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AY81 .F306 1946


## "Free and Clear"

T10 stand in a doorway, to look across fertile fields in the twilight of day or in the twilight of life and say, "These fields and this little home are mine. When I close the door none can intrude to disturb my peace of mind." These are the desires of Americans.

In war and in peace, down the long years, these desires have helped to fashion our American life and conduct. They have made us strong in the face of aggression. They have made us considerate of others. They have kept us conscious of our obligations to our own.

In a broad sense these desires are the basis of life insurance. Through life insurance, we can
ensure that when the twilight of life approaches, our precious possessions will befree and clear for our enjoyment, and for the enjoyment of our families. And that at any time we can close the door, certain that our peace of mind will be undisturbed.

If you lack this sort of guarantee, any John Hancock agent will be glad to show you how life insurance can help you to attain it.


## THE

(OLD)

## FARMER'S ALMANACK.

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

$$
\square \ll
$$

Being 2nd after Bissextile or Leap Year, and (until July 4) 170th year of American Independence.
Fitted for Boston, and the New England States, with Special Corriotions and Calculations to Answer for all the United States.

Containing, besides the large number of Astronomical Calculations and the Farmer's Calendar for every month in the year, a variety of
NEW, USEFUL, AND ENTERTAINING MATTER.
Established IN 1792

## IBY ROIEERT B. THOMAS.



THE LORD'S PRAYER

$$
\text { As printed by Caxton in } 1483 .
$$

Father our that art in heaven, hallowed be thy name: thy tyndome come to us; thy will be done in earth as is in heaven; oute every days bred give us to day; and forotve us oure tresspasses, as we forgive them that tresspass against us; and lead us not tnto temptation. but delver us from all evil sin, amen.

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## TO PATRONS AND CORRESPONDENTS

The date, August 14, 1945, and hour, 7 P.M., when President Truman announced the acceptance by the Japanese of the Potsdam peace terms, will go down in history, we trust, as the greatest peace date the world will ever know and will dedicate all of our future generations to the keeping of this peace as the one task which comes first, and above, all others.

That this should be 251,717 Americans have given their lives - a million others have lost parts of their bodies - many millions of still others have sacrificed of their blood, nerves, energy, time, and wealth. The public debt has reached, in this cause, so large a total. that it ceases to be a matter of concern - and inflation is upon us.

A few days bcfore the peace, on August sixth; the new atomic era announced itself as with us, too, by an explosion over Hiroshima, Japan, which killed 100,000 and destroyed an cntire city. At a cost of two billion dollars (two days of war) Aunerica had succeeded in harnessing the atomic energy released by the isolation of U 23 J protons in uraniunu. Such an era, with its promises of heating all of New York city by means of a fistful of "ummarried" atoms, of the acquisition of the secrets of plant growth, of world control in the hands of a small group of scientists, can only mean that God has at long last placed upon us the final test. We shall love God with all our hearts, and our neighbors as ourselvcs. Unless these two great commandments appear over every doorstep in the world and are lived up to without reservation, the atomic era will mark not only the end of progress but of mortal man.

In almost weird contrast with these gigantic happenings. we present this issue, our One Hundred and Fifty Fourth annual edition in the same format and at thc same price. Your nauy years of patronage and especially those during the war years - is gratifying and in spiring. It is difficult to realise that this issue is the fourth which has come out of the all too few hours of evenings and Sundays - our Staff having been preoccupied this past year as usual in the Armed Forces or war service. Our thanks can not go out too often to the many newspaper, magazine, radio editors, and press services, who have helped us, - to our typesetter, printer, paper maker, news stand dealer, - to our advertisers - and to the many others who, by their actions, have shown an interest equal to the emergencies at hand.

David Mortou of Amherst. Massachusetts, has again contributcd the Title Page Poems, and to Eltinge F. Warner we are indebted for the Game Laws. B. M. Rice of Peterborough, New Hampshire, prepared the Farmer's Calendars while Loring B. Andrews and Lt. Com. Robert Foote, USNR, added other valuable material. The cooperation of various government agencies-United States Weather Bureau, Department of Agriculture, United States Postoffice, Office of War Information, - to mention only a fer, has becn of great value.

Mr. Weatherwise, in submitting his Weather Indications for the year to come, forecasts heavy precipitation. Compared with other winters, he sees more storms of rain and snow.

We cannot close this forcword without adding our prayers of thanks to the men and women of our Armed Forces. As they return and take their places again among us, they will come to kuow our acknowledgement of this dcbt we owe to each and every one. It will be difficult at first for them-as well as for ourselves-for some have been away for many years. Possibly in the many embarrassing silences which follow they will wonder what we are thinking, speculate on whether or not we really want them back, decide perhaps we have made new friends in their absences and that our offers of help are possibly in some manner ingratiating. We Will find them sensitive-even supersensitive about the careers awaitiug them and unmeant criticism in littlc things. It is not for these thoughts, however, that we hold any room. They must know by our handclasp, our smile, our eyes, and our actions that we are aware of our own deep resolves to provide better times for them and their families. We shall not let. + hem down.

These then are our proposals. Man, however, in these great thiugs, can only propose. God is the true disposer. In this. then, it is by our works and not by our words we would be judged; these we hope will sustain us in the humble though proud station we have so long
held.

## Four ob'd servant,

## 1946



Consider then the temper of our times. Upon taking up ticket stubs, a conductor came upon a surly gent who had none, and accordingly asked him for his fare. The surly one thereupon growled: "Don't you cail me a -.." The conductor replied politely he had not called anybody anything and moved ahead. After lie had gone, the surly one turned to another passenger saying: "Humph-he didn't really call me a - but he was thinking it just the same."

## 1347



## EXPLANATIONS AND SIGNS

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

## Names and Charaoters of the Prinoipal Planets.

8980 The Sun.
8 heroury.
ㅇ Venus.
Đ The Earth.
ơ Mars.
4 Jupiter.
h Saturn. Hit or $\widehat{1}$ Uranus.

W Neptune.

Names and Charactera of the Appeots.

0 Conjunction, or in the same degree.
$\square$ Quadrature, 00 degrees.
8 Opposition, or 180 degrees.

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

1. $T$ Aries, head.
2. 8 Taurus, neok.
3. L Gemini, arms.
4. $\sigma$ Cancer, breast.
5. 凡 Leo, heart.
6. Ifl Virgo, belly.
7. $\widehat{\text { LLibra, reins. }}$
8. In Scorpio, secrets.
9. I Sagittarius, thighs.
10. Wapricornus, knees.
11. Aquarius, legs.
12. f Pisces, feet.

Golden Number
Epact . . . .

## Chronological Cycles for 1946. <br> Chronological Cyclos for 1946.

$27 \left\lvert\, \begin{aligned} & \text { Dominical Letter }\end{aligned}\right.$. . $23 \mid$ Roman Indiction ${ }_{\text {Pear of Julian Period }} \mathbf{6} 659$

## Movable Feasts and Fasts for 1946.

SeptuagesimaSun. Feb. $17 \mid$ Good Friday Apr. $19 \mid$ Whitsunday June 9 Shrove Sunday Mar. 3 Easter Sunday Apr. 21 Trinity Sunday June 16 Ash Wednesday Mar. 6 1st Sun. in Lent Mar. 10
Palm Sunday Apr. 14
Low Sunday Apr. 28
RogationSunday May 26
Ascension Day May 30

Corpus Christi June 20 1st Sunday in Advent

Dec. 1

## THE SEASONS, 1946

Eastern Standard Time
Winter Solstice (Winter, 1945), December 22, 12:04 A.m.-Sun entersCapricornus, ${ }^{\circ}$ Vernal Equinox (Spring, 1946), March 21, 12:33 A.м.- " " Aries, Summer Solstice (Summer), June 21, 7:4う p.m. - " " Cancer, Autumnal Equinox (Autumn), September 23, 10:11 A.m. " " Libra, Winter Solstice (Winter), $\quad$ December 22, 5:54 A.M- " " Capricornus, $\xlongequal{\aleph}$

## MORNING AND EVENING STARS, 1946

(A Planet is called Morning Star when it is above the horizon at sunrise, and Evening Star when it is above the horizon at sunset. More precisely, it is a Morning Star when it is less than $180^{\circ}$ west of the Sun in right ascension and Evening Star when it is less than $180^{\circ}$ east. When the planet is near conjunction or opposition, the distinction is unimportant.)

Mercury will be favorably situated for being seen as an Evening Star when near its greatest eastern elongations, about March 9 , July 5 , and October 30. On these dates it will set 12 h .32 m ., 12 h . 20 m ., and $11 \mathrm{~h} 51 \mathrm{~m} .$, respectively, after sunet, It will be seen as a Morning Star when near its greatest western elongations, about April 22, August 20, and December 9, on which dates it will rise 11 h .47 m ., 12 h . $26 \mathrm{~m} .$, and 12 h .48 m ., respectively before sunrise.

Venus will be a Morning Star until February 1, an Evening Star from February 1 to November 17, and then a Morning Star again for the remainder of the year. It will be at its brightest on October 13 and December 23.

Mars will be a Morning Star until January 13, when it reaches opposition and its greatest brilliance. It will then be an Evening Star from January 13 to the jear's end.

Jupiter will be a Morning Star until April 12 when it reaches opposition, an Evening Star from April 12 until it reaches conjunction on October 31, and then a Morning Star again for the remainder of the year.

Saturn starts the year as a Morning Star, but becomes an Evening Star on January 12, the day it reaches opposition. From January 12 to July 21 it is an Evcning Star, then a Morning Star again from July 21, when it reaches conjunction,
to the end of the year.

## EARTH IN PERIHELION AND APHELION, 1946

The Earth will be in Perihelion on January 2, 1 P.M., distant from the Sun $91,349,000$ iniles. The Earth will be in Aphelion on July 3,6 A.M., distant from the Sun $94,452,000$ miles.

## GLOSSARY OF ASTRONOMICAL TERMS, ETC.

abol. . . . abolished
Aet, ... age
An. Eccl. . . . see Eclipse, Annular.
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.
Appulse . . . if during eclipse Moon passes only through the penumbra.
b. - born.

G . . . Dominical letter for 1945 - marks all of the 52 Sundays.
Aspect . . . description of the relative position of two or more bodies in the solar system. These are described by signs, etc., on the calendar pages thus $\delta \delta 4$, etc. By consulting the meaning of the signs and aspects on the opposite page, you will arrive at the meaning for the "sign language" used as the example; viz., Conjunction ( $\delta$ ) of Mars ( $\sigma$ ) and the Jupiter ( 4 ) occurs on this day. (See par. 2, page 4.)
Conj. - conjunction . . . moment of closest approach to each other of any two heavenly bodies.
conscr. . . . consecrated.
d. . . . died.
declination (see top left hand calendar pages) ... measure of angular distance any celestial object lies perpendicularly north or south of celestial equator. Exactly analagous to terrestrial latitude. OFA gives declination at time each day the Sun is due South.
Dominical Letter . $:$. used in reckoning civil calendars.
Eclipse . . conjunction or opposition of sun and moon occurs with moon at or near a node.
Eclipse, annular . . . when sunlight shows around the Moon during the eclipse.
Eclipse, lunar . . . opposition of Sun and Moon with moon at or near node.
Eclipse, solar . . . conjunction of Sun and Moon with Moon at or near node.
Ecliptic ... that circle in which the plane of the orbit of the Earth about the Sun would if extended cut the celestial sphere - or the apparent path of the Sun in the sky' in a year due to the Earth's revolution about the Sun each year.
E1. - elongation . . . apparrent angular distance of a member of the solar system from the Sun as seen from the Earth.
Epact . . . used in reckoning ecclesiastical calendars.
Eq. - . . equator.
Equinox, autumnal . . . Sun passes from northern to southern hemisphere. Fall.
Equinoz, vernal . . . sun passes from southern to northern hemisphere. Spring.
E.S.T. . . Eastern Standard Time.

Feasts and Fasts. . In the religious calendars, many "observable" days change each year with the date Easter falls on. The OFA endeavors to list the important Protestant, Catholic, and Jewish observances.
fd. .. founded.
Fuil Sea (Morn and Eve) . . . the time the tide is high in the morning and in the evening at Commonwealth Pier, Boston. A correction table in the OFA also adjusts this time for other places. (See page 7.)
Gr. E1. ... greatest elongation.
Geocentric. . measure of celestial longitude and latitude when observer is at center of the Earth.
Golden Number . . . used in reckoning civil calendars.
Heliocentric ... measure of celestial longitude and latitude when observer is at center of the Sun.
Inf. - Inferior ... Inferior conjunction is when the Planet is between the Sun and the Earth.
Julian Period . . . First year was 4713 B.C. Its length is 7980 years.
k. . . . killed.

Key... columns of letters marked thus refer to correction table on page 12 so that the times given may be adjusted to localies other than Boston.
Lat. - latitude.
Moon's Age ... average time elapsing between new moons (max. 291/2 days). Calculated when Moon is due South.
(D) First Quarter . . moon in quadrature East or one half of the side of the moon toward the earth is illuminated.
(O) Full Moon . . . moon reaches opposition.
(ब) Last Quarter . . . moon in quadrature West.
(0) New Moon . . . Sun and Moon in conjunction.

Moon's Phases . . . Aspects of Moon and Sun.
Moon's Place . . . Moon's position in the Zodiac when due South or which "sign" it is in. See page 4 - par. 3.
Moon Rise and Set. . . as used in the OFA apply only to risings and settings betrveen sunset and sunrise ... or during the night.
Moon Runs IIigh or Low. . . day of month Moon Souths highest or lowest above the horizon.
Moon Souths. . . Moon exactly above South point of observer's horizon.
Node . . . when a Planet or Moon in its inotion crosses the ecliptic.

Node, Ascending . .. Planet or Moon crosses ecliptic from South to North.
Node, Descending . Planet or Moon crosses ecliptic from North to South.
Occultations . . . eclipses of Stars by the Moon.
Opposition ...time when Sun, and Moon or Planet appear on opposite sides of the sky (elongation 180 degrees).
O.S.- Old Style...was when calendar was eleven days "out of whack." In September, 1752 , the 3 rd was reckoned as the 14 th, to make present calendar.
Penumbra... concentric area of partial shadow around the umbra.
Peri. - Perigee ... Moon reaches point in its orbit closest to Earth.
Peri. - Perihelion . . . Planet revolving about the Sun reaches point in its orbit closest to Sun.
Quadrature . . Moon or Planet lies a quarter turn of the sky from the Sun.
R.A. - Right Ascension ... the measure Eastward along the celestial equator of any celestial body from the vernal equinox to the point where the circle which passes through the object perpendicular to the celestial equator intersects the latter.
Rain . . . drops large enough to splatter on the old man's bald head.
Rej. - rejects.
Roman Indiction . . . used in reckoning ecclesiastical calendars.
Seasons . . . boundary points are the two solstices and two equinoxes.
Snow .. . when a cat's tracks are visible on the barn roof.
Solar Cycle . . . used in reckoning civil calendars.
Solstice, Summer
point at which the Sun is farthest north of the celestial equator, passing overhead on the Tropic of Cancer. , Beginning of Summer.
Solstice, Winter .. . limit of Sun's journey south of the celestial equator, passing overhead on the Tropic of Capricorn. Beginning of Winter.
Star, Evening . . . above horizon at Sunset.
Star, Morning . . . above horizon at Sunrise.
Stat. - stationary . . . when the apparent movement of a Planet against the background of Stars stops - just before same comes to opposition.
Sunrise and Sunset . . . visiblc rising and setting of Sun's upper limb across the unobstructed horizon of an observer whose eyes are 15 feet above ground level.
Sun Fast... the times given in this column must be subtracted from your Sun Dial to arrive at the correct time.
Sup. - Superior (Superior Conjunction is when the Sun is between the Planet and the Earth.)
Tides, heights of . . . at Commonwealth Pier, Boston. See correction table on page 7 for adjustments for other places.
Twilight ...begins or ends when stars of the sixth magnitude disappear or appear at the Zenith - or the Sun is appr. 18 degrees below the horizon.
Umbra...deep shadow through which the Moon passes during eclipse.
Weather Indications ... in italics on the right hand calendar pages indicate the weather over, as a rule, three or four days time as shown by the spread of the words down the page.
w. . . . with.

Zenith . . . point in heavens directly over observer's head.
Zodiac... sixteen degree sky road outside of which moon and planets never wander. It is divided into trelve equal divisions called the Signs of the Zodiao, and forms much of the basis of some astrology - and superstition. See page 4 - par. 3.

## CALCULATIONS AND CORRECTIONS

## (For Outside New England, see Page 12)

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

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

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


## TIDE CORRECTIONS <br> (For full explanation see page 11, par. 2)

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

| Time Difference h.m. | Height <br> Differ- <br> ence <br> Feet | Time Difference h.m. | Height <br> Difference Feet |
| :---: | :---: | :---: | :---: |
| MaINE Augusta . . . | *0.4 | PENNSYLVANIA <br> Philadelphia . . . +2 29 | *0.5 |
| Bangor . . . . -0 05 | +3.6 |  |  |
| Bar Harbor . . -0 33 | +1.1 |  |  |
| Boothbay Harbor. -0 20 | -0.8 | Rehoboth . . . - 3 37 | *0.4 |
| Eastport . . . -0 28 | *1.9 | MARYLAND |  |
| Old Orchard . . . -0 10 | -0.7 | Baltimore . . . . -425 | *0.1 |
| Portland . . . - 010 | $\underline{-0.6}$ | Ocean City . . - 357 | *0.4 |
| Stonington . . . . -0 30 | +0.2 | DISTRICT OF COLUMBIA |  |
| NEW HAMPSHIRE <br> Hampton . . . . to 15 | -1.2 | Washington . . 308 | *0.3 |
| MASSACHUSETTS |  | VIRGINIA |  |
| Fall River . . . -3 16 | *0.5 | Vırginia Beach : - ${ }^{\text {a }} 14$ | *0.3 |
| Falmouth . . . . -0 40 | *1.1 | Virgima Beach • - 314 |  |
| Hyannisport . . + +045 | *0.3 | NORTH CAROLINA |  |
| Lynn . . . +005 | -0.2 | Beaufort . . . -2 59 | *0.3 |
| NIarblehead . . - 005 | -0.3 | Carolina Beach . . -3 30 | *0.4 |
| Marion - . -3 16 | *0.4 | SOUTH CAROLINA |  |
| Monument Beach . -3 06 | *0.4 | Myrtle Beach. . . -3 45 | *0.5 |
|  | +0.1 | Charleston. . . - -3 15 | *0.5 |
| Nantucket . . . New Bedford. | *0.3 | GEORGIA |  |
| Oak Bluffo . . . . +005 | *0.2 | St. Simon's Island -2 51 | *0.7 |
| Onset . . . . . -3 06 | *0.5 | Savannah . . . -2 40 | *0.8 |
| Plymouth . . . . 000 | $+0.1$ | Tybee Beach . . . -3 26 | *0.8 |
| Provincetown . . +015 | $-0.3$ |  |  |
| Scituate . . . . -0 05 | +0.5 | Daytona . . . . -3 20 |  |
| Wellfleet Woods Hole : . . | +0.6 $* 0.2$ | Fort Lauderdale - -2 15 | *0.4 |
| Woods Hole - . . -3 |  | Jacksonville . . -0 40 | *0.1 |
| RHODE ISLAND |  | Miami . . . - 300 | *0.3 |
| Block Island . . -3 21 | *0.3 | Palm Beach . . - 320 | *0.3 |
| Narragansett Pier -3 31 | *0.4 | Port Everglades . -2 15 | *0.3 |
| Newport . . . . -3 31 | *0.4 | St. Augustine . . -2 20 | *0.5 |
| Providence . . - -3 11 | *0.5 | St. Petersburg . . +358 | *0.2 |
| Watch Hill . . . -2 06 | *0.3 | WASHINGTON |  |
| CONNECTICUT |  | Ilwaco . . . . +144 | -3.5 |
| Long Island Sound -0 02 | *0.7 | Port Townsend . . +504 | *0.5 |
| New London . . . -1 47 | *0.3 | Seattle . . . . +537 | -2.0 |
| NEW YORK |  | OREGON |  |
| Coney 1sland . . -300 | *0.5 | Astoria . . . . . +137 | -3.3 |
| Long Beach . - -3 57 | *0.5 | Cape Arago i . +1 19 | -4.8 |
| Long Island Sound +0 08 | *0.7 | Yaquina Head . . +112 | -3.7 |
| New York City . - -2 50 | *0.5 | CALIFORNIA |  |
| Ocean Beach . . - -3 57 | *0.4 | Catalina Island . . 133 | -5.9 |
| Southampton . - -3 22 | *0.3 | Crescent City . . +056 | -5.0 |
| NEW JERSEY |  | Eureka . . . +120 | -5.0 |
| Atlantic City . . -3 57 | *0.5 | Long Beach . . -1 37 | *0.5 |
| Bayside . . - - ${ }^{2} 24$ | *0.6 | Point Mendocino . +0 24 | *0.4 |
| Cape May . . - - ${ }^{\text {Ocean City }} 17$ | *0.4 | San Diego. . . -1 35 | *0.9 |
| Seabright $\cdots$ - | *0.5 | San Francisco : - ${ }_{\text {Santa Barbara }}$ (0 59 | *0.4 |
| Seaside Park * - -3 44 | * 0.5 | Santa Criz . . +0 08 | *0.4 |

## HATS OFF TO "IKE"

When Sir Nelson King Kolinson, director of meteorology of the British Air Ministry, gave General Eisenhower a none too favorable weather forecast for June 6, 1944-Invasion Day-the General decided to go ahead anyway. Had he waited for the next "quiet period," two weeks ahead, we would have invaded on the eve of a 70 mile gale . . . with, possibIy, fatal results.

## ECLIPSES FOR THE YEAR 1946

In the year 1946 there will be six eclipses, four of the Sun and two of the Moon.
I. A Partial Eclipse of the Sun, January 3, 1946, invisible in the United States. This eclipse will be visible on within an ocean area in far southern latitudes. The eclipse will be greatest at Longitude $177^{\circ} 39^{\prime}$ East, Latitude $67^{\circ} 9^{\prime}$ South, at which point 55 percent of the Sun's diameter will be lidden by the Moon.
II. A Partial Eclipse of the Sun, May 30, 1946, invisible in the United States. The area within which the eclipse will be visible lies in the south Pacific Ocean between New Zealand on the west and Chile and the western half of Argentina on the east. Such islands as Pitcairn, Dudie and Easter are within the area, near its northern boundary. The southern boundary of the area lies along the Antarctic Circle. Maximum eclipse occurs in Longitude $101^{\circ} 6^{\prime}$ West, Latitude $64^{\circ} \mathbf{7}^{\prime}$ South, where 89 percent of the sun's diameter will be obscured.
III. A Total Eclipse of the Moon, June 14, 1946, invisible in the United States. The beginning of this eclipse will be visible generally in Antarctica, New Zealand, Australia, the central and western part of the Pacific Ocean, Asia except the extreme northern and northeastern part, the Indian Ocean, southeastern Europe, and southern and eastern Africa. The eclipse's ending will be visible generally in Antarctica, Australia, Asia except the northeastern part, the Indian Ocean, Europe, Africa, the south Atlantic Ocean and the extreme eastern part of South America.
IV. A Partial Eclipse of the Sun, June 29, 1946. This relatively minor eclipse, invisible in the United States, will be visible only from high northern latitudes. Greatest eclipse occurs in Longitude $50^{\circ} 49^{\prime}$ West, Latitude $66^{\circ} 36^{\prime}$ North, at which point 18 percent of the Sun's diameter will be covered at the maximum phase.
V. A Partial Eclipse of the Sun, November 23, 1946. This eclipse will be visible throughout the United States except the extreme Southwest and most of Florida. The eclipse begins in the Pacific Northwest just after sunrise and ends at sunset in the mid-Atlantic. Particulars of the eclipse for selected places in the United States are given in the table below. Those for intermediate points can be approximated from the particulars for the nearest point listed.
Place
Atlanta, Ga.
Boston, Mass.
Buffal, N. Y. Y.
Charleston, W. Va.
Chicago, Il.
Cincinnati, O.
Denver, Colo.
Des Moines, Ia.
Detroit, Mich.
Helena, Mont.
Indianapolis, Ind.
Louisville, Ky.
Minneapolis-St. Paul, Minn.

