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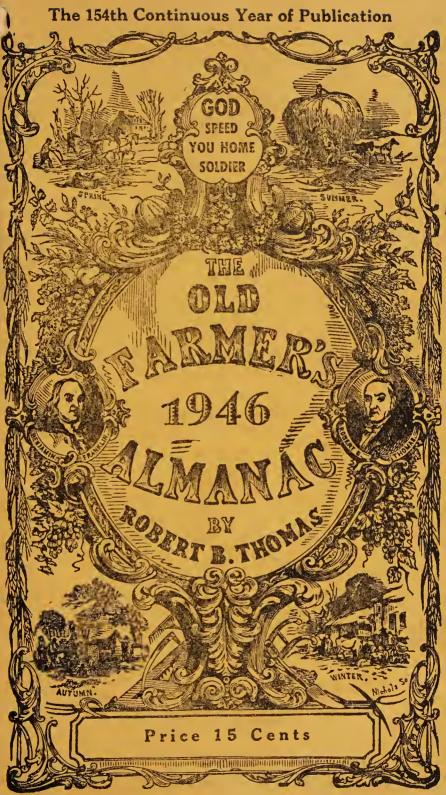


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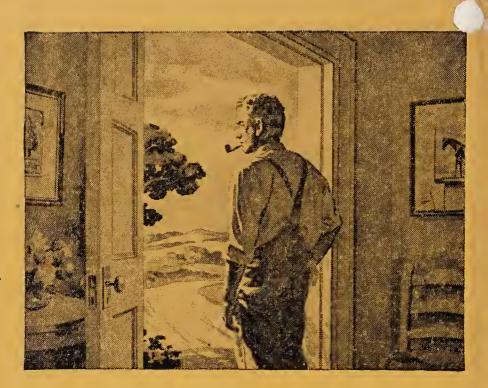
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Weather Forecast



"Free and Clear"

TO 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.



Number One Hundred and Fifty-Four

THE (**OLD**)

FARMER'S ALMANACK.

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



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 CORREC-TIONS AND CALCULATIONS TO ANSWER FOR ALL THE UNITED STATES.

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

NEW, USEFUL, AND ENTERTAINING MATTER.

ESTABLISHED IN 1792

BY ROBERT B. THOMAS.



THE LORD'S PRAYER As printed by Caxton in 1483.

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

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Publishers: YANKEE, INC. DUBLIN, N. H.

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APJAL ON

THE AMERICAN NEWS CO. AND BRANCHES

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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 gener-ations 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,

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 before the peace, on August sixth, the new atomic era announced itself as with us, too, by an explosion over Hiroshima. Japan, which killed 150,000 and destroyed an entire city. At a cost of two billion dollars (two days of war) America had succeeded in harnessing the atomic energy released by the isolation of U 235 protons in uranium. Such an era, with its promises of heating all of New York city by means of a fistful of "unmarried" 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 ourselves. 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. progress but of mortal man. In almost weird contrast with these gigantic happenings, of

we present this issue, our One Hundred and Fifty Fourth annual edition in the same format and at the same price. Your mauy 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 contributed 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, Depart-ment of Agriculture, United States Postofice, Office of War Informa-tion, — to mention only a few, has been of great value. this issue, our One Hundred and Fifty Fourth annual edition in the

tion, — to mention only a few, has been 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 force or tail and show. We cannot close this force of unit and and and 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 know our acknowledgement of this dobt we owe to each and every one. It will be difficult of fort from an well on for our close for a correlation for the 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, specusilences which follow they will wonder what we are thinking, specu-late 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 awaiting them and unmeant criticism in little things. It is not for these thoughts, how-ever, 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. them 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.

Your ob'd servant,

August 16, 1945

1946						
JANUARY.	FEBRUARY.	MARCH.	APRIL.			
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	- - - - - - -					

Consider then the temper of our times. Upon taking up ticket stubs, a conductor came upon a surly gent who had none, and ac-cordingly asked him for his fare. The surly one thereupon growled: "Don't you call me a _____." The conductor replied politely he had not called anybody anything and moved ahead. After he 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."

1947					
JANUARY.	FEBRUARY.	MARCH.	APRIL.		
S M T W Th F S	S M T W Th F S	S M T W Th F S	SMTWThFS		
	1 2 3 4 5 6 7 8	- $ 12 3 4 5 6 7 8$	1 2 3 4 5 6 7 8 9 10 11 12		
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SEPTEMBER.	OCTOBER.	NOVEMBER.	DECEMBER.		
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21 22 23 24 25 26 27 28 29 30	19202122232425 262728293031 -	1011 10 10 20 -1	28293031		
		30			

EXPLANATIONS AND SIGNS In accord with long time usage the left and right hand calendar pages beginning respectively on pages 14 and 15 will be seen to contain numerous symbols (known as signs) and abbreviations which denote the many happenings in the heavens and on the earth which the OFA purports to set forth. On this page and the two fol- lowing we include a brief summary of these hieroglyphics — the careful study of which will reward you with not only greater appreciation of this almanac but also stimulation with regard to further study of the wonders of the universe. Names and Characters of the Principal Planets.				
• • • • • • • • • • • • • • • • • • •	♀ Venus. ⊕ The Earth. ♂ Mars.	4 Jupiter. h Saturn. H or ♂ Uranus.	W Neptune. P Pluto.	
Nam of Conjunction, or in the Quadrature, 90 degree 8 Opposition, or 180 degr	same degree.	rs of the Aspects. Dragon's Head, or A Dragon's Tail, or De	scending Node. scending Node.	
Names and	d Characters of t	he Signs of the Zodia	.C.	
 P Aries, head. 8 Taurus, neck. Π Gemini, arms. S Cancer, breast. 	5. S. Leo, hear 6. M Virgo, bel 7. ← Libra, rei 8. M Scorpio, s	t. 9. 7 Sag Ily. 10. 1/2 Cap ns. 11. 11. 11. Aqu	ittarius, thighs. pricornus, knees. uarius, legs. ces, feet.	
Golden Number Epact 2	Chronological Cy 9 Solar Cycle 7 Dominical Lett	cles for 1946. 23 Roman In er F Year of Ju	ndiction 14 Ilian Period 6659	
SeptuagesimaSun. Feb. 17 Shrove Sunday Mar. 3 Ash Wednesday Mar. 6 Ist Sun. in Lent Mar. 10	Easter Sunday	Apr. 19 Whitsun Apr. 21 Trinity & Apr. 28 Corpus C	Sunday June 16	
Winter Solstice (Winter, 19 Vernal Equinox (Spring, 19 Summer Solstice (Summer Autumnal Equinox (Autur Winter Solstice (Winter),	946), March 21), June 21 nn), <u>S</u> eptember 23	dard Time 2, 12:04 A.M.—Sunente 1, 12:33 A.M.—""" 1, 7:45 P.M.—""" 3, 10:41 A.M.—"""	Aries, P Cancer, S	
MORNING (A Planet is called Mornin Star when it is above the when it is less than 180° we less than 180° east. When is unimportant.) Mercury will be favorab its greatest eastern elonga dates it will set 12h. 32m will be seen as a Morning April 22, August 20, and 26m., and 12h. 48m., resp Venus will be a Mornin, 1 to November 17, and th	ng Star when it is a horizon at sunset. st of the Sun in rig the planet is near a oly situated for be tions, about Mard star when near December 9, on v ectively before sur g Star until Febru	More precisely, it is ht ascension and Evenin ionjunction or opposition ing seen as an Evenin, sh 9, July 5, and Octoi 11h 51m., respectively its greatest western elevhich dates it will rise norise. lary 1, an Evening Stri	rise, and Evening a Morning Star ag Star when it is m, the distinction g Star when near per 30. On these y, after sunet. It ongations, about e 11h. 47m., 12h.	

