.B. B. 1870 {10.6 10.7 *enjoy.*	
10	Th.	*Where there's marriage without love there'll be love without marriage* *Now*	
11	Fr.	Mrs. Henry VII B. 1466, D. 1500 • Shipwreck 1944 Boon I., Maine *plan*	
12	Sa.	Linc. Bdy. ☌♆☾ Hol. 32 states *a suntan.*	
13	B	Sex. S. By today bad or good goose will lay *Be not*	
14	M.	Val. D. Hot. Ariz. {9.2 7.8 *downcast, Winter's*	
15	Tu.	☿ Stat. in R. A. • ♀ Stat. in R.A. • ☾ rides low {9.1 7.7	
16	W.	*Do what you should not, hear what you would not.* {9.1 7.8 *running*	
17	Th.	Auld deer worst in year ☌♀☾ {9.2 8.0 *out fast.*	
18	Fr.	*When befriended remember it when you befriend forget it* *Not clear,*	
19	Sa.	☾ in Apo. • Copernicus B. 1473 • Lucky Day {9.5 8.5 *not*	
20	B	Quinqua. S. *cloudy, not calm,*	
21	M.	☌♂☾ • ☌♄☾ • ☌♂♄ *not rowdy.*	
22	Tu.	Mardi Gras • Wash. Bdy. ♆ Stat. in R.A. *The rest*	
23	W.	Ash W. ☌☿♄ • ☾ on Eq. *of the year*	
24	Th.	St. Matthias ☌☿♂ *curses a fair*	
25	Fr.	To err is human • To repent divine Unlucky Day *Februeer.*	
26	Sa.	*If the hill has on her hat, beware of that.* {9.1 9.5 *Little puffs*	
27	B	1st S. L. Lucky Day *of the white stuff.*	
28	M.	Gregory bec. Pope 591 A.D. • Merrimac River ice 30" 1741 {9.1 7.9	

Self pity and loneliness are two ugly twins, dismiss one and the other disappears.

Lacking "llve news," the editor of our weekly paper occasionally plucks from his "morgue" such items as these.

Elms still stand on Main Street, except the one "struck by lightning at the helght of the shoppling Friday nlght, crushing the Unitarian Church fence and flattening Bill Grissom's carry-all." Just spared Bill's horse, who galloped off with the front wheels, and Bill, who, by the grace of God and common sense, was under cover at Brindle's, drinking beer. Fifty years ago.

"Dr. Jonathan Davis has hung out his shingle for general practice in the Sumner building." How many babies have you brought into the world since, Doc?

"Silas Williams has presented the town with an elegant watering trough — for Man and Beast." Trough for beast, and a chained cup above where the sweet water was piped in, for man. The Women's Club now has geraniums in the trough.

"At the height of the hurricane and flood, Grange Hall and the feed store went up in flames. Quick lime in the feed store got wet and spontaneously combusted, so the chief says. Too much fire and flood to save anything but The Tavern, being on high ground." Today there's a new bank and office building where The Tavern stood.

Ten, twenty, fifty — sometimes, cautiously, sixty years ago. Not dead news, but as alive as last week's, which, in our street corner town, is old before it's printed!

1966] MARCH, Third Month.

ASTRONOMICAL CALCULATIONS.

☉'s Declination.

Days.	° ′	Days.	° ′	Days.	° ′	Days.	° ′	Days.	° ′
1	7S. 34	7	5 16	13	2 55	19	0 31	25	1 50
2	7 11	8	4 52	14	2 31	20	0S.07	26	2 13
3	6 48	9	4 29	15	2 07	21	0N.15	27	2 36
4	6 25	10	4 06	16	1 43	22	0 38	28	3 00
5	6 02	11	3 42	17	1 19	23	1 02	29	3 23
6	5 39	12	3 18	18	0 55	24	1 26	30	3 47

○ Full Moon, 6th day, 8 h. 46 m., evening, E.

☾ Last Quarter, 13th day, 7 h. 19 m., evening, E.

● New Moon, 21st day, 11 h. 47 m., evening, E.

☽ First Quarter, 29th day, 3 h. 44 m., evening, E.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGES 81-85. FOR ALL POINTS OUTSIDE NEW ENGLAND

Day of Year	Day of Month	Day of Week	☉ Rises h. m.	Key	☉ Sets h. m.	Key	Length of Days h. m.	Sun Fast m.	Full Sea. Boston. Morn h.	Full Sea. Boston. Eve. h.	☽ Rises h. m.	Key	☽ Sets h. m.	Key	☽ Place	☽ Age
60	1	Tu.	6 20	K	5 34	G	11 14	3	5½	6	11A M09	B	2A M10	P	CNC	10
61	2	W.	6 18	K	5 35	G	11 17	4	6½	7	12P M06	B	3 16	P	CNC	11
62	3	Th.	6 16	K	5 37	G	11 20	4	7½	8	1 15	B	4 16	P	LEO	12
63	4	Fr.	6 15	K	5 38	H	11 23	4	8½	9	2 32	D	5 06	O	LEO	13
64	5	Sa.	6 13	J	5 39	H	11 26	4	9½	10	3 54	E	5 47	N	VIR	14
65	6	B	6 11	J	5 40	H	11 29	4	10½	11	5 16	G	6 21	L	—	—
66	7	M.	6 10	J	5 41	H	11 32	5	11¼	11¾	6 36	H	6 50	K	VIR	15
67	8	Tu.	6 08	J	5 43	H	11 34	5	—	0	7 53	J	7 16	I	LIB	16
68	9	W.	6 06	J	5 44	H	11 37	5	0½	1	9 09	K	7 42	H	LIB	17
69	10	Th.	6 05	J	5 45	H	11 40	5	1½	1¾	10 24	M	8 09	F	SCO	18
70	11	Fr.	6 03	J	5 46	H	11 43	6	2¼	2¾	11P M36	N	8 37	E	SCO	19
71	12	Sa.	6 01	J	5 47	H	11 46	6	3	3½	—	–	9 10	D	SGR	20
72	13	B	6 00	J	5 48	H	11 49	6	4	4½	12A M44	O	9 49	C	SGR	21
73	14	M.	5 58	J	5 50	H	11 52	6	5	5½	1 47	P	10 33	B	SGR	22
74	15	Tu.	5 56	J	5 51	H	11 54	7	6	6¾	2 43	P	11A M24	B	CAP	23
75	16	W.	5 54	I	5 52	I	11 57	7	7	7¾	3 31	O	12P M21	C	CAP	24
76	17	Th.	5 53	I	5 53	I	12 00	7	8	8¾	4 11	O	1 22	C	AQR	25
77	18	Fr.	5 51	I	5 54	I	12 03	8	8¾	9½	4 44	N	2 24	D	AQR	26
78	19	Sa.	5 49	I	5 55	I	12 06	8	9½	10	5 11	M	3 26	F	PSC	27
79	20	B	5 48	I	5 56	I	12 09	8	10¼	10¾	5 35	L	4 28	G	PSC	28
80	21	M.	5 46	I	5 58	I	12 12	8	11	11¼	5 56	K	5 29	H	PSC	29
81	22	Tu.	5 44	I	5 59	I	12 15	9	11½	11¾	6 16	I	6 31	I	ARI	1
82	23	W.	5 42	I	6 00	I	12 18	9	—	0	6 36	H	7 34	J	ARI	2
83	24	Th.	5 41	I	6 01	I	12 20	9	0½	0¾	6 58	G	8 38	L	TAU	3
84	25	Fr.	5 39	I	6 02	I	12 23	10	1	1½	7 21	F	9 45	M	TAU	4
85	26	Sa.	5 37	I	6 03	I	12 26	10	1½	2	7 48	E	10P M53	N	TAU	5
86	27	B	5 35	H	6 04	J	12 29	10	2¼	2¾	8 21	C	—	–	G'M	6
87	28	M.	5 34	H	6 06	J	12 32	11	3	3¾	9 03	B	12A M01	O	G'M	7
88	29	Tu.	5 32	H	6 07	J	12 35	11	4	4¾	9 55	B	1 07	P	CNC	8
89	30	W.	5 30	H	6 08	J	12 38	11	5	5¾	10A M57	B	2 08	P	CNC	9
90	31	Th.	5 28	H	6 09	J	12 41	12	6	6¾	12P M09	C	2A M59	O	LEO	10

MARCH hath 31 days. [1966

Where are the songs of Spring? Ay, where are they?
Think not of them, thou hast thy music, too,
While barred clouds bloom the soft-dying day,
And touch the stubble-plains with rosy hue.

Keats

D.M.	D.W.	Aspects, Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
1	Tu.	St. David Hol. Neb. ♂☌☾ {9.2 7.9 *Boreas's*	Bart, the large German Shepherd dog who owns me and lives in my house, felt unwell the other night. He said he'd better see his doctor. So off we went.
2	W.	☾runs high Ember Day Hol. Ala., Fla., La., Tex. *uproar-*	
3	Th.	Canadian geese back in Canada • Skunks emerge {9.8 8.5 *ious.*	
4	Fr.	World Prayer ☿Gr. ☿El. E. Ember days {10.3 9.1 *Lots of*	There were quite a lot of other dogs and people when we arrived. Bart agreed to stay in the car, while I got out and talked with Phyllis, who happens to be owned by Bart's son, Treui (pronounced Troy). Treui was occupied at the moment with winding Phyllis around the hitching post. I released Phyllis. Treui said he'd been attacked by a skunk the previous evening and was here to be freshened up. It seemed a good idea.
5	Sa.	The Ides Begin Beware of Old Colind Purim {10.8 9.8 *snow*	
6	B	2nd S. L. The full worm moon • in Peri ♂☉☾	
7	M.	Foots do more hurt in this world than rascals Hol. Calif. *here,*	
8	Tu.	☿☊☉ • ☿♒☉ • ☾on Eq. *some rain*	
9	W.	Maple sap running • Pancho Villa N. Mex. 1916 *too, we*	
10	Th.	Mists foretell plentiful year ♂♄☉ {11.0 10.5 *fear.*	Presently I went in and sat in the dogs' reception room. A pearly-grey, fancy-clipped French poodle greeted me. He said he was having trouble getting his coat in shape this spring. But he was especially interested in a six-month-old Great Dane beside me. She was all paws and loose skin to grow into — a lovely fawn color — and confiding. She told me about her sore eye, though she was really more concerned about her friend, a Bassett Hound, who was going to miss her dreadfully.
11	Fr.	☿Stat. in R.A. • ♂♆☾ Blizzard of 1888 *Relax,*	
12	Sa.	St. Greg. SS President lost—1841 {10.3 9.0 *Max.*	
13	B	3rd S. L. Pres. Johnson in trouble, 1868 *Spring*	
14	M	Skunks (see pg. 77) mating ♂☿♂ {9.2 7.8 *brings*	Doc Fritz said he was ready. Bart accepted his ministrations and agreed it would be best to stay a night or two. He selected his quarters (beside a wise old cat), and waited while they were being prepared with fresh water and newspapers. He said not to worry. He'd let me know. I'm still waiting.
15	Tu.	Birds returning ☾Kides low Hol. Tenn. *wondrous*	
16	W.	Lowest P.M. high tides (7.6) Mar. 15-16, April 13 *things.*	
17	Th.	St. Pat. ♂ ♀ ☾ Tides {8.7 7.8 *Winter's*	
18	Fr.	Leonov space acrob. 1965 ☾in Apo. Tides {8.9 8.1 *back;*	
19	Sa.	St. Jos. Swallows return to Capistrano {9.1 8.4 *hit the*	
20	B	4th S. L. Spring begins 8:53 P.M. ☉enters ♈	
21	M.	♂☿☉inf. Sun turns North • Beware of accidents *sack.*	
22	Tu.	Earliest possible Easter date ☾on Eq. Hol. Okla. *Hey,*	
23	W.	Concord, N.H. snow depth 34.1"—1916 Tides {— 9.4 *brother,*	
24	Th.	Wooly Bear Caterpillars 1956 abdicate weather dictatorship *tell*	
25	Fr.	Annunc. Lady Day Hol. Md. Tides {9.6 9.1 *mother*	
26	Sa.	Happy the man, he alone who calls today his own Hol. Hawaii *the*	
27	B	Pas. S. Alaska quake '64 *river's a-flood*	
28	M.	♂☌☾ Truth is so divine feed it not to swine *and Sis*	
29	Tu.	☾Runs high Avoid quarrels tomorrow *is all mud.*	
30	W.	Can. Geese arr. Canada ♂☿♄ *Snowflakes also*	
31	Th.	Boston 1766 blockaded {9.5 8.4 *make nice lakes.*	

ASTRONOMICAL CALCULATIONS.

☉'s Declination.

Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /
1	4N.33	7	6 51	13	9 04	19	11 11	25	13 12		
2	4 56	8	7 14	14	9 26	20	11 31	26	13 31		
3	5 20	9	7 36	15	9 47	21	11 52	27	13 51		
4	5 43	10	7 58	16	10 08	22	12 12	28	14 10		
5	6 05	11	8 20	17	10 29	23	12 31	29	14 28		
6	6 28	12	8 42	18	10 50	24	12 52	30	14 47		

○ Full Moon, 5th day, 6 h. 14 m., morning, W.

☾ Last Quarter, 12th day, 12 h. 29 m., evening, W.

● New Moon, 20th day, 3 h. 36 m., evening, W.

☽ First Quarter, 27th day, 10 h. 50 m., evening, W.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGES 81-85, FOR ALL POINTS OUTSIDE NEW ENGLAND

Day of Year	Day of Month	Day of Week	☉ Rises h. m.	Key	☉ Sets h. m.	Key	Length of Days h. m.	Sun Fast m.	Full Sea, Boston. Morn h.	Full Sea, Boston. Eve. h.	☽ Rises h. m.	Key	☽ Sets h. m.	Key	☽ Place	☽ Age
91	1	Fr.	5 27	H	6 10	J	12 43	12	7	7¾	1P27	D	3A43	N	LEO	11
92	2	Sa.	5 25	H	6 11	J	12 46	12	8¼	8¾	2 47	F	4 18	M	VIR	12
93	3	B	5 23	H	6 12	J	12 49	12	9¼	9¾	4 06	G	4 48	K	VIR	13
94	4	M.	5 22	H	6 13	J	12 52	13	10	10½	5 24	I	5 14	J	LIB	14
95	5	Tu.	5 20	H	6 15	J	12 55	13	11	11¼	6 41	J	5 40	H	—	—
96	6	W.	5 18	H	6 16	J	12 58	13	11¾	—	7 58	L	6 06	G	LIB	15
97	7	Th.	5 16	H	6 17	J	13 00	14	0	0½	9 13	M	6 33	E	SCO	16
98	8	Fr.	5 15	G	6 18	K	13 03	14	1	1½	10 26	N	7 04	D	SCO	17
99	9	Sa.	5 13	G	6 19	K	13 06	14	1¾	2¼	11P34	O	7 42	C	SGR	18
100	10	B	5 11	G	6 20	K	13 09	14	2½	3¼	—	—	8 25	B	SGR	19
101	11	M.	5 10	G	6 21	K	13 11	15	3½	4	12A35	P	9 15	B	CAP	20
102	12	Tu.	5 08	G	6 22	K	13 14	15	4¼	5	1 27	P	10 11	B	CAP	21
103	13	W.	5 06	G	6 24	K	13 17	15	5¼	6	2 10	O	11A11	C	AQR	22
104	14	Th.	5 05	G	6 25	K	13 20	15	6¼	7	2 45	N	12P13	D	AQR	23
105	15	Fr.	5 03	G	6 26	K	13 23	16	7¼	8	3 15	M	1 15	E	AQR	24
106	16	Sa.	5 02	G	6 27	K	13 25	16	8¼	8¾	3 40	L	2 17	F	PSC	25
107	17	B	5 00	G	6 28	K	13 28	16	9	9½	4 01	K	3 19	G	PSC	26
108	18	M.	4 58	G	6 29	K	13 31	16	9¾	10	4 21	J	4 21	I	ARI	27
109	19	Tu.	4 57	G	6 30	K	13 33	17	10¼	10½	4 42	I	5 24	J	ARI	28
110	20	W.	4 55	F	6 32	L	13 36	17	11	11¼	5 03	G	6 28	K	ARI	29
111	21	Th.	4 54	F	6 33	L	13 39	17	11½	11¾	5 25	F	7 36	L	TAU	1
112	22	Fr.	4 52	F	6 34	L	13 41	17	—	0¼	5 51	E	8 44	N	TAU	2
113	23	Sa.	4 51	F	6 35	L	13 44	17	0½	1	6 23	D	9 54	O	G'M	3
114	24	B	4 49	F	6 36	L	13 47	18	1	1¾	7 01	C	11P02	P	G'M	4
115	25	M.	4 48	F	6 37	L	13 49	18	2	2½	7 50	B	—	—	CNC	5
116	26	Tu.	4 46	F	6 38	L	13 52	18	2¾	3½	8 49	B	12A03	P	CNC	6
117	27	W.	4 45	F	6 39	L	13 55	18	3¾	4½	9 58	C	12 57	P	LEO	7
118	28	Th.	4 43	F	6 41	L	13 57	18	4¾	5½	11A11	D	1 42	O	LEO	8
119	29	Fr.	4 42	F	6 42	L	14 00	18	5¾	6½	12P28	E	2 19	M	VIR	9
120	30	Sa.	4 41	F	6 43	L	14 02	19	7	7½	1P45	G	2A50	L	VIR	10

APRIL hath 30 days. [1966

Around are unexpanded buds; —
Like many a voice of one delight,
The winds, the birds, the ocean floods,
The City's voice itself is soft, like Solitude's.
Shelley, 1828

D.M.	D.W.	Aspects, Holidays, Heights of High Water, Weather, Etc.	Farmer's Calendar.
1	Fr.	All Fool's Voice of the Turtle {9.8 8.9 *Rise &*	Squire Brown and I have a concern for our lands and our neighbors — together. But our younger generations don't stay with us long enough to understand this. Take Squire's son. He's in the real estate business in a lively Connecticut town — Commutersville. Squire visited there last week.
2	Sa.	Seven sorrows ☿ in Stat. R.A. Hol. Ariz. {10.2 9.6 *shine,*	
3	B	Palm S. ☌☉☾ • ☾ in Peri. *warm &*	
4	M.	Cain born Abel slain • (Passover 4-11) ☾ On Eq. *fine.*	
5	Tu.	The Full Pink Moon • Pocahontas M. Rolfe, 1641 *Root-ta-*	
6	W.	☿ Gr. El. ☿ W. Parallel with September 6 {10.9 — *tee-toot,*	
7	Th.	Maundy Thursday ☌♆☾ Barnum D. 1891 *there goes*	
8	Fr.	G. Fri. ☌☿♄ Hol. 37 States *my upside*	
9	Sa.	1st 7 Astronauts announced 1959 {10.7 9.4 *down bumba-*	
10	B	Easter D. 1st pro golf tourney 1916 {10.2 8.7 *shoot.*	
11	M.	To virtues be kind to faults be blind • ☾ Rides low *Drive*	
12	Tu.	1st Space Man 1961 • Annie Jump Cannon D. 1941 *with*	
13	W.	Sardines running • Lucky day • Hol. Mo. Okla, Va. *care in*	
14	Th.	Favorable conceive female child • {8.5 7.7 *April's*	
15	Fr.	Israelites arr. wild. of sin, 1491 B.C. • ☾ in Apo. *glare.*	
16	Sa.	☌☿☾ Now plant shrubs, trees • Stay home tomorrow *Heav-*	
17	B	Low S. ☌♄☾ Maple sap run over *en's*	
18	M.	☌☿☾ • ☿ Gr. El. ☿ W. • ☾ on Eq. {9.0 9.1 *blest,*	
19	Tu.	Patriots' Day Hol. Me., Mass. {9.2 9.5 *God help*	
20	W.	Favorable conceive male child Tides {9.2 9.7 *the rest.*	
21	Th.	Israelites saved by quail Hol. Tex. {9.8 9.9 *Showers*	
22	Fr.	Cervantes D.—see pg. 86 • Witches around *for May*	
23	Sa.	**Daylight saving begins tomorrow** Tides {— 9.2 *flowers*	
24	B	2nd a. E. Camels mate Tides {10.1 8.9 *and*	
25	M.	Mark ☌☊☾ • ☾ runs high Hol. N.H. *mowers*	
26	Tu.	Parallel with August 17 Tides {9.8 8.5 *and sowers.*	
27	W.	Ground broken Grant's Tomb 1891 {9.7 8.4 *Cloudburst*	
28	Th.	Mars conceived • Unlucky day {9.6 8.5 *or worse.*	
29	Fr.	☌☌☾ National Arbor Day Tides {9.6 8.9 *Too cool*	
30	Sa.	☌☉☾ Ice out all lakes Hol. Utah {9.7 9.4 *to drool.*	

After noon on April one: "April noddy's dead and gone, you're the fool for letting on"

"Pretty little places son handles — 'ranch houses' he calls them — $22,000, with a sandbox thrown in. Well, he took me to the town center. Surprised me some, considering — sleepy and real quiet. Grey, shabby town house, old-fashioned market, garage-filling station, and a one-door firehouse with a big whistle; post office and general store together; and down street a-piece a shady common, with a Civil War soldier marching — bandstand, benches, and a hitching post. Son said most folks shopped at Bigville. I thought likely.

"Then we went to the beach, where folks really lived, son said. There was a clubhouse big as a circus tent, a stretch of bath houses, and tennis courts — and all the women and kids and dogs in town, killing time until Daddy's 5:25.

"That was all, except the church and the burying ground. The church was old Federal, white and bright as a new bandbox. But the burying ground looked as if it had been asleep forever. Not a fresh mound, not a withered flower.

" 'Good Lord, son,' I asked, 'doesn't anyone ever get buried here?' Son laughed. 'Gosh, no, dad. No one stays here long enough.' "

ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /
	1	15N.05	7	16 49	13	18 23	19	19 46	25	20 57
	2	15 23	8	17 06	14	18 38	20	19 59	26	21 08
	3	15 41	9	17 22	15	18 52	21	20 11	27	21 18
	4	15 58	10	17 38	16	19 06	22	20 23	28	21 28
	5	16 15	11	17 53	17	19 20	23	20 35	29	21 38
	6	16 32	12	18 08	18	19 33	24	20 46	30	21 46

○ Full Moon, 4th day, 4 h. 01 m., evening, E.

☾ Last Quarter, 12th day, 6 h. 19 m., morning, W.

● New Moon, 20th day, 4 h. 43 m., morning, E.

☽ First Quarter, 27th day, 3 h. 51 m., morning, W.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGES 81-85, FOR ALL POINTS OUTSIDE NEW ENGLAND

Day of Year	Day of Month	Day of Week	☉ Rises h. m.	Key	☉ Sets h. m.	Key	Length of Days h. m.	Sun Fast m.	Full Sea, Boston. Morn h.	Full Sea, Boston. Eve. h.	☽ Rises h. m.	Key	☽ Sets h. m.	Key	☽ Place	☽ Age
121	1	B	4 39	F	6 44	L	14 05	19	8	8½	3PM02	H	3AM16	J	LIB	11
122	2	M.	4 38	F	6 45	M	14 07	19	9	9¼	4 17	J	3 40	I	LIB	12
123	3	Tu.	4 37	E	6 46	M	14 10	19	9¾	10¼	5 33	K	4 06	H	SCO	13
124	4	W.	4 35	E	6 47	M	14 12	19	10¾	11	6 48	M	4 32	F	SCO	14
125	5	Th.	4 34	E	6 48	M	14 14	19	11½	11¾	8 03	N	5 01	E	—	—
126	6	Fr.	4 33	E	6 49	M	14 17	19	—	0¼	9 15	O	5 34	D	SGR	15
127	7	Sa.	4 31	E	6 51	M	14 19	19	0½	1	10 21	P	6 15	C	SGR	16
128	8	B	4 30	E	6 52	M	14 21	19	1¼	2	11PM18	P	7 03	B	CAP	17
129	9	M.	4 29	E	6 53	M	14 24	19	2	2¾	—	–	7 58	B	CAP	18
130	10	Tu.	4 28	E	6 54	M	14 26	19	3	3½	12AM06	O	8 58	C	CAP	20
131	11	W.	4 27	E	6 55	M	14 28	19	3¾	4½	12 45	O	10 00	D	AQR	21
132	12	Th.	4 26	E	6 56	M	14 30	19	4¾	5½	1 17	N	11AM03	E	AQR	22
133	13	Fr.	4 25	E	6 57	M	14 32	20	5½	6¼	1 43	M	12PM05	F	PSC	23
134	14	Sa.	4 23	E	6 58	M	14 35	20	6½	7	2 05	L	1 07	G	PSC	24
135	15	B	4 22	E	6 59	M	14 37	20	7½	8	2 26	J	2 09	H	PSC	25
136	16	M.	4 21	E	7 00	N	14 39	19	8¼	8½	2 46	I	3 11	I	ARI	26
137	17	Tu.	4 20	D	7 01	N	14 41	19	9	9¼	3 06	H	4 14	K	ARI	27
138	18	W.	4 20	D	7 02	N	14 43	19	9¾	10	3 28	G	5 21	L	TAU	28
139	19	Th.	4 19	D	7 03	N	14 45	19	10½	10½	3 53	E	6 30	M	TAU	29
140	20	Fr.	4 18	D	7 04	N	14 47	19	11¼	11¼	4 22	D	7 41	O	G'M	0
141	21	Sa.	4 17	D	7 05	N	14 48	19	—	0	4 59	C	8 51	P	G'M	1
142	22	B	4 16	D	7 06	N	14 50	19	0	0½	5 45	B	9 57	P	CNC	2
143	23	M.	4 15	D	7 07	N	14 52	19	0¾	1½	6 42	B	10 55	P	CNC	3
144	24	Tu.	4 14	D	7 08	N	14 54	19	1½	2¼	7 49	B	11PM42	O	LEO	5
145	25	W.	4 14	D	7 09	N	14 55	19	2½	3¼	9 02	C	—	–	LEO	6
146	26	Th.	4 13	D	7 10	N	14 57	19	3½	4¼	10 17	E	12AM22	N	LEO	7
147	27	Fr.	4 12	D	7 11	N	14 58	19	4½	5¼	11AM34	F	12 53	L	VIR	8
148	28	Sa.	4 12	D	7 12	N	15 00	19	5½	6¼	12PM49	H	1 20	K	VIR	9
149	29	B	4 11	D	7 12	N	15 01	18	6½	7¼	2 03	I	1 45	J	LIB	10
150	30	M.	4 10	D	7 13	N	15 03	18	7½	8	3 16	K	2 09	H	LIB	11
151	31	Tu.	4 10	D	7 14	N	15 04	18	8½	9	4PM29	L	2AM33	G	SCO	12

MAY hath 31 days. [1966

At last young April, ever frail and fair,
Woo'd by her play-mate with the golden hair,
In tears and blushes, has sighed herself away,
Hidden her cheek beneath the flowers of May.
Holmes, 1852

D. M.	D. W.	Aspects, Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
1	B	Philip & James • Law Day ☾in Peri. ☌♀♄	*Let's*
2	M.	☾on Eq. Tornadoes midwest Tides 10.2 10.6	*just say*
3	Tu.	Invention of cross Lucky day Hol. R.I. 10.3 11.0	*it's now*
4	W.	The full Flower Moon ☾Penumbral eclipse	*May.*
5	Th.	☌♆☾ Now graft fruit trees 10.1 11.2	*Sprinkles*
6	Fr.	*Where ignorance is bliss 't is folly to be wise* Tides 9.9	*a*
7	Sa.	Kentucky Derby Va. Gold Cup Tides 10.9 9.4	*mickle.*
8	B	4th a. E. Mother's Day ☾rides low	*Tweet,*
9	M.	Fruit trees blossom (8-25) 10.0 8.5	*how warm,*
10	Tu.	Tanana R. ice breaks Hol. N.C., S.C.	*how sweet.*
11	W.	The three chilly saints days Pankratus Servatius Liberatus	☌♆☉ *Coolish*
12	Th.	Tides 8.6 7.9	*and*
13	Fr.	☾in Apo.	*mulish.*
14	Sa.	Passover Inst. 1491 • Of Saturday's tricks beware in 1966	*Driz-*
15	B	Rog. S. ☌♄☾ 8.4 8.6	*zles, fizzles,*
16	M.	☌♀☾ • ☾on Eq. Haddam, Ct. quake 1816	*piddles*
17	Tu.	*Wisdom is nearer when we stoop than when we soar.* 8.7 9.4	*and*
18	W.	*New brooms sweep clean but old ones know the corners.*	*widdles.*
19	Th.	Ascension Day Lucky day 9.0 10.1	*Never*
20	Fr.	☉ Annular eclipse Krakatoa Hol. 1883 N.C.	*complain*
21	Sa.	Armed Forces Conn. Puritans (1666) owned Newark, Ohio	*about*
22	B	Asta. A. ☌♃☾ 10.5 9.1	*too much*
23	M.	☿ Stat. in R.A. • ☾runs high Tides 10.5 9.0	*rain.*
24	Tu.	Shebuoth H.M.S. Hood sunk, 1941 10.4 8.9	*Heavy*
25	W.	English Derby • Bear got stung 1965 10.3 8.9	*frost,*
26	Th.	Beware of accidents all day tomorrow Tides 10.0 9.0	*all is*
27	Fr.	☌☿☉ Sup. • ☾in Peri. • ☌♁☾	*lost.*
28	Sa.	He who wishes to thrive lets spiders go alive 9.6 9.5	*Wise*
29	B	Whit. • Pent. ☾on Eq. 9.6 9.9	*fellas*
30	M.	Memorial Day Tides 9.5 10.3	*carry*
31	Tu.	Battle of Jutland 1916 (greatest ever) 9.6 10.7	*umbrellas.*

I can think my own thoughts, alone on my hilltop orchard this May morning. My trees are in full blow, each blossom a chalice, each tight cluster secure as if gathered forever. The aisles of pink and white hang suspended, floating, divorced from trunk and root. Their own glory for a little while. At the orchard's end the Temple hills are framed, strangely close and moving, almost, with the moving of the placid clouds — their shadows floating over the grey slopes. Hills and clouds are sharp against the ultimate blue of the sky.

There are robins and a clutter of blackbirds and a pair of blue birds. A little breeze nods the blossoms and wafts their scent. The petals are still wet with dew, but bees are busy. Their droning is insistent and steady. The air is vibrant.

And I think this: all my senses know this morning and respond. But I am aware as never before that this is a world of color, the pattern and shapes of color — and that color is in itself creation and meaning. Beyond this there is an extra sense, a perception that this beauty and perfection is of its own being; that though I have planted this orchard and tended it these many years, I have at this moment nothing at all to do with its perfection. I am a stranger in my own orchard, but a grateful and humble one; grateful that I can be here—that I can share this morning—that I am.

ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /
	1	22N.04	7	22 45	13	23 13	19	23 26	25	23 24		
	2	22 11	8	22 51	14	23 16	20	23 26	26	23 22		
	3	22 19	9	22 56	15	23 19	21	23 27	27	23 20		
	4	22 26	10	23 01	16	23 21	22	23 27	28	23 17		
	5	22 33	11	23 05	17	23 23	23	23 26	29	23 14		
	6	22 39	12	23 09	18	23 25	24	23 25	30	23 11		

○ Full Moon, 3rd day, 2 h. 41 m., morning, W.

☾ Last Quarter, 10th day, 11 h. 59 m., evening, E.

● New Moon, 18th day, 3 h. 09 m., evening, W.

☽ First Quarter, 25th day, 8 h. 23 m., morning, E.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGES 81-85, FOR ALL POINTS OUTSIDE NEW ENGLAND

Day of Year	Day of Month	Day of Week	☉ Rises h. m.	Key	☉ Sets h. m.	Key	Length of Days h. m.	Sun Fast m.	Full Sea, Boston. Morn h.	Eve. h.	☽ Rises h. m.	Key	☽ Sets h. m.	Key	☽ Place	☽ Age
152	1	W.	4 10	D	7 15	N	15 05	18	9½	9¾	5P M43	M	3A M00	F	SCO	13
153	2	Th.	4 09	D	7 16	o	15 07	18	10½	10½	6 55	N	3 31	D	SGR	14
154	3	Fr.	4 09	c	7 16	o	15 08	18	11¼	11½	8 04	O	4 09	C	—	—
155	4	Sa.	4 08	c	7 17	o	15 09	18	—	0	9 05	P	4 52	B	SGR	15
156	5	B	4 08	c	7 18	o	15 10	17	0	0¾	9 58	P	5 45	B	CAP	16
157	6	M.	4 08	c	7 19	o	15 11	17	1	1½	10 41	O	6 43	B	CAP	17
158	7	Tu.	4 07	c	7 19	o	15 12	17	1½	2¼	11 16	N	7 46	C	AQR	18
159	8	W.	4 07	c	7 20	o	15 13	17	2½	3	11P M44	M	8 49	D	AQR	19
160	9	Th.	4 07	c	7 20	o	15 14	17	3¼	3¾	—	—	9 52	E	AQR	20
161	10	Fr.	4 07	c	7 21	o	15 14	16	4	4¾	12A M09	L	10 54	F	PSC	21
162	11	Sa.	4 07	c	7 22	o	15 15	16	5	5½	12 30	K	11A M56	G	PSC	22
163	12	B	4 06	c	7 22	o	15 16	16	5¾	6¼	12 49	J	12P M57	I	ARI	23
164	13	M.	4 06	c	7 23	o	15 16	16	6½	7	1 10	I	1 59	J	ARI	24
165	14	Tu.	4 06	c	7 23	o	15 17	16	7½	8	1 31	H	3 03	K	TAU	25
166	15	W.	4 06	c	7 23	o	15 17	15	8¼	8½	1 53	F	4 11	L	TAU	26
167	16	Th.	4 06	c	7 24	o	15 18	15	9	9½	2 20	E	5 21	N	TAU	27
168	17	Fr.	4 06	c	7 24	o	15 18	15	10	10	2 53	D	6 33	O	G'M	28
169	18	Sa.	4 06	c	7 25	o	15 18	15	10¾	11	3 36	C	7 43	P	G'M	0
170	19	B	4 06	c	7 25	o	15 18	15	11½	11¾	4 30	B	8 45	P	CNC	1
171	20	M.	4 07	c	7 25	o	15 19	14	0	0¼	5 35	B	9 38	P	CNC	2
172	21	Tu.	4 07	c	7 25	o	15 19	14	0½	1¼	6 48	C	10 21	N	LEO	3
173	22	W.	4 07	c	7 26	o	15 19	14	1½	2	8 06	D	10 56	M	LEO	4
174	23	Th.	4 07	c	7 26	o	15 18	14	2¼	3	9 23	F	11 24	L	VIR	5
175	24	Fr.	4 07	c	7 26	o	15 18	13	3¼	4	10 39	G	11P M50	J	VIR	6
176	25	Sa.	4 08	c	7 26	o	15 18	13	4¼	4¾	11A M53	H	—	—	LIB	7
177	26	B	4 08	c	7 26	o	15 18	13	5¼	5¾	1P M05	J	12A M14	I	LIB	8
178	27	M.	4 09	c	7 26	o	15 17	13	6¼	6¾	2 18	K	12 37	G	SCO	9
179	28	Tu.	4 09	c	7 26	o	15 17	13	7¼	7¾	3 30	M	1 03	F	SCO	10
180	29	W.	4 09	c	7 26	o	15 17	12	8¼	8½	4 42	N	1 32	D	SGR	11
181	30	Th.	4 10	c	7 26	o	15 17	12	9¼	9½	5P M51	O	2A M06	C	SGR	12

JUNE hath 30 days. [1966

The cock is crowing, the stream is flowing,
The small birds twitter, the lake doth glitter,
The green field sleeps in the sun.
Forty cattle are feeding — like one.