- New Orleans, La.
New York, N. Y.
Omaha, Neb.
Philadelphia. Pa.
Pittsburgh, Pa.
Raleigh, N. C.
Richmond, Va.
St. Louis, Mo.
Seatle, Wash.
Tallahassee, Fla.
Topeka, Kans.

| Eclipse begins | Maximum eclipse | Eclipse ends | Fraction solar diameter covered |
| :---: | :---: | :---: | :---: |
| 10.51 A.m. | 12.13 P.M. | 1.38 р.м. | . 36 |
| 10.54 A.M. | 12.30 P.м. | 2.03 Р.м. | . 60 |
| 10.44 A.M. | 12.14 P.M. | 1.46 P.m. | . 54 |
| 10.46 А.M. | 12.13 P.m. | 1.44 Р.M. | . 46 |
| 9.37 А.м. | 10.59 А.м. | 12.25 Р.м. | . 44 |
| 10.42 A.м. | 12.07 P.m. | 1.36 р.м. | . 44 |
| 8.40 A.M. | 9.33 А.м. | 10.28 А.м. | . 18 |
| 9.35 А.м. | 10.49 A.м. | 12.08 р.м. | . 36 |
| 10.39 А.м. | 12.06 р.м. | 1.36 Р.м. | . 49 |
| 8.31 A.M. | 9.24 А.м. | 10.21 A.m. | . 22 |
| 9.40 А.м. | 11.02 P.m. | 12.28 P.м. | . 41 |
| 9.43 А.м. | 11.05 р.м. | 12.32P.m. | . 41 |
| 9.32 А.м. | 10.48 A.m. | 12.10 P.M. | . 41 |
| 9.59 А.м. | 11.06 P.м. | 12.16 P.M. | . 22 |
| 10.52 A.M. | 12.26 р.м. | 1.59 P.M. | . 56 |
| 9.36 А.м. | 10.45 А.m. | 12.01 P.M. | . 32 |
| 10.51 А.м. | 12.24 P.M. | 1.58 P.M. | . $5+$ |
| 10.45 А.м. | 12.14 P.M. | 1.46 P.M. | . 50 |
| 10.52 А.м. | 12.22 P.M. | 1.53 P.M. | . 46 |
| 10.51 A.m. | 12.22 P.M. | 1.55 P.M. | . 49 |
| 9.40 A.m. | 10.57 A.M. | 12.18 P.M. | . 36 |
| 7.36 A.M. | 8.15 А.м. | 8.56 А.M. | . 13 |
| 10.59 А.м. | 12.17 р.м. | 1.38 P.M. | . 31 |
| 9.38 д.м. | 10.47 A.s.1. | 12.01 р.м. | . 29 |

VI. A Total Eclipse of the Moon, December 8, 1946, invisible in the United States. The beginning of the eclipse will be visible generally in the Arctic Ocean, the northwestern part of North America, the northern and western part of the Paciñc Ocean, New Zealand, Australia, Asia, Europe except the extreme southwestern part, the Indian Ocean, and the eastern part of Africa. The end of the eclipse will be seen generally from the extreme northwestern part of North America, the Arctic Ocean, the western part of the Pacific Ocean, Australia except the extreme southeastern part, the Indian Ocean, Asia, Europe, and Africa, and the eastern part of the Atlantic Ocean.

OCCULTATIONS OF ALDEBARAN, 1946
No oecultations of the bright star Aldebaran (Alpha Tauri) will be visible to observers in the United States during 1946.

## VEKUS, MARS, JUPITER AND SATURN, 1846.

Below are given the times of the rising or setting of the Planets named, on the first eleventh and twenty-first days of each month. The time of the rising or setting of any one of said Planets between the days named may be found with suffcient accuracy by interpolation. For explanation of keys (used in adjusting times given to jour town) see pages 11 and 12 - especially if you iive outside New England


## d Day before.

## LENGTH OF TWILIGHT

## Subtract from time of sunrise for dawn:

Add to time of sunset for dark.

| Latitude | $\begin{gathered} 25^{\circ} \mathrm{N} \\ \text { to } \\ 30^{\circ} \mathrm{N} \end{gathered}$ | $\begin{gathered} 31^{\circ} \mathrm{N} \\ \text { to } \\ 36^{\circ} \mathrm{N} \end{gathered}$ | $\begin{gathered} 37^{\circ} \mathrm{N} \\ \text { to } \\ 42^{\circ} \mathrm{N} \end{gathered}$ | $\begin{gathered} 43^{\circ} \mathrm{N} \\ \text { to } \\ 47^{\circ} \mathrm{N} \end{gathered}$ | $\begin{gathered} 48^{\circ} \mathrm{N} \\ \text { to } \\ 49^{\circ} \mathrm{N} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | h m | h m | h m | h m | h m |
| Jan. 1 to Apr. 11 | 120 | 126 | 133 | 142 | 150 |
| Apr. 11 to May 3 | 123 | 128 | 139 | 151 | 204 |
| May 3 to May 15 | 126 | 134 | 147 | 202 | 222 |
| May 15 to May 26 | 129 | 1.38 | 152 | 213 | 242 |
| May 26 to July 23 | 132 | 143 | 159 | 227 |  |
| July 23 to Aug. 4 | 129 | 138 | 152 | 213 | 242 |
| Aug. 4 to Aug. 15 | 126 | 134 | 147 | 202 | 222 |
| Aug. 15 to Sept. 6 | 123 | 128 | 139 | 151 | 204 |
| Sept. 6 to Dec. 31 | 120 | 126 | 133 | 142 | 150 |

# CALCULATIONS AND CORRECTIONS IF YOU LIVE OUTSIDE NEW ENGLAND 

(For New England - See Page Six)

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

A direct reading of the figures on the Almanac pages gives information that applies precisely and solely to Boston. The examples which follow interpret the significance of this information and illustrate the way to get the same information for a place outside New England, such as Dallas. The date, April 11, used for the purpose of the illustrations, has been chosen at random.

Sunrise and Sunset. The times of sunrise and sunset at Boston on April 11 are read directly from columns 4 and 6 on page 20. The key letters adjacent to these times, in columns 5 and 7 , are indices to the table on page 12 whereby the times of sunrise and sunset at Boston are converted into those for other key cities, to wit:-

> BOSTON DALLAS

Sunrise
Key Letter
5:10 A.M.E.S.T.


Dawn and Dark. The approximate times dawn will break and dark descend are found by applying the length of twilight taken from the table on page 9 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 <br> (Latitude $42^{\circ} 22^{\prime} \mathrm{N}$.) |  | DALLAS <br> (Latitude $32^{\circ} 48^{\prime}$ N.) |  |
| :---: | :---: | :---: | :---: |
| Sunrise | 5:10 A.M. | Sunrise | 6:02 A.M. |
| Subtract length of |  | Subtract length of |  |
| twilight (Column 4 of table) | 1:39 | twilight (Column 4 of table) | 1:28 |
| Dawn breaks | 3:31 A.M.E.S.T. | Dawn breaks |  |
| Sunset | 6:21 P.M. | Sunset | 6:56 А. . |
| Add length of twilight | 1:39 | Add length of twi- | 1.28 |
| Dark descends | s:00 P.M.E.S.T. | Dark descends | 8.24 P M |

Sun Fast. The column headed "Sun Fast" is of primary use to sundial enthusiasts. The figures thercin tell how fast on each day the time indicated by a properly adjusted and graduated sundial will be of the time indicated by a clock. On April 11 sun time in Boston will be 15 minutes Fast of Eastern Standard Time. The time indicated by a sundial located elsewhere than in Boston is converted to clock time by applying two oorrections, the "sun Fast" correction for Boston and that for the locality given in Column 1 of the table on page 12.

BOSTON
Sundial time
Sun fast
Eastern Standard
Time

2:34 P.M.
$-: 15$
2:19 P.M.

DALLAS


10:45 A.M.

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

BOSTON<br>Length of day 13 b 11 m<br>(From calendar pages)

| DALLAS |  |
| :--- | :---: |
| Sunset | 6:56 P.M. |
| Sunrise | 6:02 A.M. |
| Length of Day | 12 h 54 m |

High Tides. The figures for Full Sea in Columns 10 and 11 of the left hand Almanao pages 14-36 are the times of high tide at Commonwealth Pier in Boston Harbor. The heights of these tides are given on the right hand pages 15-37. The heights are reckoned from Mean Low Water: each day has a set of figures - upper for the morning - and lower for the evening. Sinoe Gulf ports are not heset with the tidal prohlems of ports on the open oceen, the conversion of the times of the tides at Boston to those of Miami is given by way of illustration.

## BOSTON

High Tide

Height
9.2 foot

MIAMI
High tide (Boston) 7:15 A.M. Correction page $7-3: 00$

High tide (Miami) 4:00 A.M.E.S.T. Height (Mlami) 2.8 feet (9.2 $\times 0.3$ )

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

## BOSTON

Moonset
Key letter

3:21 A.M.E.S.T.
N

## DALLAS

Moonset (Boston) $\quad$ 3:21 A.M.
Correotion (Col-
umn N, page 12) $+: 23$
Correction (Col-
umn 3, page 12) $+: 04$
Moonset (Dallas)
3:48 A.M.C.S.T.

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

## BOSTON

## DaLLas

Moon souths (Boston)
Correction (Column I, page 12) $+: 43$
Correction (Column 1 , page 12) $+: 04$

9:33 P.M.C.S.T.
The other information concerning the Moon contained on the left hand Almanao pages applies without oorrection throughout the United States.

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

Planetary Aspects. The planetary aspects indioated hy the symbols and ahhreviations on the right hand Almanac pages 15-37, are explained on pages 4, 5 and 6.

| 3 |
| :---: |
| ma |
| Moon |



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mor

 $1++++++++1+111+1++++++++++$


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 $1++++++++1+11++1+++++++++t$

$\rightarrow$ g $1++++++++1++1+++++++++++++$
 $t++++++++++++++++++++++++t$

 $+t+++++++++++++++t++++++++$

$$
\frac{\mathrm{Se}}{\mathrm{~B}}
$$

given.

 $1++t+++t++++1++++++++++++t$





$$
\infty \text { 日 }
$$



\& g
 $t+++++++++++++++++++++++t$

## PRINCIPAL HOLIDAYS, ETC. IN 1946

America has no nationwide holidays. Wach state determines its own. In the table that follows (*) indicates these quite generally observed by all states; (**) indicates those for only certain states; and (***) indicates days usually observed in some localities though probably not observed as holidays. Only continental United States is covered here.

Jan. 1 (*)
Jan. $8\left({ }^{* *}\right)$ Battle of New Orleans
Jan. 19 (**) Robert E. Lee's Birthday
Jan. 29 (**) McKinley's Birthday
Feb. 12 (**) Abraham Lincoln's Birthday
Feb. 14 (**) Admission Day (Arizona)
Feb. 14 (***) Valentine's Day
Feb. 15 (***) Susan B. Anthony Day
Feb. 22 (*) George Washington's Birthday
Mar. 1 (**) State Day (Nebraska)
Mar. $2(* *)$ Texas Independence Day
Mar. 5 (**) Mardi Gras
Mar. 7 (**) Burbank Day (Cal.)
Mar. $15{ }^{(* *)}$ Jackson Day (Tennessee)
Mar. 17 (**) St. Patrick's or Evacuation Day
Mar. 25 (**) Maryland Day
Apr. 1 (**) State Election (Michigan)
Apr. 2 (**) Arbor Day (Arizona)
Apr. 6 (**) Army Day
Apr. 12 (**) Halifax Day (N. Car.)
Apr. 13 (**) Jefferson Day (Mo., Okla., Va.)
Apr. 14 (***) Pan American Day
Apr. 19 (**) Patriots' Day (Me., Mass.)
Apr. 19 (**) Good Friday (Conn., Del., Fla., La., Md., Minn., N. J., Penn. \& Tenn.)
Apr. 21 (**) San Jacinto Day $^{(*)}$ (Texas)
Apr. 22 (**) Easter Monday (N. Car.)
Apr. 22 (**) Arbor Day (Neb.)
Apr. 24 Arbor \& Bird Day (**) (Mass.)
Apr. 25 (**) Fast Day (N. H.)
Apr. $\Omega^{\left({ }^{(* *}\right)}$ Memorial Day (Fla., Ga., Miss.)
May 4 (**) R. I. Independence Day

May 10 (**) Memorial Day (N. C. \& S. C.)
May 12 (***) Mother's Day
May 20 (**) Mecklenburg Day (N. C.)

May 22 (***) Nat'l Marine Day
May 30 (*) Decoration or Memorial Day
June 3 (**) Jefferson Davis Day (Ala., Ark., Fla., Ga., La., Miss., S. C., Tenn., Tex. \& Va.)

June 14 (**) Flag Day (Ia., Mo. \& Pa.)
June 15 (**) Pioneer Day (Idaho)
June 16 (***) Father's Day
June 17 (**) Bunker Hill Day (Suffolk County, Mass.)
June 20 (**) West Virginia Day July 4 (*) Independence Day July 13 (**) Forrest's Day (Tenn.).
July 24 (**) Pioneer Day (Utah) Aug. 1 (**) Colorado Day
Aug. 4 (***) Coast Guard Day
Aug. 16 (**) Bennington, Vt. Battle Day
Aug. 19 (***) National Aviation Day
Aug. 30 (**) Huey Long Day (La.)
Sept. 2 (*) Labor Day
Sept. $9\left(^{* *}\right.$ ) Admission Day (Ca1.)
Sept. 9 Election Day (**) Maine
Sept. 12 (**) Defender's Day (Md.)

Sept. 17 (***) Constitution Day
Sept. 28 (***) Am. Indian Day
Oct. 6 (**) Missouri Day
Oct. 12 (*) Columbus Day
Oct. 27 (***) Navy Day
Oct. 31 (**) Nevada Day
Nov. 1 (**) All Saints' Day (La.)
Nov. 5 (*) Election Day
Nov. 11 (**) Armistice Day
Nov. 23 (**) Repudiation Day (Md.)

Nov. 28 (*) Thanksgiving
Dec. 7 (**) Delaware Day
Dec. 21 (***) Forefather's Day
Dec. 25 (*) Christmas Day

ASTRONOMIOAL CALCULATIONE.

|  | Days. | 0 |  | D | 0 |  | Daya. |  |  | Dayb. |  |  | Days. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 |  |  | 7 |  | 23 | 13 | 21 | 30 | 18 | 20 | 22 | 25 |  | 8 |
| 5 | 2 | 22 | 56 | 8 | 22 | 16 | 14 | 21 | 19 | 20 | 20 | 09 | 26 |  | 84 |
|  | 3 | 22 | 50 | 9 | 22 | 07 | 15 | 21 | 09 | 21 | 19 | 56 | 27 |  | 829 |
| 2 | 4 | 22 | 44 | 10 | 21 | 59 | 16 | 20 | 57 | 22 | 19 | 42 | 28 |  | 18 |
|  | 5 | 22 | 38 | 11 | 21 | 49 | 17 | 20 | 46 | 23 | 19 | 28 | 29 |  | 758 |
| $\theta$ | 0 | 22 | 31 | 12 | 21 | 40 | 18 | 20 | 34 | 24 | 19 | 14 | 30 |  | 17 |

- New Moon, 3rd day, 7 h. 30 m., morning, E.

D First Quarter, 10th day, 3 h .27 m. , evening, E.
O Full Moon, 17 th day, 9 h .46 m ., morning, W.
© Last Quarter, 24th day, 12 h .00 m. , midnight, E. KEY LETTERS REFER TO CORRECTIONS TABLE, PAGE 12, FOR ALL POINTS OUTSIDE NEW ENGLAND.


> - But do not go,

> Do not look!
> Draw the blind low,
> Open a book. . .
> Not anything do mind and eye like less
> Than snow's obliterating nothingness.


1946] FEbruary, Seoond Month.

## AgTRONOMICAL CALOULATIONE.



- New Moon, 1st day, 11 h .43 m. , evening, W.

D First Quarter, 8th day, 11 h. 28 m., evening, W.
O Full Moon, 15 th day, 11 h. 28 m., evening, E.
© Last Quarter, 23rd day, 9 h. 36 m., evening, E.
KEY LETTERS REFER TO CORRECTIONS JABLE. PAGE 12. FOR ALL POINTS OUTSIDE NEW ENGLAND.

|  |  | $\begin{gathered} \text { ets. } \\ \text { sets. } \end{gathered}$ |  |  |  | $\mathrm{n} \mid \underset{\mathrm{h} .}{\mathrm{R} .1 \mathrm{ses}} \mathrm{~m} .$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ${ }^{2} 1$ 1Fr. 6581 | N4581D | D 1000 | 210 | $11^{\frac{1}{4}}$ | ${ }^{1}{ }^{1} 6_{12}^{4} 53 \mid 0$ | - \|11 |  |  |
|  | 3 2Sa. 657 | N 459 E | E 1003 | 2111 | - | sets | - 12 ${ }_{\text {prem }} 29$ |  | 1 |
|  | 3 S. 656 | M 5501 E | E 1005 | $211{ }^{\frac{3}{4}}$ | 0 | $6{ }_{\text {P }}^{\text {P }} 41$ F |  | P | 2 |
|  | 5 4 M. 6541 N | m $502{ }^{\text {e }}$ | ¢ 1008 | $20 \frac{1}{2}$ | $0 \frac{3}{4}$ | 752 G | G. 211 | Ps |  |
|  | 6 5 Tu. 653 , | m 503 E | ¢ 1010 | $21^{\frac{1}{4}}$ | $1 \frac{1}{2}$ | 9031 | - 300 | Ar |  |
|  | 76 W .652 | m 505 e | e 1012 | 22 | $2 \frac{1}{4}$ | 1015 J | J 349 | A | 5 |
|  | 87 Th. 651 м | M 506 E | E 1015 | $22^{\frac{3}{4}}$ | $3 \frac{1}{4}$ | $11_{\text {m }}^{\text {p }} 27$ | 439 | T |  |
|  | 98 Fr. 650 | m 507 E | e 1017 | $23 \frac{1}{1}$ | 4 |  | 530 | Ta |  |
|  | $0^{9} 8$ Sa. $649{ }^{\text {N }}$ | M\|509 | E 1020 | $24^{1}$ | $5_{4}^{1}$ | $122^{\text {a }} 40$ | 1 624 | G | 8 |
|  | 10 S-647 | m 510 E | F 1023 | $25 \frac{1}{2}$ | $6 \frac{1}{4}$ | 1540 | - 720 |  | ) |
|  | 211 M .646 м | m 511 E | E 1025 | $26 \frac{3}{4}$ | $7 \frac{1}{4}$ | 305 P | P 819 | Cn | 10 |
|  | 312 Tu .645 | M 512 F | F 1028 | $2{ }^{\frac{4}{3}}$ | $8{ }^{1}$ | 4130 | Q 919 | C |  |
|  | 413 W .643 L | L 5145 | F 1030 | $28^{\frac{3}{4}}$ | 9 | 512 Q | Q 1017 | C | 2 |
|  | 514 Th .642 L | L 515 F | F 1033 | $2{ }^{2} 9$ | $10 \frac{1}{2}$ | 602 | 11 $1_{\mathbf{M}}^{\text {p }} 13$ | Leo | 3 |
|  | 615 Fr. 641 L | L 516 F | F 1036 | $210 \frac{1}{2}$ | $11 \frac{1}{2}$ | $6{ }_{3}^{4} 43$ |  |  |  |
|  | 716 Sa .639 L | L 518 F | F 1038 | $2111^{\frac{1}{4}}$ |  | rises | - $122_{\text {M }} 06$ | Le | 14 |
|  | 817 S-638L | L 519 F | F 1041 | 20 | $0 \frac{1}{4}$ | $6_{\text {M }}^{\text {p }} 58$ | G 1255 | Vi | 5 |
|  | 918 M .637 L | L 520 F | F . 1044 | $20^{\frac{3}{4}}$ | 1 | 802 | H. 140 | Vi | 6 |
|  | -19. Tu. 635 L | L 521 F | F 1046 | $21^{\frac{1}{4}}$ | $1 \frac{1}{2}$ | 904 | I 224 | Lib |  |
|  | 1 20 W .634 L | L 523. | F 1049 | 2 | $2 \frac{1}{4}$ | 1005 | स 306 | Li | 8 |
|  | 221 Th .632 L | L 524 F | F 1052 | $22^{\frac{3}{4}}$ | 3 | $11_{\text {R }}^{\text {P }} 06$ | L 348 | Li |  |
|  | 322 Fr .631 | K 525 G | G 1055 | $23 \frac{1}{2}$ | $3 \frac{3}{4}$ |  | 430 | Sc | 20 |
|  | 23 Sa. 629 | K 526 G | G 1057 | $34^{\frac{1}{4}}$ | $4 \frac{4}{4}$ | ${ }^{\frac{3}{4} 2_{\text {A }} 06}$ | M 514 | Sco | 1 |
|  | 524 S-628 | K 528 G | G 1100 | 5 | $5{ }^{\frac{1}{2}}$ | 106 | N 559 | Sgr | 2 |
|  | 625 M .626 | K 529 G | G 1103 |  | 6 | 2060 | - 648 | Sgr | 3 |
|  | 26 Tu .625 | K 530 G | G 1106 | $6{ }^{\frac{3}{4}}$ | 6 | 304 p | P-738 |  |  |
|  | 87 W .623 | K 531 G | 1108 | $7 \frac{3}{4}$ | 8 | 357 P | P 830 |  |  |
|  | 128 Th. 621 | K\|533/ | 1111 | $8 \frac{1}{2}$ | 94 | ${ }_{4 \times 14}^{4} 4{ }^{\text {P }}$ | P ${ }_{\text {P }}$ |  |  |



It is not the same
The month bears winter's name.
But it is not the same. -
Something hehind the air,
Something within the light,
Not heard, not seen . . . hut there,
Trembling toward sound and sight,
And nearly seen. . . nearly heard.
Wait for the flower, expect the hird.

| - | 0 | High Water, Werther, oto. | Earmer' Oalendar. |
| :---: | :---: | :---: | :---: |
|  | Fr. |  | is the time of the deep vs-and thrice blessed is |
|  | S | Gandiemas, Groundhog $\left\{\begin{array}{c}8.7 \\ 10.2 \\ \text { Dlustery }\end{array}\right.$ | e neighbor who will plow |
| 3 | - | 4tf S. af. \}upiply. span. Ind. $\left\{\begin{array}{c}0.0 \\ 10.4\end{array}\right.$ | you out. A mug of good steaming coffee or something brac- |
| 4 | M | $\mid \text { Yanks retake Manila } 1945 \text { Tides }\left\{\left.\begin{array}{l} 9.8 \\ 10.4 \end{array} \right\rvert\,\right.$ | ing from the bottle behind the clock will be just the thing |
| 5 | 1 L | Bluebirds arr. N.Y. State Tides $\left\{\begin{array}{l}9.6 \\ 10.8\end{array}\right.$ snows. | for him when he has bucked |
| 6 | W. | St. Dorothea, © on ${ }_{\text {eq, }}^{8.7} 10.1$ Cold. | out your drifts. A touch of neighborly kindness goes a |
| 7 | Th. | Crimean Cont. $1945(4-11)$$\frac{9.8}{9.7}$ Rain and | long ways-and therc'll be more storms coming. |
| 8 | H | Guadalcanal rides $\left\{\begin{array}{l}9.9 \\ 0.8 \\ \text { floods in }\end{array}\right.$ | more storms coming. <br> Be fearful of fires, for more |
| 9 | N |  | farms are burned out this month than any other-and |
|  |  |  | chiefly throngh carelessncss |
|  | N |  | or lack of foresight. Stop your fire before it starts. Avoid |
| 12 | T | $\left\{\begin{array}{l} \text { Lincoln's } \\ \text { Lirthday } \\ \text { B } \\ \text { B } \mathbb{C} \end{array} \mathbb{C}_{\text {runs }}^{\text {rug }} \text { TidAs }\left\{\begin{array}{c} 10.0 \\ 8.6 \end{array}\right\}\right.$ | overheating your furnace and your stoves, leep screens in |
|  | V | $\mathrm{B}_{\text {Budapest }}^{1945}$ \& \& $2 \mathbb{C}$. Tldes $\left\{\begin{array}{c}10.2 \\ 8.9\end{array}\right.$ | front of your open fires. Is |
|  |  |  | tected by asbestos (better |
|  | Fr. | Susan B. Anthony Tides $\left\{\begin{array}{l}10.6 \\ \text { Day } \\ \text { Cold }\end{array}\right.$ | than metal) near or around the furnace? Have you had all |
|  | S | ${ }_{1945}^{\text {Bataan }}$ Tldes $\left\{\begin{array}{c}9.4 \\ 10.6\end{array}\right.$ again. | the chimney flues cleaned of |
|  | F | Corregidor, Septuagesima ${ }_{1945}^{\text {S. }}$ ( $\left\{\begin{array}{c}\text { 10.E } \\ 10.8\end{array}\right.$ | soot? Is the masonry of your chimneys tight and well- |
|  | M | Iwo, Engeli  <br> 1945 1914 Ttdes $\left\{\begin{array}{l}8.5 \\ 10.0\end{array}\right.$ | pointed up? Have you sand pails of water, or, best of all |
| 1 | Tu | $\text { Eniwetok } \delta \Psi \mathbb{1} \mathbb{C} . \mathbb{C}_{\text {Eq. }}^{\text {On }} \text { Thes }\left\{\left.\begin{array}{l} 9.5 \\ 0.8 \end{array} \right\rvert\,\right.$ | fire extinguishers ready, and |
| 20 | V |  | do you know just where they |
|  | T |  | are? Are your payments insunce? |
| 22 | Fr. | Washington's O Gr.Hel. Tldes $\left\{\begin{array}{c}8.8 \\ 8.1\end{array}\right.$ | Have a thought of an eve- ning and on many an evenlng |
|  |  |  | for the looks you have not |
|  |  | 1723 ( in A po, 1905 di.7 | had time for. Let Motler anc |
| 24 | F | SExag. \$. Mass. Hort. Sl. M8tthias | the boy and the girl share |
|  | M | Tides $\left\{\begin{array}{l}8.8 \\ 7.8\end{array}\right.$ | your plonal hour of reading aloud |
|  | Tu. |  | Don't be ashamed of old fav |
|  | W | Tides $\left\{\begin{array}{l}8.7 \\ 7.7\end{array}\right.$ weather. | Longfellow, Mark Twaln, ct.c. |
|  | Th | $\mathrm{Los}_{19 \mathrm{Negros}}^{\text {N }}$ \% in 86. Tides $\left\{\begin{array}{l}9.1 \\ 8.2\end{array}\right.$ | but don't overstrain their cre |
|  |  | 1 - Racheb Mack dued thts day If we are her headstone at Barkhamsted, Conn. | of Cooper. Have the young sters introduce books and magazines of their own. |

1946] MARCH, Third Month.