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 year'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 Evening 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 miles. 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. Ecl. . . . An. Ecl... 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 These are described by signs, etc., on the calendar pages thus 0 d 4, system. 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 (\bigcirc) of Mars (\bigcirc) and the Jupiter (\bigcirc) occurs on this day. (See par. 2, page 4.) Conj. — conjunction ... moment of closest approach to each other of any two heavenly bodies. . consecrated. conscr. . . died. d. . 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. 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. - elongation . . . apparent angular distance of a member of the solar system E1. 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. Equinox, vernal... sun passes from southern to northern hemisphere. Spring. E.S.T... Eastern Standard Time. Feasts and Fasts . . . In the religious calendars, many "observable" days change each year with the date Easter falls on. The OFA endeavors to list the important Protestant, Catholic, and Jewish observances. fd. . founded. Full Sea (Morn and Eve)... the time the tide is high in the morning and in the evening at Commonwealth Pier, Boston. A correction table in the OFA also adjusts this time for other places. (See page 7.) Gr. El. . . . greatest elongation. Geocentric . . . measure of celestial longitude and latitude when observer is at center of the Earth. Golden Number . . . used in reckoning civil calendars. Heliocentric . . . measure of celestial longitude and latitude when observer is at center of the Sun. Inf. - Inferior ... Inferior conjunction is when the Planet is between the Sun and the Earth. Julian Period . . . First year was 4713 B.C. Its length is 7980 years. k. . . . killed. Key . . . columns of letters marked thus refer to correction table on page 12 so that the times given may be adjusted to localities other than Boston. Lat. - latitude. Moon's Age ... average time elapsing between new moons (max. 291/2 days). Calculated when Moon is due South. () First Quarter... moon in quadrature East or one half of the side of the moon toward the earth is illuminated.)) Full Moon . . . moon reaches opposition.) Last Quarter . . . moon in quadrature West. (() Last Quarter . . . moon in quadrature (() 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" Moon S Frace . . . Moon s position in the bolt when a set in the bolt when a set in the bolt when a set in the DFA apply only to risings and settings between sunset and sunrise . . . or during the night.
Moon Runs High or Low . . . day of month Moon Souths highest or lowest above the horizon. Moon Souths... Moon exactly above South point of observer's horizon. Node... when a Planet or Moon in its motion crosses the ecliptic.

Node, Ascending ... Planet or Moon crosses ecliptic from South to North.
Node, Descending ... Planet or Moon crosses ecliptic from North to South.
Occultations ... eclipses of Stars by the Moon.
Opposition ... time when Sun, and Moon or Planet appear on opposite sides of the sky (elongation 180 degrees). O.S. — Old Style . . . was when calendar was eleven days "out of whack." In September, 1752, the 3rd was reckoned as the 14th, to make present calendar. Penumbra . . . concentric area of partial shadow around the umbra. Peri. - Perigee . . . Moon reaches point in its orbit closest to Earth. Peri. - 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... visible rising and setting of Sun's upper limb across the unobstructed horizon of an observer whose eyes are 15 feet above ground level. Sun Fast . . . the times given in this column must be subtracted from your Sun Dial to arrive at the correct time. Sup. — Superior (Superior Conjunction is when the Sun is between the Planet and the Earth.) Tides, heights of ... at Commonwealth Pier, Boston. See correction table on page 7 for adjustments for other places. Twilight . . . begins or ends when stars of the . . 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. . with. Zenith . . . point in heavens directly over observer's head. Zodiac . . . sixteen degree sky road outside of which moon and planets never wander. It is divided into twelve equal divisions called the Signs of the Zodiac, and forms much of the basis of some astrology - and superstition. See page 4 - par. 3. CALCULATIONS AND CORRECTIONS (For Outside New England, see Page 12) While the predictions of the Calendar pages are made for the latitude and longi-tude 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 im-portant places in New England, and any other place in New England can use the correction of the place in the Table which is nearest in longitude to itself. For the Rising and Setting of the Sun, Moon as healers and flanets 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 lat-itude of the place differs considerably from that of Boston, the correction will also be right when the celestial body is on or near the Equator; but when it is remote from the Equator so much accuracy cannot be expected.

East.	West.	West.
Eastport, Me 16 min.	Concord, N.H., 2 min.	Springfield, Mass 6 min.
Bangor, Me 9	Nashua, N.H 2 "	Williamstown, Mass. 9
AURUNIA IVIA O	Plymouth, N.H 3	Newport, R.I.
Lewiston, Me.	Keens, N.H 5	Providence, R.I. 1
Fortland, MD 8	Montpeller, Vt 6	Woonsocket, R.I. 2
Blddsford, Me. 2	Brattleboro, Vt. 6	New London, Conn. 4
Portsmouth, N.H. 1	Rutland, Vt 8	Willimantic, Conn., 5
Provincetown, Mass. 4	Burlington, Vt 9	Hartford, Conn 6
Gloucestar, Mass 2	Lowell, Mass 1	New Haven, Conn., 7
Plymouth, Mass 2	Worcester, Mass 8	Bridgeport, Conn 9 "

TIDE CORRECTIONS

(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.