Wordsworth

D. M.	D. W.	Aspects, Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
1	W.	Nicomede ☌☿☾ Ember Day	*Only a*
2	Th.	N.H. turtles lay eggs ☽ Stat. in R.A. {9.5 10.9	*loon*
3	Fr.	Invasion full moon • Ember Day • Hol. 9 So. States	*wants*
4	Sa.	Ember Day • Daily thunderstorms Florida thru August	*to spoon*
5	B	Trin. S. ☾ rides low {10.6 9.0	*under this*
6	M.	D-Day 1944 Your shoes don't fit other people's feet Tides {10.2 8.7	
7	Tu.	Earliest sunrises 4.06(12–19) Tides {9.9 8.5	*wet*
8	W.	Snowed 1816 • Unlucky day {9.5 8.3	*moon.*
9	Th.	Corpus Christi • Laurel and cranberries	*Good for*
10	Fr.	☾ in Apo. • Beware tomorrow • now in bloom	*growing,*
11	Sa.	St. Barn. ☌☿☿ • ☌♄☾ {8.5 8.3	*not for*
12	B	2nd a. ♅. ☾ on Eq. {8.3 8.5	*mowing.*
13	M.	V. Mary D. A. D. 40 Tides {8.2 8.8	*All*
14	Tu.	Flag Day Roman rep. B.C. 510 Hol. Pa.	*is green*
15	W.	☌☿☾ Benj. Franklin's elec. kite 1752 • Hol. Ida.	*and*
16	Th.	*Those with elbow sharp or knee will have cross words 2 out of 3.*	*shiny*
17	Fr.	Bunker Hill • Sacred Heart • Hol. Mass. Suff. Co.	*clean.*
18	Sa.	Longest days 15.19 (20-22) • Little pot, soon hot {8.9 10.6	*Never*
19	B	2nd a. ♉. Fathers' Day ☾ runs high	*mind*
20	M.	Latest sunsets 7:26 (22-Jul. 1) Hol. W. Va. Tides {— 9.2	*the*
21	Tu.	Summer Begins 3:33 P.M. ☉ enters ♋ {10.9 9.4	*rent*
22	W.	Witches around • Organic Act. Day, Vir. Isl. ☾ in Peri.	*hire*
23	Th.	*In taking too much care oft we spoil the whole affair.* {10.7 9.5	*that*
24	Fr.	John Bapt. born ☌☌☾ Tides {10.3 9.7	*tent.*
25	Sa.	☾ on Eq. Hedges between keep friendships green	*Get in*
26	B	4th a. ♅. Pizarro D. 1541 Tides {9.6 10.0	*your*
27	M.	*Bad weather always looks worse through a window* {9.8 10.1	*hay,*
28	Tu.	☌☿☾ Caxton, ptr. died 1491 Tides {9.1 10.3	*first*
29	W.	St. Peter & St. Paul Tides {8.9 10.4	*sunny*
30	Th.	☿ Gr. El. E. Delmarva Fest.—7/2 Tides {8.9 10.5	*day.*

Friday's moon, come when it will,
comes too soon [see June 3 above]

We are arrested by this statement from **The American Tree Farmer:** "The Federal Government now owns one out of every three acres of land (769,900,000 acres) in the nation and is acquiring more all the time." The statement was made to show that the Government owns more land (in the name of outdoor recreation) than it should, and by so doing forces fewer and fewer landowners to pay more and more taxes. Without debating the merits of this contention, we feel that if the Federal Government is ever to acquire more land it must do so now; and we believe it rightly does so for the purposes of recreation and conservation. The need and the deed must be one. But we believe the cost of this — and the need is for all of us — should be shared by all of us. The fact that there will be constantly more of us, should make more equitable the burden of private ownership.

Our lands have seen many uses since their original virgin being: their uses by homesteaders, the cattle and sheep ranchers, the forest industries, the wheat and fruit growers; the coal, the oil, the railway interests; and more recently, and most importantly, our uses of them for recreation and conservation.

It is well our President understands the changing needs of land when he recommends a long-term retirement of surplus crop acres (some 50 million) to be used in great part for recreation, conservation, and "the perpetuation of beauty."

ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /
	1	23N.07	7	22 35	13	21 50	19	20 51	25	19 39
	2	23 02	8	22 29	14	21 41	20	20 40	26	19 26
	3	22 58	9	22 22	15	21 32	21	20 28	27	19 13
	4	22 53	10	22 14	16	21 22	22	20 17	28	18 59
	5	22 47	11	22 07	17	21 12	23	20 04	29	18 45
	6	22 42	12	21 59	18	21 02	24	19 52	30	18 31

○ Full Moon, 2nd day, 2 h. 37 m., evening, E.
☾ Last Quarter, 10th day, 4 h. 43 m., evening, W.
● New Moon, 17th day, 11 h. 31 m., evening, E
☽ First Quarter, 24th day, 2 h. 00 m., evening, E.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGES 81-85, FOR ALL POINTS OUTSIDE NEW ENGLAND

Day of Year	Day of Month	Day of Week	☉ Rises h. m.	Key	☉ Sets h. m.	Key	Length of Days h. m.	Sun Fast m.	Full Sea, Boston. Morn h.	Full Sea, Boston. Eve. h.	☽ Rises h. m.	Key	☽ Sets h. m.	Key	☽ Place	☽ Age
182	1	Fr.	4 10	C	7 26	O	15 15	12	10	10¼	6PM54	P	2AM48	C	CAP	13
183	2	Sa.	4 11	C	7 25	O	15 14	12	11	11	7 50	P	3 36	B	—	—
184	3	B	4 11	C	7 25	O	15 14	12	11¾	11¾	8 37	O	4 31	B	CAP	14
185	4	M.	4 12	C	7 25	O	15 13	11	—	0½	9 14	O	5 33	C	CAP	15
186	5	Tu.	4 13	C	7 25	O	15 12	11	0½	1	9 45	N	6 36	D	AQR	16
187	6	W.	4 13	C	7 25	O	15 11	11	1¼	1¾	10 11	M	7 40	E	AQR	17
188	7	Th.	4 14	C	7 24	O	15 10	11	2	2½	10 33	L	8 42	F	PSC	19
189	8	Fr.	4 14	C	7 24	O	15 09	11	2½	3¼	10 53	J	9 44	G	PSC	20
190	9	Sa.	4 15	C	7 23	O	15 08	11	3½	4	11 12	I	10 45	H	ARI	21
191	10	B	4 16	C	7 23	N	15 07	11	4¼	4¾	11 33	H	11AM45	I	ARI	22
192	11	M.	4 17	D	7 22	N	15 06	10	5	5½	11PM54	G	12PM48	K	ARI	23
193	12	Tu.	4 17	D	7 22	N	15 05	10	6	6¼	—	–	1 53	L	TAU	24
194	13	W.	4 18	D	7 21	N	15 03	10	6¾	7	12AM19	F	3 01	M	TAU	25
195	14	Th.	4 19	D	7 21	N	15 02	10	7¾	8	12 49	D	4 11	O	G'M	26
196	15	Fr.	4 20	D	7 20	N	15 00	10	8½	8¾	1 27	C	5 22	P	G'M	27
197	16	Sa.	4 21	D	7 20	N	14 59	10	9½	9¾	2 15	B	6 28	P	CNC	28
198	17	B	4 21	D	7 19	N	14 57	10	10¼	10½	3 15	B	7 27	P	CNC	1
199	18	M.	4 22	D	7 18	N	14 56	10	11	11½	4 27	B	8 15	O	LEO	2
200	19	Tu.	4 23	D	7 17	N	14 54	10	—	0	5 45	C	8 55	N	LEO	3
201	20	W.	4 24	D	7 17	N	14 52	9	0¼	0¾	7 06	E	9 26	L	VIR	4
202	21	Th.	4 25	D	7 16	N	14 51	9	1	1¾	8 25	F	9 52	K	VIR	5
203	22	Fr.	4 26	D	7 15	N	14 49	9	2	2½	9 42	H	10 17	I	LIB	6
204	23	Sa.	4 27	D	7 14	N	14 47	9	3	3½	10AM56	J	10 42	H	LIB	7
205	24	B	4 28	D	7 13	N	14 45	9	4	4½	12PM09	K	11 07	F	SCO	8
206	25	M.	4 29	D	7 12	N	14 43	9	5	5½	1 21	L	11PM34	E	SCO	9
207	26	Tu.	4 30	D	7 11	N	14 41	9	6	6½	2 33	N	—	–	SGR	10
208	27	W.	4 31	D	7 10	N	14 40	9	7	7½	3 42	O	12AM07	D	SGR	11
209	28	Th.	4 32	D	7 09	M	14 38	9	8	8½	4 47	O	12 45	C	SGR	12
210	29	Fr.	4 33	E	7 08	M	14 36	9	9	9¼	5 44	P	1 31	B	CAP	13
211	30	Sa.	4 34	E	7 07	M	14 33	9	10	10	6 34	P	2 24	B	CAP	14
212	31	B	4 35	E	7 06	M	14 31	9	10¾	10¾	7PM14	O	3AM23	C	AQR	15

JULY hath 31 days. [1966

Wonderous truths, and manifold as wonderous,
God hath written in those stars above;
But not less in the bright flowerets under us
Stands the revelation of his love.

Longfellow

D.M.	D.W.	Aspects, Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
1	Fr.	Dominion Day · Somme Bat. 1916 · {8.9 10.4 · *Crows on*	Sometlmes as I drive this famiiiar road, I forget the Imperative jots of time. I sing the song of the road. My tires hum it; the road flows into me, and itseif sings the song. Its little world sweeps past.
2	Sa.	The hot full moon, rides low · Visit. of Mary · *fence,*	
3	B	4th a. T. · Cervera's fleet destroyed 1898 · *rain goes*	
4	M.	Ind. Day · Fast of Tammuz · ☉ In Aph. · *hence.*	
5	Tu.	☽☌☉ · Benign & peaceful · {10.0 8.6 · *Best for*	Under the hilis it holds to unchanged contours, and twists with the rights of ancient walls and fences. The narrows of the forbldding swamps is causeway now, but the site of the old crossing stlll. In the swamp's wilderness blackbirds bobble and gossip to themseives and the road. Ducks are etched on the hlll sky, and the mysterious creatures of the swamp live out their lives in intimate solitude.
6	W.	*Many a man's tongue has broken his nose* · {9.8 8.6 · *vacation*	
7	Th.	Frances Cabrini · ☾ In Apo. · {9.5 8.5 · *and recreation*	
8	Fr.	U.S. occupied Iceland 1941 · Snow and frosts New Eng. 1816 · {9.2 8.5	
9	Sa.	☾ on Eq. · ♄☾ A day of discord · Tides {8.8 8.5 · *and*	
10	B	6th a. P. · Cambridge, Mass. whirlwind 1761 · *peregri-*	But after we cross the stone bridge wlth lts slgn 'No Fishing From This Bridge" — and the small boys fishing from the bridge — the road loops from town to llttle town. The song of the road is best here at mid-morning, for then it is a mother's shopping road, a bread truck road, a road given to the quiet busyness of town folks — a road not yet saddened to the strange, forsaken stretch where nothing, inexplicably, seems ever to have thrived. Here the ghostly gas station, whose owner, quixotically, gave away with each ten gailons one of his own dreadful paintings; the defunct restaurant; the broken orchard and fallen barn; the deserted summer hotel; and a little gnome of a man, old as time, standing with a rake in the weed-grown drive. But then up the long hlll — and the new, bright city beneath. A giad song at the end of the road.
11	M.	*We choose not 'tween good & bad but 'tween bad and worse* · *nation.*	
12	Tu.	♄ Stat. In R.A. · Disuse is the sister of abuse · *In a car*	
13	W.	☿ Stat. In R.A. · Lucky day · Hol. Tenn. · *or cellar*	
14	Th.	Bastille Day · 109.8 deg. below Antarctic 1963 · *you're*	
15	Fr.	St. Swithin · ☾ runs high ♂♀☾ · {9.8 10.0 · *safer*	
16	Sa.	Bering disc. Alaska 1741 · ♂♂☾ Tides {8.6 10.5 · *by far.*	
17	B	6th a. T. · When in doubt do nought · *Sweater*	
18	M.	*Guests see more in an hour than the host sees in a year* · *weather.*	
19	Tu.	☾ in Perl. · Lucky day · Tides {— 9.7 · *Sou'wester*	
20	W.	St. Margaret · Dragons beware · Unlucky day · *for*	
21	Th.	♂☉☾ · Sundials 9 min. off · {11.8 10.2 · *your siesta.*	
22	Fr.	M. Magdalene · ☾ on Eq. · {11.0 10.3 · *Sunny and*	
23	Sa.	Collect med. herbs · Dog days begin (25th) · *hot; just*	
24	B	8th a. P. · 1st. llc. nucl. fatallty, 1964 · Hol. Utah · *what*	
25	M.	St. James · Fast of Av. · ♂♆☾ · *you bought.*	
26	Tu.	St. Anne · Well begun 's half done · Tides {8.9 10.0 · *Better*	
27	W.	Seven sleepers · Hurricane Season · *to be soaked*	
28	Th.	♂☿☉ Inf. · Ponies penned Assateague, Va. · *than*	
29	Fr.	☾ rides low · Painting the pump don't clear the well · {8.4 10.0 · *to*	
30	Sa.	Massacre N.O. 1866 · Lucky day · Tides {8.5 10.0 · *be*	
31	B	8th a. T. · Ranger moon photos, 1964 · *croaked.*	

1966] AUGUST, EIGHTH MONTH.

ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /	Days	0 /
	1	18N.01	7	16 25	13	14 40	19	12 46	25	10 45
	2	17 46	8	16 08	14	14 22	20	12 27	26	10 25
	3	17 30	9	15 51	15	14 03	21	12 07	27	10 04
	4	17 14	10	15 34	16	13 44	22	11 47	28	9 42
	5	16 58	11	15 16	17	13 25	23	11 26	29	9 21
	6	16 42	12	14 58	18	13 06	24	11 06	30	9 00

○ Full Moon, 1st day, 4 h. 06 m., morning, W.
☾ Last Quarter, 9th day, 7 h. 56 m., morning, W.
● New Moon, 16th day, 6 h. 48 m., morning, E.
☽ First Quarter, 22nd day, 10 h. 02 m., evening, W.
○ Full Moon, 30th day, 7 h. 14 m., evening, E.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGES 81-85, FOR ALL POINTS OUTSIDE NEW ENGLAND

Day of Year	Day of Month	Day of Week	☉ Rises h. m.	Key	☉ Sets h. m.	Key	Length of Days h. m.	Sun Fast m.	Full Sea, Boston. Morn h.	Full Sea, Boston. Eve. h.	☽ Rises h. m.	Key	☽ Sets h. m.	Key	☽ Place	☽ Age
213	1	M.	4 36	E	7 05	M	14 29	9	11¼	11½	7PM47	N	4AM26	C	—	—
214	2	Tu.	4 37	E	7 04	M	14 27	10	—	0	8 14	M	5 30	D	AQR	16
215	3	W.	4 38	E	7 02	M	14 25	10	0	0½	8 36	L	6 32	F	PSC	17
216	4	Th.	4 39	E	7 01	M	14 23	10	0¾	1¼	8 57	K	7 34	G	PSC	18
217	5	Fr.	4 40	E	7 00	M	14 20	10	1½	2	9 17	J	8 35	H	PSC	19
218	6	Sa.	4 41	E	6 59	M	14 18	10	2	2½	9 36	H	9 35	I	ARI	20
219	7	B	4 42	E	6 57	M	14 16	10	2¾	3¼	9 57	G	10 37	J	ARI	21
220	8	M.	4 43	E	6 56	M	14 13	10	3½	4	10 19	F	11AM40	L	TAU	22
221	9	Tu.	4 44	E	6 55	M	14 11	10	4½	4¾	10 46	E	12PM45	M	TAU	23
222	10	W.	4 45	E	6 53	M	14 08	10	5¼	5½	11PM19	C	1 53	N	TAU	24
223	11	Th.	4 46	F	6 52	L	14 06	11	6¼	6½	—	—	3 03	O	G'M	25
224	12	Fr.	4 47	F	6 51	L	14 04	11	7	7½	12AM01	B	4 10	P	G'M	26
225	13	Sa.	4 48	F	6 49	L	14 01	11	8	8½	12 55	B	5 11	P	CNC	27
226	14	B	4 49	F	6 48	L	13 59	11	9	9¼	2 01	B	6 04	O	CNC	28
227	15	M.	4 50	F	6 46	L	13 56	11	10	10¼	3 16	C	6 47	N	LEO	29
228	16	Tu.	4 51	F	6 45	L	13 54	11	10¾	11	4 38	D	7 22	K	LEO	0
229	17	W.	4 52	F	6 44	L	13 51	12	11½	—	6 00	F	7 52	J	VIR	1
230	18	Th.	4 53	F	6 42	L	13 48	12	0	0½	7 21	G	8 18	H	VIR	2
231	19	Fr.	4 54	F	6 40	L	13 46	12	0¾	1¼	8 38	I	8 43	G	LIB	3
232	20	Sa.	4 55	F	6 39	L	13 43	12	1¾	2¼	9 55	J	9 09	E	LIB	4
233	21	B	4 57	F	6 37	L	13 41	13	2½	3	11AM10	L	9 36	D	SCO	5
234	22	M.	4 58	F	6 36	L	13 38	13	3½	4	12PM23	M	10 07	C	SCO	6
235	23	Tu.	4 59	F	6 34	K	13 35	13	4½	5	1 35	N	10 44	B	SGR	7
236	24	W.	5 00	G	6 32	K	13 33	13	5½	6	2 41	O	11PM27	B	SGR	9
237	25	Th.	5 01	G	6 31	K	13 30	14	6¾	7	3 42	P	—	—	CAP	10
238	26	Fr.	5 02	G	6 29	K	13 27	14	7¾	8	4 33	P	12AM18	B	CAP	11
239	27	Sa.	5 03	G	6 27	K	13 25	14	8¾	9	5 15	O	1 15	C	AQR	12
240	28	B	5 04	G	6 26	K	13 22	14	9½	9¾	5 50	N	2 18	D	AQR	13
241	29	M.	5 05	G	6 24	K	13 19	15	10¼	10½	6 18	M	3 21	E	AQR	14
242	30	Tu.	5 06	G	6 23	K	13 17	15	11	11	6 42	L	4 24	F	—	—
243	31	W.	5 07	G	6 21	K	13 14	15	11½	11¾	7PM03	K	5AM26	G	PSC	15

AUGUST hath 31 days. [1966

A thing of beauty is a joy for ever:
Its loveliness increases; it will never
Pass into nothingness; but still will keep
A bower quiet for us, and a sleep
Full of sweet dreams, and health, and quiet breathing.
Keats

D.M.	D.W.	Aspects, Holidays, Heigbts of High Water, Weather, etc.	Farmer's Calendar.
1	M.	Lammas D. The full buck moon ☿ Stat. in R.A.	*In-*
2	Tu.	Hannibal routed Romans B.C. 216 Tides {— / 8.8}	*cle-*
3	W.	☌☿♂ Excellent day for maids to marry {9.9 / 8.7}	*ment,*
4	Th.	W. Indies Hurr. 1666 ☾ in Apo. • W.W. I 1914 {9.7 / 8.8}	*we*
5	Fr.	♂♄☾ Crows think their own young fairest {9.5 / 8.9}	*lament.*
6	Sa.	Transfig. ☾ on Eq. [7th ☿ Stat. in R.A.]	*One*
7	B	10th a.℘. Name of Jesus ♂♀♃ {8.9 / 8.9}	*tall*
8	M.	[11th. Sept. 9, Oct. 22 — lowest A.M. high tides — 7.9] {8.5 / 8.8}	
9	Tu.	S.S. Erie lost 1841 • Lucky day • Middleboro torn. 1891	*squall.*
10	W.	St. Lawrence Shooting stars (9-14)	*Enchanting*
11	Th.	Barbados hurr. 1831 (most famous of all) Tides {7.9 / 9.2}	*for*
12	Fr.	♂♂♃ Hay fever season begins {8.0 / 9.6}	*painting;*
13	Sa.	☾ runs high [14th ♂♃☾ • ♂☿☾]	*ideal*
14	B	10th a.☾. ♂♂☾ • ♂♀☾	*for an*
15	M.	Assump. V. M. Jesuits fd. 1534 {9.3 / 11.1}	*outdoor*
16	Tu.	Vt's. battle Bennington ☿ Gr. El. Hol. W. Vt. {9.8 / 11.5}	*meal.*
17	W.	☾ in Perl. ♂☉☾ Highest P.M. high tide 11.6	*Rain*
18	Th.	*Beware of this month's 2 full moons* Tides {— / 10.7}	*on tin*
19	Fr.	☾ on Eq. • Dog days over cat nites begin {11.4 / 10.9}	*roofs*
20	Sa.	Destroy bushes and sprouts • Unlucky day	*patters*
21	B	12th a.℘. Evil minds see evil meanings {10.4 / 10.7}	*like*
22	M.	♂♆☾ Cocks always bold on own dunghills	*skeleton's*
23	Tu.	*If God be with us who can be agin us?* Tides {9.1 / 10.0}	*hoofs.*
24	W.	St. Barth. Frosty morning's? Cold winter warning	*Perfect*
25	Th.	☾ rides low A word before 's worth two behind	*week if*
26	Fr.	*Two pennies in a purse will always draw together* Tides {8.1 / 9.5}	*it's*
27	Sa.	Confucius 551 B.C. • A soft answer ealmeth wrath {8.2 / 9.5}	*sun*
28	B	12th a.☾. Unlucky day Tides {8.4 / 9.6}	*you*
29	M.	John Baptist beheaded Better ne'er begun than never ended	*seek.*
30	Tu.	The full Sturgeon moon St. Fiacrius	*Gale, take*
31	W.	☾ in Apo. 1st pro football game 1895 {9.0 / 9.7}	*in sail.*

Steve and Rob were well builders. To find water they used their gift as water-diviners. They cut their willow or alder crotches, and with each branch of these held tight-fisted, and the wand ends leading them on, they walked the land. At some time the bark turned in their hands, and the wands thrust down. And there was water beneath.

Now they dug the bole — twenty or more feet across, depending upon the depth needed — and gathered their stones (probably from neighbors' walls) — stones broadish on one end and tapering — but not too generous to lift and place. For they would now build the well itself — a process seemingly quite simple, but, in truth, a mastery of precision — the affinity of the masons and their stones. Each stone must know the other, and lock as the arch of a stone bridge locks — stone to stone. A well to live forever.

The emptiness outside the wall was filled with unlikely stone rubble, for this loose space was as important to water gathering as the well itself. Sometimes Rob and Steve started their circle many times larger at the bottom than the top might be. Sometimes not. That was their judgment.

Then a well sweep, or a well house — a hand pump within, or a rope on its creaky spindle, and an oaken bucket. Their well — for some day somebody's great grandchildren to drop tinkly pebbles into and wonder who made it.

1966] SEPTEMBER, NINTH MONTH.

ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /
	1	8N.17	7	6 04	13	3 47	19	1 29	25	0 52
	2	7 55	8	5 41	14	3 24	20	1 05	26	1 15
	3	7 33	9	5 19	15	3 01	21	0 42	27	1 38
	4	7 11	10	4 56	16	2 38	22	0N.19	28	2 02
	5	6 49	11	4 33	17	2 15	23	0s. 05	29	2 25
	6	6 26	12	4 10	18	1 52	24	0 28	30	2 48

☾ Last Quarter, 7th day, 9 h. 08 m., evening, E.

● New Moon, 14th day, 2 h. 14 m., evening, W.

☽ First Quarter, 21st day, 9 h. 25 m., morning, E.

○ Full Moon, 29th day, 11 h. 48 m., morning, E.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGES 81-85, FOR ALL POINTS OUTSIDE NEW ENGLAND

Day of Year	Day of Month	Day of Week	☉ Rises h. m.	Key	☉ Sets h. m.	Key	Length of Days h. m.	Sun Fast m.	Full Sea, Boston. Morn h.	Full Sea, Boston. Eve. h.	☽ Rises h. m.	Key	☽ Sets h. m.	Key	☽ Place	☽ Age
244	1	Th.	5 08	G	6 19	K	13 11	16	—	0	7PM22	J	6AM28	H	PSC	16
245	2	Fr.	5 09	G	6 18	K	13 08	16	0¼	0¾	7 42	H	7 29	I	ARI	17
246	3	Sa.	5 10	G	6 16	K	13 06	16	1	1¼	8 01	G	8 28	J	ARI	18
247	4	B	5 11	G	6 14	K	13 03	17	1½	2	8 22	F	9 31	K	ARI	19
248	5	M.	5 12	H	6 13	J	13 00	17	2¼	2½	8 47	E	10 35	M	TAU	20
249	6	Tu.	5 13	H	6 11	J	12 57	17	3	3¼	9 16	D	11AM41	N	TAU	21
250	7	W.	5 14	H	6 09	J	12 55	18	3¾	4	9 53	B	12PM48	O	G'M	22
251	8	Th.	5 16	H	6 07	J	12 52	18	4¾	5	10 40	B	1 55	P	G'M	23
252	9	Fr.	5 17	H	6 06	J	12 49	18	5½	6	11PM40	B	2 57	P	CNC	24
253	10	Sa.	5 18	H	6 04	J	12 46	19	6¾	7	—	—	3 53	P	CNC	25
254	11	B	5 19	H	6 02	J	12 43	19	7¾	8	12AM49	B	4 39	O	LEO	26
255	12	M.	5 20	H	6 00	J	12 41	19	8¾	9	2 07	D	5 18	M	LEO	27
256	13	Tu.	5 21	H	5 59	J	12 38	20	9½	10	3 28	E	5 49	L	VIR	28
257	14	W.	5 22	H	5 57	J	12 35	20	10½	10¾	4 50	G	6 16	J	VIR	0
258	15	Th.	5 23	H	5 55	J	12 32	20	11¼	11½	6 12	H	6 42	I	LIB	1
259	16	Fr.	5 24	H	5 53	J	12 29	21	—	0	7 31	J	7 08	G	LIB	2
260	17	Sa.	5 25	I	5 51	I	12 26	21	0½	1	8 49	L	7 35	F	SCO	3
261	18	B	5 26	I	5 50	I	12 24	22	1½	1¾	10 06	M	8 05	D	SCO	4
262	19	M.	5 27	I	5 48	I	12 21	22	2¼	2½	11AM21	N	8 40	C	SGR	5
263	20	Tu.	5 28	I	5 46	I	12 18	22	3¼	3½	12PM32	O	9 23	B	SGR	6
264	21	W.	5 29	I	5 44	I	12 15	23	4¼	4½	1 35	P	10 12	B	CAP	7
265	22	Th.	5 30	I	5 43	I	12 12	23	5¼	5½	2 31	P	11PM08	B	CAP	8
266	23	Fr.	5 31	I	5 41	I	12 10	23	6¼	6½	3 16	O	—	—	CAP	9
267	24	Sa.	5 33	I	5 39	I	12 07	24	7½	7½	3 52	O	12AM10	C	AQR	10
268	25	B	5 34	I	5 38	I	12 04	24	8¼	8½	4 22	N	1 13	D	AQR	11
269	26	M.	5 35	I	5 36	I	12 01	24	9	9¼	4 48	L	2 16	E	PSC	12
270	27	Tu.	5 36	I	5 34	I	11 58	25	9¾	10	5 09	K	3 18	F	PSC	13
271	28	W.	5 37	J	5 32	H	11 56	25	10½	10½	5 29	J	4 20	G	PSC	14
272	29	Th.	5 38	J	5 30	H	11 53	25	11	11¼	5 47	I	5 21	H	ARI	15
273	30	Fr.	5 39	J	5 29	H	11 50	26	11½	11¾	6PM07	H	6AM22	J	—	—

SEPTEMBER hath 30 days. [1966

Now the fair apple, rudde as even sky,
Do bend the tree unto the fructile ground,
And juice pears, and berries of black dye,
Do dance in air and call the eyne around.
Chatterton

D.M.	D.W.	Aspects, Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
1	Th.	♂ ♄ ☾ Oysters in season now {— / 9.1}	*Sprinkles*
2	Fr.	Great London fire 1666 ☾ on Eq. Tides {9.6 / 9.2}	*bring*
3	Sa.	Hay fever worst now • This day bec. 14th, 1752	*various*
4	B	14th a. ℙ. Moses, Patr. {9.2 / 9.2}	*wrinkles.*
5	M.	Labor Day Harvest cranberries	*Blest with*
6	Tu.	Separate ewes from lambs • Unlucky day	*summer's*
7	W.	*Hope of reward can make pain seem pleasant* {8.2 / 9.0}	*farewell*
8	Th.	Nativity of Mary • Lucky day Tides {8.0 / 9.1}	*caress.*
9	Fr.	Fishes spawning ☾ Runs high Hol. Cal. {8.2 / 8.9}	*High*
10	Sa.	♂ ☿ ☉ Sup. • ♂ ♃ ☾ Tides {8.0 / 9.6}	*tides*
11	B	14th a. ☾. ♂ ♇ ☉ • ♂ ♂ ☾	*ride*
12	M.	*Men are most often painted in their own true colors* Hol. Md.	*waves*
13	Tu.	♂ ♁ ☾ • ♂ ♀ ☾ N.H. prim. elec.	*over*
14	W.	Holy Cross ☾ in Perl. Rosh Hashanah	*sailor's*
15	Th.	☾ on Eq. 1st. Eng. air voyage 1794 • Avoid accidents	*graves.*
16	Fr.	Cherokee Day • Church bells tolled 1000 ti. Worcester, 1816 {— / 11.3}	
17	Sa.	Fast of Gedalia • Citizens' Day	*Blushing leaves*
18	B	16th a. ℙ. ♂ ♀ ☾ {10.8 / 11.2}	*as trees*
19	M.	♂ ♄ ☉ N. E. trees colorful about now — Oct. 12	*strip-*
20	Tu.	Tunbridge, Vt. • Noah's Ark uncovered B.C. 2348 {9.4 / 10.2}	
21	W.	St. Matthew New Ember Days 21, 23, 24	*tease.*
22	Th.	Okla. land rush 1891 ☾ rides low {8.3 / 9.3}	*Take a stroll*
23	Fr.	Fall begins 6.43 A.M. ☉ enters ♎ Yom Kippur	*on the*
24	Sa.	John, Bap. conc. • Woodchucks hibernate {8.0 / 9.0}	*knoll.*
25	B	16th a. ☾. ♂ ♀ ♁ D.S.T. ends some places {8.2 / 9.1}	
26	M.	*'Tis oft heard and seen that foul water washes clean*	*Drought's*
27	Tu.	☾ in Apo. • Wise men often play the fool	*suspended,*
28	W.	Tabernacles (28 — Oct. 5) ♂ ♄ ☾	*rain's intended.*
29	Th.	St. Mich. Harvest moon is on equator	*Roars as it*
30	Fr.	St Jerome. Early dew? Fair day. {9.5 / 9.4}	*pours.*

Being unhappy in this season is almost like treason.

What of the moon? The moon is for the bliss and comfort of lovers, and such dreams and rememberings as oldsters may still find. It is the nearest, most pagan serenity we may look to. But strangely disquieting; for in its tranquil passage it hath its bidding. Tides ebb and sweep; seeds in the uneasy womb of earth ripen and swell; in the restless, moon-bright waters the charmed fish feed. And man, beset with his longings and dead dreams, frets the night away. These are true things under the moon.

But we say the moon is earth's property, for we have taken its pictures and crashed into it — and perhaps we have men there now. We know there will come a time when we shall have explored and understood the last ashy desert, the circumference of the last scarred mountain and crater, and the curiously straight canals. And we say that the moon was a shape at the end of the earth's umbilical cord — or a spiral cast off from the greater swirl of the earth — and much besides.

Of these I would know no more — nor guess. I would still believe only that between the infinity of forever-unknown skies and our little world, this little moon, so near and bright when all else would be dark even under the stars, will simply be the moon and not a moon that was.

1966] OCTOBER, TENTH MONTH.

ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /
	1	3s. 12	7	5 30	13	7 47	19	9 59	25	12 06
	2	3 35	8	5 53	14	8 09	20	10 21	26	12 27
	3	3 58	9	6 16	15	8 31	21	10 42	27	12 47
	4	4 21	10	6 39	16	8 54	22	11 04	28	13 08
	5	4 44	11	7 02	17	9 16	23	11 25	29	13 28
	6	5 07	12	7 24	18	9 37	24	11 46	30	13 47

☾ Last Quarter, 7th day, 8 h. 09 m., morning, W.

● New Moon, 13th day, 10 h. 52 m., evening, W.

☽ First Quarter, 21st day, 12 h. 35 m., morning, E.