ASTRONOMICAL CALCULATMONS.

|  | Days. | 0 | Days. | 01 | Days. | 0 | 1 | Days. | $0 \quad 1$ | Daya. | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 78. 38 | 7 | $\begin{array}{ll}5 & 19\end{array}$ | 13 | 2 | 58 | 19 | $0 \quad 36$ | 25 | 146 |
|  | 2 | $7 \quad 15$ | 8 | 456 | 14 | 2 | 35 | 20 | 0s. 13 | 26 | 209 |
|  | 3 | 652 | 9 | 432 | 15 | 2 | 11 | 21 | 0n. 11 | 27 | 233 |
|  | 4 | 629 | 10 | 409 | 16 | 1 | 47 | 22 | 035 | 28 | 256 |
|  | 5 | 606 | 11 | 345 | 17 | 1 | 24 | 23 | $0 \quad 58$ | 29 | 320 |
| ¢ | 6 | $\begin{array}{ll}5 & 43\end{array}$ | 12 | $\begin{array}{ll}3 & 22\end{array}$ | 18 |  | 00 | 24 | 122 | 90 | 343 |

- New Moon, 3rd day, 1 h. 01 m ., evening, W.

D First Quarter, 10th day, 7 h. 03 m., morning, E. O Full Moon, 17 th day, 2 h .11 m. , evening, W.
© Last Quarter, 25 th day, 5 h .37 m ., evening, W. KEY Letters refer to corrections table page i2, for all points outside new england.

|  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | $5{ }^{129} 10$ | \| 1101 |  |  |
|  |  |  | K 535 G |  | 410 | $10_{4}^{1} 10 \frac{3}{4}$ | $6{ }_{31}^{4} 06$ | N |  |  |
|  | , | 7 | K 536 G |  | 410 | $0_{4}^{\frac{3}{4}} 1$ |  | - 12 |  |  |
|  |  |  | J |  |  |  |  | H 12 |  |  |
|  | 5 |  | J |  | 12 |  |  |  |  |  |
|  | 6 | 12 J | J 5 |  | 512 | $2_{4}^{3}$ | 916 | K |  |  |
|  | 7 | 10 J | J 5 |  | 51 | $1 \frac{1}{2}$ | 1031 | M |  |  |
|  | 8 F | 608 J | J 5 |  |  |  | 11 ${ }^{\text {d }}$ | $\cdots 4$ |  |  |
|  | 9 | 7 | s. |  |  |  |  |  |  |  |
|  | 10 | J | J |  | 4 |  |  |  |  |  |
| O. 1 | 11 M | 603 J | J 5 | H | 5 |  |  |  |  |  |
| 1 | 12 T | 602 J | J | H 1145 | $66^{1}$ |  |  |  |  |  |
| 1 | 13 W | 600 J | J 5 | II 1 | 7 |  | 358 |  |  |  |
|  | 5 | 558 | J 549 I | I 115 | 8 |  | 442 |  |  |  |
| 4 | 5 F | 556 I | I 550 |  | $9{ }^{1}$ | $9_{2}^{1} 10$ |  |  |  |  |
|  | 6 | 55 | I |  | 0 | - 11 | $5{ }^{14} 48$ |  |  |  |
|  | 17 S | 1 | I |  |  |  |  |  |  |  |
| 7 | 18 M | 551 I | I 5 |  |  | $1{ }^{\frac{1}{2}}$ |  |  |  |  |
|  | 19 T | 5501 | 15 |  |  |  |  |  |  |  |
|  | 0 | 548 I |  |  |  |  |  |  |  |  |
|  | 1 T | 61 | I |  |  |  | 9 | M 2 |  |  |
|  |  | 4 I | I |  |  |  | 1055 | N 3 |  |  |
|  |  | 31 | I |  |  |  | $11_{\text {m }}^{\text {P }} 5$ |  |  |  |
|  |  | 1 I | I |  |  |  |  |  |  |  |
|  |  | 19 | H6 |  | 1 |  |  |  |  |  |
|  | 2 Tu. | 5371 | H 6 |  | 10.5 |  |  |  |  |  |
|  |  | 1 | H 16 |  | $116^{\frac{1}{4}}$ |  |  |  |  |  |
|  | 28 Th | + | H 6 |  | 11.7 |  |  |  |  |  |
|  | , | 22 | H 606 |  | 118 |  |  |  |  |  |
|  | 0 | 0 |  |  | 11.9 |  |  |  |  |  |
|  | 11 |  | , |  |  | 9 ${ }_{4} 10$ |  |  |  |  |



ASTILONOMIOAL CALCULATYONS.


- New Moon, 1st day, 11 h. 37 m., evening, W.

D First Quarter, 8th day, 3 h. 04 m., evening, E.
O Full Moon, 16th day, 5 h. 47 m., morning, W.
© Last Quarter, 24 th day, $10 \mathrm{~h} .18 \mathrm{~m} .$, morning, W.
Ker lettres refer to correctons talle, page li, for all points outide new encland.


Rlses.

室| $\underset{\substack{\text { Souths } \\ \mathrm{m}}}{\mathrm{D}} \left\lvert\, \begin{gathered}\text { D's } \\ \text { Place }\end{gathered}\right.$
 $9^{2} 2$ Tu. 525 н $611 \mathrm{~J} 1246,121111 \frac{1}{4}$ 93 3 W. 523 н 612 Ј $12491311 \frac{1}{2}$

- sets - 12 P22 Ari 944 Th. 522 н 613 к $125113-0_{4}^{\frac{3}{4}} 9292 \times 210$ Tau






 10212 Fr. $508 \mathrm{G} .622 \mathrm{~K} 131415 \delta_{2}^{1} 99$
 $10414 \mathrm{~S}_{-} 505 \mathrm{G} / 624 \mathrm{~K} 1319161010 \frac{1}{2}$ ro515M. 503 F 626 L L $13221610 \frac{3}{4} 11 \frac{1}{2}$ 10616Tu. $502 \mathrm{~F} .627 \mathrm{~L} \left\lvert\, 1325161111 \frac{3}{4}\right.$ rof $17 \mathrm{~W} .500 \mathrm{~F} .628 \mathrm{~L} 13281611 \frac{3}{4}-$
 10919 Fr. 457 F 630 L $133317 \left\lvert\, 0_{\frac{3}{4}}^{4} 1 \frac{1}{4}\right.$

 II222 M. 452 F 633 L L 134117

 I 525 Th. 448 E .637 m 134918 ri 626 Fr. 446 E 638 m 135218 Ir 727 Sa. 445 E $639 \mathrm{~m} / 135418$ I 8.28 S_444E $640 \mathrm{~m} / 135719$




First things first, said daffodil
And pushed the crumbs of earth aside,
Arrived, and trembled, and stood still,
And shone, with pardonabie pride,
In hoiding what was hers to hold;
Priority in green and gold.


 3 W. 4 Th. 5 Fr . 6 Sa . 7 F 8 M . 9 Tu . 10 W . 11 Th . Derne, Mussolini $\{9.1$ are whitening.


and nobody was there.

April is the month of showers, (or snow flurries) sandwiched haphazardly between the gales of March and the langors of May. With onc foot on the threshold of spring and one at the backdoor of winter, it hangs uncertain which way to falland it's never what it's cracked up to be. However, it has just enough promise of something better in it, after something so very much worse, that it relaxes us willy nilly. We get what is known as "spring fever," a misnomer if there ever was one. Wc aren't feverish at all and the "spring" is all out of us for certain. We may yearn and intend and plan but we do nothing-willingly, or, rather. we willingly do nothing. When the breath of life is on all the world, we lie torpid.

There is nothing at this fime more pleasant than to burn our meadows, for this has something more of fun than work in it and is not nearly so profitable as we pretend (indeed it is really a poor business - destroying good natural mulch and scorching young grass shoots). But it's idle and easy, and that's what we're after.

What we should be doing we may learn from a percmptory Old Farmer of other years: -"Uncover root plants Hoon and rail your berry bushes... Reset fence posts -mend wall and fences. Mulch strawberry beds
Get to your ploughing..$\dot{\text { set }}$ out new fruit trces ... Seed your lawn."

## 1946] <br> MAY, Fifte Month.

AgTRRONOMICAL CATOULATIONE.

|  | Day | 01 | Daym. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 15N. 02 | 7 | 1647 | 13 | 1821 | 19 | 194 | 25 | 2056 |
|  | 2 | $15 \quad 20$ | 8 | 1703 | 14 | 1836 | 20 | 1957 | 28 | 2106 |
|  | 3 | 15 | $\theta$ | 1719 | 15 | 1850 | 21 | 2009 | 27 | 2116 |
|  | 4 | $15 \quad 56$ | 10 | 1735 | 16 | 1904 | 22 | 2021 | 28 | 2126 |
|  | 5 | 1013 | 11 | 1751 | 17 | 1918 | 23 | 2033 | 28 | 21 |
|  | 6 | 11630 | 12 | 1806 | 18 | 1031 | 24 | 2045 | 30 | 2145 |

- New Moon, 1st day, 8 h. 16 m., morning, E.

D First Quarter, 8th day, 12 h .13 m ., morning, W.
O Full Moon, 15th day, 9 h. 52 m., evening, E.
$\mathbb{C}$ Last Quarter, 23rd day, 11 h .02 m :, evening, W.

- New Moon, 30th day, 3 h. 49 m., evening, W. KEY LETTERS REFER TO CORRECTIONS TABLE, PAGE 12, FOR ALL POINTS OUTSIDE NEW ENGLAND.



123 3 Fr. 437 E 646 N 140919 - $0 \frac{1}{2} 941$ P 152 G'm 2
124 4 Sa. 435 D 647 N $1412190_{4}^{3} 1_{2}^{1} 1052$ Q

126 6 M. 433 D 649 N $1416192_{2}^{1} 3_{4}^{1}$ — -
$1277 \mathrm{Tu} .432 \mathrm{D} 650 \mathrm{~N} 1419203_{\frac{3}{4}}^{\frac{3}{2}} 4 \frac{1}{2} 122_{\mathrm{MH}} 44 \mathrm{P}$
254 G 'm

ェ28 8 W. $430 \mathrm{D} 651 \mathrm{~N} 1421204_{4}^{\frac{3}{4}} 5 \frac{1}{2} 124 \mathrm{O}$
129 9 Th. 429 D 652 N 142320
13010 Fr. 428 D 653 N $1426207^{4} 7^{\frac{3}{4}} 224 \mathrm{~L}$



12


















| MAY hath 31 days. |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Now, orchard-bridals on the hill! And who remembers how the root, The tortuous root, was never still, In labors meant for more than this Too brief, inconsequential kiss That's on its way to being fruit . . . ? |  |  |  |
| $\dot{\grave{\Sigma}}$ |  | Aspects, Holidays, Heights of High Water, Weather, etc. | Farmer's Calend |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  | This leads many people to |
|  |  |  | eat weeds-such as dandelion. mustard, and wild turnip-or |
|  | 10 Fr. | Hol. Car. Tldes $\{9.0 \quad u p$. | nibble at bittersweet, or root |
| 11 | 1 Sa | ear last $\boldsymbol{\delta}$ | through the woods for "fiddle- |
|  |  |  | of a certain kind of fern which none of us recognizc). |
| 12 | M. |  | Many find pleasure in chew- |
| 13 | Tu. | Vaccination Tldes ${ }^{8} 8.9$ Easterly | ing the twigs of black birch |
| 15 | 5 W. |  | and sassafras. The violet, |
| 16 | 6 Th . |  | cacy, has its advocates (the same, we believe, who eat rose |
| 1 | Fr |  | petals later). Then thcre are |
| $18$ | Sa. | Wayte Garden planted T1des 19.7 | those of the chive and garlic school who like nothing better |
| $1$ | 9 F |  | than a dish of skunk cab- |
| 2 | M. | Haking season- Hol. Tldes 98.8 | bage. But, no doubt, the digestive organs of these gourmets. |
| 2 | 1 Tu |  | are greatly exaggerated. |
| 2 | 2 W. |  | This, of course, is but ${ }^{2}$ |
| 2 | Th |  | bles to be found in our woods and fields this time of year |
| 2 | ${ }_{4} \mathrm{Fr}$. | Brooklyn Bridge Tides $\{8.7$ | and fieids iths time of year, |
| 25 | Sa. | Emerson born World Radio Tides $\{8.9$ | be dangerous. Few, if any of us, know what we're looking |
|  |  |  | for and so are likely to browse |
| $2$ |  | St.Beie, प̧tio 8 - La | on the Lord knows what. It's a lot safer to go back to the |
|  | 8 Tu |  | a lot safer to go back to mean |
|  | 9 W. |  | till the radishes come un By then the madness will have |
| 2 | 0 Th |  | left us. line |
|  |  |  |  |

## ASTRONOMICAL CALCULATIONS.

| $\stackrel{m}{i}$ | D8y | 0 | 1 |  |  |  | D |  |  | Days. |  |  | ys. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 |  |  | 7 |  |  | 13 |  |  | 18 | 23 |  | 25 |  | 24 |
|  | 2 | 22 | 10 | 8 |  | 50 | 14 | 23 | 316 | 20 | 23 | 26 | 26 | 23 | 22 |
|  | 3 | 22 | 18 | - | 22 | 5.5 | 15 | 23 | 18 | 21 | 23 | 27 | 27 | 23 | 20 |
|  | 4 | 22 | 25 | 10 |  | 00 | 10 | 23 | 21 | 22 | 23 | 27 | 28 | 23 | 18 |
|  | 5 | 22 | 32 | 11 | 23 | 35 | 17 | 23 | 23 | 23 | 23 | 26 | 29 | 23 | 15 |
|  | 0 | 22 | 38 | 12 | 23 | 309 | 18 | 23 | 324 | 24 | 23 | 25 | 30 | 23 | 11 |

D First Quarter, 5th day, 11 h. 06 m., morning, E.
O Full Moon, 14th day, 1 h. 42 m., evening, E.
© Last Quarter, 22nd day, 8 h. 12 m., morning, W.

- New Moon, 23th day, 11 h .06 m ., evening, W.
key letters refer to corrections table, page i2, for all points outside new england.








${ }^{1} 598$ Sa. 407 B r60 $9 \mathbf{9}$ S-406 в 720 р 151417 161 10 M. 406 B $\quad 721$ P $1514|17|$ ェ62 11 Tu. 406 b $721 \mid$ p 1515179






 1 yo 19 W. 406 A r $7 \times 20$ Th. 406 A $\times 7221$ Fr. 406 r73 22 Sa. 406 A r74 23 S. 407 A r75 24 M. 407 A x 7625 Tu. 407 A r 7726 W .408. x 7827 Th. 408 A r79 28 Fr. 408 A 180 29.Sa. 409 B $\therefore 8 \mathrm{x} / 30$ S-4 09 в $725 \mathrm{p}|1516| 13$


> The sleep. . the riot ${ }^{\text {Was summer's self; that is to say hill, }}$ The alternately too loud and still, The bloom that flowers and salls away, The indolent and violent will, Ts she whose contradictory fame Subsides into a single_name.

\section*{| $\dot{y}$ |
| :--- | :--- |
| $\dot{\circ}$ |}

8
0
Aspeoth, Holldgys, Helghis of High Water, Weather, otc.

This is the month of young love and young leaves. Look for trouble on both. Get your sprays ready.

Young fruit trees should have a stout circle of mesh wire around them when set out to guard against mice and rabbits. Cut the wire a foot or more in height, about ten inches wide, and roll it very tightly before placing around the tree. If this is done, the wire will recurl naturallyjust tightly enough. Stuff excelsior or long shavings at the top of, and just within, the wire. The fly of the apple tree borer will lay its eggs there and not in the trunk of the tree. Destroy shavings or excelsior after eggs are laid.

Crops to be harvested in fall should be planted early this month: squash, turnip, cabbage, etc. When resetting young plants, such as cabbage, be sure to choose the late afternoon. It is well to place two or three wooden shingles (save your old ones for this purpose) upright on the south to the west sides of the plants. This will protect them from the hottest rays of the sun.
It's the early bird that gets your strawberries, so cover them with cheesecloth in the evening and remove after ten a.m. when the leaves have dried off.
Don't spare the hoe. Your gardencan'thave too much cultivation this month. Keep the weeds down now and from now on you'll have clean sailing-maybe.

| JULY, Seventh Month. |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASTRONOMICAL CALCULATIONS. |  |  |  |  |  |  |  |  |  |  |
|  | Dayg. | 0 | Days. | 0 | Days. | 0 | Days. | 0 | Daya. | 01 |
| 앨 | 1 | 23N. 08 | 7 | $23 \quad 37$ | 13 | 2151 | 19 | 2053 | 25 | 1942 |
| . 5 | 2 | 2303 | 8 | 2230 | 14 | 2143 | 20 | 2042 | 26 | 1829 |
| \% | 3 | $22 \quad 59$ | 9 | $22 \quad 23$ | 15 | 2133 | 21 | 2030 | 27 | 1915 |
| ค | 4 | $22 \quad 54$ | 10 | 2216 | 10 | 2124 | 22 | 2019 | 28 | 1902 |
| 0 | 5 | 2248 | 11 | 2208 | 17 | 2114 | 23 | 2007 | 29 | 1848 |
| 0 |  | $22 \quad 43$ | 12 | 2200 | 18 | 2104 | 24 | 1954 | 30 | 1833 |

D First Quarter, 6th day, $12 \mathrm{~h} .15 \mathrm{~m} .$, morning, W.
O Full Moon, 14th day, 4 h. 22 m., morning, W.
© Last Quarter, 21st day, 2 h. 52 m ., evening, W. New Moon, 28th day, 6 h. 53 m., morning, E.
key letters refer to corrections table, page 12, for all points outside new england.

|  |  | (it)es | $\begin{aligned} & \text { exs. } \\ & \text { m. } \\ & \text { men } \end{aligned}$ |  | in |  | etts. | ${ }_{\text {south }}^{\text {m }}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $12{ }^{1} \frac{1}{4}$ |  |  |  |  |  |  |
| 83 | 2 Tu . | 10 в | B 725 | 15151 | $12{ }^{1} \frac{1}{2}$ |  | 028 m |  |  |  |  |
|  | 3 W. |  |  | 1514 | 12. | 2 | 056 L |  |  |  |  |
|  | 4 Th. |  | B 725 P | 1513 | 123 |  | 1120 J | 452 |  | ir |  |
|  | 5 Fr . | 412 B | B 724p | 15131 | $12{ }^{1} 3_{4}^{3}$ | $3 \frac{3}{4} 4 \frac{1}{2}$ | $11_{4}^{\text {P }} 43 \mathrm{I}$ | 5 |  | ib |  |
| 187 | Sa. | 413 B | B 724 P | 15121 | $114 \frac{3}{4}$ |  |  | 6 | 17 L | ib |  |
|  | C |  | B 7 |  | $15^{\frac{3}{4}}$ | $5_{4}^{3} 6$ |  |  |  |  |  |
|  | M |  | B 724 P | 15101 | $116 \frac{3}{4}$ | $6 \frac{3}{4} 7 \frac{1}{4}$ | 1228 F |  |  |  |  |
|  | 9 Tu. | 15 B | B 723 P | 15091 | 11 |  | 1253 E |  |  |  |  |
|  | 0 W | 15 B | B 723 P | 1507 |  |  | 122 D |  |  |  |  |
| 992 | Th |  |  |  | ${ }^{2}$ | $9{ }^{\frac{1}{2}} 9$ | 155 c |  |  |  |  |
| 19 | Fr. | 417 B | B 722 P | 15 | 1110 | 10 | 234 B | 10 |  |  |  |
| 19 | Sa. | 18 B | B 721 P |  | $1010{ }_{4}^{3}$ | ${ }_{4}^{3} 10$ | $3{ }_{3}^{1} 20 \mathrm{~B}$ | 11 |  | Cap |  |
|  | 5 | 18 B | B 721 p | 15 |  | $1{ }^{\frac{3}{4}} 11 \frac{1}{2}$ |  |  |  |  |  |
|  |  |  | B 720 P |  |  |  | $S_{\text {dr }}^{\text {p }} 370$ |  |  |  |  |
| 19 | W |  | B 719 P | 1459 | 10 |  | 910 N | 1 |  | qr |  |
| 19 |  | 21 B | B 719 P |  |  |  | 940 LL |  |  |  |  |
|  | T |  | 718 | 14 |  |  | 1007 K |  |  |  | 19 |
|  |  |  | B. 7170 |  | $10{ }^{1}$ | $2{ }^{\frac{1}{4}} 2^{\frac{3}{4}}$ | 1032 I | 3 |  | Ps |  |
|  | Na. |  | C 7160 | 14 | 10 | $3 \frac{1}{2}$ | 1057 н | 4 |  | ri |  |
|  |  | 24. | c 7160 |  | 10 |  | 1124 G | 52 |  |  |  |
|  |  |  | c 7150 | 14 | 105 |  | ${ }_{\text {P1 }}{ }^{\text {5 }}$ |  |  |  |  |
|  | Tu. | 7 | c 7140 |  | 10 | $6{ }^{\frac{1}{2}}$ | E | 7 |  |  |  |
|  | W. | 27 | c 7130 | 14 | 10 |  | $12_{\text {M }} 28 \mathrm{C}$ |  |  |  |  |
|  | Th | 28 | 712 o |  | 10 | $8 \frac{1}{2}$ | 112 в | 8 |  |  |  |
|  | Fr. |  | 7110 |  | 10.9 | $9{ }^{\frac{1}{2}}$ | 205 A | 110 |  |  |  |
|  | 27 Sa |  | 7100 | 1440 | 1010 | 10 | $3{ }_{\text {m }}^{4} 07 \mathrm{~A}$ |  |  |  |  |
|  | S. | 431 c | c 7090 |  | 1010 | 111 | sets | $12{ }^{\text {P }} \mathrm{P}$ |  | -o | 0 |
|  | M. | 4 | 7080 |  |  |  | $8_{\text {m }}^{\text {p }}$-3 N | 10 |  | Leo |  |
|  | Tu. | 433 c | 707 o |  | $10{ }^{0}$ | $0^{\frac{1}{2}}$ | 954 L | 15 |  | Vir |  |
|  | W. |  | 706 |  | $0^{3}$ |  | $9_{\text {m }}^{\text {P }} 21$ |  |  |  |  |



## AS'RRONOMICAL CALCULATIONS.



D First Quarter, 4th day, 3 h. 55 m., evening, E.
O Full Moon, 12 th day, 5 h .26 m ., evening, E.
© Last Quarter, 19th day, 8 h. 17 m., evening, E. New Moon, 26th day, 4 h. 07 m., evening, W.
key letters refer to corrections table, page i2, for all points outside new england.


213-1|Th. $435|\mathrm{D}| 705 \mathrm{~N}|1430| 10\left|1 \frac{3}{4}\right| 2 \frac{1}{4}\left|9_{\mathrm{m}}^{\mathrm{p}} 45\right| \mathrm{I}\left|\left|3_{\mathrm{M}}^{\mathrm{p}} 29\right| \mathrm{Lib}\right.$

 $2164 \mid S-438$ D 701 N 142310 217 5 M. 439 D 600 N 142110 2186 Tu. 440 D 659 N 141810 219 7 W. $441 \mathrm{D} \mid 657 \mathrm{~N} 141610$ 2208 Th. 442 D 656 N 141410 22 I 9 Fr. 443 D 655 N 141111 22210 Sa .444 D .653 m 140911
 $4 \frac{3}{4} 1054 \mathrm{~F}$ 455 Sco $22412 \mathrm{M} .447 \mathrm{E} / 651 \mathrm{M} 14041110 \frac{3}{4}$ $22513 \mathrm{Tu} .448 \mathrm{E} .649 \mathrm{~m} 14021111111_{2}^{2}$ $22614 \mathrm{~W} .449 \mathrm{E} .648 \mathrm{~m} 13591111 \frac{3}{4}$ — 22715 Th. 450 E 646 m 135712 22816 Fr. 451 e 645 M 135412 22917 Sa .452 е 643 M 135212 23018 S- 453 е 642 m 134912 23x 19 M. 454 E 640 м 134612 23220 Tu. 455 F 639 L 134413 23321 W .456 F .637 L 134113 23422 Th. 457 F $636 \mathrm{~L} \mid 133913$ ${ }^{2} 3523$ Fr. 458 F

 23826 M. 501 F 629 L ( $13281410 \frac{3}{4} 10 \frac{1}{2}$ ${ }^{2} 3927$ Tu. 503 F 628 L . $1325141111 \frac{1}{2}$ 24028 W. 504 F 626 L . $13231511 \frac{3}{4}-0 \frac{1}{4}$ $24129 \mathrm{Th} .505 \mathrm{~F} .625 \mathrm{~K} 1320150 \frac{1}{2} 1$
$24230 \mathrm{Fr} .506 \mathrm{G}|623 \mathrm{~K}| 1317151_{2}^{4}\left|1 \frac{3}{4}\right|$
24331 Sa. $507: \mathrm{G}|621 \mathrm{~K} 131416 \quad 2| 2 \frac{1}{2}$

|  |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| See how the pendulous fruit, Thearn earthward and would be At home again, and sleep,Being wearied of the sun, Feeling the weight of siky, Being spent of all desire Than that the cyclic span Return where it began. |  |  |  |
|  | 8 | Aspects, Holidays, Heights of <br> High Water, Weather, etc. | Farmer', Calonda |
|  |  |  |  |
|  |  |  |  |
|  | 3 Sa. |  |  |
|  | M. | Fenelon born Tide $\{8.8$ | Pend on latural water holes |
|  |  |  | carefully. They may well dry |
|  | W: |  | and stagnant. Would it be worthwhile to repipe a new |
|  | Th. |  |  |
|  | Fr. |  | main water supply? It is said that a good hose |
|  | Sa. | St. Laurence. Tiaes $\{8.1$ Clear | is better than a prayer for rain-but the good rain falls |
|  | 1 F |  | everywhere (when it falls) |
|  | II |  | and the good hose will reach |
|  | Tu. | Gunpowder invented Tides $\left\{\begin{array}{l}10.1 \\ 0.1 \\ \text { cool }\end{array}\right.$ | constantly sufficient supply of |
|  | W. |  | water and some sound unused |
|  | Ih. |  |  |
|  | Fr. |  | vegetable garden. "I2-4-D," the Have you tried |
|  | S | Tides $\{10.1$ some days. | new weed killer? It liasurt |
|  | 8 F |  | had a full trial over a num- |
|  | - | Dog Days THas $\mathrm{l}^{\text {d }}$ | anyway, and test it on the |
|  | Tu. |  | weeds in a portion of your corn. There are soine good |
|  | W. |  | well-tested poison ivy killers on the market. Why let the |
|  | Th |  | ivy claim your walls and |
|  |  |  | apple trees any longer? Now is the month when ro- |
|  | 4 Sa . |  | tation of pastures proves its value. There's mighty ititle |
|  | 5 |  | fed ieft in tlat one big pas- |
|  | M. | Swallows leaving tides $\left\{\frac{0}{0.7}\right.$ then cool | ed into four, you would have |
|  | Tu | James Thomson tides $\{10.0$ and fine | found more than enough grass for the season. |
|  |  |  | Don't pasture stock where yount natural reforesta- |
|  | Th |  | you want natural reforesta- |
|  | Fr. |  | years of intensive browsing <br> will destroy all young growth. |
|  | Sa. |  |  |


| SEPTEMBER, Ninth Month. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASTRONOMICAL OALCULATIONS. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Daye. | 01 | Daya. | 0 | 1 | Daye. | 0 | 1 | Dayg. | 10 |  |  | Days | 10 |  |
| d | 1 | 8N. 20 | 7 |  | 08 | 13 | 3 | 51 | 18 |  |  |  | 25 | 0 | 48 |
| 碞 | 2 |  | 8 |  | 45 | 14 | 3 | 28 | 20 | 1 |  |  | 28 | 1 | 11 |
| \% | 3 | $7 \quad 36$ | 9 |  | 22 | 15 |  | 05 | 21 |  |  |  | 27 | 1 | 34 |
| \% | 4 | 714 | 10 |  | 00 | 10 |  |  | 22 |  | -. 28 |  | 28 | 1 | 58 |
| 0 | 8 | - 52 | 11 | 43 | 37 | 17 |  | 19 | 23 |  | -. 01 |  | 29 | 2 | 21 |
|  | 6 | 30 | 12 | 41 | 14 | 18 | 1 | 56 | 24 |  |  | 24 | 30 | 2 | 45 |

D First Quarter, 3rd day, 9 h. 49 m., morning, E.
O Full Moon, 11th day, 4 h. 59 m., morning, W.
đ Last Quarter, 18 th day, 1 h. 44 m., morning, E.