neight at Doston should		-		<i>m</i> ·	77 . 1.
	Time	Height		Time	Height
	Differ-			Differ-	Differ-
	ence	ence		ence	ence
NE LINTER	h.m.	Feet	THENING STATES	h.m.	Feet
MAINE	1.9 50	*0.4	PENNSYLVANIA	10.00	*O F
Augusta	+3 50	*0.4	Philadelphia	+2 29	*0.5
Bangor	-0 05	+3.6	DELAWARE		
Bar Harbor	-0.33	+1.1	Rehoboth	-3 37	*0.4
Boothbay Harbor .	-0 20	-0.8		0.01	0.1
Eastport	-0 28	-0.7	MARYLAND		
() d ()rehard	-0 10		Baltimore	-4 25	*0.1
Portland	-0 10	-0.6	Ocean City	-3 57	*0.4
Stonington	-0 30	+0.2	DISTRICT OF COLU	IMPLA	
NEW HAMPSHIRE			Washington	-3 08	*0.3
	+0 15	-1.2		0.00	0.0
* ·			VIRGINIA		
MASSACHUSETTS	0.10	*0 5	Norfolk	-1 54	*0.3
. Fall River	-3 16	*0.5	Virginia Beach	-3 14	*0.3
	-0 40	*1.1			
Hyannisport	+0 45	*0.3	NORTH CAROLINA	-2 50	*0.3
Lynn	TU U3	-0.2	Beaufort Carolina Beach	-3 30	*0.4
Marblenead	-0 05	*0.4		0.00	0.2
Marion Monument Beach .	-3 10	*0.4	SOUTH CAROLINA		
Nontralitet	10 10	+0.4	Myrtle Beach	-3 45	*0.5
Nantasket	+0 10 +0 50	*0.3	Charleston	-3 15	*0.5
Nantucket New Bedford	2 21	*0.4			
Oal- Rhufe	+0.05	*0.2	GEORGIA St. Simon's Island	_9 51	*0.7
Oak Bluffs	-306	*0.5		$-2 51 \\ -2 40$	*0.7
Onset		+0.1	Savannah Tybee Beach	3 26	*0.8
Plymouth Provincetown	+0.15	-0.3	TADES DESCH	-0 20	0.0
Scituate	-0 05	-0.5	FLORIDA		
Wellfleet	+0.20	+0.6	Daytona	-320	*0.4
Woods Hole	-3 01	*0.2	Fort Lauderdale .	-2 15	*0.3
	U UL		Incksonville	-0.40	*0.1
RHODE_ISLAND		*0.0	Miami	-3 00	*0.3
Block Island	-3 21	*0.3	Miami Palm Beach	-3 20	*0.3
Narragansett Pier	-3 31	*0.4	I OI U LITOI BIGGOO T	-215	*0.3
Newport	-3 31	*0.4	St Augustine	-2 20	*0.5
Providence	-3 11	*0.5	St. Petersburg	+3 58	*0.2
Watch Hill	-2 06	*0.3	WASHINGTON		
CONNECTICUT			Ilwaco	+1 44	-3.5°
Long Island Sound	-0 02	*0.7	Port Townsend	+5.04	*0.5
New London	-1 47	*0.3	Seattle	+5 37	-2.0
				1001	
NEW YORK	0.00	*0 =	OREGON	L1 0/7	-3.3
	-3 00 57	*0.5	Astoria	+1 37	-3.3 -4.8
I I and Boach	-3 57	*0.5	Cape Arago	+1 19 $\pm1 12$	-4.8 -3.7
Long Island Sound	+0.08	*0.7	Yaquina Head	+1 12	-0.7
New York City	- <u>2 50</u>	*0.5	CALIFORNIA		
Ocean Beach	-3 57	*0.4	Catalina Island	-1 33	-5.9
Southampton	-3 22	*0.3	Crescent City	+056	-5.0
NEW JERSEY			Eureka	+1.20	-5.0
Atlantic City	-3 57	*0.5	Long Beach	-1 37	-5.5
Ravside	-024	*0.6	Monterey	-0 03	*0.4
Cape May	-3 31	*0.5	Point Mendocino .	+0.24	*0.4
Ocean City	-3 17	*0.4	San Diego	-135	
Seebright			San Francisco	+0.59	*0.4
to	-3 44	*0.5	Santa Barbara	-1 19	-6.0
Seaside Park			Santa Cruz	+0 08	*0.4
	~				

HATS OFF TO "IKE"

When Sir Nelson King Kohnson, 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 de-cided 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. gale . . . with, possibly, 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° 39' East, Latitude 67° 9' South, at which point 55 percent of the Sun's diameter will be hidden 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° 6' West, Latitude 64° 7' 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° 49' West, Latitude 60° 36' 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	Eclipse begins	Maximum eclipse		Fraction solar diameter covered
Atlanta, Ga.	10.51 л.м.	12.13 р.м.	1.38 р.м.	.36
Boston, Mass.	10.54 л.м.	12.30 р.м.		.60
Buffalo, N. Y.	10.44 л.м.	12.14 р.м.	1.46 р.м.	
Charleston, W. Va.			1.44 р.м.	
Chicago, Ill.	9.37 д.м.		12.25 р.м.	
Chicago, Ill. Cincinnati, O.	10.42 л.м.	12.07 р.м.	1.36 р.м.	.44
Denver, Colo.	8.40 л.м.	9.33 л.м.	10.28 м.м.	
Des Moines, Ia.	9.35 л.м.	10.49 л.м.	12.08 р.м.	
Detroit, Mich.	10. 39 A.M.		1.36 р.м.	
Helena, Mont.	8.31 л.м.			
	9.40 л.м.	11.02 р.м.	12.28 р.м.	.41
Louisville, Ky.	9.43 л.м.		12.32р.м.	41
Minneapolis-St. Paul, Minn.			12.10 р.м.	
New Orleans, La.			12.16 р.м.	
New York, N. Y.	10.52 л.м.		1 .59 р .м.	
Omaha, Neb.	9.36 A.M.		12.01 р.м.	
Philadelphia, Pa.	10.51 л.м.		1.58 p.m.	
Pittsburgh, Pa.			1.46 р.м.	
Raleigh, N. C.			1.53 р.м.	
Richmond, Va.			1.55 р.м.	
	9.40 л.м.		12.18 р.м.	
Seattle, Wash.	7.36 а.м.	8.15 A.M.	8.56 A.M.	
Tallahassee, Fla.			1.38 p.m.	
Topeka, Kans.	9.38 a.m.	10.47 A.M.	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 Pacific 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 occultations of the bright star Aldebaran (Alpha Tauri) will be visible to observers in the United States during 1946.

VENUS, MARS, JUPITER AND SATURN, 1946.