○ Full Moon, 29th day, 5 h. 01 m., morning, W.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGES 81-85. FOR ALL POINTS OUTSIDE NEW ENGLAND

Day of Year	Day of Month	Day of Week	☉ Rises h. m.	Key	☉ Sets h. m.	Key	Length of Days h. m.	Sun Fast m.	Full Sea, Boston. Morn h.	Full Sea, Boston. Eve. h.	☽ Rises h. m.	Key	☽ Sets h. m.	Key	☽ Place	☽ Age
274	1	Sa.	5 40	J	5 27	H	11 47	26	0	0	6$^{P}_{M}$28	F	7$^{A}_{M}$24	K	ARI	16
275	2	B	5 41	J	5 25	H	11 44	26	0½	0¾	6 50	E	8 28	L	TAU	17
276	3	M.	5 42	J	5 23	H	11 41	27	1	1¼	7 18	D	9 33	N	TAU	18
277	4	Tu.	5 43	J	5 22	H	11 38	27	1¾	2	7 52	C	10 39	O	G'M	20
278	5	W.	5 45	J	5 20	H	11 35	27	2½	2¾	8 34	B	11$^{A}_{M}$46	P	G'M	21
279	6	Th.	5 46	J	5 18	H	11 33	28	3¼	3½	9 27	B	12$^{P}_{M}$49	P	G'M	22
280	7	Fr.	5 47	J	5 17	H	11 30	28	4¼	4½	10 31	B	1 45	P	CNC	23
281	8	Sa.	5 48	J	5 15	H	11 27	28	5¼	5½	11$^{P}_{M}$43	C	2 34	O	CNC	24
282	9	B	5 49	J	5 13	H	11 24	28	6¼	6½	—	—	3 14	N	LEO	25
283	10	M.	5 50	K	5 11	H	11 21	29	7¼	7¾	1$^{A}_{M}$01	D	3 47	M	LEO	26
284	11	Tu.	5 51	K	5 10	G	11 18	29	8¼	8¾	2 21	F	4 14	K	VIR	27
285	12	W.	5 53	K	5 08	G	11 15	29	9¼	9½	3 41	H	4 40	J	VIR	28
286	13	Th.	5 54	K	5 06	G	11 13	29	10	10½	5 01	I	5 05	H	LIB	29
287	14	Fr.	5 55	K	5 05	G	11 10	30	11	11¼	6 19	K	5 32	F	LIB	1
288	15	Sa.	5 56	K	5 03	G	11 07	30	11¾	—	7 39	M	6 01	E	SCO	2
289	16	B	5 57	K	5 02	G	11 04	30	0¼	0½	8 56	N	6 34	D	SCO	3
290	17	M.	5 58	K	5 00	G	11 02	30	1	1¼	10 13	O	7 14	C	SGR	4
291	18	Tu.	6 00	K	4 59	G	10 59	31	2	2	11$^{A}_{M}$23	P	8 02	B	SGR	5
292	19	W.	6 01	K	4 57	G	10 56	31	2¾	3	12$^{P}_{M}$24	P	8 57	B	CAP	6
293	20	Th.	6 02	K	4 56	G	10 54	31	3¾	4	1 14	P	9 59	C	CAP	7
294	21	Fr.	6 03	K	4 54	G	10 51	31	4¾	5	1 54	O	11$^{P}_{M}$02	C	AQR	8
295	22	Sa.	6 04	L	4 53	F	10 48	31	5¾	6	2 27	N	—	—	AQR	9
296	23	B	6 06	L	4 51	F	10 46	31	6¾	7	2 53	M	12$^{A}_{M}$07	D	PSC	10
297	24	M.	6 07	L	4 50	F	10 43	31	7¾	8	3 14	L	1 09	F	PSC	11
298	25	Tu.	6 08	L	4 48	F	10 40	32	8½	8¾	3 34	K	2 11	G	PSC	12
299	26	W.	6 09	L	4 47	F	10 38	32	9¼	9½	3 53	I	3 12	H	ARI	13
300	27	Th.	6 10	L	4 45	F	10 35	32	9¾	10	4 12	H	4 13	I	ARI	14
301	28	Fr.	6 12	L	4 44	F	10 32	32	10½	10¾	4 33	G	5 16	K	TAU	15
302	29	Sa.	6 13	L	4 43	F	10 30	32	11	11½	4 55	F	6 19	L	—	—
303	30	B	6 14	L	4 41	F	10 27	32	11½	—	5 21	D	7 25	M	TAU	16
304	31	M.	6 15	L	4 40	F	10 25	32	0	0¼	5$^{P}_{M}$53	C	8$^{A}_{M}$32	N	TAU	17

OCTOBER hath 31 days. [1966

Then came the Autumn all in yellow clad,
As though he joyed in his plenteous store,
And in his hand a sickle he did hold,
To reap the ripened fruits which the earth had yold.

Spenser

D.M.	D.W.	Aspects, Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
1	Sa.	Freeze ferns now for Xmas bouquets Tides {—/2.6} *Enough*	Drought, flood, and fire are natural companions to man. They are his prohiems. He is not theirs. His concern is to adjust to them, to control them wiseiy when he can, or leave them aione.
2	B	18th a. ♇. Terr. Gale 1841 {2.1/2.6} *rough*	
3	M.	The day hath eyes Hol. {9.1 the night hath ears Mo. {9.6 *tough*	
4	Tu.	Francis • Quebec d'Assisi • fire 1866 Tides {8.8/9.5} *stuff,*	
5	W.	Prune or • Parallel plant trees • March 8 Tides {8.5/9.4} *Mac-*	
6	Th.	Rejoicing ☾runs of the law ☾high Tides {8.2/9.2} *Duff.*	The Sahara and the Gohi are natural deserts, yet man creates his own deserts with the one hand, whiie seeking to make scorched sands fruitful with the other. To maintain a baiance between the unpredictable processes of nature and the iittie of them he has not aiready disturbed, is man's prohiem.
7	Fr.	*Lawyers' houses are built of fool's heads* Tides {8.0/9.2} *Zippy*	
8	Sa.	1st. U.S. Locomotive, 1829 ☌☿☾ Tides {8.0/9.3} *for*	
9	B	18th a.♅. Lief Erikson Ahraham {8.8/9.6} *that*	
10	M.	☌☌☾ Cranberry harvest just about over • Hol. Okia. *Fall*	
11	Tu.	☌☊☾ They that buy cheap bring nothing home *trippy.*	
12	W.	Columbus Day ☾in Eq. Hol. Perl. 37 States *Clouds*	Drought is his first enemy. He knows it in withered crops and terrihle hoiocausts, and scarceiy less quickiy in the shrinking of reservoirs, in erosion, in the death of iittie streams, and the parching of wetlands. It is not easy for man to understand that it takes but iittie iess rainfaii than normal over a very few years to change the face of the iand. Or that sods he turned, or pastures he overgrazed in green years may he hlown away in dry years. Or that water he wastes today may never be fuliy repienished in aii his tomorrows.
13	Th.	☾on Eq. There's no medicine to cure fear *proclaim*	
14	Fr.	Hastings hat. 1066 • Sockeye Salmon homeward go {11.4/11.0} *heavy*	
15	Sa.	Poetry Day ☌☿☾ Highest A.M. high tide — 11.6 *rain.*	
16	B	20th a.♅. ☌♆☾ {10.7/11.5} *Beaches*	
17	M.	*They that will not when they may shall not when they would* *singing,*	
18	Tu.	St. Luke Evangel. • Alaska Day {9.7/10.7} *sunken*	
19	W.	☾rides ☾low Things one forsakes another takes {9.1/10.0} *bells*	
20	Th.	*Charity begins at home but should not end there* *ringing.*	
21	Fr.	1st rec. dark day N.E. 1716 • Fear not the day you have not seen *Too*	
22	Sa.	☌☿♆ Pensacola hurr. 1766 Tides {7.9/8.7} *late,*	
23	B	20th a.♄. Mission Sunday Tides {8.0/8.6} *mate;*	
24	M.	United Nations • Chipmunks hibernate Tides {8.2/8.7} *our*	
25	Tu.	☾in Apo. ☌♄☾ World created 4004 B.C. *date*	
26	W.	☿Gr. El. E. ☾on Eq. Sundials 32 min. off {8.9/7.0} *must*	
27	Th.	The full(29th) Hunter's Moon Tides {9.2/9.1} *await*	
28	Fr.	Simon & Jude World's third gt. plague 1348 A.D. *until*	
29	Sa.	Daylight Saving time ends tomorrow Penumb eclipse *fate*	Flood and fire, destroyers indeed, are yet creators and huiiders. Over the centuries fertiie cropiands have heen deepened and richened hy constant flooding. And the deltas of rivers are our new earth. Fire hurns and ioosens the heavy forest floor, warms and releases seeds to light and life, and feeds them its ash. Our redwoods and Douglas furs are forests from fire.
30	B	22nd a.♅. Christ the King {9.9/—} *this rain*	
31	M.	Halloween Hol. Nev. {9.0/9.9} *doth abate.*	

1966] NOVEMBER, ELEVENTH MONTH.

ASTRONOMICAL CALCULATIONS.

☉'s Declination.	Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /
	1	14s. 26	7	16 17	13	17 58	19	19 28	25	20 45
	2	14 45	8	16 35	14	18 14	20	19 42	26	20 57
	3	15 04	9	16 52	15	18 29	21	19 56	27	21 08
	4	15 23	10	17 09	16	18 45	22	20 09	28	21 19
	5	15 41	11	17 26	17	19 00	23	20 21	29	21 29
	6	15 59	12	17 42	18	19 14	24	20 33	30	21 39

☾ Last Quarter, 5th day, 5 h. 19 m., evening, W.

● New Moon, 12th day, 9 h. 27 m., morning, E.

☽ First Quarter, 19th day, 7 h. 21 m., evening, W.

○ Full Moon, 27th day, 9 h. 41 m., evening, E.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGES 81-85, FOR ALL POINTS OUTSIDE NEW ENGLAND

Day of Year	Day of Month	Day of Week	☉ Rises h. m.	Key	☉ Sets h. m.	Key	Length of Days h. m.	Sun Fast m.	Full Sea, Boston. Morn h.	Full Sea, Boston. Eve. h.	☽ Rises h. m.	Key	☽ Sets h. m.	Key	☽ Place	☽ Age
305	1	Tu.	6 17	L	4 39	F	10 22	32	0¾	0¾	6P M33	B	9A M39	P	G'M	18
306	2	W.	6 18	L	4 37	F	10 20	32	1½	1½	7 23	B	10 43	P	G'M	19
307	3	Th.	6 19	L	4 36	E	10 17	32	2	2¼	8 22	B	11A M42	P	CNC	20
308	4	Fr.	6 20	M	4 35	E	10 15	32	3	3¼	9 31	C	12P M32	P	CNC	21
309	5	Sa.	6 22	M	4 34	E	10 12	32	4	4¼	10P M44	D	1 13	O	LEO	22
310	6	B	6 23	M	4 33	E	10 10	32	5	5¼	—	—	1 47	M	LEO	23
311	7	M.	6 24	M	4 31	E	10 07	32	6	6¼	12A M01	E	2 15	L	VIR	24
312	8	Tu.	6 25	M	4 30	E	10 05	32	7	7¼	1 18	G	2 41	J	VIR	25
313	9	W.	6 27	M	4 29	E	10 03	32	8	8¼	2 35	H	3 05	I	LIB	26
314	10	Th.	6 28	M	4 28	E	10 00	32	8¾	9¼	3 52	J	3 30	G	LIB	27
315	11	Fr.	6 29	M	4 27	E	9 58	32	9¾	10¼	5 10	L	3 57	F	SCO	28
316	12	Sa.	6 30	M	4 26	E	9 56	32	10½	11	6 29	M	4 27	D	SCO	0
317	13	B	6 32	M	4 25	E	9 53	31	11¼	—	7 47	N	5 05	C	SGR	1
318	14	M.	6 33	M	4 24	E	9 51	31	0	0	9 01	O	5 50	B	SGR	2
319	15	Tu.	6 34	M	4 23	E	9 49	31	0¾	1	10 08	P	6 43	B	CAP	3
320	16	W.	6 35	M	4 22	D	9 47	31	1½	1¾	11 05	P	7 43	—	CAP	4
321	17	Th.	6 37	M	4 22	D	9 45	31	2	2	11A M50	O	8 48	B	AQR	5
322	18	Fr.	6 38	N	4 21	D	9 43	31	3¼	3½	12P M26	N	9 53	C	AQR	6
323	19	Sa.	6 39	N	4 20	D	9 41	30	4¼	4½	12 55	M	10P M58	D	AQR	7
324	20	B	6 40	N	4 19	D	9 39	30	5	5¼	1 18	L	—	E	PSC	8
325	21	M.	6 42	N	4 19	D	9 37	30	6	6¼	1 39	K	12A M00	F	PSC	9
326	22	Tu.	6 43	N	4 18	D	9 35	30	7	7¼	1 58	J	1 02	H	ARI	10
327	23	W.	6 44	N	4 17	D	9 33	29	7¾	8	2 18	I	2 02	I	ARI	11
328	24	Th.	6 45	N	4 17	D	9 32	29	8½	8¾	2 37	G	3 03	J	ARI	12
329	25	Fr.	6 46	N	4 16	D	9 30	29	9	9½	2 58	F	4 06	K	TAU	14
330	26	Sa.	6 47	N	4 16	D	9 28	28	9¾	10¼	3 23	E	5 11	M	TAU	15
331	27	B	6 49	N	4 15	D	9 26	28	10½	11	3 52	D	6 19	N	G'M	16
332	28	M.	6 50	N	4 15	D	9 25	28	11	11½	4 30	B	7 28	N	—	—
333	29	Tu.	6 51	N	4 14	D	9 23	27	11¾	—	5 17	B	8 35	P	G'M	17
334	30	W.	6 52	N	4 14	D	9 22	27	0¼	0½	6P M15	B	9A M36	P	CNC	18

NOVEMBER hath 30 days. [1966

'Tis when the stacks get on their winter hap,
And thack and rape secure the toil-won cap;
Potatoe bings are snugged up frae skaith
O' coming winter's biting, frosty breath.

Burns

D.M.	D.W.	Aspects, Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
1	Tu.	All Saints Hol. La. Tides {8.9 9.9} *Make*	For many long years, strung between the rafters in our barn, have hung the snowshoes we used as a family — my family when I was a boy. There were four pair of bear-paws and one of long, racing shoes, which father, who was not built for racing, always wore. I had them repaired, at twice the price, I am sure, that father paid C. S. Sprague Co., Boston. But now we shall have enough shoes to keep one set of grandchildren and myself snowborne next winter.
2	W.	All Souls • Lisbon Quake (1st) world's worst 1755 {8.7 9.8} *haste*	
3	Th.	1st Ohio River Steamboat 1811 ☾ runs high Tides {8.5 9.7} *only*	
4	Fr.	St. Clair def. Miami 1791 Hol. Okla. Tides {8.3 9.5} *to a*	
5	Sa.	♂☌☾ Fawkes' plot not forgot {8.2 9.4} *fireplace.*	
6	B	22nd a.☾. ☿ Stat. in R.A. Noah B. B.C. 2948 *Good*	When we do set out, it will be to make trails in no wilder country of New Hampshire to-day than I snowshoed as a boy within a few miles of Boston's State House. My brothers and I would take off in the morning with a sandwich in our pockets and make a full day of it, crossing snowpacked roads only once or twice. We didn't have to imagine we were trappers in a wilderness. We were trappers, tending our traps in the swamps and along streams we fished for trout in summer. Except for sleigh bells now and then on the hill road and an occasional locomotive whistling on the South Shore Line, our wilderness was real enough. The crumbling crags above the lake we called Lost were its Forts Ticonderoga and Duquesne. And there was Desolation Camp.
7	M.	♂♂☾ Antarctic Seals now bearing young *football*	
8	Tu.	♂☍☾ • ♂☿☉ Sup. Elections some states *days,*	
9	W.	Good for travel bad for theft ☾ on Eq. Tides {10.0 10.0} *the*	
10	Th.	☾ in Perl. Full cups must be held steady Tides {10.6 10.2} *man*	
11	Fr.	St. Martin Vet's. Day • Lucky day • Hol. 49 States *says.*	
12	Sa.	Total eclipse of the sun • Sadie Hawkins • *Blustery,*	
13	B	24th a.♇. Indian Summer begins (13-20) *bold,*	Perhaps my grandchildren will find their own wilderness along our snowshoe trails and share it with me, while I tell them tales of my own.
14	M.	♂♆☉ The talkers sow, the silent reaps {— 11.8} *windy,*	
15	Tu.	Lavater B. 1741 ☾ ride low Tides {9.7 10.9} *cold.*	
16	W.	Now cellar root crops • Noah's flood over B.C. 2348 *Snows*	
17	Th.	♂☿☉ Inf. Day of many accidents {8.8 9.8} *and*	
18	Fr.	Earthquake, Scituate, Mass. to Phila., Pa. 1755 *blows.*	
19	Sa.	*Fine feathers make fine birds only* Tides {8.1 8.8} *Driving's*	
20	B	24th a.☾. [21st ♃ Stat. in R.A. • ♂♂☉]	
21	M.	♂♄☾ • ☾ in Apo. • Mayflower Compact *wicked,*	
22	Tu.	J.F.K. Prune vines Tides {8.8 8.3} *avoid a ticket.*	
23	W.	☾ on Eq. • Try before you trust Hol. Md. {8.6 8.8} *Good*	
24	Th.	Thanksgiving Day Tides {8.9 8.5} *cheer,*	
25	Fr.	Days (9 h. 30 min.) now shorter by 5 h. 49 min. than June 22 *4 days*	
26	Sa.	☿ Stat. in R.A. • Too many captains, ship will sink *clear.*	
27	B	Advent ♆. The full Travel Moon ♄ Stat. in R.A.	
28	M.	Geese now flying South • Buried hatchets are easily found *With*	
29	Tu.	*Time teaches those who will have no teacher* *sleet you'll*	
30	W.	St. Andrew, Apo. ☾ runs high {8.8 10.2} *meet.*	

If there be ice in November to bear a duck
There'll be nothing thereafter but sleet & muck

1966] DECEMBER, Twelfth Month.

ASTRONOMICAL CALCULATIONS.

☉'s Declination.

Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /
1	21s. 49	7	22 37	13	23 09	19	23 25	25	23 24
2	21 58	8	22 43	14	23 13	20	23 26	26	23 22
3	22 06	9	22 49	15	23 16	21	23 27	27	23 20
4	22 15	10	22 55	16	23 19	22	23 26	28	23 17
5	22 22	11	23 00	17	23 22	23	23 26	29	23 14
6	22 30	12	23 05	18	23 24	24	23 24	30	23 10

☾ Last Quarter, 5th day, 1 h. 23 m., morning, E.

● New Moon, 11th day, 10 h. 14 m., evening, W.

☽ First Quarter, 19th day, 4 h. 41 m., evening, E.

○ Full Moon, 27th day, 12 h. 44 m., evening, E.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGES 81-85, FOR ALL POINTS OUTSIDE NEW ENGLAND

Day of Year	Day of Month	Day of Week	☉ Rises h. m.	Key	☉ Sets h. m.	Key	Length of Days h. m.	Sun Fast m.	Full Sea, Boston. Morn h.	Full Sea, Boston. Eve. h.	☽ Rises h. m.	Key	☽ Sets h. m.	Key	☽ Place	☽ Age
335	1	Th.	6 53	N	4 14	D	9 21	27	1	1¼	7$^{P}_{M}$22	B	10$^{A}_{M}$29	P	CNC	19
336	2	Fr.	6 54	N	4 13	D	9 19	26	2	2	8 35	C	11 14	O	LEO	20
337	3	Sa.	6 55	N	4 13	D	9 18	26	2¾	3	9 50	E	11$^{A}_{M}$50	N	LEO	21
338	4	B	6 56	N	4 13	D	9 17	26	3½	4	11$^{P}_{M}$06	F	12$^{P}_{M}$19	L	VIR	22
339	5	M.	6 57	N	4 13	D	9 16	25	4½	5	—	—	12 45	K	VIR	23
340	6	Tu.	6 58	N	4 13	D	9 14	25	5½	6	12$^{A}_{M}$20	H	1 09	I	LIB	24
341	7	W.	6 59	N	4 12	C	9 13	24	6½	7	1 34	I	1 32	H	LIB	25
342	8	Th.	7 00	O	4 12	C	9 12	24	7½	8	2 49	K	1 57	F	LIB	26
343	9	Fr.	7 01	O	4 12	C	9 11	23	8½	9	4 05	L	2 25	E	SCO	27
344	10	Sa.	7 02	O	4 12	C	9 11	23	9¼	10	5 22	N	2 58	D	SCO	28
345	11	B	7 03	O	4 13	C	9 10	23	10	10¾	6 38	O	3 39	C	SGR	29
346	12	M.	7 04	O	4 13	C	9 09	22	11	11½	7 49	P	4 28	B	SGR	0
347	13	Tu.	7 04	O	4 13	C	9 08	22	11¾	—	8 51	P	5 26	B	CAP	1
348	14	W.	7 05	O	4 13	C	9 08	21	0½	0½	9 42	P	6 29	C	CAP	2
349	15	Th.	7 06	O	4 13	C	9 07	21	1¼	1¼	10 22	C	7 36	D	AQR	3
350	16	Fr.	7 07	O	4 13	C	9 07	20	2	2	10 55	N	8 42	E	AQR	4
351	17	Sa.	7 07	O	4 14	C	9 07	20	2¾	3	11 21	M	9 46	F	PSC	5
352	18	B	7 08	O	4 14	C	9 06	19	3½	3¾	11$^{A}_{M}$43	K	10 48	G	PSC	6
353	19	M.	7 09	O	4 15	C	9 06	19	4½	4½	12$^{P}_{M}$02	J	11$^{P}_{M}$50	H	PSC	7
354	20	Tu.	7 09	O	4 15	C	9 06	18	5¼	5½	12 21	I	—	—	ARI	8
355	21	W.	7 10	O	4 16	C	9 06	18	6	6½	12 40	H	12$^{A}_{M}$49	J	ARI	9
356	22	Th.	7 10	O	4 16	C	9 06	17	6¾	7¼	1 01	G	1 52	K	TAU	10
357	23	Fr.	7 11	O	4 17	C	9 06	17	7½	8	1 23	E	2 55	L	TAU	11
358	24	Sa.	7 11	O	4 17	C	9 06	16	8½	9	1 51	D	4 02	M	G'M	12
359	25	B	7 12	O	4 18	C	9 06	16	9	9¾	2 25	C	5 10	O	G'M	14
360	26	M.	7 12	O	4 18	C	9 07	15	10	10½	3 09	B	6 18	P	G'M	15
361	27	Tu.	7 12	O	4 19	C	9 07	15	10½	11¼	4 03	B	7 24	P	—	—
362	28	W.	7 12	O	4 20	C	9 07	14	11¼	—	5 08	B	8 22	P	CNC	16
363	29	Th.	7 13	O	4 21	C	9 08	14	0	0	6 21	C	9 11	O	CNC	17
364	30	Fr.	7 13	O	4 21	C	9 08	13	0¾	1	7 38	E	9 51	N	LEO	18
365	31	Sa.	7 13	C	4 22	C	9 09	13	1½	1¾	8$^{P}_{M}$55	F	10$^{A}_{M}$23	M	LEO	19

DECEMBER hath 31 days. [1966

In me thou seest the glowing of such fire
That on the ashes of his youth doth lie
This thou perceiv'st, which makes thy love more strong,
To love that well which thou must leave ere long.

Shakespeare

D.M.	D.W.	Aspects, Holidays, Heights of High Water, Weather, etc.
1	Th.	*If this month be mild* Hoi. *Winter will remain a child* Ark. *First*
2	Fr.	☌☽☾ Every man carries a fool in his sleeve {8.7 10.0 *real*
3	Sa.	Earliest sunsets • Mary Baker 4:12 (7-10) Eddy 1910 *splinter*
4	B	**2nd S. A.** Barbara's branches ☿ Gr. El. W. *of a*
5	M.	☌☿♆ • ☌☉☾ Now kill pork & beef *hard*
6	Tu.	St. Nicholas ☌☌☾ • ☾ on Eq. {9.3 9.8 *winter.*
7	W.	Pearl Harbor Hanukah ☾ in Peri. *Black*
8	Th.	Conception of V. M. • Chilean altar fire 1863 Hoi. Del. *trees*
9	Fr.	*If men fools and knaves will be they'll be ass-ridden by all three* *groan-*
10	Sa.	☌♆☾ • ☌☿☾ Hoi. Wyo. {10.9 9.5 *ing while*
11	B	**3rd S. A.** Elchmann conv. 1961 Tides {11.0 9.4 *high*
12	M.	*She was pure as snow but how she could drift* {11.0 9.3 *winds are*
13	Tu.	St. Lucy ☾ Rides low {10.9 — *moaning.*
14	W.	Be of good cheer live another year • Ember Day {9.1 10.5 *Even*
15	Th.	Bill of Rights • Great storm of 1839 {8.9 10.1 *Gramp*
16	Fr.	Ember Day • Who cheats me twice serves me right *can't*
17	Sa.	Lazarus died 2nd ti. 63 A.D. • Ember Day *remember*
18	B	**4th S. A.** Shortest days 9:06 (18-25) *a worse*
19	M.	☌♄☾ • ☾ in Apo. Be good and you'll be lonesome
20	Tu.	Romulus conceived ☾ on Eq. {8.2 8.1 *December.*
21	W.	St. (Apo.) Thomas • Fore-father's *No let-up in*
22	Th.	Winter begins 2:29 A.M. ☉ enters ♑ *sight*
23	Fr.	*When Yule falls on Tuesday sell your hogs and buy hay* *even on*
24	Sa.	Many leaves on trees? You'll freeze {9.1 8.1 *Christmas*
25	B	**Christmas Day** Tides {9.5 8.3 *night.*
26	M.	St. Stephen, Apo. Judas horn {9.8 8.5 *This year's*
27	Tu.	St. John, Ev. Hungry fox full moon runs high *been*
28	W.	Childermas Whatever is, is right *extreme, or*
29	Th.	St. David ☌☽☾ {8.9 10.6 *so it would*
30	Fr.	☉ Stat. in R.A. • ♇ Stat. in R.A. {9.0 10.6 *seem.*
31	Sa.	*And so, farewell, be of good cheer, Looking forward to seeing you next year.*

Farmer's Calendar.

When we are decently old, we may retire to a place in the country. Yet we do not think of ourselves as done for and discarded. We have not really retired at all, but freed ourselves to greener pastures — pastures of leisure, perhaps, but more often of opportunities and adventures, sometimes very active indeed.

A near neighbor was an insurance man, and the best policy he ever wrote — and sold to himself — was his retirement policy. "My longevity policy," he calls it. By his labor alone he has created on his second-growth acres an arboretum of trees and shrubs that are native to these parts — or ought to be — and this is his adventure. Many kinds of holly that were never known hereabouts thrive in his swamp edge, and there are chestnuts that are blightproof, elms resistant to the Dutch elm disease, and redwoods and Douglas firs — as well as all the old settlers. His name is important on boards of conservation and forestry.

Another "retired" neighbor, an out-of-stater, has served for three terms as a Selectman. Still another is completing his fourth term in our State Legislature. The management of the finances of our hospital and one of our churches is in the hands of a "retired" banker. The reality of a great rehabilitation center is due almost entirely to the efforts of a "retired" industrialist.

No one can retire us but ourselves.

VENUS, MARS, JUPITER AND SATURN, 1966

MORNING AND EVENING STARS, TOO

Below are given the times of the rising or setting of the Planets named, on the first, eleventh and twenty-first 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 81–84. These appear below in capital letters.

(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° west of the Sun in right ascension and Evening Star when it is less than 180° east. When the planet is near conjunction or opposition, the distinction is unimportant.)

VENUS

Venus is an Evening Star until it reaches conjunction on January 26th. It is again an Evening Star from the time of superior conjunction, November 9th, until the end of the year. Between the two conjunctions it graces the eastern sky as a Morning Star. Venus is near its peak brilliance for the year as the year begins. After some loss of brilliance thereafter it rises to its actual peak brilliance during the period from late February through early March.

Jan	1st	sets	7 07 P.M.	E
	11th	"	6 31 P.M.	F
	21st	"	5 37 P.M.	F
Feb	1st	rises	5 53 A.M.	L
	11th	"	5 01 A.M.	L
	21st	"	4 27 A.M.	L
Mar	1st	rises	4 09 A.M.	L
	11th	"	3 54 A.M.	L
	21st	"	3 43 A.M.	L
Apr	1st	rises	3 34 A.M.	L
	11th	"	3 24 A.M.	K
	21st	rises	3 13 A.M.	J
May	1st	rises	3 02 A.M.	J
	11th	"	2 49 A.M.	I
	21st	"	2 37 A.M.	H
Jun	1st	rises	2 25 A.M.	G
	11th	"	2 15 A.M.	F
	21st	"	2 08 A.M.	E
Jul	1st	rises	2 05 A.M.	D
	11th	"	2 07 A.M.	D
	21st	"	2 14 A.M.	C
Aug	1st	rises	2 29 A.M.	C
	11th	"	2 47 A.M.	D
	21st	rises	3 09 A.M.	E
Sep	1st	rises	3 35 A.M.	E
	11th	"	3 59 A.M.	F
	21st	"	4 24 A.M.	G
Oct	1st	rises	4 48 A.M.	I
	11th	"	5 13 A.M.	J
	21st	"	5 38 A.M.	K
Nov	1st	rises	6 06 A.M.	L
	11th	sets	4 30 P.M.	E
	21st	"	4 28 P.M.	D
Dec	1st	sets	4 31 P.M.	C
	11th	"	4 41 P.M.	C
	21st	"	4 56 P.M.	C
	31st	sets	5 17 P.M.	C

MARS

Mars reaches conjunction with the Sun on April 29th. Until that date it is an Evening Star; thereafter a Morning Star for the balance of the year. Since Mars is essentially at its greatest distance from the Earth, the sum of the distances of the Earth and Mars from the Sun at the time of conjunction, it will remain a relatively faint object throughout the year.

Jan	1st	sets	6 30 P.M.	D
	11th	"	6 31 P.M.	E
	21st	"	6 33 P.M.	F
Feb	1st	sets	6 35 P.M.	F
	11th	"	6 37 P.M.	G
	21st	"	6 38 P.M.	H
Mar	1st	sets	6 39 P.M.	H
	11th	"	6 39 P.M.	I
	21st	"	6 40 P.M.	J
Apr	1st	sets	6 40 P.M.	J
	11th	"	6 40 P.M.	K
	21st	sets	6 39 P.M.	L
May	1st	rises	4 41 A.M.	F
	11th	"	4 21 A.M.	E
	21st	"	4 02 A.M.	E
Jun	1st	rises	3 43 A.M.	D
	11th	"	3 27 A.M.	D
	21st	"	3 13 A.M.	C
Jul	1st	rises	3 01 A.M.	C
	11th	"	2 50 A.M.	C
	21st	"	2 40 A.M.	C
Aug	1st	rises	2 31 A.M.	C
	11th	"	2 24 A.M.	C
	21st	rises	2 17 A.M.	D
Sep	1st	rises	2 09 A.M.	D
	11th	"	2 03 A.M.	E
	21st	"	1 56 A.M.	E
Oct	1st	rises	1 49 A.M.	F
	11th	"	1 41 A.M.	F
	21st	"	1 33 A.M.	G
Nov	1st	rises	1 23 A.M.	G
	11th	"	1 13 A.M.	H
	21st	"	1 03 A.M.	H
Dec	1st	rises	12 51 A.M.	I
	11th	"	12 39 A.M.	I
	21st	"	12 26 A.M.	I
	31st	rises	12 11 A.M.	J

JUPITER

Jupiter is an Evening Star for the first half of the year, until it reaches conjunction on July 5th, and a Morning Star thereafter for the rest of the year.

JAN	1st	sets	6 12 A.M.	O
	11th	"	5 28 A.M.	O
	21st	"	4 44 A.M.	O
FEB	1st	sets	3 58 A.M.	O
	11th	"	3 17 A.M.	O
	21st	"	2 38 A.M.	O
MAR	1st	sets	2 08 A.M.	O
	11th	"	1 32 A.M.	O
	21st	"	12 57 A.M.	O
APR	1st	sets	12 19 A.M.	O
	11th	"	11 43 P.M.	O
	21st	sets	11 11 P.M.	O
MAY	1st	sets	10 40 P.M.	O
	11th	"	10 09 P.M.	O
	21st	"	9 38 P.M.	O
JUN	1st	sets	9 05 P.M.	O
	11th	"	8 35 P.M.	O
	21st	"	8 04 P.M.	O
JUL	1st	sets	7 34 P.M.	O
	11th	rises	3 58 A.M.	C
	21st	"	3 29 A.M.	C
AUG	1st	rises	2 58 A.M.	D
	11th	"	2 29 A.M.	D
	21st	rises	2 00 A.M.	D
SEP	1st	rises	1 27 A.M.	D
	11th	"	12 57 A.M.	D
	21st	"	12 27 A.M.	D
OCT	1st	rises	11 52 P.M.	D
	11th	"	11 19 P.M.	D
	21st	"	10 45 P.M.	D
NOV	1st	rises	10 06 P.M.	D
	11th	"	9 30 P.M.	D
	21st	"	8 50 P.M.	D
DEC	1st	rises	8 10 P.M.	D
	11th	"	7 28 P.M.	D
	21st	"	6 44 P.M.	D
	31st	rises	5 59 P.M.	D

SATURN

Saturn is to be seen as an Evening Star from the year's beginning until it reaches conjunction on March 10th and again from its opposition on September 29th until the end of the year. Between March 10th and September 29th it is a Morning Star.

JAN	1st	sets	9 29 P.M.	G
	11th	"	8 54 P.M.	G
	21st	"	8 20 P.M.	G
FEB	1st	sets	7 43 P.M.	G
	11th	"	7 09 P.M.	G
	21st	"	6 36 P.M.	G
MAR	1st	sets	6 09 P.M.	H
	11th	rises	6 13 A.M.	J
	21st	"	5 37 A.M.	J
APR	1st	rises	4 56 A.M.	J
	11th	"	4 19 A.M.	J
	21st	rises	3 43 A.M.	J
MAY	1st	rises	3 06 A.M.	J
	11th	"	2 27 A.M.	J
	21st	"	1 52 A.M.	J
JUN	1st	rises	1 10 A.M.	J
	11th	"	12 32 A.M.	J
	21st	"	11 50 P.M.	J
JUL	1st	rises	11 12 P.M.	J
	11th	"	10 33 P.M.	J
	21st	"	9 54 P.M.	J
AUG	1st	rises	9 10 P.M.	J
	11th	"	8 30 P.M.	J
	21st	rises	7 50 P.M.	J
SEP	1st	rises	7 05 P.M.	H
	11th	"	6 24 P.M.	H
	21st	sets	5 24 A.M.	H
OCT	1st	sets	4 41 A.M.	H
	11th	"	3 58 A.M.	H
	21st	"	3 15 A.M.	H
NOV	1st	sets	2 29 A.M.	H
	11th	"	1 48 A.M.	H
	21st	"	1 08 A.M.	H
DEC	1st	sets	12 29 A.M.	H
	11th	"	11 47 A.M.	H
	21st	"	11 09 A.M.	H
	31st	sets	10 32 A.M.	H

MERCURY

Mercury will be favorably situated for being seen as an Evening Star when near its greatest eastern elongations about March 4, June 30, and October 26. On these dates it will set 1 h. 34 m., 1 h. 30 m., and 0 h. 51 m., respectively, after sunset. It will be seen most readily as a Morning Star when near its greatest western elongations about April 18, August 16, and December 4, on which dates it will rise 0 h. 48 m., 0 h. 50 m., and 1 h. 50 m., respectively, before sunrise.

OUTDOOR PLANTING TABLE, 1966

Find the latitude of your town or city. Interpolate between columns below to find your planting date. For example, if you live in Grove City, Pa. (Lat. 41°09′35″), this would mean the latitude is about halfway between Boston-Phila. So your planting times would also be halfway between. N.B. Plant one week later for every 500-ft. elevation above sea level.

The "Moon Most Favorable" columns give the superstitious times when the phase of moon is "right" for planting the crop indicated during 1966. See also pages 38–41. For flowers, use same dates as Beans, except bulbs, for which use the Beets column. These columns show, for crops bearing fruits above ground, the "light" (new to the full) of the moon; for crops bearing fruits below ground the "dark" (full to the new).

In using the figures below, bear in mind that the Moon Most Favorable dates do not always coincide with suggested planting dates. If you go by the moon, therefore, and use the most favorable moon dates, you may have to plant slightly earlier than the suggested planting dates indicated. Use column 1 by referring to last column pages 10–32.