- New Moon, 25th day, 3 h. 45 m., morning, E.
key letters refer to corrections table, page 12, for all points outside new england.

|  | \| | $\sum_{\mathrm{en}}^{\mathrm{ses}}$ |  |  |  |  |  |  | $\left.\underset{\substack{\text { souths } \\ \text { no }}}{ }\right\|_{\text {Pls }} ^{D}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 S | 508\|G | G 6191 | k\|1312 | \|16 23 | $2 \frac{3}{4}{ }^{3}$ | $9_{\mathrm{m}}^{\text {P } 22}$ |  | $4^{\mathrm{p}} 15 \mathrm{~S}$ |  |
| 24 | 2 M . | 509 G | G 618 | K 1 | 1 | $3 \frac{1}{2} 4$ | 951 |  | 500 Sgr |  |
| 246 | 3 Tu | 510 G | G 616 | к 1306 | 174 | $4 \frac{1}{2} 4 \frac{3}{4}$ | $\frac{3}{4} 1025$ |  | 547 Sgr | 8 |
|  | 4 W | 511 G | G 614 | k 1303 | 175 | $5 \frac{1}{4} 5^{\frac{3}{4}}$ | $\frac{3}{4} 1106$ |  | 635 Sgr |  |
| 248 | 5 Th | 512 G | G 613 | K 1301 | 176 | $6 \frac{1}{4}{ }^{\frac{1}{2}}$ | $\frac{1}{2} 11{ }_{\text {P }}{ }^{\text {P }} 54$ |  | 726 Cap | 10 |
| 249 | 6 Fr. | 513 G | G 611 | к 1258 | 187 | $7 \frac{1}{4} 7$ |  |  | 817 Cap |  |
| 250 | 7 Sa . | 514 G | G 609 | K 1255 | 1888 | $8 \frac{1}{4} 8 \frac{1}{2}$ | $\frac{1}{2} 12 \times 49$ |  | 909 Aqr | 12 |
| 25 I | 8 S | 515 G | G 607 | K 1252 | 189 | $9{ }^{-1}$ | $\frac{1}{4} 150$ |  | 1000 Aqr | 13 |
| 2 | 9 M. | 516 H | H 60 | 1249 |  | $9 \frac{3}{4} 10$ | 256 |  | 1050 Psc | 4 |
| 253 | 10 T | 517 н | H 604 J | J 1247 | 1910 | ${ }^{\frac{1}{2}} 10{ }^{\frac{3}{4}}$ | $\frac{3}{4} 44_{4}^{4} 05$ |  | $11^{\text {Pra }} 38$ Psc | 5 |
| 254 | 11 W. | 518 H | H602 | J 1244 | 1911 | $1{ }_{4}^{1} 11 \frac{3}{4}$ | $\frac{3}{4}$ rise |  |  |  |
| 255 | 12 Th | 519 н | H/600 J | J 124 | 0 - | - 0 | $7^{\text {P }}$ 04 |  | $12^{\text {세 }} 26 \mathrm{P}_{\text {Sc }}$ | , |
|  | 13 Fr . | 521 H | н 559 J | J 12 | $00^{1}$ | $0_{4}^{1} 0^{\frac{1}{2}}$ | $\frac{1}{2} 730$ |  | 115 Ari | 17 |
| 257 | 14 Sa | 522 | 15575 | J 1235 | 20 | $0 \frac{3}{4}{ }^{4}$ | 757 |  | 204 Ari | 18 |
| $25^{8}$ | 15 S | 523 н | H 555 | J 1233 | 21.1 | 12 | 829 |  | 255 Ta | 19 |
|  | 16 M . | 524 | H1553 J | 123 | 21.2 | $2 \frac{1}{2} 2^{\frac{3}{4}}$ | $2 \frac{3}{4} 906$ |  | 348 Ta | 2 |
| - | 17 Tu | 525 H | H 552 J | J 122 | 213 | $3 \frac{1}{4} 3 \frac{1}{2}$ | $\frac{1}{2} 951$ |  | 445 C ' | 22 |
| 261 | 18 W. | 526 | H 550 J | J 122 | 224 | $4 \frac{1}{4} 4 \frac{3}{4}$ | 1045 |  | 544 G' |  |
| 262 | 19 Th | 527 п | H 548 I | I 1221 | $225^{1}$ | $5 \frac{1}{2}$ | $11_{\text {P1 }}^{\text {P }} 47$ |  | 645 C | 24 |
|  | 20 Fr . | 528 I | I 546 I | I 1218 |  | $6 \frac{1}{2} 7$ |  |  | 745 Cnc | 25 |
|  | 21 Sa | 529 I | I 5451 | I 1215 | 23 | $7{ }^{\frac{2}{4}}$ | $12{ }_{\text {din }}{ }^{\text {a }}$ |  | 842 Leo | 26 |
|  | 22 S | 5301 | I 543 I | I 1213 |  | $8 \frac{4}{4}$ | 208 |  | 936 Leo | 27 |
|  | 23 M . | 531 I | I 541 I | I 1210 |  | ${ }^{\frac{3}{4}} 10$ | 319 |  | 1026 Vir | 28 |
|  | 24 Tu | 532 I | I 5391 | I 1207 | $2410^{\frac{1}{2}}$ | $0_{2}^{1} 10_{4}^{3}$ | ${ }_{3}^{3} 44_{\text {A }}^{4} 28$ |  | 11 13Vir | 29 |
| 268 | 25 W | 533 I | I 5371 | I 1204 | $24111^{\frac{1}{2}}$ | $11_{2}^{1} 11^{\frac{1}{4}}$ | $\frac{1}{4}$ sets <br>   |  | $11_{\text {m }}^{1} 58 \mathrm{Lib}$ | 0 |
| 6 | 26 Th | 5341 | I 536 | I 1201 | $25-$ | - 0 | $6{ }_{\text {m }}^{\text {P }} 33$ |  | $12^{\text {p }} 42 \mathrm{Lib}$ | 1 |
|  | 27 Fr | 5351 | I 53411 | I 1158 | $250{ }^{\frac{1}{4}}$ | ${ }^{\frac{1}{4}} 00$ | $\frac{1}{2} 657$ |  | 125 Sco | 2 |
|  | 28 Sa | 5371 | I 532 I | I 1156 |  | ${ }^{\frac{3}{4}}{ }^{\frac{1}{4}} 1$ | 722 |  | 209 Sco | 3 |
| 272 | 29 S | 538 I | I 530 I | 1153 | $261{ }^{1}$ | $1 \frac{1}{2}$ | 750 D |  | 2 53Sco | 4 |
|  | 30 M . | $539 \mid$ | $1 \mid 529$ | 150 | $26.2{ }^{\frac{1}{4}}$ | $2 \frac{1}{4} 12$ | $8_{\text {M }}^{\text {P } 22 ~}$ |  | $3{ }^{\text {P }} 39$, Sgr ${ }^{\prime}$ |  |



| 1946] |  | OCTOBER, Tenth Month. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASTRONOMICAL CALCULATIONS. |  |  |  |  |  |  |  |  |  |  |
| a | Days. | $0 \quad 1$ | Days. | $0 \quad 1$ | Days. | 01 | Days. | $0 \quad 1$ | Days. | 0 |
| E | 1 | 38.08 | 7 | 527 | 13 | 743 | 19 | 956 | 25 | 1203 |
| . | 2 | $3 \quad 31$ | 8 | 550 | 14 | 806 | 20 | $10 \quad 17$ | 26 | 1224 |
| ${ }^{\text {a }}$ | 3 | $3 \quad 54$ | 0 | 613 | 15 | 828 | 21 | 1039 | 27 | 1244 |
| ¢ | 4 | 418 | 10 | 035 | 16 | 850 | 22 | 1100 | 28 | 1305 |
| $\ldots$ | 6 | 411 | 11 | 658 | 17 | 912 | 23 | 1121 | 29 | 1325 |
| © | 6 | 504 | 12 | 721 | 18 | 934 | 24 | 1142 | 30 | 1344 |

D First Quarter, 3rd day, 4 h .53 m ., morning, W.
O Full Moon, 10 th day, 3 h. 40 m., evening, E.
© Last Quarter, 17 th day, 8 h. 28 m., morning, W.
New Moon, 24th day, 6 h. 32 m., evening, W.
key letters refer to corrections table, page 12, for all points outide new england.

|  |
| :---: |



276 3 Th. 542 Ј 524 н 114127 4 $4 \frac{3}{4} 5 \quad 1035$ в


2796 S-545J 518 н 113328
280 7 7 M. 547 J 517 H 113028
28 r 8 Tu. 548 s 515 н 112728
 283.10 Th. $550 \mathrm{~J} \quad 512 \mathrm{G} \quad 112229.10 \frac{1}{2} 10^{\frac{3}{4}}$ $28411 \mathrm{Fr} .551 \mathrm{~K} 510 \mathrm{G} \quad 111929.11 \frac{1}{2} 11 \frac{3}{4}$ 28512 Sa. 552 к 508 g 111629 - 0
 28714 M. 554 K 505 G 111130 $1 \frac{1}{4}$ 1 $1 \frac{1}{2}$ $28815 \mathrm{Tu} .556 \mathrm{~K} .503 \mathrm{~g} \quad 110830 \quad 2$ 289 16 W .557 K 502 G 110530 29017 Th. 558 к $500 \mathrm{G} \quad 110231$ 29r 18 Fr. 559 K $4599^{G} \cdot 110031$ 29219 Sa .600 K 457 g | 105731 29320 S _ 602 K 456 G 105431 29421 M. $603 \mathrm{~L} 454 \mathrm{~F} \mid 1051 / 31$
 $29623 \mathrm{~W} .605 \mathrm{~L} 451 \mathrm{~F} \quad 1046321010 \frac{1}{2}$ 29724 Th. $606 \mathrm{~L} 450 \mathrm{~F} \left\lvert\, 10433210 \frac{3}{4} 11 \frac{1}{4}\right.$ 29825 Fr. $608 \mathrm{~L} 448 \mathrm{~F} 104132.11 \frac{1}{4} 11 \frac{3}{4}$ $29926 \mathrm{Sa} .609 \mathrm{~L} 447 \mathrm{~F} 10383211_{4}^{3}-$ 30027 S_ 6 10L $445 \mathrm{~F} \left\lvert\, 1035320 \frac{1}{2} 0 \frac{1}{2}\right.$ 301 28 M. 6 11L 444 F 103332 30229 Tu. 612 L 443 F 103032 303 30W. 614 L 441 E $1028322 \frac{1}{2}$ 30431 Th. 615 M/4 40E $\left.10253233_{4}^{1} 3 \frac{1}{4} \right\rvert\,$


# The man sleeps now in his content . . <br> The rain that runs across the roof <br> Is not a rain for him to hear, <br> Nor wilh the tonger lack of rain <br> Trouble his dream with shapes of fear <br> For acres where of late he went <br> The man will sleep in his content. 

| $\begin{array}{l\|l} 8 \\ \therefore & 8 \\ \hline \end{array}$ | $\mathrm{Hi}$ | er's C |
| :---: | :---: | :---: |
| 1 Tu. | eep |  |
| 2 W. |  |  |
| 3 Th . |  | the end of the month. There's no question it pays to get |
| 4 Fr . |  | both into a suitable storage |
| 5 Sa . |  | The apple storage especially |
| 6 F |  | should not be too moist and |
| I. | these days. | circulation of air at all times |
| 8 Tu. | ${ }_{1871}$ caso Fire Tldes $\left\{\begin{array}{l}9.1 \\ 19.8 \\ \hline 1\end{array}\right.$ | permanent fan, or fans, can |
| 9 W |  | be installed. Nights will ally be crisp from now out, |
| 10 Th |  | and it will pay to open the |
| 11 Fr . |  |  |
| Sa |  | ing, a good na If the collar is |
| 13 F |  | inc It takes only a few |
| 14 M . | Royal Oakk torp. Tides $\{1$ | gnawed apples to ruin the lot |
| 15 Tu |  | in short order. ${ }_{\text {Be }} \mathrm{well}$ advised and use |
| W. | $\mathbb{C}$ runs high Tides $\left\{\begin{array}{l}\text { 9,4 } \\ 10.4\end{array}\right.$ | your own most |
| 17 Th |  | linent on the ma |
| Fi |  | sell all immediately, sell part |
| Sa | Barometer inv. Tldes S $_{0.6}^{8.6}$ Expect |  |
|  |  |  |
| M. | Cumana quake Tlides 90.1 | mediately (certainly all that will not keep long and plan |
| 22 Tu |  | to sell "lots" at intervals |
| 23 W. |  | throughout the storage sea- |
| Th |  | hang on to all till |
| 25 Fr . | St, Crispil. flis $\geqslant \mathbb{C}$. Tldes | end. Markets are largely un- |
| Sa | ठ | ye |
|  |  |  |
|  | Colder |  |
|  |  |  |
| 30 W |  | like brushy corners, |
|  |  |  |

1946] NOVEMBER, Eleventh Month.
ASTRONOMICAL CALCULATIONE.

|  | Daye. | 0 | 1 | Days. | 01 | Daye. | $0 \quad 1$ | Days. | 0 , | Days. | 0 , |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Oid | 1 | 148 |  | 7 | 1615 | 13 | 1756 | 19 | 1926 | 25 | 2044 |
| 5 | 2 | 14 | 43 | 8 | 1632 | 14 | 1812 | 20 | 1940 | 26 | 2055 |
| $\frac{\pi}{8}$ | 8 | 15 | 01 | 0 | 1650 | 15 | 1827 | 21 | 1953 | 27 | 2107 |
| \% | 4 | 15 | 20 | 10 | 1707 | 16 | 1843 | 22 | 2007 | 28 | 2117 |
| $\infty$ | 5 | 15 | 39 | 11 | $17 \quad 23$ | 17 | 1857 | 23 | 2019 | 29 | 2128 |
| © | 8 | 15 | 57 | 12 | 1740 | 18 | 1912 | 24 | 2032 | 30 | 2138 |

D First Quarter, 1st day, 11 h .40 m ., evening, W. O Full Moon, 9th day, 2 h. 10 m., morning, W.
© Last Quarter, 15th day, 5 h. 35 m., evening, W.

- New Moon, 23rd day, 12 h. 24 m., evening, W. KEY LeTters refer to corrections table, page 12, for al points outside new england.

|  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | m 437 E |  |  |  |  |  |  |  |
|  |  | 19 |  |  |  |  |  |  |  |  |
|  |  | 20 m | M 435 - |  |  |  |  |  |  |  |
|  |  |  | - |  |  | $\frac{3}{4} 8$ |  |  |  |  |
|  | 6 |  |  |  |  | 8 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 30 E |  |  | $10^{1}$ |  |  |  |  |
|  | 9 |  |  |  |  | 1 |  |  |  |  |
|  | 10 |  |  |  |  |  | $5_{\text {m }}{ }^{\text {P }} 38$ B |  |  |  |
|  |  |  | , |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 1 | 2 | 835 A |  |  |  |
|  |  |  | 4D |  |  | 3 |  |  |  |  |
|  |  | 634 N | 23 |  |  |  | $0^{\text {P }} 59$ D | 52 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 6 |  |  |  |  |  |
|  | 18 |  | ${ }^{\circ}$ |  | 7 |  |  |  |  |  |
|  |  | 639 |  |  |  |  | 2201 |  |  |  |
|  |  |  |  |  |  | $9 \frac{1}{4}$ | 324 J |  |  |  |
|  |  |  | 418 |  |  | 9 | 426 |  |  |  |
|  |  |  |  |  | $10 \frac{1}{4}$ | ${ }^{\frac{1}{4}} 10$ | $5{ }_{\text {m }}^{1} 29 \mathrm{~m}$ | M |  |  |
|  |  | 6430 |  |  |  |  | sets - |  |  |  |
|  |  | 6450 | 416 |  |  | 11. | $4{ }_{4}^{\text {p }} 55$ |  |  |  |
|  |  | 460 | 416 |  |  | , | 534 |  |  |  |
|  | 26 Tu. | 647 | 4 |  | 0 | 0 | 620 |  |  |  |
|  | 27. W. | 6480 | 4 |  |  | $1{ }^{1}$ | 712 A |  |  |  |
|  | 28 Th . | 6490 |  |  |  | 1 | 811 B |  |  |  |
|  |  | 6500 | 4 |  |  |  | 912 |  |  |  |
|  |  |  |  |  | $3 \frac{1}{2}$ |  |  |  |  |  |



> Look where the last denuded tree Dreams neither back nor forward, now, Regretting nothing from the bough, And hoping nothing. . . . Here jou see The strict inflitive: to be.

|  | $\beta$ | Aspects, Holldays, Helghts of High Water, Weather, oto. |
| :---: | :---: | :---: |
| 1 | Fr. |  |
| 2 | Sa. |  |
| 3 | F | 20tfo \&.a. Ur. St.Habert. Munday $\left\{\begin{array}{l}7.8 \\ 8.5\end{array}\right.$ |
| 4 | M. | Eugene Field Tides $\left\{_{8.8}^{8.2}\right.$, then |
| 5 | Tu. | Fawisee Gen. Election Day Day |
| 6 | W. |  |
| 7 | Th. | North Africa invasion 1942 \{ ${ }^{10.2}$ (10.0 ${ }^{\text {a }}$ flurries |
| 8 | Fr. | Prune your $\begin{aligned} & \text { grapevines }\end{aligned}$ Tides $\left\{\begin{array}{l}10.9 \\ 10.8\end{array}\right.$ and |
| 9 | Na. | Tides $\{11.4$ stormy |
| 10 | F |  |
| 11 | II. |  |
| 12 | Tu | St.Martid, © ${ }_{\text {chigh. }}^{\text {ruigs }}$ (ties $\{11.5$ |
| 13 | W | Tides $\{11.00$ Indian |
| 14 | Th. | 6 2 C. 6 ¢ \% .Tide |
| 15 | Fi. | King's Name Day C. E. Dallin Tiden $\left\{^{9.1} 9\right.$ |
| 16 | Sa. | U.S.A. \& U. U. S.S.R. Tides $\left\{\begin{array}{l}8.9 \\ \text { est. } \\ \text { comes }\end{array}\right.$ |
|  | F |  |
| 18 | M. | 1st heavy Berlin rald Tides $\left\{\begin{array}{l}9.0 \\ 1943\end{array}\right.$ |
|  | Tu | \& $\Psi \mathbb{C} . \quad 豸$ in $8 . \mathbb{C}_{\text {Eq, }}^{\text {On }}$. Tides $\left\{\begin{array}{l}9.2 \\ 8.9\end{array}\right.$ |
| 2 | W. |  |
| 21 | Th. |  |
| 22 | Fr. | St. Cecillia. \& ¢ ¢ C. Tides $\left\{\begin{array}{l}9.8 \\ 8.8 \\ \text { sn }\end{array}\right.$ |
| 23 | Sa . | St. Clement. $\bigcirc_{\text {Eelipse }}^{\text {Partiai }}$ ర $\mathbb{C}$. Tides $\{$ 9,8 |
| 24 | F |  |
| 25 | M. |  |
| 26 | Tu. |  |
|  | W. | The Portland sank 1898 Tides $\left\{\begin{array}{l}8.8 \\ 9.8\end{array}\right.$ storms |
|  | Th. | Thanksgiving. Tides $\left\{_{9.0}^{8.0}\right.$ |
| 29 | Fr. |  |
| 30 | Sa. |  |
|  |  | squecred inta co sleeplessness. |

## Farmer' Oalendar.

You will be getting things snug and shipshape now about the farm-all comfortable for winter: mice in the attic, cricket on the hearth, wood in the shed, barn in good order.

Though better done earlier, keep putting out manure as long as you can. There will be plenty more come spring. It is not good husbandry to plough now, even if you can, as it is too late to sow a crop that will cover before winter, and you will only invite the leaching, washing, and blowing away of good soll. All land should have some cover at this time, even if it be but litter.

Cover your strawberries heavily with pinc ncedles. See that mulch is not-piled too close about your fruit trees. This invites rodent damage. If your climbing roses are in an exposed position, wrap them carcfully in straw and burlap. Be sure roof gutters and drains are free and clear. Check your pumps and plumbing.

Try this method of getting that big boulder out of your pasture: Find an old piece of shcet metal, dig a pit down near the rock on one side, and start a small fire next the rock. Throw the metal over the fire and against the rock to kecp the heat in. When the fire has burned a few hours, pound the heated side of the rock with a sledge hammer. Enlarge the seams that appear and before long you will have your boulder in easily moved pieces.