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

1010	VEN		1 ,					(I	1		
1946	h. 1			MARS h. m.	Key		ITER .m.	vey.	SAT	FURN	Key
JANUARY 1st		46A.M. P						R		. m.	
" 11th		40A.M. P 59A.M. P	rises	5 21p.m. 4 21p.m	AA		06а.м. 32а.м.		rises	5 13р.м.	B
" 21st	" 7	06а.м. О	sets	7 05A.M.		4 111	52л.м. 57р.м.	K K	rises	4 30р.м. 6 37л.м.	B
FEBRUARY 1st	sets 4	52P.M. D	sets	6 OSA.M.		IC.	16а.м.	K	sets	5 51л.м.	P
" 11th		18р.м. Е	1.6	5 20a.m.	Q	1 10) ЗЗР.М.	Ŕ		5 09A.M.	P P
21St	9	44р.м. G	i a	4 37л.м.	Q	" 11			6.6	4 28л.м.	P
MARCH 1st " 11th	sets 6	03р.м. Н	sets	4 05л.м.		rises (K	sets	3 55л.м.	Р
" " 21st		28р.м. I 52р.м. J	44	3 29а.м. 2 57а.м.			37р.м.	K	66	3 15A.M.	P
APRIL 1st		19P.M. L	sets	2 24A.M.			52P.M.	K		2 35а.м.	Р
" 11th	" 7	43р.м. М	10000	2 24A.M. 1 51A.M.	QQ		⁷ 02р.м. 5 16р.м.	K K		1 53A.M. 1 15A.M.	P
" 21st	- " 8	08р.м. N	66	1 24л.м.	P		47A.M.	G	. 1	2 37A.M.	P P
MAY 1st		33р.м. Р	sets	12 58A.M.	P		04а.м.	H		2 00 м.	P
" 11th " 21st		56р.м. Q	66	12 З2л.м.		1 . 3		H	" 11		P
418L	9	15р.м. Q	1	12 07л.м.		' 2	41а.м.	H	" ī	0 44р.м.	P
JUNE 1st " 11th	sets 9	29р.м. Q 35р.м. Q	sets1	11 39р.м. 11 13р.м.		sets 1		H		0 Обр.м.	P
" 21st		36P.M. P		11 13р.м. 10 44р.м.			16а.м. Зба.м.	$\left \begin{array}{c} H \\ H \end{array} \right $		9 30р.м. 8 54р.м.	P
JULY 1st	1	30р.м. N	lisets	10 18p.m.		sets ¹ 11		п		о 54р.м. 8 19р.м.	P P
· " 11th	1 ** 9	20p.m. M	16	9 52 р.м.		1 11		븄		5 19P.M. 7 44P.M.	P
" 21st		07р.м. К	66	9 26р.м.	J	· · 10	38р.м.	H		7 09р.м.	Ô
AUGUST 1st		49р.м. Ј	sets	8 58р.м.		sets 9		G	rises	3 57а.м.	С
" 11th " 21st		31p.m. I 12p.m. H	6.	8 32р.м. 8 06р.м.			23р.м.	G	66	3 24л.м.	C
SEPTEMBER 1st		51P.M. F	loota	7 З8р.м.		c	46р.м.	G		2 50а.м.	C
" 11th	11 7	30р.м. Е	sets	7 14р.м.			07р.м. 32р.м.	G	rises	2 14а.м. 1 40а.м.	C C
" 21st		10р.м. С	6.6	6 51р.м.	F	· · ·	55p.M.	Ğ		1 06A.M.	č
OCTOBER 1st		48р.м. В	sets	6 27р.м.	F	sets 6		F		2 З1а.м.	C
" 11th		24р.м. А	66	6 05р.м.	E		49p.m.	F	" 11	1 56A.M.	Ċ
218t	0	54р.м. А		5 45р.м.	D		15р.м.	F		1 Т9л.м.	C
NOVEMBER 1st " 11th		13р.м. А 29р.м. В	sets	5 25р.м. 5 08р.м.	CC	rises 6		L		0 39р.м.	C
" 21st		23P.M. D 21A.M. 0		4 54р.м.	B	4 5	46а.м. 18а.м.	M	4.6	9 57р.м. 9 18р.м.	CC
DECEMBER 1st		11A.M. N	sets	4 42P.M.			49A.M.	M		8 38p.m.	c
" 11th	" 4 2	22а.м. М	66	4 34 р.м.	B	" 4	20а.м.	M	6.6	7 57р.м.	č
" 21st	" 3 {	54A.M. M	(4 	4 27р.м.	B	" 3	51A.M.	M	6.6	7 15р.м.	ē
JISU		42а.м. М	sets	4 22р.м.	B	rises 3	21а.м.	NI	rises	6 З2р.м.	C
¹ Day befo	pre.										

LENGTH OF TWILIGHT

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

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

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:—

1	BOSTON	DALLAS	
Sunrise Key Letter	5:10 A.M.E.S.T. G	Sunrise (Boston) 5:10 A.M.E.S.T. Correction (Column	
		G, page 12) +:52	
		Sunrise (Dallas) 6:02 A.M.C.S.T.	
Sunset Key letter	6:21 P.M.E.S.T. K	Sunset (Boston) 6:21 P.M.E.S.T. Correction (Column	
		K, page 12) +:35	_
		Sunset (Dallas) 6:56 P.M.C.S.T.	

Dawn and Dark. The approximate times dawn will break and dark descend are found by applying the length of twilight taken from the table on page 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		DALLAS			
(Latitude 4	2° 22' N.)	(Latitude 3	32° 48′ N.)		
Sunrise Subtract length of twilight (Column	5:10 A.M.	Sunrise Subtract length of twilight (Column	6:02 A.M.		
4 of table)	1:39	4 of table)	1:28		
Dawn breaks Sunset Add length of twi-	3:31 A.M.E.S.T. 6:21 P.M.	Dawn breaks Sunset Add length of twi-	4:34 A.M.C.S.T. 6:56 P.M.		
light	1:39	light	1:28		
Dark descends	8:00 P.M.E.S.T.	Dark descends	8:24 P.M.C.S.T.		

Sun Fast. The column headed "Sun Fast" is of primary use to sundial enthusiasts. The figures therein tell how fast on each day the time indicated by a *properly adjusted and graduated* sundial will be of the time indicated by a clock. On April 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 corrections, the "sun Fast" correction for Boston and that for the locality given in Column 1 of the table on page 12.

- BOSTON	DAI	LAS
Sundial time Sun fast 2:34 P.M. -:15 Eastern Standard Time 2:19 P.M.	Sundial time Sun fast Correction (Col- umn I, page 12)	9:17 A.M. -:15 +:43
	Central Standard Time	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 be above the horizon at Boston. The length of day in other localities is found by subtracting the time of sunrise from that of sunset for each locality. (See Sunrise and Sunset above).