Above Ground Crops Best Signs: ARI, CNC LIB, ACQ, PSC Below Ground TAURUS	42°21′44″ Boston Latitude		39°56′58″ Phila. Latitude		33°45′10″ Atlanta Latitude	
	Plant Anytime Between Dates Below	Moon Most Favorable Between	Plant Anytime Between Dates Below	Moon Most Favorable Between	Plant Anytime Between Dates Below	Moon Most Favorable Between
Barley	5-15/6-21	5-20/6-3	3-15/4-7	3-21/4-5	2-15/3-7	2-20/3-6
Beans (Early)	5-7/6-21	5-20/6-3	4, 15-30	4, 20-30	3-15/4-7	3-21/4-5
(Late)	6-15/7-15	6-18/7-2	7, 1-21	7, 17-21	8, 7-30	8, 16-30
Beets (Early)	5, 1-15	5, 5-15	3-15/4-3	3, 15-20	2, 7-29	2, 7-19
(Late)	7-15/8-15	7, 15-16	8, 15-30	8, 15	9, 1-30	9, 1-13
Broccoli (Early)	5, 15-30	5, 20-30	3, 7-30	3, 21-30	2-15/3-15	2-20/3-6
(Late)	6-15/7-7	6-18/7-2	8, 1-20	8, 16-20	9, 7-30	9, 14-29
Brussels Sprouts	5, 15-30	5, 20-30	3-7/4-15	3-21/4-5	2-11/3-20	2-20/3-6
Cabbage (E)	5, 15-30	5, 20-30	3-7/4-15	3-21/4-5	2-11/3-20	2-20/3-6
Plants (Late)	6-7/7-7	6-18/7-2	7-1/8-7	7-17/8-1	8, 15-30	8, 16-30
Carrots (Early)	5, 15-30	5, 15-19	3, 7-31	3, 7-20	2-15/3-7	2, 15-19
(Late)	6-15/7-21	6, 15-17	7, 7-30	7, 7-16	8-1/9-7	8-31/9-7
Cauliflower (E)	5, 15-30	5, 20-30	3-15/4-7	3-21/4-5	2-15/3-7	2-20/3-6
Plants (L)	6-15/7-21	6-18/7-2	7-1/8-7	7-17/8-1	8, 7-30	8, 16-30
Celery (Early)	5-15/6-30	5, 15-19	3, 7-30	3, 7-20	2, 15-28	2, 15-19
(Late)	7-15/8-15	7, 15-16	8-15/9-7	8-31/9-7	9, 15-30	9, 30
Corn Sweet (E)	5-10/6-15	5-20/6-3	4, 1-15	4, 1-5	3, 15-29	3, 21-29
(Late)	6, 15-30	6, 18-30	7, 7-21	7, 17-21	8, 7-30	8, 16-30
Cucumber	5-7/6-20	5-20/6-3	4-7/5-15	4-20/5-4	3-7/4-15	3-21/4-5
Eggplant Plants	6, 1-30	6, 18-30	4-7/5-15	4-20/5-4	3-7/4-15	3-21/4-5
Endive (Early)	5, 15-30	5, 15-19	4-7/5-15	4, 7-19	2-15/3-20	2, 15-19
(Late)	6, 7-30	6, 7-17	7-15/8-15	7, 15-16	8-15/9-7	8-31/9-7
Kale (Early)	5, 15-30	5, 20-30	3-7/4-7	3-21/4-5	2-11/3-20	2-20/3-6
(Late)	7-1/8-7	7, 1-2	8, 15-31	8, 16-30	9, 7-30	9, 14-29
Leek Plants	5, 15-30	5, 15-19	3-7/4-7	3, 7-20	2-15/4-15	2, 15-19
Lettuce	5-15/6-30	5-20/6-3	3, 1-31	3, 21-31	2-15/3-7	2, 15-19
Melon (Musk)	5-15/6-30	5-20/6-3	4-15/5-7	4-20/5-4	3-15/4-7	3-21/4-5
Onion Plants	5-15/6-7	5, 15-19	3, 1-31	3, 7-20	2, 1-28	2, 6-19
Parsley	5, 15-30	5, 20-30	3, 1-31	3, 21-31	2-20/3-15	2-20/3-6
Parsnip	4, 1-30	4, 6-19	3, 7-31	3, 7-20	1-15/2-4	1, 15-20
Peas (Early)	4-15/5-7	4-20/5-4	3, 7-31	3, 21-31	1-15/2-7	1-21/2-5
(Late)	7, 15-30	7, 17-30	8, 7-31	8, 16-30	9, 15-30	9, 15-29
Pepper Plants	5-15/6-30	5-20/6-3	4, 1-30	4, 20-30	3, 1-20	3, 1-6
Pumpkin	5, 15-30	5, 20-30	4-23/5-15	4-23/5-4	3, 7-20	3, 21
Potatoes	5, 1-15	5, 5-15	4, 1-15	4, 6-15	2-10/3-1	2, 10-19
Radish (Early)	4, 15-30	4, 15-19	3, 7-31	3, 7-20	1-21/3-1	2, 6-19
(Late)	8, 15-30	8, 15	9, 7-30	9, 7-13	10, 1-21	10, 1-12
Spinach (Early)	5, 15-30	5, 20-30	3-15/4-20	3-21/4-5	2-7/3-15	2-20/3-6
(Late)	7-15/9-7	7-17/8-1	8-1/9-15	8, 16-30	10, 1-21	10, 13-21
Swiss Chard	5, 1-30	5, 20-30	3-15/4-15	3-21/4-5	2-7/3-15	2-20/3-6
Summer Squash	5-15/6-15	5-20/6-3	4-15/5-1	4-20/5-1	3-15/4-15	3-21/4-5
Tomato Plants	5, 15-30	5, 20-30	4, 7-30	4, 20-30	3, 7-20	3, 21
Turnip (Early)	4, 7-30	4, 7-19	3, 15-30	3, 15-20	1-20/2-15	2, 6-15
(Late)	7-1/8-15	7, 3-16	8, 1-20	8, 2-15	9-1/10-15	9, 1-13
Wheat (Winter)	8, 11-15	8, 16	9-15/10-20	9, 15-29	10-15/12-7	10, 15-29
(Spring)	4, 7-30	4, 20-30	3, 1-20	3, 21	2, 15-28	2, 20-28

KILLING FROSTS and GROWING SEASONS

Courtesy of U. S. Weather Bureau

City	G.S. (Days)	Last Frost Spring	First Frost Fall
Lander, Wyo.	123	May 18	Sept. 18
Bismarck, N.D.	133	May 11	Sept. 21
Alpena, Mich.	141	May 13	Oct. 1
Helena, Mont.	145	May 7	Sept. 29
Reno, Nev.	145	May 14	Oct. 6
Marquette, Mich.	149	May 13	Oct. 9
Concord, N.H.	149	May 7	Oct. 3
Duluth, Minn.	152	May 6	Oct. 5
Green Bay, Wisc.	157	May 5	Oct. 9
Pocatello, Ida.	160	Apr. 29	Oct. 6
Denver, Colo.	160	May 3	Oct. 10
Pierre, S. Dak.	160	Apr. 30	Oct. 7
Minneapolis	166	Apr. 27	Oct. 10
Detroit, Mich.	170	Apr. 28	Oct. 15
Des Moines, Ia.	171	Apr. 21	Oct. 9
Fort Wayne, Ind.	171	Apr. 25	Oct. 13
Ludington, Mich.	172	May 2	Oct. 21
Albany, N.Y.	174	Apr. 24	Oct. 15
Madison, Wisc.	174	Apr. 26	Oct. 17
Santa Fe, N.M.	177	Apr. 25	Oct. 19
Hartford, Conn.	177	Apr. 20	Oct. 13
Toledo, Ohio	179	Apr. 22	Oct. 18
Portland, Maine	181	Apr. 19	Oct. 17
Spokane, Wash.	182	Apr. 14	Oct. 13
Parkersburg	184	Apr. 17	Oct. 18
Omaha, Nebr.	184	Apr. 14	Oct. 15
Salt Lake City	185	Apr. 18	Oct. 20
Chicago, Ill.	186	Apr. 16	Oct. 19
St. Joseph, Mo.	191	Apr. 9	Oct. 17
Trenton, N.J.	191	Apr. 16	Oct. 24
Springfield, Mo.	193	Apr. 12	Oct. 22
Boston, Mass.	195	Apr. 14	Oct. 26
Wichita, Kans.	197	Apr. 9	Oct. 23
Cincinnati, Ohio	198	Apr. 8	Oct. 23
Lewiston, Ida.	201	Apr. 6	Oct. 24
Harrisburg, Pa.	202	Apr. 9	Oct. 28
Evansville, Ind.	207	Apr. 5	Oct. 29
Cairo, Ill.	212	Mar. 31	Oct. 29
Richmond, Va.	216	Mar. 31	Nov. 2
Roseburg, Ore.	217	Apr. 8	Nov. 11
Oklahoma City	218	Mar. 30	Nov. 3
Chattanooga	220	Mar. 29	Nov. 4
Raleigh, N.C.	223	Mar. 27	Nov. 5
Little Rock, Ark.	241	Mar. 18	Nov. 14
El Paso, Tex.	242	Mar. 19	Nov. 16
Tucson, Ariz.	243	Mar. 11	Nov. 9
Macon, Ga.	245	Mar. 14	Nov. 14
Columbia, S.C.	246	Mar. 17	Nov. 18
Montgomery, Ala.	250	Mar. 8	Nov. 13
Shreveport, La.	251	Mar. 6	Nov. 12
Portland, Ore.	251	Mar. 15	Nov. 21
San Bernardino	259	Mar. 8	Nov. 22
Eureka, Calif.	277	Mar. 16	Dec. 18
Del Rio, Tex.	277	Feb. 23	Nov. 27
Sacramento	283	Feb. 19	Nov. 29
Phoenix, Ariz.	296	Feb. 10	Dec. 3
Yuma, Ariz.	334	Jan. 20	Dec. 20
San Francisco	350	Jan. 13	Dec. 29
Los Angeles	*	*	*
Miami, Fla.	*	*	*
San Diego	*	*	*

*Frosts do not occur every year.

BEST FISHING DAYS, 1966

There are probably more "fishing calendars" sold each year than all the almanacs put together. It is likely that the more mystifying the ingredients of these calendars are, the more popular they become. Almost all agree, however, that fishing is better when 1) the barometer is rising or high; 2) when the moon is between the new and the full; and 3) when the moon is in the astrological sign of Cancer, Pisces or Scorpio. The days listed herewith are days during which two or three of the above are seen to occur.

Jan. 15, 16, 24, 25
Feb. 2, 3, 11, 12
Mar. 21–24, 31
Apr. 7, 8, 26–30
May 3, 4, 22, 23, 31
June 1, 10, 20, 23–28
July 7, 8, 24, 25
Aug. 3, 4, 13, 14, 16–22, 27–30
Sept. 9, 10, 17, 18, 21–24, 26, 27
Oct. 15, 16, 23–28
Nov. 3, 4, 20, 21, 30
Dec. 1, 17-19, 21-26, 28, 29

However, even under the best of conditions, those who know how to catch fish will be far more successful than those who don't. Some, of course, like gardeners with "green thumbs," are born that way. Others have made themselves expert in knowing the best places, hours, tackle, and lures.

Here are a few observations, taken from a room full of fishing books and clippings, which may or may not prove helpful.

Water temperatures between 55°F and 74°F are best.

The clearer the water, the better, preferably with a slight ripple.

South and West winds are the best, or any offshore breeze.

PART TWO

Secrets of the Zodiac & Planets

(Being the interpretation, astrologic, and just for fun, Of all serious scientific data in Part One.)

FAMOUS DEBOWELLED MAN OF THE SIGNS

♈ Aries, head. ARI
Mar. 21-Apr. 19
♉ Taurus, neck. TAU
Apr. 20-May 20
♊ Gemini, arms. G'M
May 21-June 20
♋ Cancer, breast. CNC
June 21-July 22
♌ Leo, heart. LEO
July 23-Aug. 22
♍ Virgo, belly. VIR
Aug. 23-Sept. 22
♎ Libra, reins. LIB
Sept. 23-Oct. 22
♏ Scorpio, secrets. SCO
Oct. 23-Nov. 21
♐ Sagittarius, thighs. SGR
Nov. 22-Dec. 21
♑ Capricornus, knees. CAP
Dec. 22-Jan. 19
♒ Aquarius, legs. AQR
Jan. 20-Feb. 18
♓ Pisces, feet. PSC
Feb. 19-Mar. 20

Man of the Signs used by Abe Weatherwise, 1784

These signs, abbreviated, appear for each day on pages 10-32. Their meaning is given on pages 38-41. The illustrations, pages 39-41, are the actual patterns as seen in the sky by the ancients (see Hygini, Augusti Liberti, 1570).

Go, go by your sign, Pages 39–41, whichever your birth date indicates is the one;
But remember, each day in '66 also has a sign of its own (Pages 10-32), which adds to the fun
By influencing daily the Astrological meanings derived from your place under the sun.
Born—or weren't you?—like Abraham Lincoln on Feb. 12? Then your sign is AQUARIUS.
Now see Page 12 for the date. AQUARIUS, you see, for that day with SCORPIO is VICARIOUS.
About all this, of course, we aren't at all serious—we just think it's hilarious.

The best superstitious times for the activities listed below (regardless of your sign) appear under each sign on pages 39-41. For the best hairdo just find (Pages 39-41) the sign(s) under which "K" doth appear—namely, TAU, CNC, LEO, VIR, LIB, SGR, AQR. Then pick your day of the month from pages 10-32 against which any of these signs appear (next to last column). In January, for example, this year any day except Jan. 3, 4, 14–16, 20, 21, 24, 25 would seem to be favorable for hairdos—and buying new clothes.

A Cut brush, grass, pull weeds.
B Cut, set posts, timbers.
C All pruning, cut hay.
D Plant above-ground crops.
E Plant root crops, paint house.
F Harvest crops, herbs.
G Breed, create, bake, set hens.
H Weaning.
I Slaughtering.
J Operations, pull teeth, etc.
K Do hair, shear sheep, buy clothes.
L Business, taking risks.
N Travel, marriage, romance.
M Fishing.

ARIES

ABBR: "ARI" SIGN: LAMB
Controls the head and face
Belongs to those born Mar. 21-Apr. 19
Ruling Planet, Mars; Birthstone
Jasper or Bloodstone; Color, Red.

Best for D, L, G, F, I.

ARIES, termed by the anclents the House of Mars,
Means you Martians must keep out of bars.
You are fearless, hot-tempered, and can be a fool—
Except when Mercury (Page 34) or the Moon keep you cool.
Be a leader—in things sclentific, keep using your brain
In medlcine, handcrafts, computers, TV or forecasting rain.

TAURUS

ABBR: "TAU" SIGN: BULL
Controls the throat and neck
Belongs to those born Apr. 20-May 20
Ruling Planet, Venus; Birthstone
Diamond or Sapphire; Color, Blue.

Best for E, K, B, I, F, G.

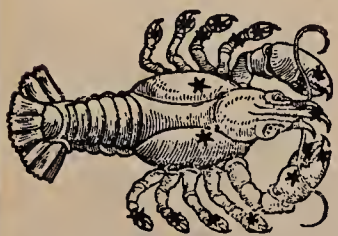
TAURUS houses Venus (see Page 34), the Goddess of Love,
Who cares not for caresses on her planet above.
Taurians do well in much raln—even floods
But stick with bullding, artwork, and flowering buds.
You are athletic, for sure, but Inclined to be stout;
You should learn right now what calories are about.

GEMINI

ABBR: "G'M" SIGN: TWINS
Controls shoulders, lungs, arms,
hands, and the nervous system.
Belongs to those born May 21-June 20
Ruling Planet, Mercury; Birthstone,
Emerald; Color, Light Grey.

Best for J, G, L, A, I, F.

GEMINI, the twlns, produces superior people,
Intellectuals, inventors, sharp as a steeple.
Cast not your pearls among dull, dirty swine—
Remember you are genll, bound to rlse—and shine.
Stay wlth Mercury (Page 34) for your very best work;
All other planets, jealously, would see you a jerk!



CANCER

ABBR: "CNC" SIGN: CRAB
Controls breast and stomach
Belongs to those born June 21-July 22
Rulling Planet, Moon; Birthstone,
Agate; Color, Green.

Best for D, M, K, G, I, A, C.

CANCER'S a crab, not a dlsease, so-called—see opposlte page—
For reasons that anything shilly-shally ls real hard to gauge.
Thls means you do best during all rlsing moons;
You are versatlle, can do all, from teach to craft spoons.
You should try lots of ventures, first one then another
'Tlll you hlt the rlght one, and then—Oh, Brother!

LEO

ABBR: "LEO" SIGN: LION
Controls the heart
Belongs to those born July 23-Aug. 22
Ruling Planet, Sun; Birthstone,
Ruby; Color, Red.

Best for K, B, A, F, N.

LEO's the boy who just loves the Sun.
(You never see a lion in snow, ice, or sleet having fun!)
The tropical life all Leos should live, or keep thermostats up to their peak.
At politics, church work, charity, sports, selling cars you're magnifique.
You are lucky, outgoing, often red-headed, have a terrible voice,
But your hot temper will win girl and career of your choice.

VIRGO

ABBR: "VIR" SIGN: VIRGIN
Controls the lower intestines
Belongs to those born Aug. 23-Sept. 22
Ruling Planet, Mercury; Birthstone,
Sardonyx; Colors, Onyx and Carnelian.

Best for J, K, L, A, I, F.

VIRGO, the Virgin (now that, astrologically, the year's half done)
Relies (Page 34) a great deal on Mercury for your fun.
Pay attention to that—but remember you'll do best
At anything ingenious, economical, with thrift as your zest.
This could mean accounting, cost-cutting, building machines;
Run always for Treasurer and all that high office means.

LIBRA

ABBR: "LIB" SIGN: SCALES
Controls the loins
Belongs to those born Sept. 23-Oct. 22
Ruling Planet, Venus; Birthstone,
Chrysolite; Color, Crimson.

Best for D, N, K, G, I.

LIBRANS go well when Venus (Page 34) is high—
Especially with Saturn too in the sky.
This seventh house harbors doctors, lawyers, printers, ETC.
Veterinarians, careers professional will as simple as ABC be.
The moon and Mercury both favor this sign;
Under both, your sex life should be absolutely divine!

SCORPIO

ABBR: "SCO" SIGN: SCORPION
Controls the generative organs
Belongs to those born Oct. 23-Nov. 22
Ruling Planet, Mars: Birthstone,
Aquamarine or Opal
(Blue Green or Black)

Best for M, G, I, A.

SCORPIO has Mars (again see Page 34) as its ruler above,
And you've got to restrain yourselves in matters of love.
Pay attention to business—be a contractor, voyager, or cop.
Don't jump fast in any direction—take it easy—even when working a mop.
You've a wide choice of career—almost any will do—
But remember again l'amour peut-être ce n'est pas pour vous.

SAGITTARIUS

ABBR: "SGR" SIGN: ARCHER
Controls the thighs
Belongs to those born Nov. 23-Dec. 21
Ruling Planet, Jupiter; Birthstone, Topaz; Color, Purple.

Best for J, N, K, F, I, H.

SAGITTARIANS have Jupiter (Page 34) as their pride and joy;
With him and his arrow, the world's but a toy.
Be big business, champion sport, expert diagnostician—
People from all walks of life will pay your tultion.
But listen, jolly fellows, keep active and fearless,
If you want to be popular, wealtry, and tearless.

CAPRICORNUS

ABBR: "CAP" SIGN: GOAT
Controls the knees
Belongs to those born Dec. 22-Jan. 19
Ruling Planet, Saturn; Birthstone, Turquoise: Color, Sky Blue.

Best for J, G, I, H.

CAPRICORNUS means you want both Saturn and Mars
To keep away nightmares, depression, and all evil stars.
You'll do well in business, rellgion, science, all idea jobs,
But beware of the crafty, the subtle, the parsimonious slobs.
Your travels should include India, Greece, G.B., and Mexico—
Then this favorable sign will be with you wherever you go.

AQUARIUS

ABBR: "AQR" SIGN: WATER BOY
Controls the legs
Belongs to those born Jan. 20-Feb. 18
Ruling Planet, Uranus; Birthstone, Garnet; Color, Mixed.

Best for D, K, B, I, H, A.

AQUARIUS has Saturn too for your pleasure.
When it's shining, for your capabilities there's no measure.
You'll have all the questions and answers man wants to know,
So how about running a hospital, or museum, or any blg show?
As its manager your vast knowledge will certainly contribute
Much happiness, love, advice—and freedom to boot.

PISCES

ABBR: "PSC" SIGN: FISH
Controls the feet
Belongs to those born Feb. 19-Mar. 20
Ruling Planet, Neptune; Birthstone, Amethyst; Color, Marine.

Best for D, M, B, G, I, H, C.

PISCES, planetarily, houses Neptune, Jupiter, and Venus; their virtue
Will banish anxiety, self-pity, and all ills flesh is heir to.
Provided you accept your place as the leader
In politics, of an army, or of starving people as their feeder.
Have no thought of mundane rewards or of pay,
Not charging for services rendered will be the joy of each day.

SCIENTIFIC PROGRESS 1964-65

A summary of developments in various fields of endeavor of presumable interest to lay readers. Sources (available on request) are scientific journals published from May 1964 through April 1965.

LANGUAGE & EDUCATION

To nuclear scientists, a "Barn" is now a unit of measure of atom cross sections. A "Dollar" is a unit of reactivity. A "Pig" is a radio-isotope container. A "Scram" is a sudden shutdown. If you desire an intelligent conversation with nuclear scientists, you will need to understand their vocabulary. For free glossary, write for NUCLEAR TERMS, USAEC, Box 62, Oak Ridge, Tenn. 37831.

The new mathematics is said to raise a youngster from a level of 1750—the mathematical sophistication of fathers and grandfathers—to a level of 1900. The new math is still, however, "in flux," and even as this appears in print may be old. It is explained by different teachers and sponsors in different ways. Your child's or grandchild's teacher probably is your best tutor.

PALM READING

The Division of Chronic Diseases, Public Health Service, Washington, D.C. is conducting examinations of some 5000 individuals to determine whether or not patients with neurological disorders have finger and palm patterns different from normal people. Results are expected to be useful in early diagnosis of abnormalities.

BIOCLIMATOLOGY

If you have gone into a department store lately intending to do a little shoplifting for a few things you've been needing around the house, and come out in high spirits after having **bought** more than you had originally intended to **steal**, then an experimental admixture of negative ions in the air conditioning may have been at the bottom of it.

This is but one facet of the barely-explored possibilities inherent in the vast field of bioclimatology—a science linking barometric pressure to human health and disposition. Such former mysteries as the foreboding ache in rheumatic joints, spookiness in livestock, and the increase in crime and suicide rates that precede a storm or accompany a full moon are now scientifically related to ions. Twenty-five years of study have demonstrated that sudden drops of pressure and temperature, certain unseasonal winds, high humidity or concentration of ozone without doubt precipitate major pathologies—and, by the same token, are remedied when contradicted by manufactured, controlled ionization.

When molecules of the gasses in the air, chiefly oxygen, nitrogen and carbon dioxide, gain electrons, they are known as negative ions. Conversely, when they lose electrons, they become positive ions.

Both positive and negative ions are being continuously formed in nature by storms, radiation, winds, etc. Thus, the air we breathe is filled with positively and negatively charged ions which are circulated through the body by the blood stream. It is theorized that negative ions increase the blood's capacity to use oxygen, while positive ions decrease this ability. Negative-ion inhalation is responsible for an increase in the sense of well-being.

Negative ions have a definite sedative effect, alleviate pain, relieve hay fever and asthma victims temporarily, have a therapeutic effect on burn victims, and promote healing in certain types of wounds.

Some members of the National Retail Merchants Association have considered availing themselves of the latest advances of this scientific project, both to woo the good customer and repel the one with abstracting designs. It is felt that an experimental introduction of negative ions under carefully controlled conditions, such as a large department store allows, could be expected to show two highly desirable results: (a) The volume of shoplifting and internal theft should decrease; (b) Productivity and sales should rise.

To the layman it might seem that this could work out as something of a considered risk for the experimental merchant. For there is always the possibility that a few deep breaths of ion-enriched, department-store air would huck up a shoplifter to the extent that she would achieve new heights of kleptomania. Here, however, Science and the store dick may be playing it close to the vest, having the whole caper taped in advance.

The run-of-the-mill basement browser should not be left without a word of caution, as the jungle is closing in on her: first, the White Sale, then the charge account, motivational research—and now the negative ion. Caveat emptor, indeed!

Courtesy: Liam Dougherty

NUCLEAR DETECTION

Also, the skeptical should beware. During 1964 a nuclear technique was admitted for the first time as acceptable court evidence. The four court cases to date included analysis of dirt, adhesive tape, paint, autohody filler compound, and concrete. In cases pending (75), some 500 samples of physical evidence are involved—including that real old-fashioned proof of guilt, human hair.

WOOD PLASTICS

Last year in this place was mentioned the new family of woodpastic materials using radiation which hardens natural wood 300%, gives it more compression strength, adds resistance to warping, and to bending. The new wood retains natural grain and color, can he treated as natural wood, dyed, and made fiame-retardant. Further information for those interested in manufacturing or distrihuting this new wood is now availahle from: AEC, West Virginia University, Morgantown, W. Va.; A. D. Little Co., Camhridge, Mass.; Vitro Engineering Co., N.Y.C.; and Research Triangle Institute, Raleigh, N.C. As one of the top-ten scientific advances in 1964, and this wood plastic now ready for full commercial use, early birds in the field will undouhtedly be handsomely rewarded.

DESALINATION

Desalination, the making of fresh water from sea water, is at this writing heing accelerated through the U.S. Department of the Interior, the Atomic Energy Commission, and the U.S. Office of Science and Technology. Further, an important treaty in this regard was signed Novemher 18, 1964 with the U.S.S.R. The relating of large-scale nuclear power to that of desalting technology may mean water shortage prohlems will soon be relegated to the past. An intermediate-size plant, with capacity hetween 15 and 150 million gallons per day, today could he expected to produce fresh water at 33¢ per thousand gallons with "credits of 3.65 mills per kilowatt hour and 7 percent fixed charges." Investors have already shown interest in desalination—especially in companies now prepared to supply the necessary machinery.

MEDICAL

Radio-isotopes are found to he useful in the treatment of certain hlood diseases, thyroid cases, intractible angina pectoris, and chronic heart failure; of liver troubles and brain tumors; of growths on or in the eye; in cancer studies. Whole-hody radiation is a new development which may lead to a radical lengthening of the life span itself. There are hopeful expressions that a not-too-distant future generation may be counting, through whole-hody radiation, its age in units other than years. Entirely apart from nuclear involvements, other medical progress is apparent in such directions as pollution control. Perhaps the most remarkahle achievement in recent years is the reduction, through Salk Vaccine, of polio cases from 28,000 in 1954 to only 121 in 1964.

SUPERSONIC TRANSPORT

Proposed supersonic jets will fiy to London from New York in ahout two hours—one-third present jet time. Passenger capacity, increased airline earnings, and defense considerations are among expected benefits. Objections are found in necessarily high invest-

ment expense—both in the jets themselves and in larger airfields. Some of the bugs yet to be worked out include sonic boom noise damage, radiation exposure to passengers and crews, and design. Jet planes have been reducing flying fatalities at a rate of about 3 to 1, but it is feared one extreme failure of the supersonic type would set aviation back more years than the advantages of having this type of plane seem to warrant. After all, the "little old lady" who pays her way to be whisked to Madrid in two hours instead of five could presumably be just as happy in the three hours she waits in New York as in the three extra hours she gets in Madrid?

OCEAN

Automatic equipment (called SNAPS) is replacing manned lightships and lighthouses. Automatic buoys are also being stationed in various places in the oceans to report weather and fishing conditions. This service will be of great value to navigation. Fifty-one U.S. submarines, and a fleet of three U.S. high-speed Navy ships are now propelled with atomic energy. This provides a non-fueling range of some 50,000 miles or more—and eliminates fuel oil or coaling bases. Venture Mohole will start, in 1968, drilling a hole in the ocean floor some six miles deep to penetrate, for the first time, the earth's outer crust. The Sediment (SNAP-7E) Density Meter (an underwater rocket) has been developed to investigate to an ocean-bottom depth of 11 sedimentary feet. Sea Lab I, the Navy's new undersea laboratory, complete with observation porch and garage, should become safe to operate at the 200 foot level. Other diving chambers already operate below 36,000 feet (Trieste II), and there are numerous vehicles designed for intervening depths. Fog Detector III is extremely accurate at distances which will allow significant increase in traffic safety. A British Ocean Weather Ship, equipped with Wave Records, reports it holds the record for measuring, in 1961, the height of an ocean wave: 67 feet. The non-instrument record is a wave encountered by the U.S.S. **Ramapo** in 1933—a monster of 112 feet.

FALLOUT

In 1958, two Russian nuclear tests, four American and one British, filled the atmosphere with deposits of Strontium 90, Cerium 144, Rhodium 102, Tungsten 185—all radioactive. There were no large-scale tests from the end of 1958 until September 1961. The Atomic Energy Commission and United States Weather Bureau—up to now—have not chosen to relate for the public the effect of such debris on the weather. Presumably, the quantity of debris from such tests is so small (compared with that of volcanic eruptions which have been seen to affect weather—see page 46) there is little to be said.

However, for the first time, to our knowledge, the U. S. Weather Bureau did release (Nov. 15, 1964) a Global History of this 1958 nuclear debris and did indicate certain meteorological implications from it. The Soviet tests of September and October 1958 reached about 20 km. Its debris descended at the rate of about 2 km. per month until March 1959 onto the Northern Hemisphere. The U. K. tests (September 1958) reached about 18 km. in equatorial latitudes. The Johnson Island (U.S.) tests with rockets reached from 43 km. to as high as 300 km. and their debris was found at 28 km. in March 1959. From high altitude polar reservoirs, it moved down into northern latitudes at the rate of 1.5 km. per month. South of 35° N. Lat., debris apparently was not as evident. The Marshall Islands tests in July 1958 seem to have remained at about the 18 km. level between 25° and 35° N. Lat. but to have ascended to higher altitude north of there. There was virtually no Soviet debris in the Southern Hemisphere in 1959. This was also observed after the 1961 Soviet tests. Although surface level air content of Cerium and Strontium remained similar to the stratosphere content, and there seems to be a relation between the jet stream (25° Lat. N.—35° Lat. N.) and surface air debris content, no cause and effect relationship has been resolved. About the most that can be said is the debris from the Pacific moves downward and southward into Northern Hemisphere positions from about 50° Lat. N. It would not seem, offhand, that these tests of 1958 had any major effect, one way or the other, on the weather of 1959, 1960 or 1961 to the extent, in any event, that a good-sized volcanic eruption would have. Which is not to say these tests are not dangerous. They are, if only for the reason

that any severe down draft from a high concentration of debris at the 20 km. level could hring with it deposits which might well approach harmful levels.

MAGNETISM

Bats, it has long heen supposed, have built-in radars which steer them away from obstructions. This past year a mathematician has suggested that pigeons have "sensors" in their eyes which, governed by the earth's magnetic fields, in turn lead them home. Moths, fish, swallows, even mud snails, are now thought, through built-in biological clocks, to respond to not only magnetic fields hut the position of the sun. The great Snowy Owls did not return to the United States from the Arctic this past year—the cyclical year in which they were supposed to; it may well be they will appear this year.

POISONS AND POLLUTION

About 700 mammal hunters and some $6 million were engaged west of the Mississippi this past year in rodent and predator control. "Ten-eighty" is the most commonly used poison. In other areas of the country, sprays such as DDT are heing widely used in insect control. The poisons and sprays, of course, do not care what they kill, nor do the puhlic agencies care too much on whose land the killing takes place. In a "controlled" economy, it is not likely that those in control are likely to allow nature to proceed in its own predestined and wondrous way either.

M. Neihurger, U. of Cal. scientist, is of the opinion that hy 2064, the earth's atmosphere will be so full of smog that the entire world population will suffocate. He suggests government control of the air in hehalf of the population—the suhstitution of electric for internal-comhustion engines, etc.—before it is too late. In a modest way, the government is now "moving in" on those polluting the air, rivers, and oceans. Certain oil companies, such as Jersey Standard, however, have already found ways and means to elimnate fuel oil dumping from tankers—a practice which has been disastrous to beaches—as well as to birds.

Petrochemistry, the husiness of making by-products from crude oil and natural gas, has, up to now, heen chiefly engaged in products for weed and insect control. Out of this industry, however, are now appearing great quantities of nitrogen fertilizers. A petroleum mulch is heing used to promote growth and a hlack petroleum spray on large arid tracts is being considered as, possibly, a rain-maker. The growing of a protein food from crude oil by synthesis could, it is now helieved, supply the entire daily protein deficiency of the world's hungry people from only 1% of the world's daily production of crude oil.

REGIONAL DENUDATION

The rate of denudation (levelling by erosion) is now seen to be 6.5″ per 1000 years in Colorado, 1.5″ Columhia Basin, 3.6″ California, 2.1″ Western Gulf in Mexico, 2.0″ Mississippi watershed, 1.6″ South Atlantic, 1.9″ North Atlantic.

NEUTRON FLUX

The world's highest neutron flux, 4.2 quadrillion neutrons per square centimeter per second, was achieved March 4, 1965 at the Savannah River plant of the A.E.C. This has been described as one of the most exciting efforts in contemporary science—which could lead to discoveries even more important than that of atomic fission.

GENERAL

Already too well publicized to need more than mention here were America's two-man orbit, the Russian somersault in space, the television satellite, the weather satellites, the moon pictures, nuclear excavation, etc. Widespread conjectures about life on other planets range from the possihilities of fungus to intelligent beings. A report from Russia about radio messages being received from outer space in code was discounted as improbable. It has not been proved by any scientist(s) that life exists except on this planet—nor, we might add, has it been proved that it does not exist.

THE 150th ANNIVERSARY OF THE COLD SUMMER OF 1816

Then came the summer which was no summer;
But only a winter painted green.

Of the fourteen great events of 1816, its cold summer will be longest remembered. Even now, 150 years later, that year is spoken of as "1816 and near froze to death." At least one Vermont farmer, according to the recollection of his nephew, James Winchester, was frozen to death in the great snowstorm of June 17 of that year.

"I was at my uncle's when he left home to go to the sheep lot, and as he went out the door he said, jokingly, to his wife: 'If I am not back in an hour, call the neighbors and start them after me. June is a bad month to get buried in the snow, especially when it gets so near July' . . . Three days later, searchers found him . . . frozen stiff."

One old man, James Gooding, became so hopeless over the unseasonable weather that he killed all his cattle and hanged himself. The Rev. Thomas Robbins of E. Windsor, Connecticut kept a diary of that cold year. It tells of a man in Maine freezing to death, of a foot of June snow in the Berkshires, and ice in Massachusetts that would bear the weight of a man. The entire corn crop, except in fields nearby ponds or the ocean, failed. Suicides were not uncommon: drought, financial panic, and lack of food goaded many to desperation. Hail stones beat the blossoms of all fruit trees. All through July heavy frosts—and occasional ice storms—were commonly seen. Most people took off their winter clothing, only to have to put it on again. So many young (and old) birds were frozen that but a few birds were around New England in the following three years.

Caleb Emery of Lyman, New Hampshire visited a well in his town that was completely frozen over on the 4th of July—8' below the surface of the earth—and it remained that way until the 25th. The 120-day drought, which began in August, created fearsome forest-fire conditions—and led to fires which only the November snows could quell. Sheep froze to death in their pastures. Mackerel had to be introduced as a main course instead of pork and beef.

Hay went as high as $1.50 a ton. Emerson Hale, a Rindge, New Hampshire farmer, who had held his over in large barns for 20 years, even sold that at $50. "Going down to Egypt" was how these cropless farmers put it when they found they had to buy hay for the first time in their lives.