## DECEMBER, Twelyth Monta.

ASTHONOMTOAE OALOULATIONS.

| d | Days. | $0 \quad 1$ | Daye. | 0 1 | Days. | $0 \quad 1$ | Days. | $0 \quad 1$ | Daye. | 01 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 푤 | 1 | $21 \mathrm{s}$. | 7 | 2236 | 13 | 2309 | 18 | 2325 | 25 | 2324 |
| E | 8 | $21 \quad 57$ | 8 | 2243 | 14 | 2313 | 20 | 2326 | 28 | 2320 |
|  | 8 | 2205 | 0 | 2249 | 15 | 2316 | 31 | 2327 | 27 | 2318 |
|  | 1 | $\begin{array}{ll}22 & 14\end{array}$ | 10 | 2254 | 16 | 2319 | 22 | 2327 | 28 | 2314 |
|  | 8 | $22 \quad 22$ | 11 | 2300 | 17 | 2321 | 29 | 2926 | 29 | 2911 |
|  | 6 | $22 \quad 29$ | 12 | 2304 | 18 | 2323 | 24 | 2326 | 90 | 2307 |

D First Quarter, 1st day, 4 h. 47 m., evening, E.
O Full Moon, 8th day, 12 h. 52 m., evening, E.
Last Quarter, 15 th day, 5 h. 57 m., morning, W. New Moon, 23 rd day, 8 h. 06 m., morning E.
D First Quarter, 31st day, 7 h. 23 m., morning, E. KEY LETTERS REFER TO CORRECTIONS TABLE, PAGE 12, FOR ALL POINTS OUTSIDE NEW ENGLAND


336 2 M. 6540413 C
$919275 \frac{1}{4} 5 \frac{1}{2}$ — - 642 Psc
$918266 \frac{1}{4} \quad 6 \frac{1}{2} 122_{\text {A }} 30$ H 728 Ari


$914\left|2588_{\frac{3}{4}}^{4} 9 \frac{1}{4}\right| 407 \mathrm{~L} 1001$ Tau 13
$913259 \frac{1}{2} 10$ 5 $5_{\mathrm{M}}^{\wedge} 27$ N $11_{\mathrm{M}}^{\mathrm{P}} 01$ G'm 14
$9122410 \frac{1}{4} 11 \frac{1}{4}$ rises
9112411 11 $\frac{1}{2} \quad 5_{\mathrm{x}}^{\mathrm{P}} 08 \mathrm{~A}$ 12 $2_{\mathrm{a}}^{\mathrm{A}} 05$ G'm 15
$9112311_{4}^{3}-614 \mathrm{~A} \quad 111$ Cnc 17

$909221_{1} \frac{1}{2} 1 \frac{3}{4}-843 \mathrm{c} \quad 317$ Leo 19

$908213 \frac{1}{2} 3 \frac{3}{4} 111_{\text {ar }}^{\text {P }} 06$ G $\quad 505$ Vir 21
90721 4 $\frac{1}{2} 4 \frac{3}{4}-\quad-\quad 552 \operatorname{Vir} 22$
$907205 \frac{1}{2} 62_{\mathrm{M}}^{\mathrm{A}} 13 \mathrm{H} \quad 636 \mathrm{Lib} 23$
35016 M. 706 P 4
35117 Tu .707 P 413 B
35218 W .707 P 414 B
35319 Th .708 P 414 B
35420 Fr. 709 P 414 в
$355{ }^{21}$ Sa. 709 P 415 B
35622 S. 710 р 415 в
357 23 M. 710 P 416 B
35824 Tu. 711 P 416 в
359 25 W. 711 P 417 B
36026 Th. 711 P 418 в
36x 27 Fr. 1712 p 418 в
36228 Sa. 712 P 419 в
36329 S. 712 Р 420 в
36430 M. 712 P 421 в



| 9 | 06 | 19 | 8 | 9 | 9 | 3 | 22 L | 8 | 43 | Sco |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

$90618 \quad 9 \quad 9 \frac{3}{4}-424 \mathrm{~N} 927$ Sco 27
$906189_{4}^{3} 10 \frac{1}{4} \quad 5260 \quad 1013 \mathrm{Sgr} 28$
$9061710_{2}^{\frac{1}{2}} 10^{\frac{3}{4}} \quad 6_{\mathrm{M}}^{4} 26 \mathrm{p} \quad 1101 \mathrm{Sgr} 29$
$906171111 \frac{1}{4}$ sets - $11_{\mathrm{m}}^{\wedge} 51$ Cap 0
$9061611 \frac{3}{4}-5_{\mathrm{M}}^{\mathrm{P}} 07 \mathrm{~A} \quad 12_{\mathrm{M}}^{\mathrm{P}} 41 \mathrm{Cap}$
$906160 \frac{1}{4}-0 \frac{1}{4} 604 \mathrm{~B} \quad 131 \mathrm{Cap}$

$907151 \frac{1}{2} 1 \frac{3}{4} 4808 \mathrm{D} \quad 307 \mathrm{Aqr}$


| 9 | 08 | 14 | 3 | 3 | 10 | 18 | a |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | $4^{4} 38$ Psc

$908133 \frac{3}{4} 41_{1}^{\text {P2 }} 24$ I 523 Ari
36531 Tu. 713 р 1421 в
$909134 \frac{1}{2} 5$


## SCIENTISTS AT WORK

## (Courtesy Experiment Station Record-U. S. Department of Agriculture)

Christmas tree test, R. B. Paton (Ohio Sta. Bimo. Bul. 231 (1944), pp. 257-259). -Norway spruce brought into a room held at $68^{\circ}-70^{\circ} \mathrm{F}^{\circ}$. began to drop their needles in less than 14 days in nearly all cases, while comparable trees with their cut ends in water retained their needles an average of 21.9 days. Shellac treatment of the butts had no benefit on durability.

Trials in producing forcing roots of lily-of-the-valley, W. D. Holley. (N. H. Expt. Sta.). (Florists Exch. and Hort. Trade World, 103 (1944), No. 17, pp. 12, 13, illus. 3).-The possibility of producing in southeastern New Hampslire lily-of-the-valley roots of higli forcing. quality was deinonstrated. Hertlle well-drained soil such as is used in vegetable production was found suitable, and with the selection of proper strains there can be produced a high percentage of high quality marketable flowers.

Sawdust, seaweed, and meadow hay as mulch for MeIntosh apple trees, L. P. Latimer and G. P. Percival. (Univ. N. H.). (Amer. Soc. Hort. Sci. Proc., 44 (1944), pp. 49-52).-Because the majority of New Hampshire apple orchards are grown on hillsides where cultivation is diffcult or monpractical and with inadequate grass cover for mulching there is need of outside mulching material. Comparisons were made of sawdnst, seaweed, and meadow hay as mulching materials for young McIntosh apple trees. Hay and seaweed were outstanding witli respect to yield and size of fruit. Color of fruit was better on the sawdusi and sod plots, but the fruit on the hay and seaweed plots was sufficiently colored to meet the requirements for fancy grade. The pressure tester did not show any difference in maturity attributable to treatments. Qnackgrass grew readily up through the sawdust, only slightly through hay, and not at all through seaweed.

Sunflowers as a crop, K. J. Kucinski and W. S. Eisienmenger (Massachusetts Sta. Bul. 415 (1944), pp. 8, illus. 5). The crop may be grown in Massachusetts on any soil, preferably a light loam, which will produce corn and has similar culivation requirements. Practices found productive include use of $400-500 \mathrm{lb}$. per acre of corn fertilizer as $5-10-\overline{5}, \overline{2}-8-7$, or $3-12-6$ in hills, or trvice as nuuch broadcast; planting $5-71 \mathrm{~b}$. of seed per acre-one seed 1 in . deep, 18 in . apart in 3 ft . rows-about corn planting time, a good variety as Mammoth Russian, cutting off the heads September 16-30, and drying on boards or dry ground about ${ }^{2}$ weeks. Seed yields should average 1 ton per acre in Massachusetts. althongh as mucli as 2 tons рет acre has been obtained in station tests. Up to 19 tons of silage were made per acre, comparable with corn. Sunflowers hare had no effects on the soil detrimental to following crops even with tobacco, very sensitive to preceding crop, in experiments in the Connecticut Valley. Sunflower stalks chopped fine with a silage cutter made very good litter for poultry.

A way to save milk in raising calves, N. N. Allen (Vermont Sta. Pam. 11 (1944), pp. 3).-Storing of colostrum in a frozen condition and its use as a substitute for normal milk in calf feeding is recommended. The colostrum should be frozen in amounts sufficient for 1 day's feed. If packed in sawdust on the north side of a building it will remain solid in Vermont throughout the winter.

Cost and practices in producing potatoes in southern Aroostook County, Maine, 1941, W. E. Schrumpf (Maine Sta. Bul. 432 (1944), pp. 233-272+, illus. 2),-Data for the 1941 season were gathered by a survey of 172 farms in 17 towns.

The farms averaged 171 acres, of which 84 were in cropland, 25 being jn potatoes: 96 per cent of the farins had dairy cows, averaging 5 per farm. Other animal units averaged 3.5. Production cost of potatoes averaged $\$ 154$ per acre and $\$ 1.41$ per barrel, of which growing costs were 63 per cent, llarvesting costs 11 , storage 23 , and selling 3 ver cent. Cost of production of potatoes averaged $\$ 167$ per acre or $\$ 1.70$ per bariel on farms with less than 15 acres of potatoes, and $\$ 149$ or $\$ 1.34$ on those with 30 acres or more.

The New Hampshire for broiler production (Arkansas Sta. Bul. 453 (1944), pp. 26-27).-At 12 weeks of age groups of 100 chicks each of different breads were found to average in weight as follows: Barred Plymouth Rock 2.35 lb., New Hampshire 2.75, Barred Plymouth Rock X New Hampshire 3.05, and New Hampshire $\times$ Barred Plymouth Rock 3.25 lb . The last group required 3.4 lb . of feed per 1 lb . of gain, whereas 4 lb. of feed was required by chicks of the reciprocal cross and by the New Hampshire chicks and 4.5 lb , by Barred Plymouth Rock chicks.

Disposal of garbage through a septic tank, W. HH. Sireldon (Michigan Sta. Quart. Bul., 27 (1944), No 2, pp. 202-204, illus, 2). -The introduction of garbage into a septic tank through an 8-in. title as a means of disposal was begun experimentally in December 1939 and lias continued to date. This method of garbage disposal has provided the convenience of a covered garbage receptacle and the advantages of deep burial, immediate disposal, and return of its fertilizer value to the soil. The drop tube into the septic tank served as a quick and convenient means for the disposal of dead poultry or small animals and the wastes from slaughtering poultry and rabbits.

It was found that during the warm weather the drop tube needs to be flushed wlth water twice a week to reduce the odors common to garbage containers. The suggestion is inade that when mechanical garbage grinders are again available, they can be used to good advantage for introducing garbage into the sauitary plumbing system from which it will flow into the septic tank without a special opening into the tank itself.

A relationship of square feet of floor suace per bird and egg production, E. Hofrmann and A. E. Tomhave. (Del. Expt. Sta.) (Poultry Sci., 24 (1945), No. 1, pp. 89-90). -New Hampshire pullets that were allowed as little as 2.76 sq. ft. of floor space per bird laid 105 and 112 eggs in 1 yr ., whereas birds having 3.7 or 4.65 sq . ft. of floor space per hen produced an average of about 130 eggs or over per hen. The six pens consisted of 40-66 pullets each.

Distance to which thunder can be heard, D. E. Page, R.C.A.F. Station, Pennfield Ridge, N.B.-Several texts on metcorology state that thunder cannot normaliy be heard more than 15 miles from its source. During the past summer, thunder was plainly audible on one occasion from a storm about 25 miles to the NNW of this station.

The observer at the lookout stated that it was a particularly heavy storm; this might account for that fact that the thunder was audible a greater distance than usual.

## Discussion

Several notes on "The audibility of thunder" have been collected in the Monthly Weather Review. Mar., 1920, v. 48, p. 162. C. F. Brooks reports one of $29 \mathrm{mi}$. C. J. P. Cave, one of $39 \cdot \mathrm{mi}$., and C. Veenema, two of more than 61 miles. On the other hand Capt. Ault, of the Carnegie reported that a thunderstorm at sea became inaudible beyond a distance of 5 mi .

Storage for apples, W. T. Penzer (U.S. Dept, Agr, F. W. Allen-U. of Cal.).-Apples, both before and after harvest, constantly take in oxygen and give off carbon dioxide, a respiration process. The apple, therefore, should be considered a living organism, with life processes. When removed from the tree it is cut off from its source of food supply, but respiration continues. The apple then lives by gradual utilization of a part of its stored food. Although this supply of stored food ordinarily is not used up, the starch, sugar, and acid constituents of the apples gradually change in storage until the life proccsses cease, and the apple becomes 'dead' and no longer cdible. The most effective and practical method of arresting these undersirable changes is to subject the fruit to a temperature as low as possible without freezing it. "The function of cold storage in holding fruit in its fresh state is not to stop the life processes, but only to reduce the rate at which they take place. Where uniform temperature can be held, $30^{\circ}$ to $31^{\circ} \mathrm{F}$. is recommended for longest holding of most varieties. In general, apples will keep about 25 per cent longer at $30^{\circ}$ than at $32^{\circ} \mathrm{F}$."

## 1945－6 GAME LAWS

Open seasons include both dates．＂Rabbit＂Includes hare：＂quall＂includes＂partridge＂ In South；＂grouse＂lncludes Canada grouse，sharptailed，ruffed（known as partridge in North and pheasant in South）and all other members of family，except pralrie chickeos． ptarmigan and sage hens．VEIIFY these tables－we can not guarantee them．
$0^{7}$ males only．tLocal exceptions．OLast year＇s laws．

| State and Specles | Seasons | 管号品 | State and Specles | Season |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Alabama ${ }^{\circ}$ <br> Deer <br> Rabblt <br> Squirrel <br> Quall <br> Turkey | Nov．20－Jan． $10 \dagger \sigma^{7}$ Oct．1－Feb． 20 （N－Oct．1－Jan． 1 S．Nov．1－Jan． 31 Nov．20－Feb． 20 $\left\{\begin{array}{l}\text { Nov．20－Jan．} 1 \dagger \sigma^{\prime \prime} \\ \text { Mar．20－Apr．} 15 \dagger^{\prime}\end{array}\right.$ | 3 | Delaware |  |  |
|  |  |  | Rabblt | Nov． $15-$ Dec． 31 Sept． $15-$ Nov． 1 |  |
|  |  |  |  | Nov．15－Dec． 31 | 6 |
|  |  |  |  |  |  |
|  |  | 5 | Florida ${ }^{\circ}$DeerSquirrelQuallGrouse，pheasantTurkey | Nov． 20 －Dec． $31 \dagger \sigma^{7}$ <br> Nov． 20 －Feb． $15 \dagger$ <br> Nov． $20-$ Feb． $15 \dagger$ <br> No open season <br> Nov．20－Feb： $15 \dagger$ | 2 |
|  |  |  |  |  |  |
| Alaska Deer | Sept．1－Nov． $15 \dagger \sigma^{7}$ N－Sept．1－Oct． $15 \sigma^{7}$ | $2 \dagger$ |  |  |  |
|  |  |  |  |  |  |
| Moose | $\left\{\left.\begin{array}{l} \text { Dec. 1-Dec. } 15 \\ \text { S-Nov. } 16-\text { Dec. } 15 \end{array} \right\rvert\,\right.$ | 1 |  |  | 5 |
| Bear Caribou | $\left\{\begin{array}{l}\text { Aug．20－Sept．30 } \\ \text { Dec．1－Dec．} 15 \dagger \\ \text { Sept．1－Oct．} 31 \\ \text { Aug．20－Sept．} 500^{\circ} \dagger \\ \text { Aug．20－Feb．} 28 \dagger \\ \text { Aug．20－Feb．} 28 \dagger\end{array}\right.$ | $2 \dagger$ |  |  |  |
|  |  | ${ }_{2}^{2 \dagger}$ | Georgla |  | 2 |
| Mountain goat Mountain Sheep Grouse Ptarmlgan |  |  | Deer | Oct．15－Jan． $15 \dagger$ O |  |
|  |  |  | Squar | Sept．${ }^{\text {Nov－Jeb．}}$－ $28 \dagger$ |  |
|  |  |  | Quall | Nov．20－Feb． 28 |  |
|  |  |  | Grouse | Nov． $20-\mathrm{Jan} .15$ | 2 |
| Arizona ${ }^{\circ}$ | N－Oct．16－Nov． 15 or |  | Rabbit | No closed season |  |
| Deer |  | 1 |  |  |  |
| Bear <br> Rabbit <br> Abert Squirrel <br> Quall <br> Turkey | Oct． $16-\mathrm{Nov}$ ． $15 \dagger$ <br> Nov．1－Jan． $31+$ Oct． $16-\mathrm{Nov} .15 \dagger$ Nov． 16 －Nov． $30 \dagger$ Oot． $16-$ Nov． $15 \dagger$ | 1 | Idaho | Tocal seasons | 1 |
|  |  |  | Deer，elk |  |  |
|  |  |  | Antelope | Local seasons |  |
|  |  | 2 | Bear | Jan．1－Dec． $31 \dagger$ | 1 |
|  |  |  | Goat | Local seasons <br> No open season |  |
| ArkansasDeer | （Nov．12－Nov． $178^{\text {r }}$＋ | 1 | white） | Local seasons |  |
|  |  |  | Quail（others） | Local seasons |  |
|  | Dec．10－Dec． $150^{\prime}+$ | 1 | Hun．partridge | Local seasons |  |
| Squirrel Quall Turkey | $\left\{\begin{array}{l}\text { May 15－June } 15 \dagger \\ \text { Oct．1－Jan．} 1 \dagger \\ \text { Dec．1－Jan．} 31 \\ \text { Apr．} 1-\text { Apr．} 15 \sigma^{7}\end{array}\right.$ |  | Sage hen Pheasant | Local seasons |  |
|  |  |  |  |  |  |
|  |  | 2 | Illinols |  |  |
| Callfornia Deer Antelope | Aug．1－Oct． 15 ort | $2 \dagger$ | Rabblt <br> Squirrel Quail Pheasan | Nov．11－Jan． 31 <br> Aug． $15-$ Nov． $15 \dagger$ <br> Nov．11－Dec． 11 <br> Nov．11－Nov． $20 \dagger$ |  |
|  |  |  |  |  |  |
|  | Sept．8－Sept． $17 \sigma^{7}$ <br> Oct． $15-$ Dec． $31 \dagger$ <br> Dates not set <br> Dates not set <br> Dates not set | 1 |  |  |  |
| Bear <br> Rabbit <br> Quall <br> Pheasant |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  | Indlana Rabbit Squirrel Quall Pheasant Hun．partridge | Nov．10－Jan． 10 <br> Aug．10－Oct． 8 <br> Nov．10－Dec． 20 <br> Dates not set <br> Nov．10－Dec． 20 |  |
|  |  |  |  |  |  |
| $\begin{aligned} & \text { Colorado } \\ & \text { Deer } \\ & \text { Elk } \end{aligned}$ |  |  |  |  |  |
|  | Oct．6－Nov． $21+{ }^{\text {a }}$Oct． $6-\mathrm{Nov} 21+.\mathrm{o}^{\text {a }}$ | $\pm$ |  |  |  |
|  |  |  |  |  |  |
| Bear <br> Quall <br> Sago grouse <br> Pheasant <br> Rabbit | Oct．6－Nov． 21 <br> Nov．8－Dec． 16 <br> Sept． 1 <br> Nov．8－Dec． 16 <br> Oct．1－Feb． 1 | $\dagger$ | Iowa <br> Rabbit <br> Squirrel Pheasant Quail Hungarian partridge |  |  |
|  |  |  |  | Aug．1－Mar． 1 <br> Sept．15－Nov． 15 <br> Oct． 2 S －Oct． $30 \dagger{ }^{-7}$ <br> Nov． $1-$ Nov． 30 <br> Nov． $12-$ Nov． $14 \dagger$ |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| ConnectlcutRabbitSquirrelQuailPheasantGrouse | Nov．1－Dec． 31 Oct．20－Nov． 24 Dates not set Oct． $20-\mathrm{Nov} .24$ Oct． 20 －Nov． 24 | $\begin{aligned} & 30 \\ & 30 \\ & 18 \\ & 15 \\ & 15 \end{aligned}$ |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  | Kansas Squirrel Quali Pheasunt | June 15－Nov． 30 Intermittent Nov．1－Nov． $5 \dagger$ d $^{\text {A }}$ |  |
|  |  |  |  |  | 25 |




## MIGRATORY GAME BIRD LAWS - 1945-1946

## DUCK, GOOSE, BRANT AND COOT

Northern Zone, Sept, 20-Dec. 8-Iowa, Maine, Michigan, Minnesota, Montama, New Hampsbire, New York (Essex, Clinton and Washington Cos. east of D. \& H. R. R. and waters of South Bay only), North Dakota, Obio (except Pymatuning Reservoir), Soutb Dakota, Vermont, Wisconsin.
(Scoters or sea coots may aiso be taken in open coastal waters of Maine and New. Hampshire from Sept. 15 to Sept. 19, and in those of New York, Connecticut, Massam chusetts and Rbode Island, Sept. 15-Oct. 12.)
Intermediate Zone, Oct 13-Dec. 31 - California (Modoc, Lassen, and Siskiyou Cos. only), Colorado, Connecticut, Idaho, Illinols, Indiana, Kansas, Kentucky, Massachusetts, Missouri, Nebraska, Nevada, New Jersey, New York, Oblo (Pymatuning Reservoir only ), Okiahoma, Oregon, Rbode Island, Utah, Washington, West Virginia, Delaware, Pennsylvania, Wyoming.
Southern Zone, Nov. 2-Jan. 20 - Alabama, Arizona, Arkansas, Califoraia, (Modoc, Lassen, and Siskiyou Cos. only), Florida, Georgia, Louisiana, Maryland, Mississippl, New Mexico, Nortb and South Carolina, Tennessee, Texas and Virginia.
Alaska - Two zones: Sept. 1-Nov. 19 and Sept. 21-Dec. 9.
Puerto Rico - Dec. 15-Feb. 12.
WOODCOCK
Ark., Okla. - Dec. 1-Dec. 15: Conn., Mass. -N. J. - Oct. 2N. Nov. 3; Del. Md. Nov. 15-Nov. 29; Ga., La., Miss. - Dec. 15-Dec. 29; Ind., W, Va. - Oct. 16-Oct. 30. Maine (Aroostook, Penobscot, Piscataquis, Somerset, Frankilin and Oxford Cos.) Oct. 1-Oct. 15; rest of Maine - Oct. 16-Oct. 30; Micbigan (Upper Peninsula) - Oct. 1 Oct. 15; rest of Michigan - Oct. 15-Oct. 29 ; Minn., Ohio, Penn., Wis. - Oct. 10 Oct. 24; Mo. - Nov. 10-Nov, 24; N. H. (Coos, Carroli and Grafton Cos.) - Oct. 1 Oct. 15 ; rest of N. H. - Oct. 16-Oct. 30 ; N. Y. (northern) -oct. $10-00 t .24 ;$ N. Y. (soutbern) - Oct. 15-Oct. 29; Long Island - Nov. 1-Nov. 15; R. 1. Nov. 1-Nov. I5; Vt. (Bennington and Windsor Cos. south of Highway 4) - Oct. 16-Oct. 30; rest of Vermont - Oct. 1-Oct. 15; Virginla-Nov, 20-Dec. 4.

## RAIL AND GALLINULE

Seot. 1-Nov. 30, except as follows: Alabama - Nov. 20-Jan. 31; Loulsiana - Sept 16Dec. 15; Maine and Wisconsin--Sept. 20-Dec. 8; Massacbusetts and New York Oct. 15-Dec. 31; Minnesota-Sept. 16-Nov. 30; Puerto Rico-Dec. 15-Feb. 12; Maryland - Sept 1-Oct. 31; Mississipp1 - Oct. 15-Dec. 30.
No open season in California; District of Columbia, Hawail, Idaho, Iowa, Montana, Nevada, Oregon, Tennessee and Washington.

## MOURNING DOVE

Ariz., Calif., Kan., Mo., Okla. - Sept. 1.Oct. 30; Ark., Miss. - Sent. 16-Sept. 30 and Dec. 18-Jan. 31 : Col., Nev., N. M. - Sept. 1-Oct. 12 ; Del. and Tenn. - Sept. $16-$ Nov. 14; Fla. (Dade and Monroe Cos.) - Oct. 1-Oct. 31; rest of Florida - Nov. 20Jan. 18; 1dabo and Ore. - Sept. 1-Sept. 15; 11. - Sept. 1-Sept. 30; Kp. Sept. 1Oct. 25; Minn. - Sept. 16-Sept. $30 ;$ N. C. and S. C. - Sept. 16 -Oct. 15 and Jan. $2-$ Jan. 31: Penna. - Nov. 1-Nov. 30; Texas (Val Verde, Edwardo, Real, Bandero, Kendall, Blanco, Burnet, Williamson, Mlan, Robertson, Leon, Houston, Cherokee, Nacoqdocbes and Shelby Cos. and all cos. nortb and west - Sept. 1-Oct. 30. rest of Teyas except Cameron, Hidalgo, Starr, Zapata, Webb, Maverick, Kinney, Dimmit, Lasalle, Jim Hogg, Brooks, Kenedy and Willacy Cos. - Oct. 20-Dec. 18; in excepted cos. above - Sept. $13,16,18,20$ and 23 . noon to sunset and Oct. 20-Dec. $131 / 2$ hour before sunrise to sunset; Virginia - Sept. 16-Oct. 31.

## WHITE-WINGED DOVE

Arizona - Sept. 1-Sept. 15. Texas - in Cameron, Hidalgo, Starr, Zapata, Webb. Maverick, Dimmit, LaSalle, Jim Hogg. Brooks, Kenedy, Willacy, Val Verde, Terrell, Brewster, Presidio, Jeff Davis, Cuiberson, Ei Paso Counties - Sept. 13. $16,18,20,23$, noon to sunset.

## BAND-TAILED PIGEON

Arizona, Colorado. New Mexlco, Washington - Sept. 16-Oct. 15; California -
Dec. 1-Dec. 30; Oregon - Scpt. 1-
Sept. 30 ,

BAG LIMITS. Ducks - 10 in aggregate of all kinds including not more than 1 wood duck. Possession limit 20 in the aggregate of all kinds, but not more than 1 wood duck. Geese and brant, 2 but not including blue, snow or white-fronted geese, and in addition (A) 4 singly or in tbe aggregate of snow and white-fronted geese in the Paclic Coast States or (B) 4 singly or in the aggregate of blue and snow geese elsewbere than Paciftc Coast States. Possession limit 4 geese, including brant, but not including blue, snow or whitefronted geese and in addition, not more than 8 slngly or in the aggregate blue, snow or white-fronted geese. 1n Alexander Countr, 111., geese may be taken only from one-haif bour before sunrise untll noon.

Coot and sora, 25, singly or in aggregate, daily and possession. Rail and gaitunule 15 in aggregate; 15 possession. Woodcock $4 ; 8$ in possession, Mourning and white-winged doves, 10 in aggregate: possession mourning doves 10, white-winged 10. Band-talled plgeons 10: possession 10.
RESTRICTIONS. Closed season on jacksnipe, Ross's geese and swans; on snow geese in states bordering the Atlantic Coast, in Idaho, and in Beaverhead. Gallatin and Madison Counties, in Montana, on wood duck in Massachusetts and North Dakota. Live decoys, baiting, and use of live-stock as "blinds" prohibited. Migratory wateriowl may be taken with bow and arrow, or with shotgun not larger than 10-gauge, and olourning and white winced doves and band-tailed plgeons may be taken from one-halr bour beforesunrise to
 birds may be retained for 45 days following close of season in state where killed.

## POETRY, ANECDOTES AND PLEASANTRIES

## EASY DOES IT

Father: I am so excited. Quick, quiek! T'ell mc, nurse, is it a boy or a girl?

Nurse: Well, Mr. Brown, the one in the middle is a boy.

Good Things

## MORE EPITAPHS

On the tomb of a Liverpool brewer:
Poor John Scott lics buried here, Although he was both hale and stout,
Death stretched him on the bitter bier;
In another world he hops about.
In the cemetery at North Stratford, N. H.:

Frecin, the husband of Mary, for her faults, blame him, for her virtues, honor her. I liave done the best I can, Mary, to see you are not forgotten.