BOSTON		DALLAS		
Length of day (From calendar	13h 11m	Sunset Sunrise	6:56 P.M. 6:02 A.M.	
pages)		Length of Day	12h 54m	

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

BOS	STON	MIAMI						
High Tide	7:15 A.M.E.S.T.	High tide (Boston) Correction page 7 -						
Height	9.2 feet	High tide (Miami) Height (Mlami) (9.2 x 0.3)	4:00 A.M.E.S.T. 2.8 feet					

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

BOSTON DALLAS Moonset 3:21 A.M.E.S.T. Moonset (Boston) 3:21 A.M. Key letter N Moonset (Column N, page 12) +:23 Correction (Column **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 **3** on page 12.

BOSTON

Moon souths

8:46 P.M.E.S.T.

D.112	
Moon souths (Boston)	8:46 P.M.
Correction (Col- umn I, page 12) Correction (Col-	+:43
umn) , page 12)	+:04

DALLAS

9:33 P.M.C.S.T.

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

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

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

·			-	
		B	Moon	+++++++++++++++++++++++++++++++++++++++
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SETTING	0	В	times g	$\begin{array}{c} + + + + + + + + + + + + + + + + + + +$
DNA	z	B		$\begin{array}{c} & -23 \\ +++++++++++++++++++++++++++++++++++$
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ANA(OF SUI TO W (See e.	е Д	Th Th		$\begin{array}{c} ++++++++++++++++++++++++++++++++++++$
	V	n.	nearest	++++++++++++++++++++++++++++++++++++
ALM TABLE FOR FINDING TIMES OF PLANETS			Your town (interpolate between	Atlanta, Ga. Butte, Mont. Charleston, W. Va. Chicago, Ill. Cincinnati, O. Dallas, Tex. Denver, Colo. Des Moines, Ia. Detroit, Mich. Indianapolis, Ind. Jacksonville, Fla. Louis Angeles, Cal. Louis Angeles, Cal. Louis Angeles, Cal. Louis Angeles, Cal. Louis Ville, Ky. Miami, Fla. New Orleans, La. New York, N. Y. Omaha, Neb. Philadelphia, Pa. Philadelphia, Pa. Philadelphia, Pa. Richmond, Va. Richmond, Va. St. Louis, Mo. Seattle, Wash.

PRINCIPAL HOLIDAYS, ETC. IN 1946

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

Jan. 1 (*)

- Jan. 8 (**) 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. 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. 26 (**) 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 (**) Admission Day (Cal.)
- 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

Apr. 14 (***) Pan American Day

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19	46]			JAN	Ū	AR	Υ,	F	IRSI	r M	ONT	н.				
	ASTRONOMICAL CALCULATIONS.															
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1 2	$\frac{1}{2}$ W.		3 P 3 P	11.00	4 1			$12 \\ 12$		$10\frac{1}{4}$		31 ю 30 р			Sgr Cap	
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4	4 Fr.			11.07	1 1			11		11		а 32 в	11		Cap	
	5 Sa.	71					$\overline{13}$		$10\frac{1}{4}$			36 c				
56	6 S.	71	$3 _{\rm P}$	427	в			10	1	1		13 E	11			$\begin{vmatrix} 2\\ 3 \end{vmatrix}$
7	7 M.	71	3 P	428	в	9	15	10	$1\frac{3}{4}$	14	8	52 F	13		\hat{Psc}	4
8	8 Tu	- P	3		С	9	17	9	$2\frac{1}{2}$	$2\frac{1}{4}$	10)2 f	I 4	14	Psc	5
9	9 W.				C	1	18	9	$3\frac{1}{4}$	$ 3\frac{1}{2}$	11_{M}^{P}	12 1	15		Ari	6
	10 Th			11	C		19	8	4	$4\frac{1}{2}$		-			Ari	7
II	11 Fr.		1	11	С	-	20	8	5	$5\frac{1}{2}$	$12_{\rm M}^{\rm A}$				Tau	8
	12 Sa.	$71 \\ 71$		11	C	4	22	8	6 7	$6\frac{1}{2}$		36 L			Tau	
	13 S. 14 M.	71		1.00	C	1	23 25	$\frac{7}{7}$	8		$\frac{2}{4}$		11 0		G'm	
	15 Tu			IL DE	C		26	7	$\frac{\circ}{9}$)5 0 18 р			G'm ·Cnc	
	16 W	71	- 1	11.00	C	1	28	6	$\frac{9}{10}$	$10\frac{1}{2}$			11	$^{P}_{M}32$	Cnc	1 1
	17 Th	$\overline{70}$		1.00	\mathbf{C}	1 -	30	6	$10^{\frac{10}{4}}$	$11\frac{1}{2}$					<u> </u>	TI
	18 Fr.	70		11. 10	C		32	6	$11\frac{1}{2}$	<u> </u>		54 c	112	2 <u>*</u> 31	Leo	15
	19 Sa.		1	11.10	C	93	33	5	$0\frac{1}{4}$	$0\frac{1}{2}$	7 ()3 D		26	Leo	16
20		70			c	9:	35	5	1^{*}	$1\frac{1}{4}$	8	$10 _{\rm F}$	2	2.17	Vir	17
	21 M.	70				93		5	$1\frac{3}{4}$	2	9 :	15G	3	3 04	Vir	18
	22 Tu					93		4	$2\frac{1}{2}$	$2\frac{3}{4}$	10	171	3		Lib	19
	23 W.	70				94		4	$\begin{array}{c}1^{\frac{3}{4}}\\2^{\frac{1}{2}}\\3^{\frac{1}{2}}\\4^{\frac{1}{4}}\end{array}$	$3\frac{3}{4}$	11 ^P _M	18J	4		Lib	20
	24 Th			1448		94		4	$4\frac{1}{4}$	$4\frac{1}{2}$	-		1 5		Lib	21
	25 Fr.			1449		94		4	5	$5\frac{1}{2}$	12^{A}_{M}	18 F			Sco	22
	26 Sa.	$\begin{bmatrix} 7 & 0 \\ 7 & 0 \end{bmatrix}$		1450 159			17	3	6	$\begin{array}{c} 2\frac{3}{4}\\ 3\frac{3}{4}\\ 4\frac{1}{2}\\ 5\frac{1}{2}\\ 5\frac{1}{2}\\ 6\frac{1}{4}\\ 7\frac{1}{4}\\ 8\frac{1}{4}\end{array}$	1	18 L			Sco	$\frac{23}{24}$
	27 S . 28 M.	7070					49 51	3	$0\frac{3}{4}$		$\frac{2}{2}$	18 1		21	Sgr_{S}	24
	29 Tu			1	D		51 54	33			3	190		5 08	Sgr	25 26
30	30 W.	70		4 54	D D		56	3 3	$\begin{array}{c} 6\frac{3}{4} \\ 7\frac{1}{2} \\ 8\frac{1}{2} \\ 9\frac{1}{4} \end{array}$	9 03		18 p 15 p			Sgr	$\frac{26}{27}$
300	31 Th	6 5		1 + 57		98		- 7	$10^{9\overline{4}}$	$9\frac{3}{4}$ $10\frac{1}{2}$	6A(13 P)7 P			Cap Cap	
12-10		100		11.01	1	e e			10	102			In	MT2	Cap	20