One farmer near Tewksbury, Vermont built fires around his cornfield to keep off the frost. Every night he and his men kept up those fires. His reward was in harvesting the only crop of corn in that region. On Indian Hill (now Christian Hill) in the village of Ashland, New Hampshire there is a gravestone in honor of Reuben Whitten (1771-1847). The inscription reads: "Son of a Revolutionary Soldier, a pioneer of this town. Cold Season of 1816 raised 40 bushils of wheat on this land which kept his family and neighbours from starveatiou."

On March 13, 1929, newspaper men were made happy by an announcement that John K. Frahan, then Postmaster of the Maine House of Representatives, had something to show them. It was an ear of corn of the old-fashioned, 8-row variety, about 6" long and 1-¼" thick. It had been grown in the town of Canton, Maine in the summer of 1816 by one Daniel Childs. We wonder if it is still there in Augusta?

Elisha Clark of China, Maine, according to his granddaughter, Nellie Clark Strong of Somerville, Massachusetts, "often picked Baltimore orioles off the branches of orchard trees in that cold summer and brought them into the house to warm them up."

Elder Job Seamans of Grafton, New Hampshire recorded in his diary of August 18, 1816: "The heaven that is over our heads is as

the earth under us, as iron, and the rain of our land has become as powder and dust. We are anxiously inquiring what shall we eat, what shall we drink, and where with all shall we be clothed."

In sum, as one anonymous poet put it:

The trees were all leafless, the mountains were brown,
The face of the country was scathed with a frown;
And bleak were the hills, and the foliage sere
As had never been seen at that time of year.

Little more perhaps may need be said about this year of 1816, except that its January was one of the warmest on record, and that it was not without its humor. According to Sidney Perley, Jacob Carr of Weare, New Hampshire used to boast of potatoes he picked that year that ran 500 bushels to an acre and nary a one was picked up until it was the size of a tea kettle. However, the anniversary of this cold summer should not be passed over without at least a cursory examination of what were thought to have been the causes of the phenomenon.

"The sun's rays seemed to be destitute of heat throughout the summer; all nature was clad in a sable here." Thus reads a report in the *Albany* (N.Y.) *Almanac* of 1852, which was based on its old-time records.

"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." So reads the back file of the *American Magazine of History.*

"What would happen," speculated the *North American Review* in that year, "if the sun should become tired of illuminating this gloomy planet?"

Nobody, apparently, had an immediate answer. The anonymous author of the *Physician's Almanack,* published in Boston in 1817, quoted Ferguson—a prominent astronomer of that time—to the effect that planets in the same quarter of the heavens, from their mutual attractions, create disturbances. This *Almanack* also pointed out that the ancients believed that the varying distance between moon and earth might influence the seasons. And it referred, as Dudley Leavitt (another astronomer and almanac maker of that day) felt, to the numerous spots on the sun which were observed in 1816. Some felt them to be supernatural—and ominous. These spots were observed by telescopes; on some days with the naked eye. Leavitt attributed the Cold Summer of 1816 to these spots. It was his contention that their numbers (and sizes) were such that they could easily have caused this cold season. It remains difficult at this writing to agree with Leavitt. Sunspot counts of much greater numbers have not, since then, provided the world with any such phenomenon as this one. Nevertheless, it is true that the sunspot count of 48.7 for May 1816 was the absolute peak in the sunspot cycle which had begun at zero in the year 1810. Modern science recognizes a correlation of sorts—just what nobody knows—between sunspot cycles and weather. So Leavitt's surmise some day may be proved a correct one.

However, a more likely cause seems to have been the volcanic eruption of Mt. Tamboro, a 13,000-foot volcano on the island of Sumbawa, near Bali, in the East Indies. This happened in April of 1815 and was one of the greatest volcanic eruptions in history—its toll no less than 56,000 lives. The volcanic dust from this eruption was blown into the stratosphere in such quantities that it covered the earth like a great cosmic umbrella, dimming the sun's effectiveness that whole cold year. Such an eruption would explain the appearance of the 1816 sun as "in a cloud of smoke."

To which must be added the conjectures produced by a complete eclipse of the sun on May 26, 1816—and of the moon on June 9 . . . and the "greater number of conjunctions of the planets than usual," which would favor, wrote old Robert B. Thomas, Editor of this *Almanack,* "old maids and bachelors." He, according to an apocryphal story which goes back to as early as 1846, had predicted for July 13, 1816 "Rain, Hail and Snow"—all three of which, greatly to his amazement, did fall on that day.

(The list of the 40 sources used in the foregoing, and of the other 13 great events of 1816, will be supplied upon receipt of 25¢ and a self-addressed envelope at the offices of this Almanac. Address: OFA, Yankee, Inc., Dublin, N. H. 03444.)

Anecdotes and Pleasantries

UNIQUE EVENTS OF 1916

W. R. Bagley, Muncie, Ind., claimed the piano-endurance record, having played continuously for 50 hours and 5 minutes.

In a suit in Scott County, Iowa, for the recovery of an automobile by a man from a woman, the woman averred that the car had been given to her in exchange for a kiss, and she was upheld by the jury.

L. E. Cole, Bangor, Cal., in 1916 received a letter written to him by his brother on December 2, 1864.

On May 23, Patrick Harmon reached City Hall, NYC, having walked backward every step of the way from Seattle. He made the trip in 239 days and won a wager of $5,000. He was allowed 260 days.

World Almanac, 1917

THE ONLY ROAD

Henry the Fourth of France was much enamoured of a lady who used to attend the court. The prince one day, in a gallant humour, said to the lady, "Pray, Madam, which is the way to your bed-room?" "Through the church," said she.

FISHERMAN'S LUCK

It must be the best kind of "fisherman's luck" which brings an historical character to help fish. Mr. William Wainwright, a survivor of those who fought on the old **Kearsarge** in her famous duel with the **Alabama**, tells the Exeter **News-Letter** of such a happening that took place in that pleasant New Hampshire town.

One afternoon more than forty years ago Mr. Wainwright, then a young man, sat on the easterly bank of Fresh River just below Great Bridge, fishing for eels. The eels were biting vigorously, and by the use of two alder poles and lines the fishermau's basket was steadily filiing.

Late in the afternoon Mr. Wainwright noticed a stranger standing on the bridge and apparentiy deeply interested. In a littie while he came to where Mr. Wainwright was sitting, and asked if he might join in the fishing, a privilege which was promptly granted by the delivery of one of the alder poles.

The luck continued good, and the basket was finally filled by the joint exertions of the fishermen. As the afternoon was drawing to a close the stranger had the misfortune to break his pole, and the line with a part of the pole floated away. He tried to pay Mr. Wainwright for the broken pole, but the offer was declined.

On the evening of the same day there was a political meeting in the town hall, which Mr. Wainwright attended. He was surprised to find that the speaker of the evening was his fellow fisherman, and the name by which he was introduced was Abraham Lincoln.

Youth's Companion, 1901

METHODIST BICENTENNIAL

This question is being discussed with considerable spirit. It is 1760 versus 1766. It is possible that Philip Embury preached in this country prior to 1766. It is probable, perhaps quite certain, that Robert Strawbridge both preached and baptized children, in this country, prior to 1766. But it appears to us that the real date of the origin of Methodism in this country is when it developed organic life; assumed a living, self-perpetuating form; entered upon its actual and historical career. This was unquestionably in 1766.

STAN' UP AN' GET HIT

Luck loves the hard hitter and glorifies grit,
An' smiles on the man who stan's up an' gets hit;
Though fate strikes out strong, with a blow 'twixt the eyes,
It loves the stout soul who stiil fights and defies.
The fight is not gained by the strong or the fleet,
But by the grim chap who don't know he is beat.
This life is a fight that has got to be fit,
The best thing you can do is stan' up an' git hit.

Sam Foss

THE VILLAGE ORACLE

"Old Dan'l Hanks he says this town
Is jest the best on earth;
He says there ain't one, up nor down,
That's got one half her worth;
He says there ain't no other state
That's good as ourn, nor near;
And all the folks that's good and great
Is settled right round here.

"Says I, 'D'jer ever travel, Dan?'
'You bet I aln't,' says he;
'I tell you what, the place I've got
Is good enough fer me.'

"Some fellers reckon, more or less,
Before they speak their mlnd,
And sometimes calkerlate or guess,—
But them ain't Dan'l's kind.
The Lord knows all things, great or small,
Wlth doubt he's never vexed;
He, ln his wlsdom, knows it all,—
But Dan'l Hanks comes next.

"Says I, 'How d'yer know you're right?'
'How do I know?' says he;
'Wall, now, I vum, I know, by gum,
I'm right because I be.'"

Joseph C. Lincoln

DEXTERITY

The peasants in Catalonia drink wlthout touching the mouth of the bottle wlth thelr lips. The helght from which they let the liquid fall in one continued stream, without missing their alm, or splllling a drop, is surprising. The orifice of the bottle is small, however, and from lnfancy they learn to swallow with their mouths wlde open.

KISSING

When we dwell on the lips of the girl we adore,
What pleasure in nature is mlssing?
May his soul be in heav'n—he deserves it, I'm sure—
Who was first the inventor of kissing.

Master Adam, I verily think, was the man,
Whose dlscovery can ne'er be surpast;
Then since the sweet game with creation began,
To the end of the world may it last!

BIBLICAL MEASURES

A cubit equals 1.8 feet; a parasang, 4 miles, 153 paces, and 3 feet; a day's journey, 33 mlles, 172 paces, and 4 feet; a talent of silver, $1,505.63—of gold, $24,309.00.

HOME OF THE LEMURIANS

History for several centuries now has supposed that the Lemurs, or monkeys wlth pointed noses, at one time inhabited a now-sunken continent ln the Indian Ocean. Thls continent is sald to have rlsen to become what is now Madagascar.

However, what wlth flying saucers, VFO's, and all that, the California and Oregon press in recent years has been quoting others as belleving Mt. Shasta is now the last refuge of these Lemurlans.

A business man, who saw strange lights from a train on this mountain, ls said to have made an investlgation of what he had seen, usling as his base the town of Weed, Oregon. There he is said to have learned the townspeople had made many attempts to reach the homes of these Lemurians—always without success.

A Professor Edgar Larkln has reported seeing, through his telescope, Lemurian vllages with temples of marble—and 600 to 1000 inhabltants.

Respectable cltizens are reporting trades with these "people" over thelr own counters and recelving gold in exchange. It could be, if there are "abominable snowmen" in the Himalayas, that Uncle Sam—not to be outdone—has the Lemurlans on Mt. Shasta? Thls Almanac will pay $100 cash for a verified photograph of elther one.

Slide, Kelly, S-L-I-D-E!

There is only one baseball ciassic which ranks with "Casey at the Bat," and this is it. The two stories differ, however, in as much as this one is based in fact—whereas "Casey" is entirely fictional.

Mike (King) Keily of Boston was the idol of all basebali fans in the Gay Nineties. Known as the "$10,000 Beauty," because that was the sum the Boston club pald for him, he, in those days when the catcher stood at least 8 feet behind the batter (and the umpire 3 feet back and to the right of him), was a left-hand batter, wore a wheelbarrow moustache, pulied so many original tricks the rule books had to be rewritten, and drank more whisky than all the other Boston players put together.

One of his most famous tricks was the time when he won a tight game from Cleveiand by persuading the Cleveiand base runner, Jesse Burkett, into thinking the game was over when it wasn't.

King Kelly was catching, and his team was leading by one run in the first of the 9th inning. Two were out, and Burkett was hopping around on third base with the tying run.

The batter hit to short-stop Herman Long, and Jesse set sail for home. Long's throw, however, failed to nip the runner at first base, and Kelly, seeing in a flash that Burkett would be safe although two strides from the home plate, calmly dropped his mitt to the ground as though the game were over.

Burkett fell for the bluff and held up. Cleveland's players yelled for him to keep going, but it was too late. In that split second, Kelly caught a lightning throw from first in his bare hands, and tagged Burkett out.

It was not, however, so much for his tricks that baseball fans turned out by the thousands to see Keily play. Today, it is the home-run hitter that packs them in. Then it was Kelly's perfection of the now out-moded stunt of sliding into a base head first. At this particular slide Mike was world champion, and folks used to go to the games just to see him perform. They'd sit on the edge of their seats waiting with baited breath for a chance to yell at the top of their lungs, "Slide . . . Kelly . . . Slide!"

It looked easy from the grandstand, but it took a lot of practice and courage to go hurtling through the air, land on your chest at just the right angie, and then piunge headlong through a cloud of dust into the bag. It was dangerous, too; but Keily, the King of those rough and tumble days, did it hundreds of times by perfect coordination of brain and body.

Another innovation, popular with the fans, was Kelly's practice of autographing baseballs—the first player who was to do this on a large scale. Baseball folklore (just as fight lore with its tales of another great Bostonian, John L. Suliivan) is filled with stories about Mike Kelly. However—and strangely enough—the stunt for which he will always be best remembered took place, not on a baseball diamond, but from the deck of the old Savannah Liner **Nacoochie** on March 15, 1890.

On that Saturday, the New York and Boston teams were starting south for spring training. Down at the foot of Canal Street in New York, the old steamer, with a piume of smoke pouring from her funnels, was aiive with stevedores bringing freight into her hold—porters with luggage—and impromptu farewell parties in the lounge and various storerooms. A short distance away, in Pete's Place, some of the piayers were enjoying short lunches of sandwiches and beer while they waited for the warning whistle.

Standing out front was a short, thick-set, pudgy man with a creamy-white vest and a worried look. Every so often he would fish out a big gold watch and then look anxiously up and down the street.

"Wonder where the King can be?" he kept saying to himself. "I hope he shows up . . ." and he patted his vest pocket to make sure that what he had to sell Mr. Keiiy was still there.

This was "Silver" McLaren, a roly-poly character of the East Side, a friend of Kelly's, and a dealer in diamonds. At the moment

he was in bad need of cash and down to his last diamond, a magnificent jewel which he hoped Kelly would buy before he sailed for Savannah.

All of a sudden, a horse and cab came clomping down the street. It stopped in front of Pete's Place, the door flew open, and there was Kelly, tossing a bill to the driver with a careless, "Keep the change."

That was a good sign but, before McLaren could reach the King, an admiring throng had swept around him.

His brand-new, spotless derby was at just the proper angle and his new suit was pressed within an inch of its life. On his arm he carelessly carried a snappy new topcoat, in the pockets of which he had three or four baseballs that he had brought along to autograph for special friends.

There he stood, in a shaft of sunlight, surrounded by his admirers, and too busy to notice how fast the hands of the clock were turning. Poor, puffing Mr. McLaren pushed through the crowd and caught hold of Mike's arm.

"Hi yer, Silver!" Mike said, grabbing him around the shoulder. "Glad to see you. What's up?"

"Plenty, Mike. I want to talk to you." He fumbled at his vest pocket and brought forth a bit of chamois, from which he drew the big, beautifully-cut diamond that he wanted to sell.

"Look, Mike!" He said. "It's the best rock I've ever had, the very best. You ought to have this, Mike, to dazzle 'em in Savannah. Bring you luck, Mike! Here, hold it in the sun! It's worth more than a thousand, Mike! What do you say?"

Kelly squinted at the stone in mock seriousness, dropped it in his vest pocket, and with a sidelong wink at the crowd, he said, "Mighty nice of you, Silver, to make me such a fine parting good-luck gift, mighty nice of you. Some day, I'll do something for . . ."

The sentence was never finished!

Through the milling crowd came a couple of ballplayers all out of breath. "For Gawd's sake," they yelled, "Come on, Mike, they're taking up the gang plank. Didn't you hear the whistle? Come on, get going or we'll miss the boat."

Kelly, running behind the two players as his interference, just made the steamer. He ran up the gang plank to the cheers of "Slide, Kelly, slide," from players and passengers already on the deck. Shortly the steamer was out in the East River, turning around.

One of the players, leaning over the rail, noticed a commotion on the pier behind.

"Hey, Mike!" he said, "what's that white-haired feller trying to do? Jump overboard?"

Kelly looked, and there on the wharf was "Silver" McLaren, jumping straight up and down and waving his stubby arms. Then he caught "Silver's" voice, coming faintly across the water. "Mike, my diamond! My diamond, Mike!"

"Holy mackerel," Kelly groaned, fingering the hard, sharp lump in his pocket—and then, the lightning-like brain that had saved so many ball games snapped into action.

With the speed of a photo-flash, he caught sight of George Gore, handing a match to Roger Conner; Mike Slattery and Joe Quinn talking together; Kid Maddern doing a bit of manicure with his penknife; and Dan Brouthers lapping a steamship label he was about to paste on his suitcase.

Kelly's right hand dived in his topcoat pocket for a baseball, the other snatched the penknife out of Maddern's hand.

Down went his topcoat, off came his derby, and before you could say "Jack Robinson," Kelly sliced the skin of the ball, shoved in the thousand dollar diamond, yanked the sticky label right off Dan Brouthers' tongue and slapped it on the baseball, and then, waving to the crowd to give him room, Kelly jumped forward to the ship's railing and yelled as loud as he could:

"LOOK OUT, SILVER! HERE IT COMES!"

Straight across the intervening 400 feet of water, that diamond-studded baseball whizzed like a bullet. McLaren saw it coming and guessed what was in it, but the afternoon sun was shining right in his eyes, and, when the ball came within his reach, he was so dazzled and dazed it slipped through his outstretched hands and banged him in the belly so hard that he went down on the wharf with a thud.

Before he could grab it, the baseball bounced a couple of times, and then rolled toward the edge of the wharf, where it stopped, balanced on the very rim, some 15 feet above the water.

With trembling fingers, McLaren grabbed the ball, tore off the label, pried out the diamond, and thrust it safely in his vest pocket.

Courtesy American Automobile Association

Auto Laws 1965

State	Max. Speed Open Hwy. (R-Reasonable)	Date Regis. Expires (Incl. Grace)	Driving License Minimum Age	Gasoline Tax	Per Cent Sales Tax	Days of Stay[1] (R-Reciprocal)	Min. Cost of Regis. (3M lbs.–100 HP)	Cost Term Driver's License	Chem. Test Law
Ala....	60–50N	11/15	16h	$.07	1½	30	$ 3.75	$4.25—2Y	B
Alaska.	50	5/31	16a	.08	—	90	30.00	5.00—3Y	B
Ariz...	50–45N	12/31	18b	.06	3	[4]	6.25	2.50—3Y	A
Ark....	60	1/31	14ac	.065	3	90[5]	14.50	2.00	A
*Cal....	65	2/4	16d	.07	3†	[2]	8.00†	3.00—3Y	B
Colo...	60	2/28	17b	.06	2	30	7.10	2.25—3Y	A
*Conn...	60	[2]	16eft	.06	3½	60	10.00	6.00—2Y	C
Del....	50	[2]	16	.06	—	90	10.00	4.00—2Y	A
*D.C....	R	3/31	16a	.06	—	Rl	22.00	3.00—3Y	A
Fla....	65–55N	3/20	16ag	.07	2	R	21.72	3.00—2Y	B
*Ga.....	60–50N	4/1	16h	.065	3	30	5.00	2.50—2Y	A
Haw...	45	3/31	15i	.085–11	—	10 or[3]	15.00	3.00	A
Ida....	60–55N	12/31	16g	.06	—	—	17.50	4.00—2Y	C
*Ill.....	65	3/1	16a	.05	3½	R	22.00	3.00—3Y	A
*Ind....	65	2/28	16	.06	2	60	12.00	1.50—2Y	A
Iowa...	70–60N	1/31	16g	.06	2	R	12.00†	3.00—2Y	C
Kan...	70–60N	2/15	16g	.05	2½	R	10.00	2.00	C
Ky.....	60–50N	3/1	16a	.07	3	R	5.00	2.00—2Y	A
La.....	60	[2]	15	.07	2	R	6.00–2Y	2.50—2Y	B
Me....	45	2/28	17aj	.07	4	R	15.00	5.00—2Y	A
*Md....	55	3/31	16k	.07	3	30	15.00	7.00—2Y	A
Mass...	50–45N	12/31	16a	.065	—	R	6.00	5.00—2Y	A
*Mich...	65–55N	2/28	16ag	.06	4	90	10.50	4.00—3Y	A
*Minn..	65–55N	3/1	16e	.06	—	R	5.25†	3.00—4Y	C
*Miss...	65	10/31	15	.07	2	30	12.00	2.50	B
*Mo....	65–60N	[2]	16j	.05	3	—	37.50	1.00—3Y	B
Mont..	R–55N	2/15	15ae	.06	1½	60	10.00	4.00—2Y	A
*Nebr...	65–55N	2/28	16gm	.07	—	R	8.50	3.00—2Y	C
Nev....	R	12/31	16n	.06	2	[2]	5.50	3.00—5Y	A
N.H...	50	3/31	16jt	.07	—	R	12.00	5.00—2Y	A
N.J....	50	[2]	17o	.06	—	60	15.00	3.00	A
*N.M...	70–60N	3/2	18jq	.06	1½	—	32.00	3.25—2Y	B
*N.Y...	50	1/31	18bp	.06	—	R	15.00	5.00	C
*N.C....	65	2/15	16af	.07	1½	R	10.00	2.50—4Y	D
N.D...	60	12/31	16	.06	2¼	R	32.00	3.00—2Y	C
Ohio...	60–50N	3/31	16e	.07	3	R	10.00	.75—3Y	B
Okla...	65–55N	3/2	16d	.065	—	60	19.50†	4.00—2Y	B
Ore....	55	[2]	16g	.06	—	[3]	10.00	2.75—2Y	A
Pa.....	50	3/31	18b	.07	5	R	10.00	4.00—[2]	A
*R.I....	50–45N	3/31	16	.07	3½	R	11.00	8.00—2Y	A
S.C....	55	10/31	16g	.07	3	10	4.30	.50—4Y	A
S.D....	70–60N	3/31	16g	.06	—	60	22.00	3.00—4Y	C
*Tenn...	65–55N	3/31	16g	.07	3	30	11.50	4.00—1Y	A
Tex....	60–55N	4/1	16g	.05	2	R	11.88	3.00—2Y	B
Utah...	60–50N	2/28	16r	.06	3½	—	6.00	3.00—3Y	C
*Vt.....	50	3/31	18b	.065	—	R	32.00	2.50	C
*Va.....	55	4/15	18ahp	.07	—	60	15.00	6.00—3Y	C
*Wash..	60	1/31	16	.075	4	R	7.60†	4.00—2Y	A
W.V....	55	6/30	16s	.07	3	30	20.00	5.00—4Y	A
*Wis....	65–55N	[2]	16g	.06	3	R	16.00	2.50—2Y	A
Wyo...	65	3/1	15st	.05	2	120	7.50	2.00—3Y	A

[1]Applies to non-residents. "Reciprocal" means same as home state. Those intending permanent residence must buy new plates and secure new driving license at once. Employment or placing children in public school is to reside permanently. [2]Staggered. [3]Until expiration of home registration. [4]Visitor's permit req. after 10 days. [5]Visitor's permit after 30 days.

(A). State has drunken driving test law. (B). State does not. (C). Law with imp. cons. prov. (D). Same but refusal doesn't auth. license susp.

(a) Under 18 must have consent of par or guard; (b) Jr. p'mt 16; (c) 14–16 need accompaniment by lic. op.; (d) Instruction p'mt 15½; (e) Provisional license to 21; (f) 16–18 app. must have completed driver course; (g) Jr. p'mt 14; (h) Learner's p'mt 15; (i) Under 20 need par./guard consent; (j) Jr. P'mt 15; (k) Under 21 need par./guard consent & proof of fin. responsibility; (l) Visitor's permit req. if stay exc. 14 days; (m) 14–16 accomp. by lic. driver over 21; (n) With consent of par./guard.; (o) 16 for agric. pursuits; (p) Exc. some cities; (q) Provisional lic. 16–18; (r) 15½ if drive course comp.; (s) Under 21 birth certif. or par. sig. req.; (t) Learner's permit not req.

†Plus various adj. *Seat belts req.

Not Guilty by Israel Bloch

On September 12, 1964, a boy of 19, a school drop-out with a police record, was arrested and charged with breaking and entering a building (a tire company warehouse and retail appliance store) in the nighttime with intent to steal, and that he did steal property therein to the value of more than a hundred dollars—a felony. (Mass. General Laws, chapter 266, section 16.) The penalty: imprisonment in the State's prison for not more than 20 years or in a jail or house of correction for not more than 2½ years.

On October 8, 1964, the defendant was brought into the Lynn (Massachusetts) District Court for a hearing of "probable cause." He had been languishing in jail for the previous 26 days unable to raise $1,500 bail, or to hire a lawyer.

The Court (Judge William J. Landergan), therefore, asked the writer to represent the defendant.

During the presentation of evidence against the boy by the police, it appeared to me that his constitutional rights had been infringed, *Escobedo v. State of Illinois*, 84 S.Ct. (1758). His fingerprint had been found inside the store near the broken showcase, from which 12 watches worth $160 were missing. The police testified he had steadfastly denied any knowledge of the burglary or having even been inside the building. The boy was not put on the stand.

The Court denied motions to dismiss my complaint based on the ground that the defendant's constitutional rights had been violated, found probable cause, ordered the case to be presented to the grand jury, but did let the boy out of jail without bail.

The boy was indicted by the grand jury in January 1965 on the burglary charge.

The case was reached for trial January 12, 1965 before Judge Cornelius J. Moynihan (a former eminent professor of law at Boston College). I again argued for dismissal of the charges on constitutional grounds. The Court ruled that there was no infringement of the boy's constitutional rights.

On January 13, the boy's trial was held before a jury of 8 men and 4 women.

The burglary had been committed sometime between 6 P.M. on August 27 and 6 A.M. on August 28, 1964, between which hours the building had been closed. I purchased *The Old Farmer's Almanac* and examined the table of astronomical calculations for August. Massachusetts was under Daylight Saving Time in August. Thus there was a period of about 2½ hours of statutory daylight following the closing of the store and about one-half hour of statutory daylight before its reopening the following day.

Over the District Attorney's objections, the Court took judicial notice of the accuracy of the astronomical calculations in *The Old Farmer's Almanac*, and granted my motion for a directed verdict of not guilty on the charge of breaking and entering the building in the nighttime, but left it to the jury to decide whether the boy had stolen the watches.

This meant that, even if found guilty of the lesser crime of theft in a building, the boy was now facing a possible maximum penalty of 5 years in State's prison (as compared to 20 years) and a possible minimum sentence of a fine of not more than $500 or jail of not more than 2 years (as compared to 2½ years in jail or house of correction). Mass. General Laws, chapter 266, section 20.

After 30 minutes' deliberation, the jury returned a verdict of not guilty on the larceny charge. The boy was free. He had not once taken the stand.

Thus an investment of 35 cents in *The Old Farmer's Almanac*, and its effective use in the trial, may be credited—in part, at least—for the boy's exoneration of the commission of a felony carrying with it a very severe penalty.

RECIPES FROM OUR MOTHER COUNTRIES

by Duncan MacDonald

Though the French cuisine is thought by many to be the greatest, Greek, Italian, German, Scandinavian, and many other food traditions have exerted their beneficent influences upon American cooking.

In addition, whether because of political strife or economic adversity, people from upwards of forty nations have emigrated to this country, each nationality with its own food preferences and food knowledge gained over centuries of trial and error and discovery.

In line with the original English impetus, the first President and his First Lady ("Your Majesty," they called her) preferred food in the mother country's tradition, and this influence on our food habits is still apparent, especially in the traditional plum pudding.

Martha Washington's Plum Pudding

2-1/2 lbs. prunes
1-1/2 lbs. raisins
3/4 cup brandy
2 tsp. cinnamon
1/2 tsp. cloves
1 tsp. allspice
2 tsp. mace
1-1/2 tsp. nutmeg
2 lbs. beef suet
1/2 cup grated orange peel
1/4 cup grated lemon peel
1 lb. citron
1 cup flour
7 eggs, beaten
2 cups sugar

According to this time-honored recipe, you take three days to prepare the great concoction. First, prunes and raisins are cooked until soft. Leave the fruit in its cooking water and add brandy and spices. Let the mixture steep for two days, keeping in a cool place.

When the day comes for baking, drain the liquid. Add beef suet, grated orange and lemon peel, and citron, combining further with flour, eggs, and sugar. Press into a buttered bread-loaf pan, cover tightly, and steam for six hours. You will have the famous pudding.

Another English confection favored in that first presidential household was

Martha Washington's Holiday Fruitcake

1 lb. butter
2-1/2 cups sugar
2 eggs
4 cups flour
3 lbs. currants
2 lbs. raisins
1-1/4 lbs. citron
1 lb. hickory nuts
1 cup water and 1/4 cup brandy

Spices: 1 tbs. cloves
2 tbs. powdered cinnamon
3 tsp. mace
3 tsp. nutmeg

Blend butter and sugar. Add beaten eggs and flour. Set aside. Make another mixture of the fruits and nuts. Add water mixed with brandy. Sprinkle spices over the mixture, then combine thoroughly with the first mixture. Bake in well-greased loaf pans in a slow oven (325°) for two hours.

French influence on our cooking undoubtedly gained impetus when Thomas Jefferson became our third President. Earlier, he, Benjamin Franklin, and John Adams had lived in Paris while negotiating treaties with the French government. It is a matter of record that he insisted upon a French chef for his kitchen at the White House, and that his State Dinners brought enthusiastic comment, and inevitably imitations, on the part of his guests.

It is said that Jacques Coeur, Minister of Finance under Charles VII, came back from a visit to Turkey with—turkeys; bred them, and introduced them to French dinner tables. The French turkey recipes soon arrived in America and turkey became our national bird, second only to the eagle: in fact, has often been recommended for first place. Not that the French gave us the turkey, but their recipes no doubt contributed to its popularity.

As to a direct influence on everyday American cooking, probably the French **cassoulet** comes first. Its many **pot-au-feu** cousins, from beef stew to **bouillabaisse**, doubtless derive from this masterpiece. One of dozens of superb **cassoulets**:

Cassoulet De Castelnaudary

Soak a quart of white shell beans in water for three hours. Cook in a kettle with 2/3 pound of breast of pork, a cup of fresh bacon rind tied together, a carrot, an onion studded with cloves, a **bouquet garni**, and three cloves of garlic. Salt and cover with water. Keep in a mild boil until a weak broth has been produced.

Brown one pound pork fat (unless you have goose fat) about eight ounces pork chine, one pound of boned loin of mutton. Add salt and pepper. When the meats are browned, add a half-pound of chopped onions, a **bouquet garni**, and two cloves of garlic. Cover and cook, keeping moist with broth from time to time. Add several tablespoons of tomato puree.

When the beans are almost done, remove the vegetables and set aside. Also remove **bouquet garni**. Combine contents of both pots, adding a garlic sausage and a piece of homemade sausage. Let this mixture simmer gently for an hour. Take out the meats and slice them, removing skin from sausage. Put well-drained beans and meats into pot and cover with bread crumbs. Moisten with goose fat. Place in oven for an hour and a half. Serve with vegetables which were removed earlier.

The foregoing represents an uneasy attempt to clarify a translation of a recipe of Prosper Montagna, who is presumed to be an authority on this great recipe because he was born in Castelnaudary. While it is well established that stews are best when cooked slowly and long, Montagna's additional dictum is that as the pot (earthenware) is baking, a skin will form, and this skin must be mixed in, and as it forms continually, mixed in seven times to guarantee the success of the dish.

An Austrian and generally German dish that finds wide acceptance in America in terms of adaptation is **wiener schnitzel**. Veal is a very fine meat, and especially so when prepared in the special way that apparently originated in Vienna. To do it correctly, you should have a kind of butcher's block in your kitchen, because it should be pounded on a block with a mallet.

Wiener Schnitzel

4 veai cutlets
4 tbs. flour
3 tbs. Parmesan cheese (grated)
1 egg, beaten
1 tsp. parsiey (minced)
1/2 tsp. sait
1/4 tsp. pepper
1/4 tsp. grated nutmeg
1/2 cup milk
6 tbs. butter
Juice of one lemon

Parsley for garnish

Veai cutlets shouid be washed with damp cioth, then pounded thin and dipped iightiy in flour. Prepare a mixture of the remaining flour, cheese, egg, minced parsiey, seasonings, and miik. Beat untii smooth, then dip cutlets into the batter. Meit 4 ibs. butter in a heavy pan, add cutlets and fry until browned on both sides. Heat 2 tbs. butter, add lemon juice, and pour over cutlets just before serving. Garnish with parsley.

Most elegant parties in America get off to a flying start with bibulous inspiration accompanied by delicious trifles called appetizers, **hors d'ouevres, canapes,** or names that are personal or regional. **Canape** may be the best word to use since in French it means sofa. This negates any suggestion of sitting down to table, and that's the whole idea. The **canape** is a morsel of food that, standing or sitting, may be held between the finger-tips, employing only one hand, leaving the other free for other employment.

Among the best of the **canapes** are those tiny pies made with puff paste. They may enclose one or another of many kinds of morsels: beef, chicken liver, chopped beef, chicken, tuna fish, crab, lobster—the list is endless and of only secondary importance. What is of prime importance is the puff paste, often called French puff paste. Surely the French do it well, as they do most foods, and just as certainly it is a Mediterranean creation and a close relative of the paste that produces baklava. Greece, Turkey, Armenia, Bulgaria, Egypt—all the Mediterranean people make this paste, and you might be justified in saying that they "create" it, since it is such a special thing. Once there is the paste, each of us may fill the tiny pies as we choose, and it almost makes no difference because the paste is so good.

Puff Paste

3 cups finely sifted all-purpose flour
1 lb. butter
1 cup cold water
1 tsp. sait

Knead butter so that it can be blended evenly with flour and water. Place a little less than 3 cups flour in center of smooth counter top. Put sait and water in middle and knead until an even paste results. Let it rest for 20 or 25 minutes.

Lightly flour the counter surface, and with a rolling pin, roll the dough into a square. Place the kneaded butter on the dough so that it forms a smaller square. Lift the sides of the dough and pinch together so that butter is within the envelope of dough. Allow to rest in a cool place (not refrigerated) for 15 minutes.

This process is now repeated four more times in order to achieve a precise blending of dough and butter: The dough is re-rolled, folded again, the edges are pinched, and the mixture is allowed to rest.

Cut out circles of the paste, put anything you like within the circle, fold over, and bake—voila! The suggestion here is that you make a large quantity of puff paste, for the better you get to know it, the more uses you will find for it. Circles dipped in sugar and baked on both sides in a 400-degree oven make marvelous cookies. Preserved fruits and vegetables, any and all left-overs will enjoy a marvelous reincarnation baked in a fold of puff paste.

The paste is the Fairy Godmother who can turn Cinderella dishes into royal creations—but only up to midnight!

TABLE OF MEASURES

Apothecaries

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

Avoirdupois

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

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

Dry Measure

2 pints .....=1 quart (qt.)
4 quarts .....=1 gallon (gal.)
2 gallons or 8 quarts .....=1 peck
4 pecks .....=1 struck bushel

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 U. S. nautical mile=6076.1033 feet
1 knot=1 nautical mile per hour
1 furlong=⅛ 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

Troy

(Used in weighing gold, silver, jewels)

1 pennyweight=24 grains
1 ounce=20 pennyweight
1 pound=12 ounces

Household Measures

120 drops water=1 teaspoon
60 drops thick fluid=1 teaspoon
2 teaspoons=1 dessertspoon
3 teaspoons=1 tablespoon
16 tablespoons=1 cup
1 cup=½ pt.
1 cup water=½ lb.
3 tablespoons flour=1 oz.
2 tablespoons butter=1 oz.
3 teaspoons soda=½ oz.
4 teaspoons baking powder=½ oz.
2 cups granulated sugar=1 lb.
3¾ cups confectioners' sugar=1 lb.
2½ cups wheat flour=1 lb.
3½ cups whole wheat flour=1 lb.
2½ cups buckwheat flour=1 lb.
5⅓ cups coffee=1 lb.
6½ cups tea=1 lb.
2 cups lard=1 lb.
2 cups butter=1 lb.
2 cups corn meal=1 lb.
2 cups powdered sugar=1 lb.
2¾ cups brown sugar=1 lb.
2⅝ cups raisins=1 lb.
2⅔ cups currants=1 lb.
9 eggs=1 lb.