Mary, wife and mother for 36 years a member of the Willard family, and well she kept her poise; it was an achievement.

This at Bath, Maine:
Our life is but a winter's day
Some breakfast and away. Others, to dinner stay
The oldster slips and goes to bed.
Large is his who lingers out the day,
Who goes the soonest has the least to sáy!
Also at Batl, Maine:
Accidentally shot as a mark of affection by his brother.

And finally in the Mount Auburn Ccmetery, Boston:
Here lies John Witherbee, A Boston gallant clap was he, God has no use for sueh as he, The Devil rejected Witherbee.

## BEN FRANKLIN WROTE

To lengthen thy life, lessen thy meals.

Many dishes, many diseases; many medicines, few cures.

There are three faithful friends -an old wife, an old log and ready money.

He that is of the opinion Money will do Everything may well be suspected of doing Everything for Money.

Get what you can, and what you get, hold; 'tis the stone that will turis all your lead into gold.

## $\dot{G O O D}$ SENSE - YANKEE FASHION

The city fellow was discussing the gencral wild state of spending
and nobody paying with a resident of a small Cape Cod town. The old man listened, agreed and and then opined-"Nossir, I don't hold with all these new ideas. I've allus made it a point to never wash more'n I can hang out!"

WHAT THE OLD FARMER'S ALMANAC TOLD
Some of the things The Old Farmer's Almanac used to tell were what the family or the farmer wrote in as marginal notes. Remember?
It told when the tin-pedler Swift was due,
It told when we paid the milk bill, too;
It told, when we bought a barrel o' flour,
It told when Pa'd get his herrin "dower."
and then the weather:
Our Ma, on weather, would hare her say,
Our Pa jes' thought "Old Farmer's" way.
THE RETORT PERSONAL
"I, see villainy in your face, sir," said the judge scowling down at the prisoner.
"May it please Your Honor," said the latter, "that is a personal reflection."

## WHITTLING IN VERMONT

Because Vermonters like a knife And stiek and pile of shavings The eity papers teem with jokes And joeular engravings;
But when you've got some extra time,
However much or little,
I can't see how it's any sin
To kinder set and whittle.
What finer sight defleets sour eye When April gets to running,
Than threc or four benign old "boys",
A-whittling and a-sunning!
They're glad that 'bove their forms as yet
The slow and sad committal
Is still unsaid, and that there's time
To set and talk and whittle.
Besides it's fun to make a thing And not know what you're making:
Perhaps 'twill be a husking peg
To keep your thumb from aching;
Perlaps 'twill be a butter-spat, Unless it gets too little;
There's lots of ways a stick can end
When once you start to whittle.

A whittler always keeps his knife In apple pie condition;
The brightest blade, it suffers least
From woody opposition;
He may not be the happiest judge Of what's the daintiest victual,
But if his wife is up and dressed He has the riglit to whittle.

A-whittling, so it seems to me, Is jest as smart a caper,
As shooting shot at plaster birds Or hunting scraps of paper;
The man that's tried when I'm the judge
Will get a prompt acquittal,
If all they prove is that he likes To kinder set aud whittle.

> Daniel L. CadyRhymes of Vermont

Finnish conversations can sometimes boil down to something like this one:

Father: Kokoo kokoon koko koko!

Son: Kokoko koko?
Father: Koko koko.
Which only means:
F.: Gather the entire heap together!
S.: The entire heap?
F.: The entire heap.

Silly, isn't it?

## A FEW EXPRESSIONS

"He pries up the sun with a crowbar"-said of a man who gets up very early in the morning.

The wind blew straight up and down"--a gale.
"Looking for salt pork and sun-down"-when a hired man shirks.
"Slower than a hop toad in hot tar."
"Faster than," a cat lapping chain lightning."
"Safe as in God's pocket."

## APPROPRIATE PROXIMITY

The perfect hostess will see to it that the works of male and female authors be properly separated on her bookshelves. Their proximity, unless they happen to be married, should not be tolerated.

## Godey's Lady Book c. 1858

## BOTH GOOD MEN

Joel Stevens and Deacon Epharium Tenney were the backbone of fheir little New England town. But they didn't always get along. The Deacon was hot-tempered, known to be a sharp trader, and inclined to stretch the truth. Joel wasn't one to get "haired-up" over anything.

At one selectmen's meeting an argument came up and Epharium made a statement grossly unfair and untrue, which Joel convincingly refuted. Epharium, instead of recognizing that anyone could be right except himself, demanded, "Joel, do you mean to call me a liar?" To which Joel replied in his slow drawl, "No, Deacon, I don't. But ain't ye?"

## INSPIRED GRACE

The minister had dropped in just as preparations for supper were nearly finished, and the goorl wife felt obliged to delay the meal while she prepared something adequate for the occasion. When the meal was served, this was the minister's grace:
"The Lord be praised!
How I'm amazed
To see how things have mended. Short-cake and tea
For supper I see
Where milk and mush were intended."

## ELBERT HUBBARD SAID

If you want work well done, select a busy man. The other.kind has no time.

The greatest mistake you can make in life is to be continually fearing you will make one.

Do unto others as though you were the others.

The man who is loyal to his work is not wrung or perplexed by doubts-he sticks to the ship, and if the ship founders, he goes down a hero with the colors flying at the mast, and band playing.

## OUTLINE OF THRIFT

Old maxims of prudence are well understood,
Having seasoned her copybook. salted her blood.

She hones up her wits on a barter with friends.
Large eggs when she borrows and small when she lends.
Her basket goes lightly to picnicking groves
And returns heavy proof of the blessing of loaves.
The hay cron from trampleddown mealows is small.
So she picks her field berries well over the wall.
And on a spring morning, as pert as you please,
Comes peddling her parsnips, and begging your peas!

Florence B. Jacobs in Yankee Magazine

## OLD FASHIONED PUZZLES

## 1. Enigma

Soon as I'm malle, I'm sought with eare;
For one whole year consulted;
That time elarised, I'm thrown aside,
Neglected and insulted.

## 2. Logogrlph

What is pretty and useful in various ways,
Though it tempts some poor mortals to shorten their days?
Take one letter from it, and then will appear
What youngsters admire every day in the year.
Take two letters from it, and then, without doubt,
You are what it is, if you don't find it out.

## Arithmetical Puzzles

3
Show the digits whieh, multiplied by seven, will give a result all ones.

## 4

To half a dozen add half a score, Then you will plalnly see
Just twenty-neither less nor more.
Explain the mystery.

## 5. Conundrums

a. Why is a salt herring like a waterproof coat?
b. Whel do two and, two make more than four?
c. Why ought the stars to be good astronomers?
d. Why are erows the most sensible birds?

## 6. Enigma

I am not of flesh aud blood
Yet have I many a bone;
No limbs, exeept oue leg.
And ean't staud on that alone.
My friends are many and dwell
In all lands of the human race;
But they poke my poor nose into the mud,
And shamefully spatter my face;
Thrust me into each other's ribs,
Stick me in gutter and rut;
I have never a window and never a door,
Yet I of myself am shut.

## 7. Conundrums

a. What would the eaptain of a ship do, if he had no eggs?
b. What is the best time to read the book of Nature?
c. When will there be but 24 letters iu the alphabet?
d. What kind of hair liad Moses' dog?

## 8. Cross-Word Enigma

My first is in rope, but not in string.
My second is in leap but not in spring.
My third is in state, but not in place.
My fourth is in cassia, but not in mace.
My fifth is in haek but not in cut. My sixth is in hamlet, but not in hut.
My seventh is in lamp but not in light.
My eighth is in quarrel, but not in fight.
My ninth is in you, but not in him.
My tenth is in Lot, but not in Sim.
My eleventh is in hood, but not in hat.
My twelfth is in dog, but not in eat.
My thirteenth is in rainy, but not in rain.
My whole is a bay on the coast of Maine.

Wm. H. Graffam
From St. Nicholas, April 1874

## 9. Riddles

I'm a strange contradietion: I'm new and I'm old;
I'm sometimes in tatters, and oft deeked in gold.
Though I never could read, yet lettered I'm found;
Though I'm blind, I enlighten; though free, I am bound.
I'm English, I'm German, I'm French and I'm Dutch.
Some love me too dearly, some slight me too much.
I often die young, though I sometimes live ages,
And no queen is attended by so many pages.

## b.

My tongue is long, my breath is strong,
And yet I' breed no strife;
My voiee you hear both far and near,
And yet' I have no life.

## c.

What goes up the hill, down the hill, and yet stands still?

## 10. Problem

A youth set to eut a lawn 40 by 60 feet, with a mower liaving a 12 inch knife, proposes to eut one half the surface before he rests. How many times must he go around the lawn if he commences at the outer edge and mows regularly inward?

Answer to these puzzles appear on page 78

## WORD CHARADES

1
When parched earth in sunshine
basks,
Or rain and hail in torrents fall my second shelters from them all;
And schoolboys busy at their tasks
Do what my first imports,
And are my whole when they are done,
And they resume their sports.

## 2

Five letters do compromise my name,
From every point I'm still the same;
Pray read me, and you'll quickly see,
What time will malse both you and me.

## 3

My first is issued by the government,
Among its promises to pay.
He feels my second imminent,
Who knows his hair is getting gray;
Had men been in my whole content,
As slaves they would have toiled to-day.

The Boston Charades by Herbert Ingalls

## 5

To spell a word of six
Two letters might suffice.
That word defines the rest,
It makes a virtue vice.
Those letters two, reversed,
Reveal his name who laid
His head upon the block,
By woman false betrayed.
A Century of Charades by W. Bellamy

My first complains, "My hour is almost come
When I to sulphurous and tormenting flames
Must render up myself."
But from such fate
My last is safe.
And though within the dark
And awful gloom of night I grope my way
To find my whole, when I have reached it, lo!
A sudden light illumines all the place.

## 7

Just two thirds of ten, and one third of eleven,
My first and my second contain;
For my third, you must take four parts of seven
Composing a grammar. Then plain
To your view you will find that my whole is displayed.
Denoting a message that is quickly conveyed.

## 8

My first is a kind of butter; my second is a kind of licker; my whole is a kind of charger.

## 9

A man of fourscore winters white Sat dozing in his chair;
His frosted brow was quite my first
With glorious silver hair.
My whole lay playing at his feet, And a glance upward stole;
My second I can wager you,
Was father of my whole.

GESTATION AND REPRODUCTION TABLE

| Designation | Proper age for reproduction | Period of the power of reproduction in years | No. of Females for one Male | Period of Gestation and Incubation |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Shortest period, days | Mean period, days | Longest period, days |
| Mare . | 4 years | 10 to 12 |  | 322 | 347 | 419 |
| Staw . . | 5 3 | 12 to 15 |  | 240 | 283 | 321 |
| Bull. | 3 " | 8 to 10 | 30 to 40 |  |  |  |
| Ewe | $2{ }^{\prime}$ |  |  | 146 | 154 | 161 |
| Ram | 2 " | 7 | 40 to 50 |  |  |  |
| Sow. | $1{ }^{1}$ | 6 |  | 109 | 115 | 143 |
| Boar | 1 " | 6 | 6 to 10 |  |  |  |
| She Goat | 2 " | 6 |  | 150 | 156 | 163 |
| He Goat. | 2 " | 5 | 20 to 40 |  |  |  |
| She Ass | 4 " | 10 to 12 |  | 365 | 380 | 391 |
| He Ass. | 5 " | 12 to 15 |  |  |  |  |
| She Buffalo. |  | 8 |  | 281 | 308 | 335 |
| Bitch. | 2 " | 8 to 9 |  | 55 | 60 | 63 |
| Dog. | 2 " | 8 to 9 |  |  |  |  |
| She Cat | 1 " | 5 to 6 |  | 48 | 50 | 56 |
| He Cat. | 1 " | 9 to 10 | 5 to 6 |  |  |  |
| Doe Rabbit. . . | 6 months | 5 to 6 |  | 20 | 28 | 35 |
| Buck Rabbit. | 6 " | 5 to 6 | 30 |  |  |  |
| Cock. | $6 \quad 4$ | 5 to 6 | 12 to 15 |  |  |  |
| Ten. . ${ }_{\text {Turkey }}$ |  | 3 to 5 |  | 19 | 21 | 24 |
| Duck. . |  |  |  | 28 | 36 | 30 32 |
| Goose . |  |  |  | 27 | 30 | 33 |
| Pigeon. |  |  |  | 16 | 18 | 20 |
| Pea Hen. |  |  |  | 25 | 28 | 30 |
| Guinea Hen. . . |  |  |  | 20 | 23 | 25 |
| Swan . . . . . ${ }^{\text {a }}$. |  |  |  | 40 | 42 | 45 |
| Hen on Duck's Eggs . . . . . . . |  |  |  | 22 | 30 | 34 |

## DURATION AND FREQUENCY HEAT SEASON

|  | In heat for |
| :--- | ---: |
| Mares | 6 days |
| Cows | $2-3$ days |
| Ewes | $2-3$ days |
| Sows | $2-4$ days |
| Bitches | $5-7$ days |
| Cats | $3-15$ days |

Reoccurs if not bred
3 to 6 weeks
3 to 4 weeks
$17-28$ days
21 days
$3-6$ months
4 months

AVERAGE DATES FIRST AND LAST KILLING FROSTS


Omaha

Apr. 14 - Oot. 26
Apr. 24 - Oct. 15 Apr. 8 - Oct. 23 Apr. 22 - Oct. 18 Apr. 16 - Oct. 19
May 6 - Oct 5
Mry 11 - Sopt. 21
Apr. 14 - Oct. 15

Richmond


Del Rio
Helena
Banta Fe
Tucson
Yums
Portland, Ore.
Ban Franciaco

Mar. 31 - Nov. 2 Mar. 27 - Nov. 5
Mar. 14 - Nov. 14
Feb. 23 - Nov. 27
May 7 - Sept. 29
Apr. 25 - Oct. 19
Mar. 11 - Nov. 9
Jan. 20 - Dec. 20
Mar. 15 - Nov. 21
Jan. 13 - Dec. 29

## Use fast-acting

 Absorbine for-

ABSORBINE speeds the blood fow in the crea affected by increasing local circulation. This in turn speeds the removal of waste matter from these areas. Two ounces in a quart of wash fends to prevent stiffening or chilling.

A stand-by for over 50 years, Absorbine is used by many leading veterinarians for lameness, sweilings, puffs and bruises. Absorbine speeds the flow of blood to the injury to help carry off the congestion. Usually swellings are relieved in a few hours.

Absorbine will not blister or remove hair. It is not a "cure-all" but a timeproved help in relieving fresh bog spavin, windgall, collar gall and similar congestive troubles. Absorbine costs only $\$ 2.50$ for a LONG-LASTING bottle that will prove its value many times! On sale at all druggists.
W. F. Young, Inc., Springfield, Mass.

## keep horse at work with....



## Baked

the true

## New England way...

## ALL DAY LONG

YOUR first taste of these extra delicious, genuine New England baked beans will tell you why we go to all the bother of baking 'em for one entire day. It's this long, slow baking (not boiling) with lots of juicy pork and old-time sauces that makes each separate bean such a wonderfully tempting treat of delightful "Down East" flavor. Once the family enjoys 'em they'll always prefer 'em. Burnham \& Morrill Co., Portland 2, Maine.

## tWO THRIFTY CHOICES:

13 oz. Kitchenette size (in tin)
18 oz. Family Meal size (in glass)


## THREE SQUARE MEALS A DAY

## By LOUISE PRYOR SKILTON

Our grandfathers and their grandfathers, not overlooking the graudmothers along the way, talked of "threc square meals a day." The desire for those three square meals was ouc of the things that kept the men planting, hunting, aud fishing; the women, baking and brewing. We, too, have talked about "three square meals" when we have found them satisfying and substantial. But it is the modern scientist who has added a new meaving to the old expression. To him, a meal is "square" if it supplies foods for cyergy; protein foods for growth and repair; minerals; and vitamins.

Today's homemaker finds that she can plan meals to meet this latest definition by using basic patterns something like these.

## BASIC MEAL PATTERNS

Breakfast
Fruit
Cereal with milk
Whole wheat toast
or muffins
Milk for children
Coffee for adults

Lunch
Main dish Vegetable or salad Whole wheat or enriched bread Dessert Milk

Dinner
Soup or Fruit Cup Main dish Potato Another vegetable Salad Dessert

Often the homemaker will vary her pattern to use foods that are in season and so are less expensive; or, to use her supply of canned foods. She may add an egg for breakfast or an egg dish may be used for lunch or even dinner. Fruit may appear as salad or as dessert. But always the homemaker will vary her pattern according to family preferences. Here are a few recipes for main dishes around which successful dinners may be planned.

## Baby Porcupines in Tomato Sauce

1 pound hamburg
1 tablespoon minced onion
2 teaspoons baking powder
1 teaspoon salt
1/2 cup milk

1/3 cup uncooked rice
$1101 / 2 \mathrm{oz}$. can condensed tomato soup
11/4 cups water

Combine the hamburg, onion, baking powder, salt, milk, and rice. Shape the mixture into small balls and put them in a skillet. Pour over them the tomato soup mixed with the water. Cover the skillet and simmer over low heat $1 \frac{1}{2}$ hours. Serves 4-6.

Serve with parsley potato, green beans, and grated carrot salad. Use lemon sherbet for dessert.

## Chicken Timbales

11/2 cups cooked chicken, minced cup milk cup soft bread crumbs teaspoon salt
tablespoons minced green pepper
Prepare the chicken and measure. Heat the milk, add crumbs and cook until mixture thickens. Add salt, green pepper, butter and
elieken; when slightly eool add egg yolks. Fold mixture into egg whites and place in greased individual baking dishes. Set in pan and surround with hot water. Bake in a moderate oven, $350^{\circ} \mathrm{F}$., about 30 minutes or until firm in eenter. Unmold.

Serve with glazed sweet potatoes, steamed broccoli, and grapefruit salad. Use halves of cantaloupe for dessert.

## - Codfish Puff

| 1 eup flaked salt eodfish | 2 teaspoons butter |
| :--- | ---: |
| 2 eups dieed potatoes | $1 / 8$ teaspoon pepper |
| 1 | tablespoon mineed onion |

Cook fish and potatoes together until potatocs are soft; drain. Beat until smooth. Add onion, butter, and pepper. Add eggs and beat until fluffy. Pile mixture lightly into a greased baking dish. Bake in moderate oven, $375^{\circ}$ F., about 30 minutes. Serves 4.

Serve with buttered onions, slieed beets and chicory salad. Use earamel rice pudding for dessert.

## Cheese Custard

1/4 pound elicese, ground
4 sliees bread, cut in eubes
3 egrs, slightly beaten
$11 / 2$ eups milk

$$
\begin{aligned}
& 1 / 2 \text { teaspoon salt } \\
& 1 / 4 \text { teaspoon paprika } \\
& 1 \text { teaspoon mineed parsley }
\end{aligned}
$$

Arrange ellcese and bread in alternate layers in a greased baking dish. To the eggs add milk, salt, paprika and parsley; pour mixture over the bread and cheese. Bake in a moderate oven, $350^{\circ}$ F., about 45 minutes. Serves 4.

Serve with baked potato, Brussels sprouts and jellied carrot and pineapple salad. Use Apple Betty for dessert.

## Baked Eggs in Tomatoes

## 4 large tomatoes <br> 4 eggs <br> salt.

Cut a sliee from the stem end of the tomato and remove pulp to form a eavity. Slip an egg into each tomato, sprinkle with salt and pepper. Cover with erumbs. Place in shallow oven-glass dish and bake in a moderate oven, $375^{\circ}$ F., about 20 minutes or until egg white is set. Serves 4.
Serve with creamed potato, spinach, and cucumber salad. Use date iee-box eake for dessert.

## YOUR DIET SCORE CARD

Review your personal diet and score yourself below. You are not being square by yourself if jou score less than $90 \%$.

## CREDITS FOR THE DAY

## *Milk

$$
1 \text { quart to } 3 \text { cups .................................. } 20 \%
$$

1 pint
Vegetables (including 1 potato)
3 servings ..... $10 \%$
2 servings ..... $5 \%$
If green, yellow, or raw add ..... $5 \%$
Fruits
1 or more servings ..... $10 \%$
Orange, Grapefruit, Tomato, Raw Cabbage
1 serving ..... $10 \%$
4 weekly ..... $5 \%$
§Meat, Fish, or Cheese
1 serving ..... $10 \%$
Eggs
1 serving ..... $10 \%$
4 weekly ..... $5 \%$
Whole Grain or Enriched Cereal or Bread
2 servings$10 \%$
1 serving ..... $5 \%$
Butter or Fortified Margarine
2 tablespoons or more ..... $5 \%$
Water
4-6 glasses ..... $10 \%$
Total Credits
DEDUCTIONS FOR THE DAY
Not clearing the plate ..... $10 \%$
Skipping a meal ..... $10 \%$
Sweets between meals
Sweets between meals ..... $10 \%$ ..... $10 \%$
Tea or coffee for children ..... $10 \%$
Total Deductions
Total Score

tal score
$\qquad$
$\qquad$
$\qquad$

* Include milk cooked in foods or in sherbet, etc.
§ Dried peas, beans, nuts, or peanut butter may be used occasionally.


## HISTORICAL NOTES

1. Of all the venerable members of The Old Farmer's Almanach staff, there are two - Mr. Weatherwise and Mr. Astronomer - whose activities over the years are a constant source of interest. This year, for example, when Mr. Weatherwise brought in his usual weather data, we noticed a frayed old booklet in a side pocket. Quite by accident, it slipped out and as we leaned over to pick it up for him we noted it was "Weatherwise's Almanac for 1783." Mr. Weatherwise was somewhat annoyed that we had seen it - feeling, he explained, that this issue, put out by him some nine years before we were born, might make him seern a bit decrepit and aged. Noticing his embarrassment, we didn't press the conversation and asked him to leave the booklet as we might learn something from it. On page 7 we found the woodcut of George Washington which we reproduce below - drawn on the occasion of the General's visit to Philadelphia - presumably from life - for a Philadelphia newspaper.

Just what the heraldry around the portrait is all about we wouldn't know but the likeness is sufficiently "Washingtonian," we believe, to preserve it here for future years.


George Washington,1789.
2. Mr. Astronomer, who always manages to be, at closing time for his material, anywhere except where we can lay hands on him, is far less revealing about his past than Mr. Weatherwise. It is only through hearsay and the kindness of friends that we keep up with hln at all. Mr. Robert T. Kingsbury of Keene, New Hampshire, has been good enough in this instance to disclose to us the following - taken from a letter to his great grandfather, Dr. Joseph Wheeler of Keene - during the war of 1812 with Great, Britain. We quote these excerpts as much for the contrast it reveals between that war and this, as for the light it sheds on Mr. Astronomer's wanderings and observations.
"Dear Friend. . . be so kind as to excuse my want of punctuality as my affairs have been so I hardly knew what to write. . . . We have had troublesome times in this western world (New York State) the winter past. . . . The Bastard pleurisy with some cases of the spotted fever has prevailed and in many places swept off people at a great rate.

If Mr. Thomas should grow uneasy about his copy tell him that. . . his copy will be forwarded in a few days.
"The war goes on slowly. Some depredations are committed on the Lakes. Our Army entered Canada to the amount of 7000 and flavored about and have come back as far as Fort Gcorge which they hald at last accounts but lost many taken prisoners. We expect to hear of something decisive on the Lakes as we hear that the Brittish have sent us a challenge to meet on those waters and our commander has concluded to meet thern so soon as our new Frigate was ready to sail. "The new frigate was to sail last Tresday so that we expect to hear from them soon.

In World War II, Mr. Astronomer has distinguished himself engineering the beaming of short wave broadcasts at the soft spots of the enemy. Mr. Weatherwise, when last heard from, revealed his locale only by a remittance of two pounds of Ceylon tea from a Navy F.P.O. address.


# A GREATNAMEONTHE 



ON THE

FARM


AND

IN THE HOME


## AMERICAN OIL COMPANY

from Maine to Florida

## POSTAL RATES.-DOMESTIC

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

## LETTERS AND POSTAL CARDS.- FIRST CLASS.

Letters and Written and Sealed Matter, 3 cents for each ounce, local and nonlocal, cxcept that drop letters are subject to 1 cent for each ounce when deposited for local dellvery at offices not having letter-carrier scrvlce, provided they are not collected or delivered by rural or star-route carriers.
Post Cards and Private Mailing Cards which comply with Departmental requircments.
Business Repiy Cards or Letters, consult Post Offce.
NEWSPAPERS AND PERIODICALS. - SECOND CLASS.
Entire Newspapers or Magazlnes when malled by the public; for each two ounces or fraction, regardless of distance or weight.
Fourth class rate applies when it is lower than second class.

## MERCHANDISE AND MISCELLANEOUS.-THIRD CLASS. (Limit of weight 8 ounces.)

Special Rates for Books.- Books (containing no advertising matter other than Incidental announcements of books) all zones: 3 cents a pound plus 1 cent up to and lncluding 16 pounds; 17 to 27 pounds, 3 cents a pound plus 2 cents; 28 to 38 pounds, 3 cents a pound plus 3 cents: 39 to 49 pounds, 3 cents a pound plus 4 cents 50 to 61 pounds, 3 cents a pound plus 5 cents; 62 to 70 pounds, 3 cents a pound plus 6 cents.
Merchandise, incomplete coples of newspapers, printed and other mailable matter, each 2 ounces or fractlon
Books, catalogues malled in packages not exceeding 8 oz. in weight (must be of 24 or more pages and substantlally bound, with at least 22 pages printed, seeds, cuttings, bulbs, roots, sclons and plants, 2 ounces or fractlon
Plain Printed Cards contalning no writing other than the address, and not conforming with regulation slze of Post Card, shall be considered Third Class and mailed for.
 Permit Mail. Envelopes, folders, etc., Whlch are to be malle
permit privileges should lndicate the amount of postage paid
Buik Maliings. Appllcatlons for bulk malling privilege should be submitted to the Post Omice.