	JANUARY hat	h 31 days. [1946]
	. But do not go, Do not look! Draw the blind low, Open a book Not anything do mind an Than snow's obliterating	
D. M. D.W.	Aspects, Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
1 Tu. 2 W. 3 Th. 4 Fr. 5 Sa. 6 F 7 M. 8 Tu. 9 W. 10 Th. 11 Fr. 12 Sa. 13 F 14 M. 15 Tu. 16 W. 17 Th. 18 Fr. 19 Sa. 20 F 21 M. 22 Tu. 23 W. 24 Th. 25 Fr. 26 Sa. 27 F 28 M. 29 Tu. 30 W. 31 Th.	$\begin{array}{c} \textbf{C} \text{ on Eq. Tides } \{ \substack{8.9\\ 8.8} \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	records that can truly show you where to stop your dol- lars when they have run too fast? Sound farming methods and good records are the key to a HAPPY NEW YEAR.

And a

					16						- TF	
19	1946] FEBRUARY, SECOND MONTH.											
	ASTRONOMICAL CALCULATIONS.											
on.	Days.	0 /	Days.	0 /	Days.	0		Days.	0 /	Days		/
Declination.	1 2	17s. 08 16 51	78	15 20 15 01	13 14		24 03	19 20	11 19 10 5'	7 28	8	$\begin{array}{c} 08\\ 46 \end{array}$
	34	16 33 1 6 15	9 10	14 42 14 23	15 16	12	43 22	21 22	10 30 10 14	4 28		$\begin{array}{c c} 23 \\ 00 \end{array}$
0.9	5 6	$ 15 57 \\ 15 39 $	11 12	14 03 13 44	17 18		01 40	23 24	9 52 9 30			
	• N	ew M	oon, 1	lst dav	, 11	h. 4	13 n	a., ev	renir	ng, W.		
	 New Moon, 1st day, 11 h. 43 m., evening, W. First Quarter, 8th day, 11 h. 28 m., evening, W. 											
	O Full Moon, 15th day, 11 h. 28 m., evening, E.											
KEY				ZOTO (í.		0,		UD I
010	Month the Week			b Lengt	hust	Full Bos	Sea, ton.	D		D	D'8	Age
Par la		Rises. h. m. 6 58 N	$\frac{ \text{Sets.} }{ 4 58 }$	<u>(п. п</u>	i. m. }	Morn h.	<u>h.</u>	h. 1	<u>п., 1</u> н	Souths.	Place	Z
32 33	2 Sa.	F (4 59	11	3 2	$\frac{10\frac{1}{2}}{11\frac{1}{4}}$	$11\frac{1}{4}$	$\begin{vmatrix} 6_{M}^{A}5 \\ sets \end{vmatrix}$		anaal	$rac{Aqr}{Aqr}$	$\frac{29}{1}$
34 35	3 S . 4 M.	6 56 M 6 54 M	11-	$\begin{array}{c c} \mathbf{E} & 10 \\ \mathbf{E} & 10 \\ 0 \end{array}$	$\begin{bmatrix} 5 & 2 \\ 8 & 2 \end{bmatrix}$	$11\frac{3}{4}$	$\begin{bmatrix} 0\\ 0^3 \end{bmatrix}$	$6^{P}_{M}4$		1 21	Psc	2
36	δTu.	6 53 M	503	E 10 1		$0\frac{1}{2}$ $1\frac{1}{4}$	$\begin{array}{c} 0rac{3}{4} \\ 1rac{1}{2} \end{array}$	$ \begin{array}{c} 7 \\ 9 \\ 0 \end{array} $		$\begin{array}{c c} 2 & 11 \\ 3 & 00 \end{array}$	Psc Ari	$\frac{3}{4}$
37 38	6 W. 7 Th.		1505 1506		$\begin{bmatrix} 2 \\ 5 \end{bmatrix} \begin{bmatrix} 2 \\ 9 \end{bmatrix}$	2	$2\frac{1}{4}$		5J ∥	3 49		5
39	8 Fr.			E 10 1' E 10 1'	$\begin{bmatrix} 5 & 2 \\ 7 & 2 \end{bmatrix}$	$2rac{3}{4} \\ 3rac{1}{2}$	$3\frac{1}{4}$	11 <u>P</u> 2			Tau Tau	$\begin{array}{c} 6 \\ 7 \end{array}$
40	9 Sa.	1 1	11	E 102	$\begin{vmatrix} 2 \\ 2 \end{vmatrix}$	$4\frac{1}{2}$	$5\frac{1}{4}$	12 <u>*</u> 4		6 24	G'm	8
1. 1-	.0 S. 1 M.	-		$\begin{array}{c c} \mathbf{E} & 10.2\\ \mathbf{E} & 10.2 \end{array}$	$5 2 \\ 5 2$	$\begin{array}{c} 4^{\frac{1}{2}} \\ 5^{\frac{1}{2}} \\ 6^{\frac{3}{4}} \\ 7^{\frac{3}{4}} \end{array}$	$\begin{array}{c} 6rac{1}{4} \\ 7rac{1}{4} \end{array}$	$\begin{array}{ c c }1&5\\&3&0\end{array}$	1 11		G'm Cnc	$\frac{9}{10}$
43 1	2 Tu.	6 45 M	512	$F \ 102$		$7\frac{3}{4}$	$-8\frac{1}{2}$	41	3 Q	9 19	Cnc	11
1 1	.3 W. 4 Th.	643 L 642 L	$\frac{5}{5}\frac{14}{15}$			$8\frac{\bar{3}}{4}$ $9\frac{\bar{3}}{4}$	$9\frac{1}{2}$ $10\frac{1}{2}$	5 1 6 0		$\begin{bmatrix} 10 & 17 \\ 1 & 13 \end{bmatrix}$	Cne	$\frac{12}{13}$
461	5 Fr.	641 L	516	f 10 3	3 2	$10\frac{1}{2}$ $11\frac{1}{4}$	$10\frac{1}{2}$ $11\frac{1}{2}$	6 ^A 4	30			
47 1	6 Sa.	639 l 638 l	$\frac{5}{5}\frac{18}{19}$			$11\frac{1}{4}$ 0		rises		$\begin{bmatrix} 2_{M}06 \\ 12 & 55 \end{bmatrix}$	Leo	14
491	.8 M.	637L	520	F 10.4	$\frac{1}{4}$	$0\frac{3}{4}$	$\begin{array}{c} 0rac{1}{4} \\ 1 \end{array}$	$ \begin{bmatrix} 6_{M}^{P}5 \\ 8 0 \end{bmatrix} $	ов I 2 н	$\begin{bmatrix} 12 & 55 \\ 1 & 40 \end{bmatrix}$	Vir Vir	$\frac{15}{16}$
	.9 Tu. 20 W.	635 г 634 г	$5\begin{array}{c} 5 \\ 5 \\ 23 \end{array}$	f 10 4	$\begin{bmatrix} 3 \\ 2 \end{bmatrix}$	$[1\frac{1}{4}]$	$1rac{1}{2} \ 2rac{1}{4}$	90	41	2 24	Lib	17
1- 1	1 Th.	632L	524	ғ 10 5	2 2	$\frac{2}{2\frac{3}{4}}$	$2\hat{4}$	10 0 11 ^p	5 K 6 L	$3 06 \\ 3 48$		$\frac{18}{19}$
532	2 Fr. 3 Sa.	631 к	5 25	105	5 2	$\begin{array}{c} 2\\ 2\frac{3}{4}\\ 3\frac{1}{2}\\ 4\frac{1}{4} \end{array}$	$3\frac{3}{4}$	10.00		4 30	Sco	20
544	4 S _	629 к 628 к	526 528	G 10 5' G 11 0	0 3	$\frac{4\frac{1}{4}}{5}$	$\begin{array}{c} 3\frac{3}{4}\\ 4\frac{3}{4}\\ 5\frac{1}{2}\\ 6\frac{1}{2}\\ 7\frac{1}{2}\\ 8\frac{1}{2}\\ 9\frac{1}{4} \end{array}$	12_{M}^{AO} 1 0	6 M 6 N	5 14 5 59		$\frac{21}{22}$
562	5 M.	6 2 6 к	529	G 11 0	3 3	6	$6\frac{1}{2}$	20	60	6 48	Sgr	23
57 2	6 Tu. 7 W.	625 к 623 к	530 531	G 11 0 G 11 0		$6\frac{3}{4}$ $7\frac{3}{4}$	$7\frac{1}{2}$ 81	$ \begin{bmatrix} 3 & 0 \\ 3 & 5 \end{bmatrix} $	4 P 7 P	7 38	Cap	24 25
	8 Th.	621 K	5 33	G 11 1		$8\frac{1}{2}$	$9\frac{1}{4}$		6 P	8 30 9 <u></u> [∆] 24	$\begin{array}{c} \operatorname{Cap} \\ \operatorname{Cap} \end{array}$	26 26
-		-		_		-			11			