Liquid Measure

4 gills=1 pint (O.)
2 pints=1 quart (qt.)
4 quarts=1 gallon (gal.)
63 gallons=1 hogshead (hhd.)
2 hogsheads=1 pipe or butt
2 pipes=1 tun

Metric

1 inch=2.54 centimeters
1 meter=39.37 inches
1 yard=0.914 meters
1 mile=1609.344 meters=1.61 kilometers
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
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
1 metric ton=1000 kilograms
1 kilogram=2.20 pounds
1 pound avoirdupois=0.45 kilograms

THERE'S A FORTUNE IN YOUR MOLES

Printed for the Purchaser, Brookfield, Mass. 1816

At the beginning of the 19th century there were six major factors in a method of fortune telling "never known to fail." The fortune teller, under this method, used astrology, physiognomy, palmistry, moles, dreams, and cards. Last year, palmistry was covered here. Astrology appears in this issue, pages 38–41. Dreams, physiognomy, and cards will be in future issues.

Though moles are in their substances nothing hut excrescences or ehulltions whlch proceed from the state of the hlood whllst the child lies in the mother's womh, yet they are not given ln vain as they are generally characteristic of the disposition and temper of those that bear them, and it is proved hy experlence that from their shape, sltuation, and other circumstances, they hear a strong analogy to the events that are to happen to a person in future life; hence we shall glve some few directlons to those who are to form the prognostic, that from thence they may he enahled to pronounce an lnfallihle judgment.

And first, it is essentially necessary to know the size of the mole, its color, whether it ls perfectly round, ohlong or angular, hecause each of those will add to, or dlminish the force of the indlcation; the larger the mole, the greater will he the prosperity or adversity of the person; the smaller the mole, the iess will he hls good or had fortune; if the mole ls round lt forehodes good; if oblong, a moderate share of fortunate events; if angular, it indicates a mixture of good and evll; the deeper its color, the more it announces favor or disgrace; the lighter, the less of either; if it is very hairy, much misfortune is to he expected; if but few long hairs grow upon it, it denotes that your undertakings will be prosperous.

We will further remark only, that moles of the middling and common size, and color, are those we speak of; the rest may he gathered from what we have said above; but as lt may frequently happen that modesty will sometimes hinder persons from showlng their moles, you must depend upon their own representation of them for your opinion.

A mole that stands on the right side of the forehead or right temple, signifies that the person will arrive to sudden weaith and honor.

A mole on the right eyebrow announces speedy marriage; and that the person to whom you wiii be married wiil possess many amiahle qualitles, and a good fortune.

A mole on the left of either of those three places, announces unexpected disappointment in your most sanguine wishes.

A moie on the outside corner of elther eye, denotcs the person to be of a steady, sober and sedate disposition; but will he liahle to a violent death.

A mole on either cheek, signifies that the person never shall rise above mediocrity in point of fortune, though at the same time he never will sink to real poverty.

A mole on the nose, shows that the person wili have good luck in most of his or her undertakings.

A mole on the lip, either upper or lower, proves the person to be fond of delicate things, and very much given to the pleasures of love, in which he or she will commonly be successful.

A mole on the chin, foreshows that the person will be attended with great prosperity and be highly esteemed.

A mole on the side of the neck, shows that the person will narrowly escape suffocation, but afterwards rise to great consideration by an unexpected legacy or inheritance.

A mole on the throat, denotes that the person shall become rich by marriage.

A mole on the right breast, signifies success in undertakings, an amorous disposition, that the children will be mostly boys.

A mole on the bosom, portends mediocrity of health and fortune.

A mole under the left breast over the heart, foreshows that a man will be of a warm disposition, unsettled in mind, fond of rambling, and light in his conduct; in a woman, it shows sincerity in love, quick conception and easy travail in childbirth.

A mole on the right side over any part of the ribs, denotes the person to be pusilanimous and slow in understanding any thing that may be attended with difficulty.

A mole on the belly, denotes the person to be addicted to sloth and gluttony; selfish in almost all articles, and seldom inclined to be nice or careful in point of dress.

A mole on either hip, shows that the person will have many children, and that such of them as survive will be healthful, lusty, and patient of hardships.

A mole on the right thigh, shows that the person will become rich, and have good luck in marriage.

A mole on the left thigh, denotes that the person suffers much by poverty and want of friends, as also by the enmity and injustice of others.

A mole on the right knee, signifies that the person will be fortunate in the choice of a partner for life, and meet with few disappointments in the world.

A mole on the left knee, portends that the person will be rash, inconsiderate and hasty, but modest in cool blood, honest, and inclined to good behavior in every sense of the word.

A mole on either leg, shows that the person is indolent, thoughtless and indifferent as to what happens.

A mole on either ankle, denotes a man to be inclined to effeminacy and elegance in dress; a woman to be courageous, active, and industrious with some spice of the termagant.

A mole on either foot, forebodes sudden illness or unexpected misfortune.

A mole on the right shoulder, signifies prudence, discretion, secrecy, and wisdom.

A mole on the left shoulder, declares a testy, contentious and ungovernable spirit.

A mole on the right arm, denotes vigor, and undaunted courage.

A mole on the left arm, declares resolution and victory in battle.

A mole near either elbow, denotes restlessness, a roving and unsteady temper; also a discontentedness with those the person is obliged to live constantly with.

A mole between the elbow and the wrist, promises the person prosperity, but not until he has undergone many hardships.

A mole on the wrist or between it and the ends of the fingers signifies industry, parsimony, fidelity, and conjugal affection.

A mole on any part of the shoulders to the loins, signifies imperceptible decline, and gradual decay, whether of health or wealth.

A mole on the loins, shows vigor, especially in the duties of love.

If any other moles should occur, which we have not here particularized, we flatter ourselves that our readers will attribute our not explaining them, not to any want of desire to gratify their utmost wishes, but rather to that deference which every writer justly owes to the sagacity and understanding of those who will honor him with their good opinion; we the easier flatter ourselves that this omission will be forgiven us, as we are confident that our readers will find in their own penetration an easy supplement to our forgetfulness; the more so, as the proximity of situation of any other mole that may occur to any of those here mentioned, will, from the explanation given in these sheets, find an interpretation from comparison with what we have said; the degree in any particular, being only a little more or less.

CHARADES, REBUSES, CONUNDRUMS, ENIGMAS, etc.

(For answers, see page 67)

I

II

I am composed of 23 letters.
My 2, 21, 4, 5, is part of a building.
My 6, 13, 8, 22, is an Ex Governor and Foreign Minister.
My 15, 16, 23, 13, is what all ought to be at a certain time.
My 13, 4, 5, 3, is a girl's name.
My 19, 22, 7, 20, 18, is what we live in.
My 12, 23, 17, 1, are industrious.
My 6, 21, 8, 1, 14, 9, is a territory.
My 23, 3, 20, is what most people do daily.
My 12, 23, 17, 22, is a vegetable.
My 4, 10, 6, 17, is a body of water.
My 11, 3, 12, 12, 7, 20, 2 should be regarded.
My whole is a very important question.

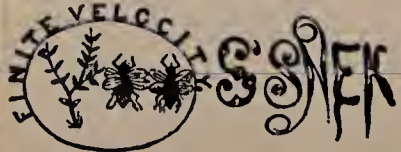
III

What word may be pronounced quicker by having another syllable added to it?

IV

My first is often given, and with rapture oft received;
The torture of my second can scarcely be conceived;
My whole, upon the breakfast table, mostly is perceived,
Waiting, very quietly, of my first to be relieved.

V



VI

Why is the letter "N" the most sorrowful of letters?

VII

It was said when I was a boy (and so it might have been) that once on a certain year a man had an apple tree that bore apples, and he saw them with his eyes. The following year, it bore the same kind of fruit, but it did not bear apples. He saw the fruit, but did not see them with his eyes. How was this?

VIII

First

See the poor little animal homeless and lone,
How glad he would be if you gave him a bone.

Second

You won't? Then my second, I freely confess
Serves you right, if he did tear a hole in your dress.

Whole

Come in with your boat, for the rapids are near,
My whole is so strong, you have reason to fear.

IX

X

Why is influenza like the House of Commons?

XI

My first is my second, and my second is indispensable.
My 3, 2, 5 is a verb.
My 4, 1, 3 is for propelling.
My whole is a name of five letters.

XII

A part of today, or some of tomorrow,
What freely used might give you sorrow,
These two combined though some out of date,
Will give you a clue if you only wait.

OLD-FASHIONED PUZZLES

(For answers, see page 67)

I

When Billy took the marbles out of his hag two at a time, there was one left over. When he took them out three, four, five or six at a time, the same thing happened; there was one left over. But when he took them out seven at a time, they came out even. What was the smallest number of marhles that Billy could have had?

II

A man calculated the square root of two (actually 1.4142 . . .) with an error of less than one percent hy simply dividing two small numbers in his head. How did he do it?

III

A man has a 12-inch by 12-inch square of sheetmetal. He wants to hend up the edges to form a tray, and he wants that tray to hold the most water possible. How high should he make the sides?

IV

A man has bought a 24-ounce jar of liniment. He wants to separate it into 3 equal parts. He has only three empty jars: one holds 13 ounces, one holds 11 ounces, one holds 5 ounces. How can he do it?

V

A farmer had a square field of grass. He employed ten men to mow it. After mowing around the field 3 times each, they found they had mown just 3/4 of it. Each man cut a swath 5½ feet wide. How many acres in the field?

VI

I have a board 20 feet long and 36 inches wide at the hutt end, and 4 inches wide at the other, which I cut in two lengths crosswise, so that each length shall contain just ½ of the hoard, viz: 16-2/3 square feet in each length = 33½. How must the dividing line be applied and what is the length of each half of the contents?

VII

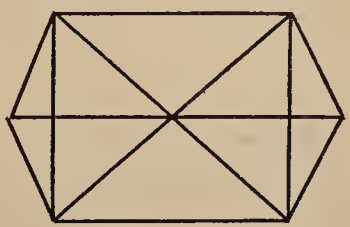
Place 30 kernels of corn—15 white and 15 yellow—in a row before you, so arranged that in counting from the left hand, and removing every tenth kernel as you count, all of one color will first be removed.

VIII

How large a tract of land would it take, in a square form, fenced with a brick wall, 1,000 hricks to a rod so that there shall he as many acres in the field as bricks in the wall?

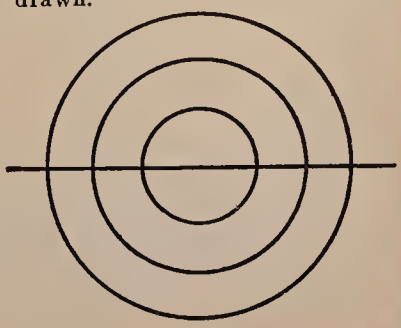
IX

Draw the following figure without removing your pencil from the paper and without going twice over the same line.



X

Now draw this figure as you did No. IX—hut with this additional condition: you must not cross over any line already drawn.



FISH AND GAME SUMMARY

(Format copyrighted — must not be copied.)

Based on latest (mostly 1964-65) available laws courtesy of State Fish & Game Commissioners. For the most part 1966 laws not released until after press date (June, 1965) and so no attempt is made here at accuracy; in fact, only approximations of the months which may include seasons are given. This table useful only for vacation planning considerations and to satisfy curiosity as to what the various states offer in the way of hunting and fishing. Migratory Bird Regulations are available at any post office.

EXACT DATES, LIMITS, ETC. MUST BE VERIFIED LOCALLY.

STATE / SPECIES	ANTELOPE	BEAR	DEER	MT. GOAT SHEEP	ELK	MINK	MUSKRAT	OPOSSUM	RABBIT	RACCOON	SQUIRREL
Alabama		C	11–12			11–2	11–2	11–2	10–2	10–2	10–1
Alaska		9–6	8–12	8–12	8–12	11–1	11–6		9–4	O	O
Arizona	9	9–2	9–11	12	9–11		O		O	O	9–11
Arkansas			11–1			11–1	11–3	11–1	11–1	11–1	10
California	C	9–12	8–10	C	C	11–2	11–3	O	10–1	O	11–12
Colorado	P9	4–10	9–12	P8, 11	10–11	11–1	11–4	O	9–2	O	
Connecticut		O	11–12			C	C	O	10–1	9–1	10–1
Delaware (1962)			11			12–3	12–3	11–1	11–12	11–1	9–10
Florida		11–12	11–12							O	11–2
Georgia		11–1	10–1			11–2	11–2	10–2	11–2	10–1	10–2
Hawaii Isl	C		S	O							
Idaho	S	O	9–12	9	9–12	11–12	11–12		9–2	O	C
Illinois			11–12			11–1	11–1	11–1	11–1	11–1	8–10
Indiana			11–12			11–1	11–1	11–1	11–1	11–1	8–10
Iowa			S			11	11–1	11–2	9–2	10–2	9–12
Kansas	C		P12			12–1	12–1	12–1	12–10		X
Kentucky			11			11–1	11–1	11–1	11–1	10	11–12
Louisiana(1964)		12	11						10–2		10–1
Maine		O	10–12			11	11		10–3	8–12	10–11
Maryland		C	11–12			1–3	1–3	9–3	11–1	9–3	10
Mass.(1964)		10–12	12			11–1	11–12	9–12	10–2	9–12	10–11
Michigan		9–11	9–11		S	11–1	11–1	O	10–2	10–12	10–11
Minnesota		O, S	11			11	11		10–2	10–12	10–12
Mississippi		C	11–1			12–1	12–2	11–1	10–2	11–1	10–1
Missouri			11			12–1	12–3	11–1	5–2	11–1	5–12
Montana	10–11	3–11	10–11	9–11	10–11	X	X	X	O	O	O
Nebraska	9		11			11–3	11–3	O	O	O	8–2
Nevada (1963)	8–9		10	12	11	11–3	11–3		10		
New Hampshire		9–12	11–12			11–2	11–2		10–3	9–12	10
New Jersey		C	12			11–12	11–12		11–12	11–12	11–12
New Mexico	9–10	9–11	12	X	9–12	12	11–4		O	O	9
New York		10–12	10–12			10–3	10–4	O	10–2	10–3	10–12
Long Island		C	C			1–3	1–3	O	11–1	11–2	11–12
North Carolina		10–12	10–12			11–2	11–2	10–2	11–2	10–2	10–12
N. Dakota	9		9–11	C	C	11–12	C	X	O	O	9–12
Ohio			11S			11–2	11–2	11–2	11–1	11–2	9–11
Oklahoma (1962)			S			12–1	12–1	12–1	O	12–1	5–12
Oregon	P8	O	10	C	10–11	11–1	11–2	O	O	O	O
Pennsylvania		11	11		C	11–1	11–3	O	10–1	O	10–1
Rhode Island			10, 1						11–12	10–1	11–12
South Carolina		C	9–12			S	S	S	S	S	S
South Dakota	9	X	11	C	C	11–12	11–12	11–4	S	O	O
Tennessee		10–11	11–12			10–2	12–2	10–2	11–2	10–2	9–12
Texas	9–10	11–12	11–12	C	12	11–1	11–3	O	O	O	S
Utah	P		10–11		P	10–5	O	X	O	X	O
Vermont		9–11	11		C	10–2	10–4	O	10–2	8–12	10
Virginia		11–1	11		C	12–1	12–3	10–1	11–1	10–1	S
Washington	C	O	10–11	9	11	11–1	11–3	O	10–2	O	C
West Virginia		11, 12	11–12			11–2	11–2	O	11–1	10–1	10–1
Wisconsin		10–11	10–11			10–1	11–12	11–12	10–1	S	10–1
Wyoming (1962)	9–11	4–6	9–11	9–11	9–11						

SPECIALS IN CERTAIN STATES:

ALLIGATOR: Ala. (C), Ga. (6–1); Fla. (6–1); Miss. (C).
WILD BOAR: Cal. (10–3), Fla. (S), N. C. (10–12), Haw. (O), Tenn. (10, 2), Tex. (10)
BUFFALO: Alas. (C), Ariz. (10), Utah (P), Tex. (C)
CARIBOU: Alas. (S)
CHACHALACA: Tex. (12–1)
JAVELINA: Ariz. (2), N. Mex. (2), Tex. (11–12)
MOOSE: Alas. (8–11), Idaho (P), Mont. (9–11), Utah (P), Wyo. (9–10)

SYMBOLS USED PAGES 62 AND 63

Months: January is represented by the numeral "1" — February by the numeral "2", etc. Seasons: In the columns under the various animals, birds, and fishes you will note numerals. Thus "12-3" means the season opens in December and closes in March. A number alone means the season opens and closes within that month. Thus "12" alone means the season is December. A number followed by a comma denotes two seasons: thus "9, 12" would mean one September and another in December. "O" means no closed season; "X" not available; "S" special seasons; "C" closed; "P" permit only.

VERIFY EXACT OPENING & CLOSING DATES IN EVERY CASE.

PARTRIDGE GROUSE	PHEASANT	QUAIL	TURKEY	STATE SPECIES	BASS	CATFISH PERCH SUNFISH CRAPPIE	PIKE PICKEREL	SALMON	BROOK TROUT	LAKE TROUT	WHITEFISH
		11-2	11,12,4	Alabama.....	O	O	O	O	O	O	O
8-5				Alaska.....	O	O	O	O	O	O	O
	C	10-1	10	Arizona.....	O	O			O	O	
C	C	12	4	Arkansas		O					
O	11	11-12		California	O	O	O	5-10	5-10	5-10	5-10
9	11-12	11-12	4	Colorado.....	O	O	O	O	O	O	O
10-12	10-12	10	C	Connecticut....	4-10	4-10	4-10	4-10	4-10	4-10	
10-12	11-12	11-12		Delaware (1962)	O	O	O	O	4-11	O	O
		11-2	11-1	Florida.....	O	O	O	O	O	O	O
10-2		11-2	11-2	Georgia.....	O	O	O	C	4-9	O	
11-1	11-1	11	C	Hawaii Isl.....	O	O-X-O-X	X	X	X	X	X
9-12	10-12	9-12		Idaho.....	O	O		S	6-10	4-11	O
11-12C	11-12	11-12	C	Illinois.....	O	O	5-11	O	O	O	O
11-12	11-12	11-12	C	Indiana.....	O	O	O	O	5-8	O	O
11-12	11-12	11-12		Iowa.....	5-2	O	5-2		O		
11	11-12	11-12	C	Kansas.....	O	O	O				
12-1		11-1		Kentucky.....	O	O	O	O	O	O	O
		11-2	4	Louisiana (1964)	O	O	O				
10-11	10-11			Maine.....	6-9	4-9	4-9	4-9	4-9	4-9	4-9
11-1	11-1	11-1	10	Maryland.....	O	O	4-11	O	4-3	O	O
10-11	10-11	10-11	C	Massachusetts..	4-2	4-2	4-2	4-10	4-10	10-2	X
10-12	10-11	C	C	Michigan.....	6-12	O	5-3		4-9	O	4-9
10-11	10-11	C	C	Minnesota.....	X	O	5-2	X	4-9	1-9	O
		12-2	4	Mississippi.....	O	O	O	O	O	O	O
	11	11-1	4	Missouri.....	5-2	O	O				
9-10	10-11	X	9,10,4,5	Montana.....	O	O	O	5-11	5-11	5-11	S
10	10-1	10-12	10,11	Nebraska.....	O	O	O	O	O	O	O
10	11	11		Nevada (1963)..	O	O		S	O	O	O
10-12	10	C		New Hampshire	4-10	4-10	4-3	4-9	4-9	1-9	1-9
11-1	11-12	11-2	C	New Jersey....	O	O	O	C3-4	C3-4	C3-4	O
9	11	11-12	9-11	New Mexico ...	O	O	O-X	X	5-11		X
10-12	10-11	10-11	10	New York.....	7-11	O	5-2	4-9	4-9	4-9	4-9
11	11-12	11-12	C	L. Island.....	7-11	O	5-2		4-9		
10-2	11-2	11-2	11-2	N. Carolina....	O	O	O		4-9		
9-12	10-12	X	11	N. Dakota	5-12	O	5-2	X	5-2		X
10-2	11-12	11-12	5S	Ohio.....	O	O	O	O	O	O	O
5	11-12			Okla. (1962)....	O	O	O	O	O	O	O
10-11	10-11	10-11	X	Oregon.....	O	O	O	4-10	4-10	4-10	O
10-1	10	10	10	Pennsylvania...	6-3	5-3	5-3	O	4-9	4-10	O
11-12	11-12	11-12		Rhode Island...	4-2	O	4-2		4-2		
S	S		S	So. Carolina....	O	O	O	O	3-9		O
9	10	11	10	So. Dakota.....	O-S	O-S	O-S	X	O		X
11-2		11-2	4-5	Tennessee.....	O	O	O			X	
C	S	11-1	11-12	Texas.....	O	O	O	O	O	O	O
9-12	11	11	P	Utah.....	O	O	O	6-11	6-11	6-11	6-2
10	10	10	10	Vermont.....	6-11	O	5-3	4-9	4-9	4-9	
11-1	P	S	S	Virginia.....	O	O	O	O	4-12	4-12	O
9-12	10-12	10-12	C	Wash.....	4-10	4-10		O	4-10	4-10	S
10-1	11-1	11-1	10-S	W. Virginia....	O	O	O	O	4-0	4-0	O
10-11	10-11	S	C	Wisconsin.....	5-2	O	5-2	X	5-9	1-9	O
				Wyoming (1962)	5-10	5-10	5-10	5-10	5-10	5-10	5-10

BLUEGILL: Ind. (O), Mich., Iowa (O), N. M. (O), S. D. (O), Tenn. (O)
BUFFALO: Minn. (O), S. Dak. (O), Tex. (O)
BULL FROGS: Ariz. (6-11), Ark. (4-12), Del. (5-12), Haw. (O), Ida. (6-10), Ill. (6-8), Ia. (O), Ind. (4, 6-10), Kans. (7-9), Mo. (7-11), Neb. (7-10), Nev. (O), N.Mex. (8), Ore. (O), Pa. (7-10), Tenn. (O), Ohio (7-4), W. Va. (6-7), Wis. (5-12)
RAINBOW: Haw. (8-9), N. Mex. (O), Ark. (O)
SHAD: Calif. (O), Conn. (4-6), Del. (3-6), Fla. (1-4), Ga. (1-4), Md. (3-9), N. H. (1-8), Ore. (O)
STURGEON: Ida. (O), Mich. (O), S. Dak. (O), Wis. (S)
TERRAPIN: Fla. (X), Pa. (11-3)

DAVY CROCKETT AND HIS TALL TALES

David Crockett, 1786-1836, was born in Limestone, Tennessee. He served under Andrew Jackson against the Creek Indians in 1812, and subsequently in the Tennessee State Legislature. He served three terms in the U.S. House of Representatives (1827-1835). Defeated as a Conservative (opposed to Jackson) in 1835, he joined the U.S. forces and lost his life in the defense of the Alamo. His dress, language, and racy backwoods humor have won him a place in American folklore beside Wild Bill Hickok, Paul Bunyan, and others about whom it is now difficult to determine what is truth and what is fiction. These stories, presumably his, which follow are taken from the rare Nashville edition (1839) of THE CROCKETT ALMANAC, the first two numbers of which Crockett is said to have had a hand in making.

Adventure with a Grizzly Bear

It was when I was young I went to massacre the buffaloes near the Little Great Small Shallow Big Muddy River with my servant boy. I'd been all day vagabonding about the prairie when I saw one grazing in the rushes on the edge of a pond. He was a thousand years old at least for his hide was all covered with scars. His eyes looked like two holes burnt in a blanket. I crept toward him like a garter snake through the grass. I was just about to tackle him when out jumps a great bear as big as the Hall of Congress. The bear only hit him one blow and that was a side-winder. I wish to be kicked to death by grasshoppers if it didn't tear out five of old buffalo's ribs and lay his heart and liver bare.

So I said to that bear "Let every man skin his own skunks" and with that I insinuated a ball from my musket slap through his heart. By the ghost of the great mammoth of Big Bone Licks, you'd have thought I had spoken something unpleasant. His grinders made a noise as if an army of devils was sharpening cross-cut saws and he came at me like the whole Missouri River does on a sandbar.

There is no more back-out in Davy Crockett than there is go-ahead in the Bunker Hill Monument. So I gave him a sogdologer over his coconut. So he thought better of me and went after my servant. I hadn't time to load my musket before the bear had gathered upon him like a Virginia blood smear. The boy just figured he was a goner and fainted away.

By this time I felt most enticingly wolfy and savagerous and I gave this bear the hint he'd better leave the boy alone. He came after me then and pitched into me like the piston of a steam engine. Together we rolled into the Little Great Small Deep Shallow Muddy. When the bear raised his head I clapped my musket barrel across his neck and shoved him under water. I'll be shot with a packsaddle if the fool didn't clap both front paws over that barrel and kept himself down. From there on out I had nothing to do but float alongside until he drowned.

Don't anyone say now I am telling a lie for everyone knows a grizzly bear will live an hour with a ball through his heart—if so be he is only mad enough.

Davy Crockett has a dream

One day when it was so cold I was afraid to open my mouth I took

my little dog Grizzle and cut out for Salt River Bay to kill something for dinner. Game was so scarce I couldn't find any. When I came to an old abandoned log hut, I was near frozen stiff so I went in and kindled a little fire. Taking a nap, I laid down with my head against the hearth with my eyes looking up the chimney. In that way I could see when it was noon by the sun and wouldn't be too late getting home.

After I was asleep I dreamt I was floating down the Mississippi in a hollow log. A friend called Oak Wing came to help me out of it. I asked him to tie a rope to my legs and pull me out but he said he wouldn't do it that way. He wanted to ram me out with a pole.

So he took a long pole and rammed it down against my head. This didn't make me budge but pounded my head down between my shoulders until I looked like a turtle with his head drawn in. This started my temper, but just then I woke up and was surprised to see my wife pulling my leg. It was almost sundown and she had come after me. I told her my dream and said I was going after Oak Wing for pounding my head. She said he was not to blame but I had a different idea. So I went and talked to him, and we agreed that in his next dream he would make me an apology, and that would make us square. After all I don't like to be run upon when I am asleep anymore than I do when I'm awake.

Buying a Horse

A fellow from Down East, from Vermont, came to our parts to sell horses. He squinted with one eye and was always looking for rain with the other. This made my wife care for him and she got into a great flustification to go where he was and buy a saddle horse. She agreed to pay forty dollars for it and brought it home. Now she wasn't a good judge of horses despite the fact that in the dark she could tell a bear from a panther by the feel of its bite. That horse was lame in all four legs and had a crook in its tail. It was blind in one eye and deaf in both ears. He couldn't stand up for long nor lie down (for his bowels were out of order) either. The man from Down East was coming around next morning for his money.

So I stitched a saddle so that any strain would break it to pieces and put it on the creature's back. Then I fixed the bridle so that would break, too. Then I got a hornets' nest and stopped it up so the hornets couldn't get out. When the fellow came for his pay, I praised the horse but told him it was too spirited for my wife to ride. I asked him to get on and show us how to ride it. As soon as he was on the horse, I beat in the hornets' nest and flung it into the animal's hindquarters. The last I heard of him he was seen up by the fork of Duck River, going through the country like a runaway steamboat. He never did come back after his money.

Davy and the Snapping Dog

I was coming down the Narrow Broadhorn in a canoe with a load of deer and bear in the Fall of 1826 when all of a sudden I heard such a screeching I thought heaven and earth were coming together. Suspecting there was something worse than gals in the bushes I put ashore to see what was going on. It was only a dozen loping Shawnees dancing about a nest of snapping turtles. While I was looking at them, one of their dogs come up behind me and bit my leg. And, after calling the dog what he was, I told him,

"If you don't find out my teeth are stronger than yours, you thin-gutted egg sucker, there are no snakes in Virginia and my name is not Davy Crockett."

Presently the Shawnees cut off the turtles' heads and these kept snapping away, as turtles will live several days after they've been cut apart. So I picked up one of the snapping heads and came up behind that dog and put it to his tail. It caught hold and hung on like grim death. Isn't turnabout fair play? Didn't he come behind and bite me? Howsomever, that dog cleared out over the prairie faster than wrath itself and it is my considered opinion he's running yet.

The Shawnee that owned the dog gave me a tanyard grin but thought it best not to aggravate the matter. He was cutting up the turtles and putting their hearts in a wooden bowl where they were jumping around still like live cricket rubber balls. He took one up and swallowed it.

Looking at me he said, "No Big Knife do that. Big Knife too soft heart!" So I swallowed three of those turtle hearts right off and ever since then the sight of a turtle makes me feel as if all the Irishmen in Ireland are dancing an Irish jig down in my belly.

STATE EXTENSION DIRECTORS

Consult these men about your garden and farm problems. They know the answers. *Courtesy Ralph M. Fulghum, Assistant Director, Division of Information, U.S. Dept. of Agriculture, Washington 25, D.C.* *All general correspondence is conducted by the A.D. (Associate Director).

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Continued from Page 77

The post-oestrous period was characterized by a marked change in the reactions of both the female and the male. The female assumed an increasingly antagonistic attitude toward the male, who became increasingly cautious.

The female became decisively the aggressor. With growls, snarls, and threatening pattings of the floor with her front feet she drove her mate into a far corner.

When visited again at midnight, it was found that they had separated. One of the two pieces of woolen cloth which up to this time had been their common bed had been removed by the female to the opposite corner of the box and she was curled up asleep.

The female started to carry nesting material on April 15. On the afternoon of May 2 she gave birth to a litter of seven. Dating conception from the first successful mating, the gestation was not more than 62 days.

Condensed from an article by
H. M. Wight, Journal of Mammalogy, February, 1931

ANSWERS TO OLD-FASHIONED PUZZLES ON PAGE 61

(1) 301. (2) "Two," the man reasoned, "is the same as 50 divided by 25. And this is close to being 49 divided by 25. The square root of this is 7 divided by 5, or 1.4000." (3) Call the height x inches. Then the volume is $x(12-2x)(12-2x)$ or $144x-48x^2+4x^3$ cubic inches. This volume will be greatest for $x = 2$ inches. (4) Fill the 11 and 5-ounce jars, leaving 8 ounces in the original jar. Complete the filling of the 13-ounce jar from the 11-ounce jar, leaving 3 ounces in the 11-ounce jar. Finally, fill the 5-ounce jar from the 13-ounce jar. (The above 4 puzzles and answers courtesy of C. C. Cawley).
(5) Ten. (6) The butt end of the board is 7 feet long, and the narrow end 41 feet long. (7) 2 white corns, 1 yellow, 3 w, 5 y, 2 w, 2 y, 4 w, 1 y, 1 w, 3 y, 1 w, 2 y, 2 w, 1 y. (8) 4,000,000 square miles or 2,000 miles on a side. (9) No fair looking for the answer! (10) If you did #9, then #10 is easy!

ANSWERS TO CHARADES, etc. ON PAGE 60

(1) Beware of pick-pockets, and see to your money. (2) Shall Kansas be a Free State? (3) Quick. (4) Toast Rack. (5) Time flies with infinite velocity, says Seneca. (6) Because it is always inconsolable. (7) The tree bore apples the first year, and an apple the second year. (8) Current. (9) Grate cur age can over comb—(great courage can overcome). (10) Because sometimes the ayes have it and sometimes the noes. (11) Aaron. (12) Hourglass.

FUN ON THE FARM

The 1965 Essay Contest Winner.

Our farm has been forty years of fun and high adventure. The experience of the changes in farm living has been as breathtaking as a rolier coaster ride. The crash, depression, wars, and mechanical revolution were challenges met and overcome. Children, now grown, recall the fun; hot nights sleeping under the stars; sledding on snowy hills; the brook; ice cream freezes and chicken after church; a litter of cocker puppies; made-over garments; croquet; the riding horse; and library books galore. Challenging? Yes! Fun spelled F for faith—U for understanding—and N for Nature's bounty — true Farm Fun.

Mrs. Orin S. Lanphere

1966 ESSAY CONTEST

Winners of the Contest (See Pg. 67, 1965 OFA) are: 1st Prize ($25.00) to Mrs. Orin S. Lanphere, Monmouth, Ill.; 2nd ($15.00) to Margaret Church, Lafayette, Ind.; 3rd ($5.00) to Mrs. Beryl Cunigan, Moores Creek, Ky. For 1966, the money will go (1st, $25.00—2nd, $15.00—3rd, $5.00) for the best 100-word essay on "My Most Unusual Farm Experience."

Contest closes May 1, 1966.

No entries returned; all become property of Yankee, Inc., which reserves all rights in the material submitted. Case of tie, place money lumped and divided. Staff of YANKEE, final judge. Winners announced 1967 OFA.

Address: Essay Contest, Yankee, Inc., Dublin, N. H. 03444.

NEW HAMPSHIRE'S FIRST LOTTERY YEAR

by Lawrence Sullivan — in Christian Economics

Lord Chesterfield's Eighteenth Century aphorism, "a lottery is a tax on all the fools in creation," now is challenged boldly by the sovereign State of New Hampshire. The State calls its first legal sweepstakes a monumental success.

The first legal lottery in the U.S.A. in the Twentieth Century, the New Hampshire experiment netted $2,500,000 for the public schools. The detailed final accounting for 1964 is presented in the **Congressional Record** for October 22, at page A-5494.

Total ticket sales were $5,730,093. New Hampshire public schools got $2,500,000 under the 1963 law. Total prizes were $1,800,000. Direct administrative expenses added up to $1,430,093.

The first tickets were sold at Rockingham Park on March 12. Sales closed September 7. Total sales for the six-months' season were 1,910,031 tickets at $3 each.

In the final accounting, winners were listed from 38 states, Canada, Ireland, and the Panama Canal Zone.

Approximately 1,700,000 out-of-state tourists purchased tickets during their summer travels through scenic New Hampshire. Only 13 percent of all the tickets sold were in the name of New Hampshire residents. The remaining 87 percent went to summer tourists. No sweepstakes ticket may be sold outside the State, or offered through the mails.

One ticket out of every thousand won a prize. The average value of all 1992 winning tickets for the year was $903.60 each. But six winners carried off $100,000 each and six others $50,000 per ticket. Most winners got about $200 each.

For the inexperienced player, the New Hampshire odds are simply stated: out of every thousand tickets sold at $3 each, one will be a winner with an average of $903.60 cash. Less than one-third of the pool is returned to the gamblers.

Although the law does not require it, Congressman Louis C. Wyman (R) was proud to present the final accounting.

"The New Hampshire experience demonstrates that an honest, efficient, and dramatic sweepstakes program can provide substantial revenue to meet public need," Congressman Wyman concluded.