## PARCEL POST.-FOURTI CLASS. (For Zone consult Post Omce)

Everything over 8 ounces, Including books and printed matter, except First Class and newspapers and other perlodicals entered as Second Class matter matled by the publishers:-

Table of fourth-class or parcel-post rates


| Weight | Local | 1-2 | 3 | 4 | ZONES | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| in Lbs. |  | Up to | 150 to | 300 to | $600 \text { to }$ | 1,000 to | 1.400 to | Over |
|  |  | 150 | 300 | $600$ | $1,000$ | 1,400 | 1,800 | 1,800 |
|  |  | milles | mlies | miles | miles | miles | miles | inlies |
| 36 | \$0.26 | \$0.48 | \$0.81 | \$1.37 | \$2.03 | \$2.65 | \$3.39 | \$4.12 |
| 37 | . 26 | . 49 | . 83 | 1.40 | 2.08 | 2.72 | 3.48 | 4.23 |
| 38 | . 27 | . 50 | . 85 | 1.44 | 2.14 | 2.79 | 3.57 | 4.35 |
| 39 | . 27 | . 52 | . 88 | 1.47 | 2.19 | 2.86 | 3.67 | 4.46 |
| 40 | . 28 | . 53 | . 90 | 1.51 | 2.25 | 2.94 | -3.76 | 4.57 |
| 41 | . 28 | . 54 | . 92 | 1.55 | 2.30 | 3.01 | 3.85 | 4.69 |
| 42 | . 29 | . 56 | . 94 | 1.69 | 2.36 | 3.08 | 3.94 | 4.80 |
| 43 | . 29 | . 57 | . 96 | 1.62 | 2.41 | 3.15 | 4.04 | 4.91 |
| 44 | . 30 | . 58 | . 98 | 1.66 | 2.46 | 3.22 | 4.13 | 5.08 |
| 45 | . 30 | . 59 | 1.00 | 1.69 | 2.52 | 3.30 | 4.22 | 5.14 |
| 46 | . 31 | . 60 | 1.02 | 1.73 | 2.58 | 3.37 | 4.32 | 5.25 |
| 47 | . 31 | . 61 | 1.04 | 1.76 | 2.63 | 3.44 | 4.41 | 5.37 |
| 48 | . 32 | . 62 | 1.06 | 1.80 | 2.69 | 3.51 | 4.50 | 5.48 |
| 49 | . 32 | . 63 | 1.08 | 1.83 | 2.74 | 3.58 | 4.59 | 5.59 |
| 50 | . 33 | . 64 | 1.10 | 1.87 | 2.79 | 3.66 | 4.69 | 5.71 |
| 55 | . 35 | . 70 | 1.21 | 2.05 | 3.07 | 4.02 | 5.15 | 6.27 |
| 60 | . 38 | . 75 | 1.31 | 2.24 | 3.34 | 4.38 | 5.61 | 6.84 |
| 65 | . 40 | . 81 | 1.41 | 2.41 | 3.62 | 4.74 | 6.08 | 7.41 |
| 70 | . 43 | . 87 | 1.51 | 2.60 | 3.88 | 5.10 | 6.54 | 7.97 |

(a) In the first or second zone, where the distance by the shortest regular practicable mail route is 300 milles or more, the rate is tbe same as for the third zone.
(b) On parcels eollected on rural routes the postage is 2 cents less per parcel than shown in the foregoing table when for local dellvery and 3 cents less per parcel when tor other tban local delivery.
(c) Parcels welghing less than 10 pounds measuring over 84 lnches, but not more than 100 inches in lengtb and girth combined, are subject to a minimum charge equal to that for a 10-pound parcel for the zone to which addressed.
(d) For spectal rates on catalogs and other slmllar printed advertising matter, consult postmaster.
Limit of size for parceis is 100 lnches in lengtb and girth combined. Limit of welght is 70 pounds in all zones.
Llbrary Books. - Books sent by authorlzed librarics to readers and when returned by such readers, for delivery within the first three zones or the State in which malled: 4 cents for the first pound and 1 cent for each additional pound up to and including
47 pounds: 52 cents for 43 pounds and 1 cent for each additional pound up to and including 70 pounds.

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

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


Registered mail is subject to surcharges under certatn condlaions.
Domestic Insured Mall (third and fourth classes) Fees for indemnity limited to =

Domestic C. O. D. Mail - Unreglstered (thled and fourth classes) and sealed domestlc mall of any class bearing postage at the first-class rate: Fees for collections and Indemnity limited to:

C. O. D. Mall - Registered (sealed matter of any class bearing" first-class postage). Cortsult postmaster for fees and limits of indemnity.

POSTAL MONEY ORDER


POSTAL NOTES
1c to $\$ 10$........................... Fee 50

## ARMED FORCES OVERSEAS

Three cents' an ounce, regular, or six cents half-ounce, air, care of U. F. Postmaster or Fleet Post Offlce at Ports of Embarkatlon. Use V Mall (30 per letter) for speedy transmission to most of the active war fronts.

## POSTAL RATES.-FOREIGN

Letters.-For the places in the following list the postal rate is 9 conts each ounce or fraction. For all other foreign destinations, 5 cents first ounce and 3 cents each additional ounce or fraction: Argentina, lBolivia, Braell, Canada, Chlle, Colombla, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Halt1, Honduras (Republlc), Labrador, Mexico, Newfoundland, Nicaragaa, Panama, Paraguay, Peru, Salvador, Ei; Spaln and possessions; Uraguay, Venezuela.
Letter Packagcs.-Articles liable to customs duty may be sent at the letter rate to certain foreign countries. (Inquire at main office or classified stations.) The paper form of customs declaration (Form 2976-A), or an invoice, must be enclosed in each such package and the green label, Form 2970, must be afllred to the outside of the envelope or wrapper. The customs declaration and green label may be obtained free at the post office.
Currency, Jewelry, and other precious articles.-Colns, bank notes, paper money, or any values payable to bearer; platlnum, gold, or silver, manufactured or unmanufactured; preclous stones, jewelry, or other precious articles are prohiblted in the unregistered malls. Moncy in cash, bank notes, or values payable to the bearer, whether sent in the registered or ordinary malls, are prohblted to certaln countries, and in some cases may even be conflscated. Patrons should inquire at the maln offlce or classified stations as to the admassibllity of such articles in the letter mails to any particular forelgn country.
Post Cards.-Single post cards for places enumerated above 2 cents. Slagle post cards for all other forelgn destinations 3 cents. Maximum size 6x41/4 inches, minimum size $4 x 2 \%$ inches.
Printed Matter.- $11 / 2$ cents for each two ounces or fraction. Limlt of weight: Inquire at Post Office.
Reduced Postage Rate on Books.-For each pound or fraction-5 cents.
Weight limit: 22 pounds, except ln case of single volumes addressed to Cuba, El Salvador, Mexlco or Panama, where there is no limit of weight. To Peru the weight limlt for books ls 11 pounds.

This reduccd rate is applicable exclusively to books which do not contain publicity or advertising other than that appearing on the covers or fiy-leaves, when addressed to the following countries: Argentlna, Bolivia, Brazll, Chlle, Colombla, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Rep. of Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela.
Samples of merchandise.-For all forelgn destinations, 11/2 cents each 2 ounces or fractlon, with a minlmum charge of 3 cents. Limit of weight: 18 ounces.
Commercial papers.- For all foreign destinations, $11 / 2$ cents each 2 ounces or fractlon, with a mlnimum charge of 5 cents. Llmit of weight 4 lbs., 6 oz.
Fight-ounce Merchandise Parkages.-Packages of merchandise weighIng 8 ounces or less, for the countries specially named under "Letters" above, 2 cents for each 2 ounces, except that when the contents consist of sceds, scions, plants, cuttings, bulbs, or roots, the rate 1 s $11 / 2$ cents for each 2 ounces. (This is not parcel post, must not have customs declarations attached, and must not be sealed except when addressed for delivery in Canada, in which case such packages should be marked "This may be opened for postal inspection if necessary." There is also an exception with respect to seallng in the case of c. o. d. 8-ounce merchandise packages for Mexlco, whtch may be sealed.)
Small Packets.-Three cents for each 2 ounces, with a minimum charge of 15 ceuts per packet. Limit of weight: 2 pounds 3 ounces. (Inquire at main post offlee or classlified stations for list of countries which accent small packets.) Small packets must bear the green label, Form 2976. They must also be accompanled by the paper form of customs declaration (Form 2976-A), properly completed by the sender and enclosed in the small packet. It is likewlse permissible to enclose in small packets an open involce reduced to its essential terms. Every small packet raust be clearly marked on the wrapper by the sender with the words "small packet."

None of the articles mentioned under the heading "Currency, Jewelry, and other precious articles" above, may be forwarded in small packets, cven though reglstered.

Mail service to many foreign countries has been suspended or greatly curtailed, due to war conditions. In view of frequent changes, inquire at post office before mailing articles addressed for delivery abroad.
Maxlmum dimensions.-For all forelgn destinations on all classes of mail noted above (except Post Cards). 36 inches length, breadth and thickness combined, the length being limited to 24 inches. When sent in the form of a roll the length (the maximum of which is 32 inches) plus twice the diameter is limited to 40 inches.
Registration.-Letters, prints of all kinds, including raised prints for
the blind, single and repiy-paid post cards the blind, single and repiy-paid post cards, small packets, samples of merchandise and commercial papers may be registered to ail foreign countries.
Fee.- 20 cents in addition to postage. When a return rcceipt is requested at the time of mailing there is an additional charge of 5 cents, 10 cents if requested after mailing.
Indemnity.-(Consult Postmaster.)
Special-delivery (exprès) service is now in force with the following foreign countries:

Argentina
Australia
Bahamas
Belgium
Brazil
British Guiana
British Honduras
(Belize only)
Canada
Chile
China
Cuba
Cyprus
Czechoslovakia
Danzig
Denmark
Dominican Republic
Ecuador
Egypt
EGstonia
Finland
France
Germany
Gibraltar
Gold Coast Colony
Great Britainand
Northerr Ireiand
Guatemala
Hungary
Ireland
Italy
Japan
Kenya and Uganda
Latria

Lithuania
Linxemburg
Mexico
Moracco (Spanish Zone)
Netherlands
Newfoundland (including Labrador)
Norway
Nyasaland Protectorate
Palestine
Panama
Poland
Portugal
St. Pierre and Miqueion
Sweden
Switzerland
Trans-Jordan
Union of South Africa An article intended for special (exprès) delivery in any of the countries mentioned above (except Canada, where the United States domestic fees apply) must be prepaid 20 cents, in addition to the regular postage, by United States special-delivery or other stamps, affixed to the cover. There should also be affixed one of the "exprès" labels (Form 2977) or the corer must be marked boldiy in red ink "Expres," directly below but never on the stamps. In some countries the service is limited to certaln cities, lists of which appear under the country items in Part II of the Official Postal Guide. In Canada and Newfoundland exprès speciai-delivery service applles only to letters (or articles prepaid, at the letter rate). In the other countries of the above list, the "exprès" feature is applicable to ordinary and registered Postal Union articles (letters, post cards, commercial papers, printed matter, samples, and small packets), but not to parcel-post packages.

## INTERNATIONAL PARCEL POST.

Many forelgn countries have speciai import license regulations about which information may be obtained at your local post office.

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

## INTERNATIONAL INSURED MAIL

Insured parcel post service is now in effect with Argentina, The Bahamas, Barbados, British Guiana, Canada, Cape Verde Islands, Colombia, Ecuador. Great Britain and Northern Ireland, Iceland, Ireland, Leeward Islands, Newfoundiand (including Labrador). New Zealand, Portugal (including Madeira and the Azores), Portuguese East Africa (Mozambique), Portuguese West Africa, Surinam, Western Samoa and The Windward Islands, providing for the insurance of parcel-post packages. Such service with Canada and Newfoundland (including Labrador) is extended to printed matter designated as third or fourth class in the domestic mails, Postal Unlon "prints" and to packages of merchandise weighing 8 ounces or less. Parcel past packages for Cape Verde Islands, Ecuador, Macao, Portugal and Portuguese West Africa may also be registered.

Fees-The insurance fecs range from 3 cents to 60 cents, providing for indemnity, in the event of loss, rifling, or damage.

Iecturn leceipts-Return receipts for insured parcels addressed to foreign countries except Canada wili be furnished only upon request therefor by the sender and upon payment of a fee of 5 cents for each receipt requested at time of mailing and 10 cents after mailing.

Canada and Newfoundland-Mailable merchandise and printed matter designated as third and fourth-class matter and Postal Union "prints" addressed to Canada or Newfoundland may be insured for the same fees and under the same conditions so far as applicable, including payment of indcmnity, as apply to domestic mail of these classes. Third and fourth class, as well as Postal Union, printed matter and 8 -ounce packages of merchandise may be registered, if desired, but packages of general merchandise may be registered only when sealed and postage is paid at letter rate.
The following articles and those of similar character shall not be accepted for transmission as insured mail to Canada or Newfoundland, but when mailable, may be scnt as registered matter provided they are sealcd and the letter rate of postage is paid: Precious stones, mounted or unmounted; all articles commonly known as jewelry used for personal adornment, such as rings, broochcs, tie pins, chains, cuff links, dress sets, fobs, bracelets, rosary beads, lockets, necklaces, etc.; all articles of gold or other precious metals for personal use, such as, cigarette holders, cigarette cases, vanity cases, cardcases, gold and silver pencils, lorgnettes, mesh bags, watches, etc.; gold scrap, jeweler's fillings, fountain pens, money packets (which are construcd as including bank notes, coin, including coins not current, bullion, gold dust, bonds, and coupons payable to bearer, stocks and other securities negotiable by bearer).

## INTERNATIONAL C.O.D. MAIL

C.O.D. service is now in effect with Colombia and Mexico.

The C.O.D. service with Colombia applies to insured parcels, whereas, the C.O.D. service with Mexico applies to registered parcels. Also, the C.O.D. service with Mexico includes printed matter, 8-ounce packages of merchandisc, and small packets.

For further details, consult postmaster.

## INTERNATIONAL ORDINARY MAIL

Limited indemnity may be paid in the actual amount of the loss, rifling, or damage to ordinary parcel post packages exchanged. with countries which have ratified and put in force the provisions of the Parcel Post Agreement of the Postal Union of the Americas and Spain of Panama. No indemnity is paid in respect of other international ordinary mail.

Inquiries or Complaints Concerning Registered or Insured Mail Addressed for Delivery in Forelgn Countries and Charges ThereforA charge of 10 cents shall be made for an inquiry or complaint in connection with registcred or insured mail addressed to a foreign country unless the sender has failed to receive a return receipt for which he paid the rectuired fee, or is able to show that a prima facie loss or other irregularity has occurred through fault of the Postal Service by exhibiting a letter or other report from the addressee dated at least 10 days ( 30 days in the case of trans-Atlantic countries), after the article involved would, in regular coursc, have been delivered, or satisfactorily account for the failure to exhibit such letter or report. In the case of parcel post, allow at least an additional 20 days for dispatching conditions.

If an inquiry or complaint is accepted without collection of a fce under the foregoing, but it is subsequently found that there was no mistreatment or unreasonable delay of the article chargeable to the Postal Service, the prescribed fee shall be collected when the result of the trace is furnished the sender.

Inquiries for Ordinary Articles (Postal Union and Parcel Post)A charge of 5 cents shall be made for inquirles concerning the disposal madc of any ordinary article (parcel post package or Postal Union article) addressed for delivery in a foreign country. Procedure similar to above. Consult Postmaster.

POSTAL MONEY ORDERG.-INTBRNATIONAL.
Limit of a Single Order, $\$ 100$.
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From $\$ 10.01$ to $\$ 20$


## DOMESTIC AIR MAIL

in the Continental United States is 8 cents for each ounce or fraction thereof. This rate is also applicable to Canada.

# FOREIGN AIR MAIL POSTAGE RATES 

| Destination | Rate per 1/2 ounce |
| :---: | :---: |
| Aden | . 70 |
| Afghanistan | . 70 |
| *Alaska | . 08 |
| Algeria | . 33 |
| Anglo-Egyptian Sudan | . 70 |
| Angola (P.W.A.) | . 60 |
| Argentina | . 20 |
| Australia | . 70 |
| Azores | . 30 |
| Bahamas | . 10 |
| Bahrein Islands | . 70 |
| Barbados | . 10 |
| Belgian Congo | . 60 |
| Belgium | . 30 |
| Bermuda | . 10 |
| Bolivia | . 20 |
| Brazil | . 20 |
| British Guiana | . 10 |
| British Honduras | . 10 |
| Eritish Virgin Islands | . 10 |
| Cameroons. Br. \& Fr. | . 60 |
| *Canada | . 08 |
| Canal Zone | . 10 |
| Canary Islands | . 40 |
| Cape Verde Islands | . 50 |
| Cerlon | . 70 |
| Chile | . 20 |
| China (Unoceupiec) | . 70 |
| Colombia | . 33 |
| Corsica | . 10 |
| cula | . 08 |

Curacao:
curacao Island, Aruba Bonaire. Saha, St. Eus- tatius, st. Martins ..... 10
Cyprus ..... 70
basomey ..... 45
lenmark ..... 30
Ecuador ..... 15
Esypt ..... 70
El Salvador ..... 10
Eritrea ..... 70
Ethionia ..... 70 ..... 30
Falkland Islands
Falkland Islands
Faroe Islands
40
40
Fiji
Fiji .....  30
French Equatorial Africa .....  60
French Guiana ..... 15
French Guinea ..... 50
French Sudan .....  50
French Togoland ..... 45
Gambia
Gibraltar ..... 30
Gold Coast Colony .....  50
Great Britain
Gradeloupe ..... 30
Guam ..... 35
Guatemala ..... 10IIajti
Hawaii ..... 15
Honduras, Republic of .....  10 .....  30 .....  30
reeland
reeland
India, Br., Fr. \& Port.
70
70
Iran ..... 70* Per ounce.DcstinationIrelandRate per$1 / 2$ ounce 30
Ivory Coast .....  50
Jamaica ..... 10
Keluya, Uganda .....  60
Lebanon ..... 70
Leeward Islands:
Anguilla, Antigua, Barbuda,Dominica, Montserrat,Nevis, Redonda, St. Kitts 10
Liberia .....  50
Lilya ..... 3
Lixembourg .....  30
Madagasear
30
Madeira ..... 70
Martinique ..... 10
Mauritania ..... 45
Mauritius .....  60
Mexico .....  08
Moroceo (Br., Fr. \& Sp.) .....  33
Nozambique (P.E.A.) .....  60
Netherlands ..... 30
New Caledonia ..... 40
Newfoundland ..... 15
New Zealand .....  50
Nicaragua ..... 10
Niger ..... 45
Nigeria ..... 50
Norway ..... 30
Nyasaland .....  60
Palestine .....  0
Panama .....  10
Paraguay ..... 20
Peru ..... 15
Portugal .....  30
Portuguese Guinea .....  50
Portuguese East Africa(Sce Mozambique)
Puerto Rico ..... 08
Reunion ..... 30
Rhodesia, No. \& So. ..... 60
Rio de Oro ..... 40
Saudi Arabia ..... 70
Senegal ..... 45
Sierra Leone .....  50
Somaliland, Br., Fr. \& It. ..... 70
Sonthwest Afriea .....  60
Spain (Spanish Omees in North Africa) .....  30
Spanish Guinea ..... 50
Surinam ..... 15
Sweden .....  30
Switzerland .....  30
Syria ..... 70
Tanganyika .....  60
Trans-Jordan ..... 70
Trinidad .....  10
Tunisia ..... 33
Turkey ..... 70
Union of South Africa .....  60
Uruguay ..... 20
U. S. S. R. .....  30
Venezuela ..... 15
Virgin Islands, U. S. .....  08
Windward Islands: Grenada, Grenadines, St. Lucia. St. Vineent .....  10
Yemen .....  70
Zanzibar .....  60

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## HIDDEN ASSETS

Go at your old nail and hardware collection in the shed. It will take you about a day or 3 evenings to sort your collection into the boxes. You will discover you have a whole store before you finish. One returning veteran found his prewar collection fell into the following labels-one to a box -enough to last him for years of odd jobs around the place; Spikes, 8 penny, screws (4 sizes), horseshoe, shingle, roofing, brads, floor, bolts and nuts, staples, tacks, miscellaneous hardware, and a eatchall box for the "unsorted" collection of the future.

## NEVER GROUVD AHIFD



WE never grind coffee ahead because we know the nearer coffee is ground to coffee making time the finer cup of coffee you will get every time. We grind it only when you make your purchase and then for your particular kind of coffee making. Our guarantce for freshness and satisfaction in every pound of Kybo coffee you buy at your First National Store.

## THE TURBULENT WINTER OF 1944-45

Mr. Weatherwise in submitting his weather indications for last year's edition, cautioued us that tlie winter would "probably be turbuleut." He might hare added violent, vehement, impetuous, ferocious, furious and tumultuous-and still have been right. For old Man Wiuter this past year was "blown with restless violeuce round about the peutent world."

The Associated Press in Boston quoted the Weather Bureau with a 12.5 inch deeper snowfall than usual during January and 13.9 inches above normal in February. A story in The New lork Times, datelined Washingtou, D. E. February 3rd, named the winter as the "coldest" snowiest, and blowiest of recent years." Scarcely more than trpical of many deeds of courage and heartwarming neighborliness born of this bitter seasou was the old-fashioned hospitality of Mr. aud Mrs. James Ehrmentraut, who, when snowdrifts stalled eighty trucks and autos on a highway near their farm in Churchville, N. Y., provided food and shelter for all 108 persons thus caught. Simeon Strunsky felt called upon to reassure his delicate New Yorkers in December that Spring must be just around the corner while his compatriot James Dawsou, a few days later, was still digging Rocky Graziano, East Side welterweight out of some desperate drifts. Henry Hough of the Vineyard Gazette took leave to tell his readers their first half of the winter had been colder by $9 \%$ thau the Weather Bureau's average for 42 years on the very day the ODT clamped a freight embargo on all nine Northeastern states.

About this time, after a performing monkey had been found frozen to death in Folkestone, and the pipes in an ice factory in Fleetrood had been thawed out, Great Britain was forced to call upon its much needed troops to shovel out Northern England and Scotland.
Furor arma ministrat: Tokyo radio admitted December 9th that tidal waves had caused great damage to Japanese war plants (B29 weather?); Mauritius Island in the Indian Oceau suffered, on January 19th, its second worst cyclone in history; the U. S. destroyer Monaghan sank in January during a Pacific typhoon, tornadoes killed 36 in Alabama and Mississippi on Lincoln's Birthday; 45,000 pounds of men had to run from one side to the other of a carrier all one night of a March typhoon to keep the vessel from capsizing and dumping all hands in the Coral Sea.

As always there were many odd quirks this rear, too. Bluebirds sang merrily over the snowdrifts of Peekskill, N. Y., even while Nantucket was still isolated by ice floes and Southern New Hainpshire was snffering its worst storm of the year. Despite March noonday temperatures of 100 or more in the direct rays of the suu, cool nights and lack of heavy rains let the snow run off without the fully expected floods. It was the warmest March on record in Washington, D. C., Baltimore, Syracuse, Detroit, and Sault Ste. Marie. At a time when the grip of ice and snow should still have been at its hardest in the great northlands, migrating ducks had already beguu to appear on the nesting grounds-weeks ahead of schedule. On March 21 the thermometer hit 63 degrees in Winnipeg, and thousands of pintails and mallards were reported iu the flooded grain fields south of that city.

The season was adranced in New Eugland four to six weeks, making the worst sugaring crop in years and causing plenty of worry that ensuing frosts would nip all the fruit in the bud. (In certain sections it did-and all sections were more or less hit.) As a final fillip to a crazy spring, May 10-11 saw winter redescend on the Northcastern states with one of the worst spring blizzards ever recorded. Mexico, Maine, reported thirty inches of snow, while a gentleman in Hancock. New Hampshire, claimed the unique distinction of the only case of May frostbite ever recorded in that state.

However, this winter was uncommonly good to the Russians, and materially helped in "the final decisive role of the war." Pounding on through heavy snows and bitter temperatures, the Reds rode the weather to one German defeat after another. While our forces stormed in from the west, aud our airplanes snowed hombs from above, many a Nazi must have looked with anxious eye for the thaws that never came-in time. Yes, tough as it was, we still have cause to be grateful for this winter. to the Lord who makes all. May friend Weatherwise always be as kind.