FEBRUARY hath 28 days.



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,

Σ a

B

Farmer's Calendar.

1946

δ ♀ ℂ. δ ♀ ⊙ Sup. δ ቑ ℂ. Tides { •.• 1|Fr. Candlemas. Groundhog (8.7 Blustery 2 Sa. 4th S. af. Epiph. Span. Inq. (0.0 3 F Yanks retake Manila 1945 Tides { 9.8 4 M. Bluebirds arr. N.Y. State Tides { 9.6 Б Tu. snows. N.Y. State St. Dorothea, 0.7 6 W. C Eq. {10.1 Cold. 7 Crimean Conf. **9.8 9.7** \mathbf{Th} Rain and 1945 (4-11) Guadalcanal Tides (9.9 8 Fr. floods in 1943 R. G. Fessenden & Gr. Hel. C In d. 1945 (11th) Lat. 8. C Peri. {8.9 (9.8 (9.8) (9.8 9 Sa. 5th 芝. a. 距p. 6 高 C. 6 & O Sup. (8.6 10 F Goering fd. 24 Stat. In \$9.8 West. Lincoln's & & C. Chigh Tides 10.0 Birthday & & C. Chigh Tides 8.8 11 IM. Birthday of C. Chigh Tides and your stoves, keep screens in Budapest of C. Tides and your stoves, keep screens in 1945 St. Valenting of your open fires. Is St. Valenting of Your ceiling properly pro-tected by asbestos (better bay Day Tides 10.5 Cold than metal) near or around Bataan Tides 1.5 could the furnace? Have you had all 12 Tu. 13 W. 14 Th. 15 Fr. Bataan Tides | 9.4 16 Sa. again. 1945 Corregidor, Septuagesima S. { 10.8 17 F Engebi Tides { 10.0 Iwo, 1945 18 M. 1944 Tides {9.5 Eniwetok SWC. CEq. 19 Tu. Gen. E. M. Watson & Stat. In 6 2/ C. 6.3 d. 1945 Auld Deer Stat. In 6.1 Red 1944 $\mathbf{20}$ W. 8 Stat. in {9.1 R.A. 8.6 $\mathbf{21}$ \mathbf{Th} R.A 'Worst in year Gr. Hel. Tides \$8.8 Washington's Birthday Q 22 Fr. Lat. S. Gale of Cin Apo. Rotary id. {8.6 7.7 23 Sa. Sexag. S. Mass. Hort. SI. Matthias Sixag. S. Soc. id. 1829 St. Matthias Tides {6.5 [24th {7.4]} stormy 24 F Tides {8.8 25 | M.C rides Tides \$ 8.5 Birds coming to the Vineyard $\mathbf{26}$ Tu. Tides \$ 8.7 weather. $\mathbf{27}$ W. Tides \$ 9.1 8.2 Los Negros $\mathbf{28}$ Th. $\mathfrak{h} \mathbf{m} \mathfrak{R}$. Feb. 31, 1831 - Rachel Mack died this day if we are to believe her headstone at Barkhamsted, Conn.

Aspects, Holidays, Heights of High Water, Weather, etc.