The new law was signed by Governor John W. King (D) on April 30, 1963, and approved in a state-wide referendum March 10, 1964, by a majority of almost 4 to 1. Tickets may be sold only in the New Hampshire State Liquor Stores and licensed race tracks in the State.

Winners need not present their tickets for collection. The money is mailed to the address shown on the stub.

"The New Hampshire school districts will receive approximately $2,500,000 to be distributed by the State Treasurer December 15 on a flat resident-pupil basis," Congressman Wyman explained. "New Hampshire taxpayers will thereby receive substantial relief from the mounting costs of education."

New Hampshire residents put only $762,000 into the pool and took out $230,000 in winnings, for a net investment of $532,000 by the people of the State. For that investment they got $2,500,000 for their public schools.

Massachusetts was the biggest patron, with 702 winning tickets for the year; New York next with 306 winners; New Hampshire third with 254; Connecticut fourth with 168; and New Jersey fifth, 149.

None of the six $100,000 tickets was held in New Hampshire. The six grand prizes went two to New Jersey, two to Maryland, and one each to Michigan and New York.

In the $50,000 winner class were four tickets from Massachusetts and one each from New York and New Jersey.

Tickets for the 1965 Rockingham drawings already are on sale. Twelve-month sales for the second year are expected to double the six-months' total for 1964.

"The sweepstakes program has been a tremendous success," says Congressman Wyman. "In establishing the program great emphasis was placed on internal controls and safeguards to insure that it will stand the test of time. Banks throughout the State are cooperating with the new sweepstakes commission in processing the tickets and funds on a daily basis. All winners are notified by telegram and are paid through normal commercial banking channels."

Nineteen other states already are considering sweepstakes along the lines of the New Hampshire plan, but much debate still is to come on both the economics and morals of the state lottery.

Throughout the Eighteenth and Nineteenth centuries, every legal lottery in America foundered at last in corruption, grand larceny, or paralyzing political scandals. The notorious Louisiana Lottery in the mid-1800's prostrated the entire State for a decade, and contaminated Louisiana politics for two generations.

As early as 1783 George Washington was moved to brand legalized gambling as "the child of avarice, the brother of inquity, and the father of mischief."

Four years later Thomas Jefferson scolded: "Gambling corrupts our dispositions and teaches us a habit of hostility against all mankind."

Yet advocates of a national lottery claim much new propaganda ammunition in the 1964 New Hampshire experience. Throughout the world 81 nations now have legal lotteries. Last year these operations took in $2.2 billion, and netted $853-million for education, hospitals, charities, and social welfare grants. (Congressional Record, June 29, 1964, p. 16,720)

But in all human history, no state lottery ever has escaped eventual manipulative corruption and demoralizing public scandal. Every lottery first justifies its being on the ground of residual funds for charity. But no lottery ever funnels more than one-third its gross to charity.

Precisely at this point do we come face to face with Lord Chesterfield. If a community wishes to bestow $1-million upon hospitals it may do so, any day, directly from the collective purse. The community gains naught by spending $3-million into a lottery pool merely to rake off $1-million for hospitals. The direct gift of $1-million to hospitals still would leave $2-million in the collective purse. Through the ages economists have asked insistently, where is the economic wisdom of spending $3 in the lottery pool to give only $1 to charity?

No, charity and noble works are not the historic inspiration to state lotteries. Rather, history appears to sustain William Cobbett in his 1829 dictum: "No gambler was ever yet a happy man."

True, some people will gamble, whatever the moral judgment of the times. But is that a valid political reason for placing the seal of moral sanction on the 3-for-1 charity racket?

The more one ponders it, the more eloquent rings the clarion wit of Lord Chesterfield in A.D. 1724 —

"A lottery is a tax on all the fools in creation."

Editor's Note: Mr. Sullivan (who is Coordinator of Information of the U.S. House of Representatives) points out that most lotteries return but one dollar of every three for charity. It seems clear that New Hampshire, in its first year at least, has been able to clear $2,500,000 for its schools, and $230,000 for its citizens, for an investment of only $530,000 by its citizens. The "catch," of course, is that the out-of-state tourists picked up the bill (paid $5,730,093 — got back only $1,564,000). For how long, some wonder, will this out-of-state contribution continue?

RENDEZVOUS WITH A LUNAR RAINBOW

by John R. Brooks, M.D.

(Crew Member of The **Magic**—1964 Bermuda Race)

In 1726, when Benjamin Franklin was 20, he methodically recorded the events that transpired on one of his trips from England to America. His ship, the **Berkshire**, left England on August 5. On August 30, young Franklin recorded that "the moon being near full as she rose after eight o'clock, there appeared a rainbow in a western cloud, to windward of us." Franklin also had the experience on this trip of witnessing an eclipse of the sun and an eclipse of the moon just 15 days apart.

Aristotle erroneously ascribed a rainbow to the reflection of the sun's rays by rain—rather than to the fact that it was caused by refraction of light. Since this time the physics of rainbow formations has been well clarified and is completely detailed in W. J. Humphreys' *Physics of the Air* (1) and Hans Neuberger's *Introduction to Physical Meterorology* (2).

The above cut is an engraving by White from a drawing by Galg of a lunar rainbow seen at 10 P.M., October 1810, at Milbrook near Southampton, England.

On the night of June 20, 1964, the Bermuda Race fleet was approaching the finish line off St. David's Head. We, on George Nichols's Concordia sloop **Magic**, were some 15 miles north of St. David's light when Franklin King, Jr. and I heard the call for our watch. It was 0100 and the night was warm and calm, with little wind. We had seen an eclipse of the full moon at 2115 the previous evening, as we approached Bermuda. The radio reports from Bermuda had many of the larger boats over the finish line, but a good portion of the Bermuda Race Fleet was slowly beating its way up to the finish line in the warm zephyrs of the night.

The other watch had sighted the glow of Bermuda lights earlier that evening, and, as the night wore on, lights of other competitors appeared in increasing numbers. The wind had been discouragingly light following the first 36 hours of wind and rain in the Stream. **Magic** had stayed to the west of the rhumbline early on but even at that we could have tolerated further westing, and it looked like a long soft beat to the finish line. We gained some solace from the thought and the knowledge that there were many lights behind us.

As we came on deck that night, the moon was full and was surrounded by some heaped-up cumulous clouds. It was a discouraged 1000-0100 watch that we relieved, for they had made relatively little to windward. With the usual light banter that the off-going watch has for that relieving it, we said good night, assured them that the

0100-0400 watch would see improvement in ground covered, and settled hack to await developments.

The wind was still light from the south. The moon was full, occasionally covered hy large rain clouds, but on the whole radiating enough sunlight to make work on deck quite easy. Shortly after 0200 we entered a rain squall and for a short five minutes or so, with the wind still from the south, it rained hard. Moments after the rain ceased and the squall passed to leeward, the moon again came out from behind a cloud and we returned to our original "lighted deck."

The moon was on our starboard beam hearing approximately south southwest. A rainhow suddenly appeared on our port heam hearing northeast. It was a complete how arising from the ocean's horizon, forming a perfect semi-circle, and disappearing into the ocean without interruption. Our lunar how followed the rule that places the center of such a bow the same distance helow the horizon as the source of light (moon) is ahove the horizon, and so that the viewer's eye is in line with the light source and the center of the circle formed by the rainbow. Our how lacked color hut there were shades of gray that appeared to he hroken up hy the refraction of what light there was. Presumahly the lack of color in our spectrum related to the low order of hrightness contributed by the sun's reflection from the moon (2). The rainbow lasted for a few minutes, and, as the rain passed hy further to the northeast, it disappeared not to return.

Lunar hows have heen recorded before and are not rare in certain parts of the world. They are much rarer than solar rainhows hecause the shower type of rain which is a prerequisite is more likely to occur in daytime than at night, except perhaps over oceans (2). They occur more frequently in tropical island areas. Loheck (3) pointed out that they are common in the trade wind helt due to the frequency of thunder squalls in this area. Wentworth pointed out that hoth lunar and solar rainbows were relatively frequent in the Hawaiian Islands "where most of the geographically variable rainfall is of orographic origin, i.e. due to cooling of trade winds in passing over rugged island topography. Here where local showers and mists occur sporadically on days and nights which are generally clear, are ideal conditions for rainhows."

W. J. Humphreys states that lunar rainbows probably occur frequently hut are not seen unless certain conditions present: a full moon is required; a clear, dark night is required; neighhoring rain squalls are necessary; and a relatively dry atmosphere may well improve the light radiation. Commonly, a lunar bow is hest seen soon after dark before a local or heat thunderstorm has fully rained out. This would be from 8-10 P.M. Therefore, in midlatitudes the moon bow is most likely to be seen to the west of the ohserver. The moon may well he in the right phase during the proper hours only three days each month, and then the proper clarity of sky may exist. Our bow was not in the west, hut the timing (0215) was at a different phase in the moon's travels, which accounts for the appearance of the bow in the northeast.

In any one place, according to Humphreys, the chance of having a lunar how is one in two years. Prohahly only one time in five is the sky elear enough in front of a night thunderstorm to permit full illumination of the oncoming sheets of rain. Therefore, prohahly one time in 30 years is the potential frequency of visualization of a lunar how by any one man.

The remainder of our crew were somewhat skeptical of our watch's report. During the entire race there had been skepticism of much of our verhiage. Be that as it may, two men of notahle honesty did see a lunar bow, as had Benjamin Franklin some 238 years hefore. Our only regret was that, unlike Franklin, we could not report a solar eclipse along with our lunar eclipse and lunar rainbow.

REFERENCES

1. Humphreys, W. J.: **Physics of the Air.** McGraw, Hill Co., Inc. New York, 1940. 2. Neuberger, Hans: **Introduction to Physical Meteorology.** Pennsylvania State University Press, 1957. 3. Lobeck, A. K.: Science **88**: 187, 1938.

WEATHER FORECAST 1965–6

Continued from page 5

normal), of which snow is 25″ (10″ above normal).

1–4, cold-windy; 5–9, precip. 2″ (snow 10″), very cold; 10–11, milder-sunny; 12–15, precip. 1.5″ (snow 8″); 16–17, milder; 18–20, unsettled; 21–25, violent winds, precip. .1″ (snow 6″); 26–28, precip. .15″ (snow flurries 1″).

Mar.: Temp. 34° (1.8° above normal). Precip. 4.82″ (.28″ above normal), of which snow is 20″ (5″ above normal).

1.2, cold-windy; 3–5, precip. .82″ (snow 6″); 6–10, severe damaging storm, high winds and tides, precip. 1″ (10″ snow and some rain); 11–12, unsettled; 13–16, milder-nice; 17–20, cold-windy; 21–23, rain 1″ (snow 2″)—melting may cause floods; 24–28, drizzly rain, 1″; 29–31, snow 2″, changes to rain, 1″, violent winds.

Apr.: Temp. 43.8° (1.9° below normal). Precip. 6.39″ (2.39″ above normal), of which snow is 6″ (2.6″ below normal).

1–4, fair-mild; 5–10, high winds and tides, rain 2″; 11–14, warm-nice; 15–18, precip. 1″ (snow 3″); 19–25, showers 1.5″; 26–28, freak storm, 1.89″ precip. (3″ snow); 29–30, cooler.

May: Temp. 56° (.7° below normal). Precip. 4.2″ (.72″ above normal).

1–4, windy-cool; 5–7, rain 1″; 8–10, milder, 11–13, cool, rains 1″; 14–18, overcast, drizzle, .5″ rain; 19–21, showers, .5″; 22–26, much cooler; 27–31, heavy rains, 1.2″.

June: Temp. 67.9° (about normal). Precip. 5.36″ (1.88″ above normal).

1–5, cool, high tides, rains 1″; 6–9, milder, showers 1″; 10–12, rain .5″; 13–17, clear-cool; 18–22, cool, windy, high tides, heavy rain 1.36″; 23–27, showers .5″; 28–30, rain 1″.

July: Temp. 72.3° (1.4° above normal). Precip. 2.38″ (.89″ below normal.

1–5, hot showers .38″; 6-11, clear; 12–16, thunder storms, 1″ rain; 17–18, cooler; 19–21, windy, high tides; 22–25, hot, changeable; 26–31, warm rain, 1″.

Aug.: Temp. 66.1° (3.3° below normal). Precip. 3″ (1.05″ below normal).

1–5, rain .5″; 6–8, showers .5″; 9–11, clear; 12–15, much cooler; 16–20, windy, cool, rain 1″; 21–23, unsettled; 24–28, fair-warmer; 29–31, gale, rain 1″.

Sept.: Temp. 62.4° (normal). Precip. 3.83″ (.12″ below normal).

1–4, rain continues .5″; 5–8, clear; 9–15, line storm, rain 1.5″, windy, high tides; 16–19, changeable; 20–22, clear, warm; 23–27, occasional showers, .83″; 28–30, stormy 1″.

Oct.: Temp. 52.7° (1.9° below normal). Precip. 5.29″ (1.54″ above normal).

1–5, intermittent rains 1″; 6–8, clear, cold; 9–11, changeable; 12–14, rain 1″; 15–18, clear, windy, high tides; 19–23, warm storm 1.5″; 24–28, occasional showers, .79″; 29–31, rains 1″.

Nov.: Temp. 40.6° (1.4° below normal). Precip. 2.08″ (2.45″ below normal).

1–3, rain continues .5″; 4–7, much cooler; 8–11, clear; 12–15, rain .5″, cold, windy, high tides; 16–18, precip. .25″ (snows 2.5″); 19–22, cold, precip. .75″ (snows 7.5″); 23–26, clear, cold; 27–30, precip. .08″ (rain changing to snow 1″.

Dec.: Temp. 25.8° (4.2° below normal). Precip. 5.3″ (1.34″ above normal).

1–3, precip. .7″ (snows 7″; 4–6, precip. .3″ (snow flurries 3″); 7-11, cold, windy, rain 1″; 12–13, windy, high tides; 14–17, rain 1″; 18–20, precip. .3″ (snow flurries 3″); 21–25, stormy, rain 1″, sleet, snow; 26–31, colder, clear, then precip. 1″ (snows 10″).

DETERMINATION OF EARTHQUAKES

Note, in this Almanac, on right hand pages, 11-33, the dates when the moon [☾ runs high] or [☾ rides low]. Beginning with the date of the high is the most likely five day earthquake period in the northern hemisphere, with the low in the southern hemisphere. You will also find on these pages a moon on the Equator notation [☾ on Eq.], twice each month. At this time, in both hemispheres, is a two-day quake period.

RICHARD WHITTINGTON AND HIS CAT

Behold a Cat whose merit wants a name:
Twas she that rais'd poor Whittington to fame.
E'en thus shall Providence provide for all,
Who duly honour him, and on his call.

Woodcuts and text from Sidney's Press, New Haven, 1824

Dick Whittington was so small a boy, when his parents died, that he never knew them, nor the place where he was born. He wandered about as ragged as a colt, till he met with a waggoner going to London, who gave him leave to walk all the way by the side of his waggon. This much obliged little Whittington, as he was desirous to see London, for he had heard that the streets were paved with gold, and he was very willing to get a bushel of it. But the poor boy was disappointed when he saw them covered with dirt instead of gold, and found himself in a strange place, without friends, without food, and without money.

Though the waggoner was so charitable as to let him walk by the side of the waggon for nothing, yet he took care not to know him when he came to town. In a little time the poor boy was almost starved to death for want of food. In this distress he asked charity of several people, and one of them bid him go work in the fields. "That I will," said Whittington, "with all my heart; I will work for you, if you will permit me." The man immediately sent him to make hay; but when the season was over, he was again in great distress.

In this condition, and fainting for want of food, he laid himself down at the door of one Mr. Fitzwarren, a merchant, where the cook saw him, and being very ill-natured, ordered him to go about his business, or she would make him. At this time Mr. Fitzwarren came from the exchange, and began also to scold the poor boy, bidding him go to work.

Whittington answered he should be glad to work; but he was unable at present, for he had eaten nothing for three days and knew nobody. He then endeavoured to get up, but was so very weak that he fell down again. This excited the merchant's pity, who ordered the servants to take him in, give him some food, and let him help the cook to do any drudgery she had to set him about.

He would have lived happily in this worthy family had he not been knocked about by the cross cook, who kept him roasting or basting, and when the spit was still, she employed her hands upon poor Whittington, till Miss Alice, his master's daughter, was informed of it, who made the servants use him kindly.

Besides the crossness of the cook, Whittington had another difficulty to get over. He had a flock bed placed for him in the garret, where there was such a number of rats and mice that they often ran over the poor boy's nose, and disturbed him in his sleep. After sometime, however, a gentlemen, who came to his master's house, gave Whittington a penny for brushing his shoes. This he determined to lay out to the best advantage; and the next day, seeing a woman in the street with a cat under her arm, he ran up to her, desiring to know the price of it. The woman asked sixpence for it, as the cat was a good mouser; but on Whittington's telling her he had but a penny in the world, and that he wanted a cat sadly,

she let him have it, and a fine cat she was.

This cat Whittington concealed in the garret, and here she soon killed or frightened away the rats and mice.

Soon after this, the merchant, who had a ship ready to sail, called for all his servants, as his custom was, in order that each of them might venture something to try their luck; and whatever they sent was to pay neither freight nor custom: for he justly thought that God would bless him the more for letting the poor partake of his good fortune.

All the servants appeared except poor Whittington, who having neither money nor goods, could not think of sending any thing to try his luck; but his good friend, Miss Alice, thinking his poverty kept him away, ordered him to be called.

She then offered to give something for him; but the merchant told his daughter that would not do, for it must be something of his own. Upon which poor Whittington said, he had nothing but a cat, which he had bought for a penny that was given him. "Fetch thy cat, boy," said the merchant, "and send her." Whittington brought poor puss, and delivered her to the captain with tears in his eyes, for he said he should now be disturbed by the rats and mice as before. All the company laughed at the oddity of the adventure; and Miss Alice, who pitied the poor boy, gave him something to buy him another cat.

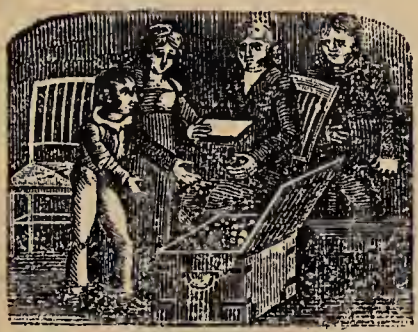
The ship, with the cat on board, was long beating about at sea, and at last, by contrary winds, driven on a part of the coast of Barbary, which was inhabited by Moors, unknown to the English. These people received our countrymen with civility; and therefore the captain, in order to trade with them, showed them patterns of the goods he had on board, and sent some of them to the king of the country, who was so well pleased that he sent for the captain and factor to his palace. Here they were placed, according to the custom of the country, on rich carpets flowered with gold and silver; and the king and queen being seated at the upper end of the room, dinner was brought in on massy plates of gold and silver, and placed on tables of marble with ivory and silver knives. The splendid dinner consisted of many dishes; but no sooner was it put on the table, when an amazing number of rats and mice came from all quarters, and devoured all the meat in an instant. The factor, in surprise, turned round to the nobles, and asked if these vermin were not offensive? "Yes," said they, "very offensive; and the king would give half his treasure to be free of them; for they not only destroy his dinner, as you see, but they assault him in his chamber, and even in his bed, so that he is obliged to be watched while he is sleeping, for fear of them."

The factor jumped for joy: he remembered poor Whittington's cat, and told the king he had a creature, on board his ship, that would despatch all these vermin immediately. The king was overjoyed at the news. "Bring this creature to me," said he, "and if she will perform what you say, I will load your ship with jewels in exchange for her." The factor took this opportunity to set forth the merits of Mrs. Puss, and said that it would be inconvenient for him to part with her; but that, to oblige his majesty, he would fetch her. "Run, run," said the Queen, "for I am impatient to see the dear creature." Away flew the factor, while another dinner was providing, and returned with the cat, just as the rats and mice were devouring that also. He immediately

put down puss, who killed a great part of them, and the rest ran away.

The king having seen the wonderful exploits of Mrs. Puss, and being informed that she was with young, and would furnish the whole country, bargained with the captain and factor for the whole ship's cargo, and then gave them ten times as much for the cat as all the rest amounted to.

After tarrying a few days, they sailed with a fair wind for England, whither we must now attend them.



The morn, emerging from the mountain's height,
Had scarcely ting'd the skies with rosy light,

when Mr. Fitzwarren stole from the bed of his beloved wife, to count over the cash, and settle the business of the day. He had but just entered the counting-house, and seated himself at the desk, when somebody came and tapped at the door. "Who's there?" said Mr. Fitzwarren. "A friend," answered the other. "What friend can come at this unseasonable time?" "A real friend is never unseasonable," answered the other; "I come to bring you good news of the ship *Unicorn*." The merchant instantly got up, opened the door, and who should be seen waiting but the captain and factor, with a cabinet of jewels and a bill of lading; on which the merchant lifted up his eyes, and thanked heaven for sending him such a prosperous voyage. They then told him of the adventures of the cat, and showed him the cabinet of jewels which they had brought for Mr. Whittington. Upon which he cried out with great earnestness,

Go call him, and tell him of his fame,
And call him Mr. Whittington by name.

The merchant, taking him by the hand, said, "Indeed, Mr. Whittington, I am in earnest with you, and sent for you to congratulate you on your great success. Your cat has produced you more money than I am worth in the world, and may you long enjoy it." Being at length shown the treasure and convinced by them that all of it belonged to him, he fell on his knees, thanking the Almighty for his providential care of such a miserable creature. He then gratified the captain, factor, and ship's crew, for the care taken of his cargo.

When Mr. Whittington's face was washed, his hair curled, his hat cocked, and he was dressed in a rich suit of clothes, he turned out a very genteel young man indeed, and in a little time dropped that sheepish behaviour, which was principally occasioned by a depression of spirits, and soon became a sprightly and good companion, insomuch that Miss Alice, who had formerly seen him with an eye of compassion, now beheld him differently.

When the father perceived they had this good liking for each other, he proposed a match between them. Both parties cheerfully consented, and the lord mayor, the court of aldermen, the company of stationers, and a number of eminent merchants attended the ceremony and were elegantly treated at an entertainment made for that purpose.

History tells us that they lived happily, and had several children; that he was sheriff of London in 1340, and lord mayor; that in the latter part of his mayoralty he entertained King Henry the Fifth and his Queen, after the conquest of France. Upon this occasion, the King, in consideration of Whittington's merit, said, "Never had prince such a subject." This being told Whittington at table, he replied, "Never had subject such a king."

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		325	336	352
Stallion	4 "	12 to 15	20 to 30			
Cow	18-24 mos.	10 to 14		235	282	300
Bull	12-18 "	10 to 12	30 to 40			
Ewe	18 "	6		145	147	152
Ram	12-14 "	7	35 to 45			
Sow	9 "	6		110	114	120
Boar	9 "	6	8 to 12			
She Goat	18 "	6		147	151	155
He Goat	18 "	5	20 to 30			
Ass	3 yrs.	10 to 12		356	367	378
Jack	4 "	12 to 15	20 to 30			
She Buffalo	18-24 mos.	8		309	315	325
Bitch	16-18 "	8		58	63	67
Dog	12-16 "	8				
She Cat	12 mos.	6		58	60	64
He Cat	12 "	10	6 to 8			
Doe Rabbit	6 "	5 to 6		25	30	35
Buck Rabbit	6 "	5 to 6	30			
Cock	6 "	5 to 6	12 to 18			
Hen		5 to 6		19	21	24
Turkey				24	26	30
Duck				28	30	32
Goose				27	30	33
Pigeon				16	18	20
Pea Hen				25	28	30
Guinea Hen				20	23	25
Swan				40	42	45
Hen or Duck's Eggs				22	30	34
Robin's Eggs				13	16	19

REPRODUCTIVE CYCLE IN FARM ANIMALS

Courtesy F. N. Andrews — Purdue University

	Reoccurs if not Bred (Days)	Estrual Cycle incl. Heat Period (Days)		In Heat for		Usual Time of Ovulation
		Ave.	Range	Ave.	Range	
Mare	16	21	10–37	5–6 days	1–37 days	24–48 hours before end of estrus
Sow	19	21	18–24	2–3 days	1–5 days	Usually second day of estrus
Ewe	15	16	14–20	30 hours	20–42 hours	1 hour before end of estrus
Goat	19	20	12–25	36–48 hours	20–80 hours	Near end of estrus
Cow	20	19–20	16–24	16–20 hours	8–30 hours	14 hours after end of estrus
Bitch	180	24		21–28 days		
Cat	120			3–12 days		

THE MATING HABITS OF THE EASTERN SKUNK

Although the writer has kept many skunks in captivity during the past fifteen years and has had as many as fifty under observation at one time, the activity during the breeding period, or any information regarding the gestation period gathered through personal experience, has previously been of an indefinite nature. Ernest Thompson Seton seems to have experienced the same difficulty, for he says, "As the coupling will take place in the den and nearly always at night, the observation is not easy." He stated that "The period of gestation is nearly always 63 days — 9 full weeks," but that "in the experiments carried on at Saratoga Springs, New York, by the Department of Agriculture they have found various extensions up to as high as 72 days."

It was the writer's experience in Oregon that the mating period, which was indicated by sounds that emanated from the dens; occurred between March 1 and 15, and that the young usually were born during the second week in May, and most frequently on the 10th or 11th of that month.

Observations in the field also indicate that the impregnation may occur during a very brief season. For instance, on June 16, 1929, four litters of young skunks were observed, three of which appeared to be exactly the same age. A pair of these were kept by the writer.

The skunks wintered in a two-foot excavation made by themselves through a hole in the bottom of their large box, which was partly filled with dirt. This gave them an approximately normal winter den. Here they remained comparatively inactive until the latter part of February, although they usually came out of the burrow daily to take food.

On February 25, the writer's attention was attracted by the calls which are typical during the breeding season. On the morning of February 27, the tracks of a visiting wild skunk, attracted presumably by the female within the box, were found on the freshly fallen snow about the den of the captive skunks. This skunk had attempted to enter the box and had been successful in tearing a good-sized hole in its veneer side but had not gained entrance. At that time the captive female was in the pro-oestrous phase of the oestrous cycle.

In order to observe them more closely the pair were immediately removed to the basement and placed in a large open box.

During the following eight days, nineteen matings were attempted and the exact nature of the process and any variations as they occurred were recorded. From these records it has been possible to divide tentatively the sexual cycle of the skunk into the pro-oestrous, oestrous, and post-oestrous periods.

The Pro-Oestrum

The pro-oestrous period was first indicated as mentioned above on February 25. Five observations of attempts to mate were made during this period, the first on February 27, at 1 P.M.

In each attempt the male sought the female, and throughout the entire cycle there was no evidence that the female actively assumed an initiatory attitude. Each mating attempt began by the male's engaging the female in a struggle which from all appearances was exceedingly ferocious.

The Oestrum

Seven attempts to mate were made during this period, five of which were under continual observation, and all of these were successful. The first occurred on March 1 at 4 P.M. The male held the female by the skin of the neck. She frequently dragged him to the center of the cage where she daintily ate some meat. He would invariably release his hold from her neck and examine her activity, and after dragging her away from the meat would then renew his struggles with added vigor. The last successful mating was on March 3 at 7 P.M.

Continued on Page 67

Postal Laws

Corrected as of April 30, 1965.

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

LETTERS AND POSTAL CARDS. — FIRST CLASS.

Letters and Written and Sealed Matter, 5 cents for each ounce, local and non-local except that drop letters are subject to 4 cents 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.

Postcards and Private Mailing Cards (max. 4¼" x 6"; min. 3" x 4¼") ..... .04

Government Postal Cards, each..... .04

Stamped 5 cent Envelopes No. 10—$28.80, 500—$57.60, 1000.

Business Repiy Cards 6 cents, Business Reply 1 oz. letters 7 cents.

NEWSPAPERS AND PERIODICALS. — SECOND CLASS.

Entire Newspapers or Magazines containing notice of second class entry when mailed by public unsealed, 4 cents for 1st two ounces, 1 cent each added 1 oz. Fourth Class Rate applies when it is lower than Second Class.

MERCHANDISE AND MISCELLANEOUS. — THIRD CLASS.

(Limit of weight up to but not including 16 ounces)

Merchandise, incomplete copies of newspapers, printed and other mailable matter unsealed, 4 cents for first two ounces, 2 cents each add'l ounce-limit 16.

Identical pieces of third-class matter may be mailed under permit in bulk lots of not less than either 50 pounds or 200 pieces, at the rate of 18 cents a pound, or fraction thereof. In case of circulars, miscellaneous printed matter, and merchandise, 12 cents a pound, or fraction thereof, in the case of books or catalogs having 24 pages or more, seeds, plants, etc., with a minimum charge of 2 ½c a piece in either case. Apply to postmaster for permit. The bulk mailing fee is $30 per calendar year.

Books, catalogs (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 4 cents, each added ounce 2 cents.)

Circulars and other miscellaneous printed matter, also merchandise, 4 cents for the first 2 ounces and 2 cents for each additional oz.

PARCEL POST. — FOURTH CLASS.

(16 oz. or over, incl. books, ptd. matter, except 1st class and second class papers mailed by publishers)

Catalogs and Similar Printed Advertising Matter, in bound form having 24 or more pages, weighing 16 ounces but not exceeding 10 pounds. (See Postmaster)

ZONES, Wgt. 1 lb.	Local	1st & 2nd	3rd	4th	5th	6th	7th	8th
And not over 1.5 lbs.	21c	25c	26c	28c	29c	32c	34c	38c
And not over 10 lbs.	36c	50c	56c	65c	77c	91c	1.07	1.25

Books: 10 cents for the first pound or fraction thereof and 5 cents for each additional pound or fraction thereof—24 or more pages permanently bound, not to exceed 70 lbs. Also incl. sound recordings. Also incl., when marked "Special Fourth-Class Rate," ptd. music, 16 mm. films and 16 mm. film catalogs (Exc. to commercial theatres), objective test material, sound recordings and mss. for books, periodical articles and music.

Library Books: 4 cents for the first pound or fraction thereof and 1 cent for each additional pound or fraction thereof—limit of weight 70 pounds—when sent by public libraries, organizations, or associations not organized for profit.

Weight Limits: 70 lbs. and 100 inches combined length and girth—except between 1st Class postoffices (Postmaster has list) where limits are: In zones 1 and 2, 40 lbs. with 72 inch combined length and girth, other zones 20 lbs. and 72 inch combined length and girth. Parcels over 84 but under 100 inches combined length and girth charged as 10 pounds.

Wt. 1 lb. but not over	LOCAL	1-2 Up to 150 miles	3 150 to 300 miles	4 300 to 600 miles	5 600 to 1000 miles	6 1000 to 1400 miles	1400 to 1800 miles	8 Over 1800 miles
2	$0.29	$0.40	$0.42	$0.46	$0.52	$0.59	$0.66	$0.72
3	.31	.46	.49	.55	.64	.73	.83	.93
4	.33	.51	.55	.64	.75	.88	1.01	1.13
5	.35	.57	.62	.72	.87	1.02	1.18	1.34
6	.37	.62	.68	.80	.97	1.15	1.34	1.53
7	.39	.68	.75	.88	1.07	1.28	1.50	1.73
8	.41	.73	.81	.95	1.18	1.41	1.66	1.92
9	.43	.78	.87	1.03	1.28	1.53	1.82	2.12
10	.45	.83	.93	1.10	1.38	1.66	1.98	2.31
11	.47	.88	1.00	1.18	1.48	1.78	2.14	2.48
12	.49	.93	1.06	1.26	1.58	1.90	2.29	2.66
13	.51	.98	1.12	1.33	1.69	2.02	2.44	2.83
14	.53	1.03	1.18	1.41	1.79	2.14	2.60	3.01
15	.55	1.08	1.24	1.48	1.89	2.25	2.75	3.18
16	.57	1.13	1.30	1.56	1.99	2.37	2.90	3.36
17	.59	1.18	1.36	1.64	2.09	2.49	3.06	3.53
18	.61	1.23	1.42	1.71	2.20	2.61	3.21	3.71
19	.63	1.28	1.48	1.79	2.30	2.73	3.36	3.88
20	.65	1.32	1.54	1.86	2.40	2.85	3.51	4.06
	[1] 24	2.53	3.00	3.84	5.03	6.26	7.84	9.22

SPECIAL CLASSES. — DOMESTIC MAIL.

Special Delivery: First Class Mail: Each piece under 2 lbs.—30c, over 2 up to 10—45c, over 10 lbs.—60c. Same for air, incl. air p.p.
Parcel Post: Up to 2 lbs.—55c; over 2 up to 10—65c; over 10 lbs.—80c.

Special Handling: Parcel Post only: Up to 2 lbs.—25c, over 2 lbs. up to 10—35c, over 10 lbs.—50c. (This service expedites mail but does not include special delivery.)

Registered Mail: Up to $10 indemnity—60c; over $10 up to $100—75c; over $100 up to $200—$1.00; over $200 up to $400—$1.25; over $400 up to $600—$1.50, over $600 up to $800—$1.75; over $800 up to $1000—$2.00. There are special surcharges when declared values exceed indemnities—see local Postmaster about these.

Insured Mail: Third and Fourth Class Only: Indemnity up to $10—10c, over $10 up to $50—20c; over $50 up to $100—30c; over $100 up to $200—40c.

C.O.D.: Indemnities up to $5—40c; over $5 up to $10—50c; over $10 up to $25—70c; over $25 up to $50—80c; over $50 up to $100—90c; over $100 up to $200—$1.00. Registered C.O.D., 40c fee plus registration fee based on value of article.

Money Orders: Limit for each is $100. If amount of money order is from 1c to $10 the fee is 20c, from $10.01 to $50 the fee is 30c, from $50.01 to $100 the fee is 35c.

Certified Mail: First class only having no value, add 20c to postage plus (a) 10c for return receipt showing to whom and when delivered; (b) 35c for whom, when, and address where delivered; (e) 25c for request after mailing showing to whom and when delivered. Obtain blank coupons from Postmaster.

POSTAL RATES: International

SURFACE RATES

Letters: To Canada and Mexico, 5c per oz., to all other countries, 11c for the first oz. and 7c each additional oz.

Postcards: To Canada and Mexico, 4c each; 8c reply-paid. To all other countries, 7c each, 14c reply-paid. Maximum size 6 x 4 ¼ inches, minimum size 4 ¼ x 3 inches.

Printed Matter: In general, to Canada and Mexico, 4c first 2 oz. 2c each additional oz.; all other, 5c first 2 oz. 3c each additional 2 oz. Books and sheet music, to countries of the Postal Union of the Americas and Spain, exc. Spain and Spanish possessions, 2c first 2 oz.; 1c each additional 2 oz.; all other (inc. Spain and poss.) 3c first 2 oz.; 1 ½c each additional 2 oz. Publishers' second class, P.U.A.S. countries, 2c first 2 oz., 1c each additional 2 oz., all other, 3c first 2 oz.; 1 ½c each additional 2 oz.

Commercial Papers: To all countries, 5c first 2 oz.; 3c each additional 2 oz. Minimum charge 12c.

Samples of Merchandise: To Canada and Mexico, 4c first 2 oz.; 2c each additional oz. Minimum charge 10c. All other, 5c first 2 oz.; 3c each additional 2 oz. Minimum charge 12c.

Matter for the Blind: All countries, domestic rates apply with certain exceptions.

Small Packets: All countries, 5c each 2 oz. Minimum charge, 25c.