## STATE EXTENSION DIRECTORS

The practical technical and scientific helns for torlay's farmer arc probably further advanced than at any time in the world's history. A veritable army of sclentists, and city of laboratories are at your service. The men listed below are your guides to this realm of experiment. Make a list of your knottiest problems (you too, Ma) and mail or take lt to the one in your state.
(Courtesy-L. A. Schlup-Division of Extension Information)

## slate

Alabana:
Arizona:
Arkansas:

California:
Colorado:
Connecticut:
Delaware:
Florida :
Georgia:
Idaho:
Illinois:
Indiana:
Iowa:
Kiansas:
Kentucky
Louisiana:
1
Maine:
Maryland:
Massachusetts:
Michigan:
Minnesota:
Mississippi:
Missouri:
Montana:
Nebraska:
Nevada:
New IIampshire:
New Jersey:

New Mexico:
New York:
Nortl Carolina:
P. O. Daris, Alabama Polytechnic Institute, Auburn.
C.U. Pickrell, University of Arizona, Tueson.
(W. R. Horlacher, Collcge of Agriculture, University of Arkansas, F'ayetterlle.
*(Aubrey D. Gates, Associate Director. 524 Post Office Building. Little Rock.
B. H. Crocheron, College of Agriculture, University of California, Berkeley 4.
F. A. Anderson, Colorado Agricultural and Meclanical College, Fort Collins.
R. K. Clapp, Acting Director, University of Connecticut, storrs.
G. L. Schuster, University of Delaware, Newark.
A. P. Spencer, Agricultural Extension Servicc, Experiment Station, Gainesville.
Walter S. Brown, Gcorgia State College of Agriculture, Athens.
E. J. Iddings, Extension Dircctor, College of Agriculture, Tlliversity of Idaho, Moscow.
H. P. Rusk, College of Agriculturc, University of Iilinois, Urbana.
H. J. Reed, Purdue TTnircrsity, La Fayette.
R. K. Bliss. Iowa State College of Agriculture and Meclianic Arts, Ames.
H. J. C. Umberger, Kansas State College of Agriculture and Applied Sciencc. Manhattan.
T. P. Cooper, College of Agricultupe, University of Kentucky, Lexington 29 .
H. C. Sanders, Louisiana State University and Agricuttural and Mcrlianical College, University Station, Baton Rouge 3 .
A. L. Deering, Collcge of Agriculture, University of Maine, Orono.
T. B. Symons, University of Maryland, College Parl.
W. A. Munson, Massachusetts State College, Amherst.
R. J. Ialdwin, Michigan State College of Agriculture and Applied Science, East Lansing.
Paul K. Miller, Department of Agriculture of the University of Minnesota, Tniversity Farm, St. Paul 8.
L. I. Jones, Mississippi State College, State College.
J. W. Burch, Collcge of Agriculturc, University of Missourl, Columbia.
J. C. Taylor. Montana State College of Agriculture and Meclanic Arts, Bozcman.
W. H. Brokaw, Conege of Agriculture, University of Nebraska, Llncoln 1.
C. W. Crccl, Agricultural Extension Division, H. B. Sterens, University of New Hampshire, (TV. H. Martin. Statc College of Agriculture and Mechanic Arts of Rutgers University, New Brunswick.
*(I. G. Cook. Assoefate Director, College of Agriculturc, New Brunswick.
A. B. Fite, New Mexico College of Agriculture and Mechanic Arts, State College.
L. I. Simons, New Xork State College of Agriculture, Ithaca.
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Tennessee:
Texas:
Ittah:
Vermont:
Virgiuia:
Washington:
West Virginia:
Wisconsin:
Wroming:
E. J. Iraslerud, North 1)akota Agricultural College, State College station, Fargo.
H. C. Ramsower, College of Agriculture, Ohio State University, Columbus 10 .
Shawnee Brown, Oklahonia Agricultural and Mecllanical College, Stillwater.
W. A. Schoenfeld, Oregon State Agricultural College, Corvallis.
J. M. Fry, l'ennsylvania State College, State College.
I. O. Stuart, Rhode Island State College, Kingston.
D. W. Watkins, Clemson Agricultural College of South Carolina, Clemson.
George I. Gilbertson, Acting Director, South Dakota State College of Agriculture and Mechanic Arts, Brookings.
C. E. Brehm, College of Agriculture, University of Tennessee. Knoxville 7 .
Ide P. Trotter, Agricultural and Mechanical College of Texas, College station.
W. W. Owens, Utah State Agricultural College, Logan.
J. E. Carrigan, College of Agriculture, University of Vermont, Burlington.
L. B. Dietrick, Virginia Polytechnic Institute, Blacksburg.
J. C. Knott, State College of Washington, Pullman.
J. O. Knapp, College of Agriculture, West Virginia University, Morgantown.
W. W. Clark, Associate Director, College of Agriculture, University of Wisconsin, Madison 6.
A. E. Bowman, College of Agriculture, University of Wyoming, Laramie.
*All geueral correspondence is conducted ly the associate director.
N.B. The pictures in Life magazine in the story of The Old Farmer's Almanac which appeard last Spring were faken with the cooperation of the Extension Service at Blacksburg, Va.


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## HERE IS CAUSE FOR REJOICING rANKE゙E Magazine


is back in circulation again after some months of suspension arising out of conditions due to the war.

Yes, sir-it started up with the July 1945 issue and has been going strong ever since -especially so in the Swopping Department.

You know-there is nothing quite like The Original Yankee Swoppers' Columns (which appear in YANKEE every month). Imagine a man getting a new office broom for a set of false teeth . . . or some one in California trading thousands of dollars worth of that land of gold for acres in Long Island. Unbelievable? Possibly-until you've seen and tried it yourself.

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## YANKEE Magazine

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Gentlemen:
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 I enclose two dollars $\qquad$

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## in the

## Outdoor Field

Field \& Stream is celebrating its Fiftieth Anniversary by giving sportsmen the finest of outdoor writing on shooting, fishing, camping and all related sports. A dozen departments keep readers posted on everything that goes on out-of-doors. Each month, in addition to its many other features, Field \& Stream is giving its readers a full-color insert, printed in "Deeptone". "Gun Dogs at Work" by the leading American painter of dogs, Edwin Megargee, appeass this winter, to be followed by other series in months to come.
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$$ Dept. 352



Why suffer cruel, nagging, muscular back pains-when help can be so quick, so easy! Don't wait, try the clean, modern, proved way to relieve simple backache, other muscle strains and pains. Just apply one big Johnson's BACK PLASTER, right on the sore spot. Its mild medication gently HEATS your back, stirs up circulation, fights congestion, eases pain. Warm flannel covering retains body heat, protects against chilling, supports day and night-feels great! (Note: In case of chronic backache, see your doctor.) Insist on the GENUINE, made by Johnson \& Johnson-first choice of millions. At all drug stores.


Select Your Very Own CAMEO BIRTHSTONE
January - Garnet
February-Amethyst March - - Aquamarine April - WhiteSapphire May - . . Green Spinel June - - Alexandrite July . . - Ruby August - Peridot September-Sapphire October - Rozircon November-Gold'nSapphire December-Zircon

LADIES! Now you can own this genuine 24 k . Gold Plated CAMEO Ring for only 98 c . This beautifully molded Cameo comes in your choice of Birthstone colors (listed at left). SEND NO MONEY! Just nameand mon th you were born. Pay postman only 98c plus Tax and postage for 1 ring or $\$ 1.69$ plus Tax for 2 rings. ILLINOIS MERCHANDISE MART 500 NORTH DEARRORN STREET DEPT, 633


Select Your Very Own Simulated Birthstone January - Garnet February - Amethyst March - Aquamarine April - White Sapphire May - . Green Spinel June - Alexandrite July - Ruby August ! Peridot September-Sapphire October - Rozircon November-Gold'n Sapphire December-2ircon i

## 14 k. GOLD PLATED BIRTHSTONE RING

 Sweetheart Design! beautiful heart SHAPED STONE LADIES!' Wear this 0 C Plus Tax lovely ring set with your very own Simulated Birthstone. Genuine14k. Gold Plated Shank in smart, new, beautiful design is adjustable - will fit any size finger. Satisfaction guaranteed or money back. Acr Now! War conditions may makeit impossible to duplicate this sensational offer for years to come. SEND NO MONEYY Just nameand mon th you were born. Pay postraan only 98c plus Tax and postage for 1 ring or $\$ 1.69$ plus Tax for 2 rings. ILLINOIS MERCHANDISE MART 500 NORTH DEARBORN STREET DEPT. 97

CHICAGO 10, ILL.

## USE IT UP MAKE IT DO

This idea is not new to farmers. Too many generations of us have worn shirttail aprons and cutdown trousers. We know that nothing is "waste". What the compost pile won't take - like broken glass and chip dirt - can be used for filling swamp holes and wash-outs.

With a pine tree, now, you get lumber to build and slabs for rough patching and for fire mood. Edgings make kindling, and tops you can sell for summer wook or keep yourself. The brush, burned on top of the snow, is fine fertiliser for hay land, and the sawdust rou use in the icehouse and to bed stack. When the roots are rotted enough to pull out easily, some people like them to burn in fireılaces.

Ererything has some use. My wife got lold of two old dull hog scrapers. She cleaned them up and prettied them with paint, and guess what? They are a pair of good looking candlesticks on our kitchen table. You can't beat women.

John Decoven Berry


## QUILT PIECES

My big bargain package beautiful fast color quilt pieces includes giant spaol thread, free, 18 selected quilt patterns, plus enough assarted calarful goods to make over 1200 quilf patches; special $\$ 1.49$ C.O.D. plus pastage. $100 \%$ satisfaction money bock guarantee. Send no money. Pay postman.

Mary Caldwell, Craft Remnant Co.
Dept. 3
Bloomington, III. Free! far prompt action-lotest Trail Blozers Almanac. Clip this.

## EARN EXTRA MONEY WITH EVERYMAY CREFINGO CTRDS

Turn spere time into cash! Easyl Just show your friends thrilling new Wallace Brown Everyday Greeting Cards. Woader-value 16-Card All Occasion Assortment, including Cards for Birthdays, Get-Well Baby Birth, Friendshid, Sympathy, etc. Sells on sight for only $\$ 1.00-$ big profit for 700 , np to 50 c . Six more special fast-selling A ssortments-Birthday, Easter, Humorous, Get Wel!. Sympathy Gift-Wrapping ah hir money-makers. Personal Stationerg. WRICE TODAY FOR SAMPLES ON APPROVAL. Also excellent FUNDD-RAISING opportunity for organizations.
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 strip for strip for ring size. Pay postman only $\$ 1.00$ plus postMoney back guarantee. Send photo and riog size riow. PORTRAIT RING CO., Dept. T-145, CINCINNATI, O.

## OLD STAMPS WANTED

I WILL PAY $\$ 100.00$ EACH for 1924 ic green Franklin stamps rotary perforated eleven (up to $\$ 1000.00$ each if unused). Send six cents today for Large Illustrated Folder showing Amazing prices paid. Vernon Baker, (OFA-46) Elyria, Ohio

# HUDSON'S BAY Point BLANKETS 

## Tested by the Cold of I66 Northern Winters

 Back in 1779, Hudson's Bay "Point" Blankets were doing their bit to keep outdoor men warm, dry and comfortable in camp or on the trail. Today they are the same superlative, heavy-napped blankets with a dozen "lives" as those used by the Indians in trade for finest beaver skins.When Indians traded furs for these blankets, the short indigo lines, called "Points" meant prices. Thus four "Points" meant a price of four beaver skins. Today "Points" indicate sizes.

## ESMOND BLANKETS

carry the name of great mills
the world over . . .
To almost every corner of the world go Esmond Blankets. These extra-value blankets are unsurpassed for wármth because of Esmond's patented "Pelage Process." By borrowing nature's method of keeping furry animals warm in bitter weather, Esmond doubles warmth--but without adding burdensome weight. There are Esmond Blankets for everybody's room - and you're sure to agree that you sleep better under an Esmond.

For abook about the genuine IIudson's Bay "Point" Blankets or for a copy of the famous child's book, "The Story of Bunny Esmond" write to:

> THE ESMOND MILLS, Incorporated ESMOND, Rhode Island

## THE HURRICANE OF SEPT. 8-16, 1944

## (Courtesy U. S. Weather Bureau and Army Air Forces)

The hurricane of Sept. 8-16 reaped 330 lives- 344 of which it found at sea. This compares with 494 taken by the storm of Sept. 17-21, 1938. Property damage total for the 1944 hurricane was one hundred million against $21 / 2$ to $31 / 3$ times that figure for that of 1938. Lowest barometric readings- 27.94 inches iu 1938, 27.97 inches in 1944 -were as close as the wind velocities- 87 miles an hour at Providence, R. I. in 1938, 82 miles an hour at Block Island in 1944. The lighest single wind velocity reading in 1938 was 183 miles per hour at Blue Hill observatory. That of 1944 was 150 miles per hour at Cape Henry, Virginia.

Meteorological sensation of the 1944 storm was perhaps the daring penctration of Col. Floyd B. Wood, Maj. Harry Wexler, and Lieut. Frank Record to the center of the hurricane in a Douglas Havoc plane inside these storms and its effect on aircraft fight.

These three streaked into the towering jet black hurricane wall near Hampton, Virginia. They found themselves immediately in almost total darkness-well, let's let Col. Wood tell it:- "Altitude was 3000 feet. A drift correction of $30^{\circ}$ was allowed to account for the estimated $100 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. cross wind encountered at the outer edge of the storm. Immediately on entering the outer edge, the atmosphere turned very dark and a blanket of heavy rainfall was encountered. Very surprisingly, a strong but steady down current also was encountered. This phenomenon is contrary to the heretofore generally accepted principle that the outer portion of a hurricane contains ascending rather than descending air."

At one time an opening in the clouds below revealed three ships seemingly altogether covered by huge waves. Spray surged two hundred feet in to the air.
"The flight was cortinued on toward the assumed position of the center of the hurricane. Although the downdraft continued to be of considerable strength, very little turbulence was encountered. The airplane lost a speed of about $70 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. in the necessary climb required to compensate for the downward motion of the air.
"The heavy rain continued. At a point approximately 50 or 60 miles from the outer edge of the storm, we suddenly emerged into an area of rising air. This area also contained fairly dense clouds below, but very thin clouds overhead. The vertical component of the air movement was of such magnitude that the airplane was lifted from the 3,000 -foot level to 5,000 feet before power could be reduced and the airplane nosed downward.
"Turbulence in this area also was considerably more severe than in the zone of descending air just passed through, but was not of enough severity to endanger the flight. Although the flight was continued for a few minutes on toward the point where the center was assumed to be, the conditions of flight remained constant-that is, moderate turbulence, rising air, and the sun faintly visible through the thin clouds overhead.
"Presumably, we were off to one side or other of the center, but not finding the exact center and not knowing the direction in which to fly to find the exact center, the airplane was turned around and flown on a track which was estimated would lead toward Norfolk. An altitude of 5 , 000 feet was maintained on the way out. The dark band of descending air and heavy rainfall was traversed in the reverse order as during the incoming flight. We emerged from the hurricane at a point approximately 30 miles northeast of Norfolk."

Valuable technical information was gleaned from the notes made by the flyers in the pitching plane. Colonel Wood also indicated that, although the fight proved that hurricanes can be flown through, it did not make it a certainty that all were navigable. He did not feel that this hurricane was a hurricanc at its worst-or even typical of the breed. His advice to pilots desiring to repeat this flight was not to-if severe turbulence, hail or severe thunderstorm activity were present. In conclusion, after stating that a sturdy DC 3 would probably weather any such storm, he recommended that future examination of hurricane structure be made by approaches to the eye of the storm from the stratosphere ... over the outer rim.


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STATISTICS OF 1944 PRESIDENTIAL ELECTION
Compiled from official sources by William Grof under direction of South Trimble, Clerk of the House of Representatives.

| State | Electoral votes |  | Popular votes |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  | $\begin{aligned} & \text { ज్ञ゙ } \\ & \text { E. } \end{aligned}$ |
| Alabama | 111 |  |  | $44,540$ | 190 | $\overline{1,095}$ |  |  |  |
| Arizona. <br> Arkansas. |  |  | $\begin{array}{r} 80,926 \\ 148,965 \end{array}$ | $\begin{aligned} & 56,287 \\ & 63,551 \end{aligned}$ |  | $421$ |  |  | $\begin{aligned} & 474,634 \\ & 137,634 \\ & 9 \end{aligned}$ |
| California | 25 |  | 1,988,564 | 1,512,965 | 23,923 | 14,770 | 2327 | $\dot{3} \dot{3} \dot{6}$ | 3,520,875 |
| Colorado.... |  | 6 | 234,331 | 268,731 | 1,977 |  |  |  | -505,039 |
| Connecticut. <br> Delaware. |  |  | 435,146 68,166 | 390,527 | 5,097 |  | 1,220 |  | 831,990 |
| Florida. | 8 |  | 68,166 | 56,7 143,215 |  | 294 |  |  | 125,361 482,592 |
| Georg | 12 |  | 268,187 | 56,506 |  | 6 |  | 4 $3,3 \dot{8} \dot{2}$ | 322,111 |
| Idaho | ${ }_{2}{ }^{4}$ |  | 107,399 | 100,137 | 282 | 503 |  |  | 208,321 |
| Illinois | 28 |  | 2,079,479 | 1,939,314 | 180 | 7,411 | 9,677 |  | 4,036,061 |
| Indian |  | 13 | 781,403 | S75,891 | 2,223 | 12,574 |  |  | 1,672,091 |
| Iowa. |  | 10 | 499,876 | 547,267 | 1,511 | 3,752 | 193 |  | 1,052,599 |
| Kentuck | 11 |  | 472,589 | 392,448 | 1,535 | 2,023 | 326 |  | 733,776 |
| Louisiana | 10 |  | 281,564 | 67,750 |  |  |  | 69 | 349,383 |
| Maine. |  | 5 | 140,631 | 155,434 |  |  | 33 |  | 296,400 |
| Maryla | -8 |  | 315,490 | 292,949 |  |  |  |  | 608,439 |
| Michigai | 19 |  | 1,035,296 | 921,350 |  | 33 |  |  | 2,009,993 |
| Minnesota. | 11 |  | ${ }^{8} 589,864$ | 1,084,416 | 5,073 |  | 1 3,176 |  | $2,205,217$ $1,125,529$ |
| Mississippl |  |  | $15 \$ .515$ | 3,742 |  |  |  | 917,823 | 180,080 |
| Missouri | 15 |  | 807.357 | 761,175 | 1,750 | 1,175 | 221 |  | 1,571,678 |
| Montana | 4 |  | 112,556 | 93,163 | 1,296 | 340 |  |  | 207,355 |
| Nebraska |  | 6 | 233,246 | 329,880 |  |  |  |  | 563,126 |
| Nevad | 4 |  | 29,623 119,663 | 24.611 |  |  |  |  | 54,234 |
| New Jersey | 16 |  | 987,874 | 961,335 | 3,358 | 4,255 | 6,939 |  | 1,963,761 |
| New Mexico. | 4 |  | 81,389 | 70,688 |  | 148 |  |  | 152,225 |
| New York... | 47 |  | 103,304,238 | 2,987,647 | 10,553 |  | I 14,352 |  | 6,316,790 |
| No. Carollna. | 14 |  | 527.399 | 263,155 |  |  |  |  | 790,554 |
| No. Dakota. |  |  | 100,144 | 118,535 | 943 | 549 |  |  | -220,171 |
| Ohio Ok - |  | 25 | 1,570,763 | 1,582,293 |  |  |  |  | 3,153,056 |
| Oregon | 6 | ... | 401,549 | 319,424 225,365 | $\because 37885$ | 2,362 |  |  | 722,636 480,147 |
| Penn | 35 |  | 1,940,479 | 1,835,048 | 11,721 | 5,750 | $11,78 \dot{9}$ |  | 3,794,787 |
| R. I. |  |  | 175,356 | 123,487 |  | 433 |  |  | -299,276 |
| So. Carolina | 8 |  | 90,601 | 4,547 |  | 5 |  | 117 7,862 | 103,375 |
| So. Dakota |  | 4 | 96,711 | 135,365 |  |  |  |  |  |
| Tennesse | 12 |  | 308,707 | 200,311 |  | + 882 |  |  | 510,792 $1,150,330$ |
| Texas | 23 4 |  | 821,605 | 191,425 97,891 | 594 340 | 1,017 |  | 12 135,689 | $1,150,330$ 248,319 |
| Vermont |  | 3 | 53,820 | 71,527 |  |  |  | 314 | 125,361 |
| Virginia. | 11 |  | 242,276 | 145,243 | 417 | 459 |  |  | 388,485 |
| Washingt | 8 |  | 486,771 | 361,689 | 3,824 | 2,396 | 1,645 |  | 856,328 |
| W. Va....i | 8 |  | 392,777 | 322,819 |  |  |  |  | 715,596 |
| Wiseonsin. W yoming. |  | $\begin{array}{r}12 \\ 3 \\ \hline\end{array}$ | $\begin{array}{r}650,413 \\ 49,419 \\ \hline\end{array}$ | $\begin{array}{r} 674,532 \\ 51,921 \end{array}$ | 13,205 |  | 1,002 |  | $\begin{aligned} & 1,339,152 \\ & 101,340 \end{aligned}$ |
| Total. | 432 | 99 | 25,602,505 | 22,006,278 | 80,518 | 74,758 | 45.336 | 216,289 | 48,025,684 |

1 Teiehert and Albaugh were the Socialist-Labor Party eandidates, but in Minnesota,
New York and Pennsylvania they were the candidates of the Industriai Government Party,
2 Write-in vote.
3 Scatterlng
4 Independent Democrats 3,373 votes and scattering 9 votes.
5 Independeuts.
${ }^{6}$ Blanks 49,328 and scattering 266 votes.
7 America First Party
8 Democratic-Farmer-Labor Party.
9 Remular Democrats 9,961 votes and Independent Republicans 7,859 votes.
10 Includes 496,405 American Labor Party votes and 329.235 Liberal Party votes.
11 Southern Democrats 7,799 votes and Republican (Tolbert Faction) 63 votes.
12 Texas Regulars 135,439 votes and America First 250 votes
Note 1. (Courtesy Associated Press) One of tle liggest surprises to political historlans was the aggregate. vote of $45,103,023$ shown for all candidates for the House.

Official compilations of these figures were begun only after the 1942 election and a comparison for the previous Presidential year is not available.

The Demoerats polled only a little more than $1,500,000$ votes for Representative than the Republeans. The totals were: Dcmocrats, $22,812,611$; Republieans, $21,303,273$

Note 2. (Courtesy The foston Globe) On the deach of President Roosevelt, FIarry S Truman became the $32 n d$ President of the Vnited States. President Roosevelt was referred to as the 31st President, alchourh hus was the 32 nd occupaney of the Presidency. The two non-consecutive terms of Grover Cleveland aecount for the apparent diserepaney, He is known as the 22 nd President. .. Benjamiu Iarrison, known as the $23 r$ President ierved the interveniug term from 1889 to 1893. Aceording to Prof. Arthur M. Schlesinger, professor of American History at Harvard, although historians have established no official ruling, it is a general praetiee to "eount the number of lndividuals who were Presldent."

## Tables of Measures

## (English Units)

## Linear Meanuro

1 foot=12 inches
1 yard=3 feet
1 rod $=51 / 2$ yards $=161 / 2$ feet
1 mile $=320$ rods $=17 \mathrm{co}$ yards $=$
5280 feet
1 nautical mile $=6080$ feet
1 knot=1 nautical mile per hour
1 furlong $=1 / 8$ mile $=660$ feet $=$
220 yards
1 league $=3 \mathrm{mileg}=24$ furlongs
1 fathom=2 yards=6 feet
1 chain $=100$ links $=22$ yards
1 link $=7.92$ inches
1 hand=4 inches
1 span=0 inches

## Square Measure

1 square foot=144 square Inches
1 sq . yard $=9 \mathrm{sq}$. feet
1 sq. rod=301/4 sq. yards=
$2721 / 4$ sq. ins.
1 acre $=160 \mathrm{sq}$. rods $=43560 \mathrm{sq}$. it.
1 sq. mile $=640$ acres $=$
102400 sq. rods
1 sq. rod=625 square links
1 sq. chain $=16$ square rods
1 acre $=10$ square chains

## Cubic Measure

1 cubic foot $=1728$ cubic inches
1 cubic yard $=27 \mathrm{cu}$. feet
1 register ton (shipping measure)
$=100$ cubic feet
1 U . S. shipping ton $=40 \mathrm{cu}$. it.
1 cord=128 cubic feet
1 U. S. liquid gallon=4 quarts $=231$ cublc inches
1 imperial gai. $=1.20$ U. S. gals.
$=0.16$ cubic feet
1 board foots 144 cublc Inches

## (Metric Units)

## Linear Measure

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

## Bquare Measure

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

- Cublc Measure

1 cuble centimeter $=$
1000 cubic millimeters
1 cu. decimeter $=$
1000 cu . centimeters
1 cu . meter $=1000$ cu. decimeters
1 cu. Jard $=0.76$ cubic meters
1 cu. meter $=1.31$ cubic yards
1 liter $=1.06 \mathrm{U}$. S. liquid quarts
1 hektoliter $=100$ liters $=$
26.42 U. S. liquid gallons

1 U. S. llquid quart=0.94 liters
1 U. S. liquid gallon $=3.76$ liters

## Weight

## Avolrdupole

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

Troy
(Used in weighing gold, sliver,
1 pennyweight $=24$ grains
1 ounce $=20$ pennywelght
1 pound $=12$ ounces

Apothece:-:s
1 scruple $=20$ graina
1 dram=3 scruples
1 ounce $=8$ drams
1 pound $=12$ ounces

## Metric

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

## WOOD

Next to the weather, wood probably holds as much daily interest as any other subject known to man. Substitute as we will such a greasy substance as oil, or a dirty truckload of coal, wood remains our true love. How many city apartment dwellers long for the "old days" back home in front of the open fire? Who wouldn't exchange his plaster walls for the softness of a pine study? $\mathrm{T}^{\mathrm{t}} \mathrm{h}$ o wouldn't give anything for the chance to bring up the birch or oak or apple $\operatorname{logs}$ from the cellar-as he used to when a boy? How about the stroke of the, axe that went through the dried pine chunk just as if no chunk were there at all? And no millionaire ever felt richer than the man with his neatly stacked full wood-shed-or cellar. Here is to be found real visible wealtlmade of honest la-bor-wealth which will provide the security of warmth over many a cold month. Here is security, and independence too. No hot air furnace, stove, or fireplace needs an expert to check it over once a month. It takes no phone call-no postcardno anything to deal with wood except 2 hands, and a match. Give a man his wood and his cornflakes and the rest of the world is yours.


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$$
\begin{aligned}
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