8-oz. Merchandise Packages: To Canada, 4c first 2 oz.; 2c each additional oz. Minimum charge, 10c. All other, 25c each (flat rate).

Registration, Insurance, Return Receipts: For detailed information concerning these services, consult your local Postmaster.

SURFACE PARCEL POST RATES

Zone **1:** N. America, C America, Caribbean Is. — 80c first 2 lbs., 30c each additional lb.

Zone **2:** All other countries — 90c first 2 lbs.; 35c each additional lb.

AIR MAIL RATES: Domestic and International

Three-zone rate structure as follows: *Zone A:* N. America, C. America, Caribbean Is.; *Zone B:* S. America, Europe (exc. USSR), Mediterranean Africa; *Zone C;* USSR, Asia, the Pacific, Africa other than Mediterranean.

Air Mail Letters: United States, Canada and Mexico, 8c per oz.; *Zone A*, 13c per half oz.; *Zone B*, 15c per half oz.; *Zone C*, 25c per half oz.

"Other Articles": United States, Canada, 8c per oz.; *Zone A*, 30c first 2 oz.; 10c each additional 2 oz.; *Zone B*, 40c first 2 oz.; 20c each additional 2 oz.; *Zone C*, 50c first 2 oz.; 30c each additional 2 oz.

Post Cards and Aerogrammes (air letter sheets): Cards, United States, Canada and Mexico, 6c each (single). All other, 11c each (single). Aerogrammes, 11c each.

Air Parcel Post: For detailed information, consult your local Postmaster.

MOON WEATHER TABLE,

For foretelling the Weather through all the lunations of each year, forever.

This table, and the accompanying remarks, are the result of many years' actual observation, the whole being constructed on a due consideration of the attraction of the sun and moon, in their several positions respecting the earth, and will, by simple inspection, show the observer what kind of weather will most probably follow the entrance of the moon into any of its quarters, and that so near the truth as to be seldom or never found to fail.

This weather table will answer very well for anywhere in the United States. It is taken from the 1849 issue of The Old Farmer's Almanac and was widely used before the advent of the Weather Bureau. Do not be surprised if the forecasts arrived at by this table do not agree with those on Pages 5, 72, 11–33. THE OFA goes by many factors besides the moon.

WEATHER TABLE FOR ANYWHERE

Moon	Time of Change	In Summer	In Winter
If the new moon, 1st quarter, full moon, or last quarter happens.	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.

Observations. — 1. The nearer the moon's changes, first quarter, full, and last quarter are to *midnight*, the fairer will it be during the next seven days.

2. The space for this calculation occupies from ten at night till two next morning.

3. The nearer to *midday*, or *noon*, the phases of the moon happen, the more foul or wet weather may be expected during the next seven days.

4. The space for this calculation occupies from ten in the forenoon to two in the afternoon. These observations refer principally to the summer, though they affect spring and autumn nearly in the same ratio.

5. The moon's change, first quarter, full and last quarter, happening during six of the afternoon hours, i.e., from four to ten, may be followed by fair weather; but this is mostly dependent on the *wind*, as is noted in the table.

6. Though the weather, from a variety of irregular causes, is more uncertain in the latter part of autumn, the whole of winter, and the beginning of spring, yet, in the main, the above observations will apply to those periods also.

7. To prognosticate correctly, especially in those cases where the *wind* is concerned, the observer should be within sight of a good *vane*, where the four cardinal points of the heavens are correctly placed.

The above table was originally formed by Dr. Herschell, and is now published with some alterations founded on the experience of Dr. Adam Clarke.

TO THE WEATHER-WISE

M. Toalda of Padua (circa 1720) asserted that the weather changes most often (85.8% of the time) when the new moon comes in; 83.4% with the full, and 66.7% with the other two phase changes. Recent studies by scientists with the U.S.W.B and N.Y.U. show heaviest rainfall comes 3 to 5 days after the new and the full moons.

Many blossoms on plum trees in the Spring, heavy fruit crops in the Fall, oak (and other) leaves remaining on trees in December indicate a severe Winter is coming up. The thickness of Fall fur on most animals, goose bones, pigs' melts, distance between caterpillar stripes also are Winter predictors. Birds, particularly owls, pileated woodpeckers, and swallows are predictors — as is, of course, the woodchuck. When hornets build nests high off the ground, expect deep snows. Bees, spiders, and ants — as well as certain flowers — are useful as short-term predictors. Nature, on the whole, however, is not easily understood and birds and animals, who should know, are often as misled by her as is mankind.

USE THIS ALMANAC ANYWHERE IN THE U.S.A.

For adjusting the Weather Forecasts to your locality, see Page 5.

The times given on the left hand calendar pages (10 to 32) are calculated (every astronomer must have some starting place) exactly for the latitude (42 deg. 22 min. north) and longitude of Boston and in EASTERN STANDARD TIME which is the time of the 75th meridian West of Greenwich, England.

To overcome the difficulties of presenting one almanac which shall be useful not only for the spot where the astronomer is standing but also for other places, we present herewith a copyrighted system of our own wherehy the times as given may be corrected for wherever you happen to live.

Opposite the times given on the left hand calendar pages (10–32) for each day in the year for the Rising and Setting of the Sun, Moon and Planets you will find a capitalized key letter of the alphahet. Having the key letter for the day in question, turn to page 84 where you will find columns for each of these key letters. For your specific city, then turn to page 85 and determine the two code symbols on that page [(1)–(17)] and [a–j] as well as the constant which applies to your city. Then turn to page 84 and read in the proper key letter column opposite the two code symbols the two correction figures in minutes which apply. The total correction for your city will he these two correction figures, plus the constant figure already obtained on page 85.

For example, the code symhols for Pittsburgh are (5) and "e" and the constant is +36. The permanent values of the corrections are found as follows:

From p. 84–5	A m	B m	C m	D m	E m	F m	G m	H m	I m	J m	K m	L m	M m	N m	O m	P m	Q m
Line (5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Line "e"	+10	+ 9	+ 7	+ 6	+ 5	+ 3	+ 2	+ 1	0	− 1	− 2	− 4	− 5	− 7	− 8	−10	−11
Constant	+36	+36	+36	+36	+36	+36	+36	+36	+36	+36	+36	+36	+36	+36	+36	+36	+36
Correction	+46	+45	+43	+42	+41	+39	+38	+37	+36	+35	+34	+32	+31	+29	+28	+26	+25

For cities listed on page 85, interpolate between those two nearest in latitude, respectively North and South of the desired city. No inquiries will be answered unless accompanied by postage paid return envelope.

HOW TIMES ARE CONVERTED FOR YOUR TOWN

Sunrise and Sunset. The times of sunrise and sunset at Boston on April 11 are read directly from columns 4 and 6 on page 16. The key letters adjacent to these times, in columns 5 and 7, are indices to the table on pages 84–5 whereby the times of sunrise and sunset at Boston are converted into those for other key cities, to wit:—

BOSTON		PITTSBURGH, PA.	
Sunrise	5.10 A.M., E.S.T.	Sunrise (Boston)	5.10 A.M., E.S.T.
Key Letter	G	Correction (Column G, page 84–5)	+.38
		Sunrise (Pittsburgh)	5.48 A.M., E.S.T.
Sunset	6.21 P.M., E.S.T.	Sunset (Boston)	6.21 P.M., E.S.T.
Key Letter	K	Correction (Column K, page 84–5)	+.34
		Sunset (Pittshurgh)	6.55 P.M., E.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 he of the time indicated hy a clock. On April 11 sun time in Boston will be 15 minutes Fast of Eastern Standard Time. The time indicated hy 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 city (using that city's two eode symhols) — page 85 — under capitalized key letter I, page 84.

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

BOSTON		PITTSBURGH, PA.	
Length of day (From calendar page 16, April 11.)	13h 11m	Sunset (Pittshurgh)	6.55 P.M.
		Sunrise (Pittsburgh)	5.48 A.M.
		Length of Day	13h 07 m

Moonrise and Moonset. The procedure for finding the times of moonrise and moonset follows that for finding those of sunrise and sunset except that the constant additional correction shown below must be applied.

BOSTON		PITTSBURGH, PA.	
Moonrise	12.35 A.M., E.S.T.	Moonrise (Boston)	12.35 A.M.
Key Letter	P	Correction (Column D)	+.26
April 11		Correction below	+.01
Page 16			
Moonset	9.15 A.M., E.S.T.	Moonrise (Pittsburgh)	1.02 A.M., E.S.T.
Key Letter	B		
		Moonset (Pittsburgh)	10.01 A.M., E.S.T.

Constant Additional Correction

Longitude:	58°–77°	77°–90°	90°–103°	103°–116°	116°–128°	128°–142°	142°–155°
	m	m	m	m	m	m	m
D	0	+1	+2	+3	+4	+5	+6

The other information concerning the Moon contained on the left hand Almanac pages 10–32 applies without correction throughout the United States.

Moon Souths. It will be noted that this year this Almanac again has omitted the usual "Moon Souths" column in favor of including full continuous columns (pages (10–32) on both "Moonrise" and "Moonset". The "Moon Souths" column seemed to serve but little purpose except that of an astrological nature; to wit, at what time the moon is in the astrological sign indicated in the next to last column pages 10–32. On the other hand, the extra moonrise and moonset information would seem to be in some demand—especially among fishermen.

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 34. The procedure for converting these times to those of other localities follows that for converting the times of sunrise and sunset given on page 81.

Dawn and Dark. The approximate times dawn will break and dark descend are found by applying the length of twilight taken from the table below 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.)		April 11	PITTSBURGH, PA. (Latitude 40° 26′ N.)	
Sunrise	5.10 A.M.		Sunrise (see pg 81)	5.48 A.M.
Subtract length of twilight (Column 3 of table)	1.33		Subtract length of twilight (Column 3 of table)	1.33
Dawn breaks	3.37 A.M., E.S.T.		Dawn breaks	4.15 A.M., E.S.T.
Sunset	6.21 P.M.		Sunset (see pg 81)	6.55 P.M.
Add length of twilight	1.33		Add length of twilight	1.33
Dark descends	7.54 P.M., E.S.T.		Dark descends	8.28 P.M., E.S.T.

LENGTH OF TWILIGHT

Subtract from time of sunrise for dawn.
Add to time of sunset for dark.

Latitude	25°N to 30°N	31°N to 36°N	37°N to 42°N	43°N to 47°N	48°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

TIDE CORRECTIONS

To obtain the time and height of high water at any place, apply the differences below as they appear on pages 10–33 to the daily predictions for Boston (Commonwealth Pier). Where a value in the "height difference" column is preceded by an *, height at Boston should be multiplied by this ratio. The daily *times* of high tide at Boston are in the "Full Sea" column, pages 10–32. Daily heights are on pages 11–33.

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

Example: The figures for Full Sea in Columns 10 and 11 of the left hand Almanac pages 10–32 are the times of high tide at Commonwealth Pier in Boston Harbor. The heights of these tides are given on the right hand pages 11–33. The heights are reckoned from Mean Low Water: each day has a set of figures—upper for the morning—and lower for the evening. The conversion of the times of the tides at Boston to those of Miami is given by way of illustration.

Example: Apr. 18. See page 16, column 11, for time; page 17 for height.

BOSTON		MIAMI	
High Tide (from page 16)	10.00 P.M.E.S.T.	High tide (Boston)	10.00 P.M.E.S.T.
April 18		Correction above	−3.00
		High tide (Miami)	7.00 P.M.E.S.T.
Height (from page 17)	9.1 feet	Height (Miami) (9.1 x 0.3)	2.7 feet

ALMANAC DATA — ALL POINTS IN U.S.A.

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 page 81. Column key letters refer to pages 10-32, 34.)

Key Letter from pages 10-32, 34 Minutes	A m	B m	C m	D m	E m	F m	G m	H m	I m	J m	K m	L m	M m	N m	O m	P m	Q m
Code Symbols from page 85	For cities not listed Page 85, interpolate between nearest two in your time zone																
(1)	+ 78	+ 71	+ 62	+ 51	+ 41	+ 30	+ 20	+ 9	− 2	− 12	− 23	− 34	− 44	− 54	− 63	− 72	− 81
(2)	+ 59	+ 53	+ 46	+ 38	+ 30	+ 22	+ 15	+ 6	− 1	− 9	− 17	− 25	− 33	− 40	− 47	− 54	− 61
(3)	+ 39	+ 35	+ 31	+ 25	+ 20	+ 15	+ 10	+ 4	− 1	− 6	− 11	− 17	− 22	− 27	− 31	− 36	− 41
(4)	+ 20	+ 18	+ 15	+ 13	+ 10	+ 7	+ 5	+ 2	0	− 3	− 6	− 8	− 11	− 13	− 16	− 18	− 21
(5)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(6)	− 20	− 18	− 15	− 12	− 10	− 7	− 4	− 2	0	+ 3	+ 6	+ 8	+ 11	+ 13	+ 16	+ 18	+ 21
(7)	− 41	− 36	− 30	− 25	− 19	− 14	− 9	− 4	+ 1	+ 6	+ 11	+ 16	+ 21	+ 26	+ 32	+ 37	+ 44
(8)	− 62	− 54	− 45	− 37	− 28	− 21	− 13	− 6	+ 1	+ 9	+ 16	+ 24	+ 32	+ 40	+ 47	+ 56	+ 67
(9)	− 84	− 73	− 61	− 48	− 37	− 27	− 17	− 7	+ 2	+ 11	+ 21	+ 31	+ 42	+ 52	+ 63	+ 76	+ 92
(10)	−108	− 92	− 76	− 60	− 46	− 33	− 21	− 9	+ 2	+ 14	+ 26	+ 38	+ 51	+ 65	+ 80	+ 97	+120
(11)	−134	−112	− 90	− 71	− 54	− 39	− 24	− 10	+ 2	+ 16	+ 30	+ 45	+ 61	+ 78	+ 96	+119	+151
(12)	−164	−132	−105	− 82	− 62	− 44	− 27	− 12	+ 3	+ 18	+ 35	+ 51	+ 70	+ 89	+112	+143	+184
(13)	−215	−155	−120	− 92	− 69	− 49	− 30	− 13	+ 3	+ 20	+ 39	+ 57	+ 78	+101	+129	+170	
(14)		−180	−134	−102	− 76	− 53	− 33	− 14	+ 4	+ 22	+ 42	+ 63	+ 86	+112	+145	+210	
(15)		−214	−149	−111	− 81	− 57	− 36	− 15	+ 4	+ 24	+ 45	+ 68	+ 93	+123	+163		
(16)	No risings or settings	No risings or settings	−162	−119	− 87	− 62	− 38	− 16	+ 4	+ 25	+ 48	+ 72	+100	+133	+181	No risings or settings	No risings or settings
(17)			−175	−126	− 92	− 65	− 40	− 17	+ 5	+ 26	+ 51	+ 76	+106	+142	+200		
a	+ 2	+ 2	+ 2	+ 1	+ 1	+ 1	0	0	0	0	− 1	− 1	− 1	− 2	− 2	− 2	− 2
b	+ 4	+ 4	+ 3	+ 2	+ 2	+ 1	+ 1	0	0	− 1	− 1	− 2	− 2	− 3	− 3	− 4	− 4
c	+ 6	+ 5	+ 4	+ 4	+ 3	+ 2	+ 1	+ 1	0	− 1	− 1	− 2	− 3	− 4	− 5	− 6	− 7
d	+ 8	+ 7	+ 6	+ 5	+ 4	+ 2	+ 2	+ 1	0	− 1	− 2	− 3	− 4	− 5	− 6	− 8	− 9
e	+ 10	+ 9	+ 7	+ 6	+ 5	+ 3	+ 2	+ 1	0	− 1	− 2	− 4	− 5	− 7	− 8	− 10	− 11
f	+ 13	+ 11	+ 9	+ 7	+ 5	+ 4	+ 2	+ 1	0	− 2	− 3	− 5	− 6	− 8	− 10	− 11	− 13
g	+ 15	+ 13	+ 11	+ 8	+ 6	+ 4	+ 3	+ 1	0	− 2	− 3	− 6	− 7	− 9	− 11	− 13	− 15
h	+ 17	+ 14	+ 12	+ 10	+ 7	+ 5	+ 3	+ 2	0	− 2	− 4	− 6	− 8	− 10	− 13	− 15	− 18
i	+ 19	+ 16	+ 13	+ 11	+ 8	+ 5	+ 4	+ 2	0	− 3	− 4	− 7	− 9	− 12	− 14	− 17	− 20
j	+ 21	+ 18	+ 15	+ 12	+ 9	+ 6	+ 4	+ 2	0	− 3	− 5	− 8	− 10	− 13	− 16	− 19	− 22

CODE SYMBOLS AND CONSTANTS — SPECIFIC CITIES —
for Adjusting Almanac to All Points in U.S.A. See Page 81

City	Time used	Code symbols		Constant
Akron, O.	EST	(5)	c	+42
Albany, N. Y.	EST	(6)	i	+11
Albuquerque, N. M.	MST	(4)	e	+22
Allentown, Pa.	EST	(5)	e	+18
Amarillo, Texas	CST	(4)	e	+63
Anchorage, Alaska	150°	(13)	c	+14
Arlington, Va.	See Washington			
Asheville, N. C.	EST	(4)	e	+46
Atlanta, Ga.	EST	(4)	h	+53
Augusta, Ga.	EST	(4)	h	+44
Austin, Texas	CST	(3)	c	+47
Baltimore, Md.	EST	(5)	g	+22
Bangor, Me.	EST	(6)	d	− 9
Beaumont, Texas	CST	(3)	c	+32
Bethlehem, Pa.	EST	(5)	e	+17
Binghamton, N. Y.	EST	(5)	a	+19
Birmingham, Ala.	CST	(4)	i	+ 3
Bismarck, N. D.	CST	(7)	l	+59
Boise, Idaho	MST	(6)	g	+61
Bridgeport, Conn.	EST	(5)	c	+ 8
Buffalo, N. Y.	EST	(6)	i	+31
Burlington, Vt.	EST	(6)	e	+ 9
Butte, Mont.	MST	(6)	a	+46
Camden, N. J.	EST	(5)	e	+16
Canton, Ohio	EST	(5)	d	+41
Cedar Rapids, Ia.	CST	(5)	a	+22
Charleston, S. C.	EST	(4)	i	+35
Charleston, W. Va.	EST	(5)	i	+42
Chattanooga, Tenn.	EST	(4)	e	+57
Chester, Pa.	EST	(5)	e	+17
Cheyenne, Wyo.	MST	(5)	c	+15
Chicago, Ill.	CST	(5)	a	+ 6
Cincinnati, Ohio	EST	(5)	h	+54
Cleveland, Ohio	EST	(5)	b	+43
Columbia, S. C.	EST	(4)	g	+40
Columbus, Ga.	EST	(4)	j	+56
Columbus, Ohio	EST	(5)	e	+48
Corpus Christi, Tex.	CST	(3)	g	+45
Covington, Ky.	See Cincinnati			
Dallas, Tex.	CST	(4)	i	+43
Dearborn, Mich.	EST	(5)	-	+49
Decatur, Ill.	CST	(5)	f	+12
Denver, Colo.	MST	(5)	f	+16
DesMoines, Ia.	CST	(5)	b	+30
Detroit, Mich.	EST	(5)	-	+48
Duluth, Minn.	CST	(7)	l	+24
Durham, N. C.	EST	(4)	d	+31
E. Orange, N. J.	EST	(5)	d	+13
E. St. Louis, Ill.	See St. Louis			
El Paso, Tex.	MST	(3)	a	+22
Erie, Pa.	EST	(5)	a	+36
Evansville, Ind.	CST	(5)	j	+ 6
Fairbanks, Alaska	150°	(17)	-	+ 6
Fall River, Mass.	EST	(5)	b	0
Fresno, Cal.	PST	(4)	b	+14
Galveston, Texas	CST	(3)	e	+35
Gary, Ind.	CST	(5)	b	+ 5
Grand Rapids, Mich.	EST	(6)	i	+58
Greensboro, N. C.	EST	(4)	c	+35
Hamilton, Ohio	EST	(5)	f	+54
Hammond, Ind.	CST	(5)	b	+ 5
Hamtramck, Mich.	See Detroit			
Harrisburg, Pa.	EST	(5)	e	+23
Hartford, Conn.	EST	(5)	a	+ 6
Holyoke, Mass.	EST	(5)	a	+ 6
Honolulu, Hawaii	150°	(2)	f	+47
Houston, Texas	CST	(3)	d	+37
Huntington, W. Va.	EST	(5)	l	+46
Indianapolis, Ind.	CST	(5)	f	0
Irvington, N. J.	EST	(5)	e	+13
Jackson, Mich.	EST	(5)	-	+53
Jackson, Miss.	CST	(4)	j	+16
Jacksonville, Fla.	EST	(3)	c	+42
Johnstown, Pa.	EST	(5)	e	+31
Juneau, Alaska	135°	(11)	c	+14
Kalamazoo, Mich.	EST	(5)	-	+58
Kansas City, Mo.	CST	(5)	h	+34
Lakewood, Ohio	EST	(5)	b	+43
Lancaster, Pa.	EST	(5)	e	+21
Lansing, Mich.	EST	(6)	i	+54
Lawrence, Mass.	EST	(6)	i	0
Lewiston, Me.	EST	(6)	f	− 3
Lexington, Ky.	EST	(5)	l	+54
Lincoln, Neb.	CST	(5)	d	+45
Little Rock, Ark.	CST	(4)	f	+25
Los Angeles, Cal.	PST	(4)	g	+ 9

City	Time used	Code symbols		Constant
Macon, Ga.	EST	(4)	g	+50
Manchester, N. H.	EST	(6)	i	+ 2
McKeesport, Pa.	EST	(5)	e	+35
Medford, Mass.	Same as Boston			
Memphis, Tenn.	CST	(4)	e	+16
Miami, Fla.	EST	(3)	i	+37
Milwaukee, Wis.	CST	(6)	l	+ 7
Minneapolis, Minn.	CST	(6)	d	+29
Mobile, Ala.	CST	(3)	b	+ 8
Montgomery, Ala.	CST	(4)	j	+ 1
Montreal, Que.	EST	(6)	b	+10
Muncie, Ind.	CST	(5)	e	− 3
Nashville, Tenn.	CST	(4)	d	+ 3
New Bedford, Mass.	EST	(5)	b	− 1
New Haven, Conn.	EST	(5)	c	+ 7
New Orleans, La.	CST	(3)	d	+16
New York, N. Y.	EST	(5)	d	+12
Newark, N. J.	EST	(5)	d	+12
Norfolk, Va.	EST	(4)	b	+21
Oakland, Cal.	PST	(5)	j	+25
Oak Park, Ill.	CST	(5)	a	+ 7
Oklahoma City, Okla.	CST	(4)	e	+46
Omaha, Neb.	CST	(5)	c	+39
Ottawa, Ont.	EST	(6)	b	+18
Pasadena, Cal.	PST	(4)	g	+ 8
Paterson, N. J.	EST	(5)	c	+12
Peoria, Ill.	CST	(5)	d	+14
Philadelphia, Pa.	EST	(5)	e	+17
Phoenix, Ari.	MST	(4)	i	+44
Pittsburgh, Pa.	EST	(5)	e	+36
Pittsfield, Mass.	EST	(5)	-	+10
Pontiac, Mich.	EST	(6)	i	+49
Portland, Me.	EST	(6)	g	− 3
Portland, Ore.	PST	(6)	b	+26
Providence, R. I.	EST	(5)	a	+ 1
Pueblo, Colo.	MST	(5)	i	+14
Quincy, Mass.	Same as Boston			
Racine, Wis.	CST	(6)	l	+ 7
Raleigh, N. C.	EST	(4)	d	+30
Reading, Pa.	EST	(5)	e	+19
Reno, Nev.	PST	(5)	f	+15
Richmond, Va.	EST	(4)	a	+25
Roanoke, Va.	EST	(4)	a	+36
Rochester, N. Y.	EST	(6)	b	+26
Rockford, Ill.	CST	(5)	a	+12
Sacramento, Cal.	PST	(5)	l	+22
Saginaw, Mich.	EST	(6)	h	+52
Saint Joseph, Mo.	CST	(5)	f	+35
Saint Louis, Mo.	CST	(5)	i	+17
St. Petersburg, Fla.	EST	(3)	g	+46
Salt Lake City, Utah	MST	(5)	d	+43
San Antonio, Texas	CST	(3)	e	+50
San Diego, Cal.	PST	(4)	i	+ 4
San Francisco, Cal.	PST	(4)	-	+25
San Jose, Cal.	PST	(4)	a	+23
Santa Monica, Cal.	PST	(4)	g	+ 8
Savannah, Ga.	EST	(3)	-	+40
Scranton, Pa.	EST	(5)	b	+18
Seattle, Wash.	PST	(7)	d	+25
Shreveport, La.	CST	(4)	j	+31
Sioux City, Iowa	CST	(6)	j	+41
Sioux Falls, S. D.	CST	(6)	g	+43
So. Bend, Ind.	CST	(5)	b	+ 1
Spokane, Wash.	PST	(7)	c	+ 5
Springfield, Ill.	CST	(5)	f	+14
Springfield, Mass.	EST	(5)	a	+ 6
Springfield, Mo.	CST	(4)	a	+29
Springfield, Ohio	EST	(5)	e	+51
Stamford, Conn.	EST	(5)	c	+10
Stockton, Cal.	PST	(5)	j	+21
Syracuse, N. Y.	EST	(6)	i	+20
Tacoma, Wash.	PST	(7)	h	+25
Tampa, Fla.	EST	(3)	f	+45
Terre Haute, Ind.	CST	(5)	f	+ 5
Toledo, Ohio	EST	(5)	b	+50
Topeka, Kans.	CST	(5)	h	+38
Trenton, N. J.	EST	(5)	e	+15
Washington, D. C.	EST	(5)	h	+24
Waterloo, Iowa	CST	(6)	j	+25
W. Palm Beach, Fla.	EST	(3)	h	+36
Wheeling, W. Va.	EST	(5)	e	+39
Wichita, Kans.	CST	(4)	-	+45
Wilmington, Del.	EST	(5)	f	+18
Winnipeg, Man.	CST	(7)	-	+44
Worcester, Mass.	EST	(5)	a	+ 3
Youngstown, Ohio	EST	(5)	c	+38

DON QUIXOTE

DE LA MANCHA

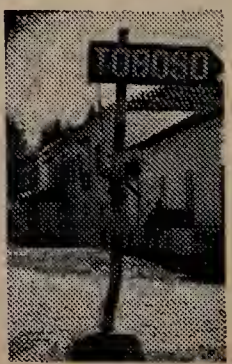
By Miguel De Cervantes Saavedra

Illustrated by Gustave Doré

There follow herewith excerpts from this most popular story ever written. Originally published in Spain in two parts (1605 and 1615), it has been translated into every known language and remains (as does Shakespeare) as popular today as it ever was. Cervantes, its author, what with poverty, being held as a slave, and languishing in prison, did not have a happy life. The book, however, rather than being one of rebellion against his own bad luck, seems to be rooted in the obsession of Cervantes' contemporaries (especially the landowners) with the then popular, astounding, and fantastic traditions of Knighthood: King Arthur, Amadis, Palmerin, Don Belianis, Rinaldo, Tirante, and El Cid.

Don Quixote is the story of one individual so taken in by such fantasies that he loses his mind in them and prepares to become one of these great knights himself. His adventures and those of his servant, Sancho Panza, are witty, droll, fantastic, pathetic, and original.

These experiences take place in a hot, dusty plain south of Madrid, known as La Mancha. They begin near Manzanares, proceed through El Toboso (the home of Don's Dulcinea), and terminate around Zaragoza. The photographs, chosen from hundreds taken along this route by this editor, in 1954, show little change in scenery, streets, and buildings over the 300 years since Don Quixote was first published.



DON QUIXOTE AND SANCHO SETTING OUT

Quixote having obtained the services of Sancho Panza as his squire, mainly by suggesting that some fortunate adventure may confer on him the governorship of an island, they set out at night, and by break of day find themselves beyond the chance of pursuit. Sancho begs his master not to forget his promise of the island; "for I dare say," adds he, "I shall make shift to govern it, let it be never so big." The Don makes reply, "You must know, friend Sancho, that it has been the constant practice of knights-errant in former ages to make their squires governors of the islands or kingdoms they conquered." (Part I, Chapter 7.)

THE ADVENTURE WITH WINDMILLS

Imagining some windmills to be a set of giants, with enormous whirling arms, Don Quixote, though dissuaded by the sane and prosaic Sancho, rode full-tilt at them (Part I, Chapter 8), with the result here depicted.

Left: Present day windmill at Mata del Cuevo.

SANCHO BEING TOSSED IN A BLANKET

This plate illustrates the famous incident in "Don Quixote" where the knight, having ridden away (without paying his reckoning) from the inn which he had mistaken for a castle, was induced to return owing to the absence of Sancho. He found that worthy being tossed in a blanket in the inn yard by four Segovia clothiers, three Cordova point-makers, and two Seville hucksters—"all brisk, gamesome, arch fellows." (Part I, Chapter 16.)

THE VALIANT CHARGE

Don Quixote, having seen a great dust along the road which he and Sancho were pursuing, was persuaded an army was approaching. He determined to do battle. After awhile, it was plain enough to Sancho that the dust was caused by a flock of sheep: not so to Quixote. He believed that he was in the thick of the enemy, charged the squadron of sheep with great valour, and laid several dead and wounded on the ground. He was rewarded for his pains by a terrible stoning from indignant shepherds. They almost broke his ribs, and knocked out three or four of his teeth. (Part I, Chapter 17.)

THE FULLING-MILLS

While straying about in a solitary, woody country, Don Quixote and Sancho were astonished at hearing a prodigious noise. The former immediately rejoiced in the prospect of an adventure suited to his prowess. In the morning they moved towards the source of the commotion, and discovered the above fulling-mill, had made the terrible noise. (Part I, Chapter 19.)

Right: Present-day fulling-mill near Ciudad Real.

DON QUIXOTE IS SENT HOME

The Don, after some strange performances in the Sierra Morena, returned again to the inn at which Sancho had been so scurvily treated by being tossed in a blanket. Thereupon, he took it into his head not merely that the inn was a castle but that it was enchanted. The people there thought he must be mad, and he should be sent home. They placed him in a cage, shut him in, nailed the bars of it fast, and placed it on an oxcart. Don Quixote was amazed. "Among all the volumes of chivalry that I have turned over," said he, "I never read before of knights-errant drawn in carts, or tugged along so leisurely by such slothful animals as oxen." (Part I, Chapters 42–3.)

THE DON AGAIN DECEIVED

Sancho Panza (Part II, Chapter 10) resolved to play a trick upon his master, by swearing the first country wench they met to be that paragon of beauty, Dulcinea del Toboso, the Don's beloved. They presently saw three lasses coming along the road, and Sancho stood to it that one was Dulcinea. He went down upon his knees. The knight also humbled himself, but looked at the country-girl (who was blubber-cheeked and flat-nosed) with dubious and disconsolate eyes. He supposed that his Dulcinea was in the power of a malignant magician, and had been thus transformed. "Rise, Sancho," said Don Quixote; "for I am now convinced that my malicious stars, not yet satisfied with my past misfortunes still shed their baleful influence."

And to the girl: "In the submission and genuflection which I pay to thy beauty, even under the fatal cloud that obscures it, read the humility with which my soul adores thee."

"Tittle-tattle!" replied the country wench. "Spare your breath to cool your porridge, and rid me of your idle gibberish. Get you on, sir, and let us go; and we shall think it a kindness." This said, Sancho made way for her and let her pass, overjoyed that his plot had succeeded so well. The imaginary Dulcinea was no sooner at liberty than her beast fell a-kicking at such a rate that down came the Lady Dulcinea. Don Quixote ran to help her up, and Sancho to re-settle and gird her pack-saddle; which being done, the knight, very courteously, was going to take his enchanted mistress in his arms, to set her on her saddle; but she, being now got on her legs, took a run, and, clapping her hands upon the ass's crupper, at one jump leaped into her pannel as swift as a hawk.

THE ADVENTURE OF THE ENCHANTED BOAT

On the road again, Don Quixote and Sancho found a little boat in the River Ebro. The Don concluded that it had been thrown in his way by an enchanter, who desired him to embark and hasten to the succour of another knight. Accordingly, much to the dissatisfaction of Sancho, they entered the boat and drifted until they beheld two great water-mills on the middle of the river. To the Don these mills appeared to be enchanted castles where he would find the distressed knight. They advanced but were soon stopped by the poles of the millers. This upset the boat, and knight and squire fell into the stream, from whence the men dragged them forth. The boat—which proved to be the property of the millers—was broken to pieces, and Don Quixote had to pay fifty reals for it. (Part II, Chapter 29.)

THE END OF THE TRAIL

Towards the end of Part II, Chapter 33, Cervantes brought the Don and Sancho into the area of Zaragoza, where they were picked up by hunters and persuaded to reside in the Palace at Pedrola, which now belongs to the Duke and Duchess de Villahermosa. It was here (in the room shown above) the Duchess finally convinced Sancho that he had at last become a real governor, and that his province would be the Island of Barataria in the nearby River Ebro. In 1905, the third centenary of Don Quixote's visit to the Palace was celebrated—an occasion marked by the presence of many dignitaries, memorable addresses, specially-designed medals, and a beautiful 200-page book with four-color illustrations.

DR. HILL'S SIGHT PRESERVER 1773

FIRST, never sit in absolute gloom, or in a Blaze of Light, much less go suddenly from one into the other: A House situated North and South, is therefore wrong for any who are tender in their Sight. Secondly, avold small Print in Reading, and all Attention to minute Objects. It is in vain to think of assisting the Sight by Glasses; they represent the Objects plainer, but they commit a Kind of Violence upon the Eye, and always hurt weak ones. Thirdly, Never read in the Dusk; and when the Eyes are at all dlsordered, not by Candle Light. Fourthly, Never look into a bright Fire. Fifthly, Avoid all glarlng Objects, especially in the Morning at first waking; therefore a Bed-chamber should never be so situated, as for the Sun to shine into it at that Time; and there should be no Red, nor too much White in it; and the Degree of Light should be moderate. Those who have weak Eyes, will find great Advantage in green Furniture in their Rooms, and in admitting the Light gradually to their Eyes at the Time of waking: And it is thus Nature provides for all her Creatures; the Day Llght comes by very slow Degrees, and the first Object is universal green.

For a Weakness in the Sight, take two Ounces of the Leaves of Rosemary, and put them into a Pint of Brandy; let it stand three Days, then strain and filter it through Paper; mix a Tea Spoonful with Four of Plantain Water; make it warm, and wash the inside of the Eyc every Night going to Bed, moving your Eye till some get between the Eye and the Lid. By Degrees put less and less Water, till at length a Tea Spoonful of each be mixed.

HOUSE PAINT—1809

TAKE, in the following proportion, one peck of lime, from the kiln, dissolve it in skimmed milk, add one lb. of common turpentine (not spirits of) and half a peck of fine white sand, boll the whole for at least half an hour, and contlnue to keep lt boiling hot until lald on with a brush. It need not be mentioned that it must be well stirred, in order to render the mixture complete. This varnish ls permanent, and more lmpervious to the weather than any other in use.

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Science Reveals New Facts about Liniment Benefits

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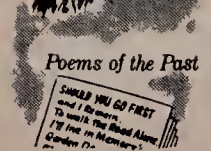

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