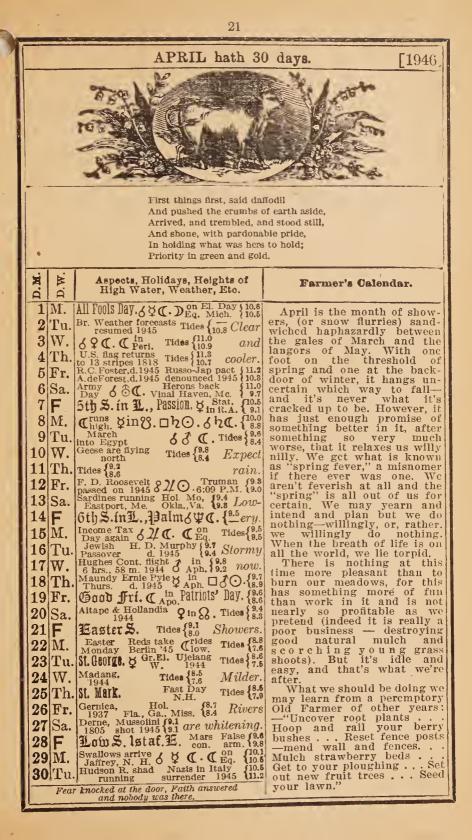
Now is the time of the deep snows-and thrice blessed is the neighbor who will plow you out. A mug of good steaming coffee or something brac-ing from the bottle behind the clock will be just the thing for him when he has bucked out your drifts. A touch of neighborly kindness goes a long ways-and therc'll bc more storms coming.

Be fearful of fires, for more farms are burned out this month than any other-and chiefly through carelessness or lack of foresight. Stop your fire before it starts. Avoid overheating your furnace and the chimney flues cleaned of soot? Is the masonry of your chimneys tight and well-pointed up? Have you sand, pails of water, or, best of all, fire extinguishers ready, and do you know just where they are? Are your payments up to date on your fire insurance? Have a thought of an eve-ning and on many an evening for the books you have not had time for. Let Mother and the boy and the girl share your pleasure with an occa-slonal hour of reading aloud. Don't be ashamed of old fav-orltes: Dickens, Jules Verne, Longfellow, Mark Twaln, ctc., but don't overstrain their crcdulity with too large a dose of Cooper. Have the young-sters introduce books and magazines of their own.

		CAD CIT	10	26			
1946]		MARCH, RONOMICA					
d Days.	0 / Da		Days. 0	/ Days	1	Days. 0	1
1		7 5 19	13 2	58 19	0 36	25 1	
clin.		B 4 56 9 4 32	14 2 15 2	35 20 11 21	08.13	26 2 27 2	
	$\begin{vmatrix} 6 & 32 \\ 6 & 29 \end{vmatrix}$ 1		16 1	$ \begin{array}{c cccccccccccccccccccccccccccccccccc$	0 N.11 0 35	27 2 28 2	
	6 06 1 5 43 1		17 1	24 23	0 58	29 3	20
	1 - 101	1	18 1	00 24	1 22	80 3	43
	ew Moon		*	*	0,		
	irst Quart						
	ull Moon,						
C La	ast Quart	er, 25 th d	lay, 51	h. 37 m.	, evenir	ıg, W.	
And the second se		> Length	IL ++ Fu	I Sea. I	111	D D'8	
Year Year Day of Month Day of the Week	Rises. M Se	ts. H Days. m. h. m.	n h.	ston. n Even Ris h. h.	es. X Sou	uths.	Ag
60 1 Fr.	6 20 K 5 3	34 G 11 14			29 0 10	m. Place	
61 2 Sa.	618 к 5	35 G 11 17	7 4 10	$\frac{1}{4} 10\frac{3}{4} 6_{M}^{A} $		10 Aqr	1
62 3S.	617 к5)				PO2 Psc	30
63 4 M.	615J 53		. 1 1 5		47 H 12	52 Psc	1
64 5 Tu. 65 6 W.	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				01 J 1 16 к 2	43 Ari 33 Ari	$\begin{vmatrix} 2\\ 3 \end{vmatrix}$
66 7 Th					16 к 2 31 м 3	33 Ari 25 Tau	
67 8 Fr.	608 J 54		1 5 2	3 11		19 Tau	
68 9 Sa.	6.07 J. 54		$7 5 3\frac{1}{2}$	$ 3\frac{3}{4} -$	- - 5	16 G'm	
69 10 S .	. 6 05 J 54		6 4	5 124	58 p 6	14 G'm	
70 11 M. 7 i 12 Tu.	6 03 J 5 4			$\begin{bmatrix} 6 \\ 71 \end{bmatrix} \begin{bmatrix} 2 \\ 2 \end{bmatrix}$	07 Q 7	13 Cno	
7 1 12 Tu. 7 2 13 W.	6 02 J 5 4 6 00 J 5 4			$\begin{bmatrix} 7\frac{1}{4} & 3 \\ 8\frac{1}{4} & 3 \end{bmatrix}$	08 Q 8 58 P 9	11 Cnc 06 Leo	
7314Th.	558 J 54				4209	59 Leo	$\begin{array}{c} 10 \\ 11 \end{array}$
74 15 Fr.	556158				18 N 10	48 Vir	$11 \\ 12$
75 16 Sa.		52 1 11 57			1 11	34 Vir	13
76 17 S.		531 1200		$11\frac{3}{4}$ rise			
77 18 M. 78 19 Tu.		54 I 12 03		$\begin{bmatrix} 0 \\ -1 \end{bmatrix} \begin{bmatrix} 0 \\ -1 \end{bmatrix} \begin{bmatrix} 0 \\ -1 \end{bmatrix}$		18 Lib	14
79 20 W.	1 1 1	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		EL * 21	53 J 1 54 K 1	01 Lib	15
80 21 Th.	5461 5	57 I 12 11		$1\frac{1}{4}$ 0 1 1 0 1	4 18	43 Lib 25 Sco	$\frac{17}{18}$
81 22 Fr.	54415	58 1 12 14		$2\frac{1}{2}$ 10		08 Sco	$10 \\ 19$
82 23 Sa.	543 I 6 ()0 1 1 2 17	$9 2\frac{3}{4}$	$2\frac{1}{2}10$ $3\frac{1}{4}11_{M}^{P}$	550 3	53 Sgr	$\frac{10}{20}$
8324S-	541 I 6 ($ 10 3\frac{1}{3}$	4	4	40 Sgr	21
84 25 M.	539 н6(537 н6($5 12_{\text{M}}$	54 P 5	29 Sgr	22
85 26 Tu. 86 27 W.	536 н6 ($ \begin{bmatrix} 10 & 5\frac{1}{4} \\ 0 & 11 & 6\frac{1}{4} \end{bmatrix} $	$ \begin{array}{c cccccccccccccccccccccccccccccccccc$	49 P 6	20 Cap	23
87 28 Th.			$ 11 0_{\overline{4}}$	$egin{array}{c c} 7 & 2 \\ 7rac{3}{4} & 3 \end{array}$	38 P 7 23 0 8	12 Cap 04 Aqr	
88 29 Fr.	532 н60			$8\frac{3}{4}$ 4		57 Aqr	$\frac{25}{26}$
89 30 Sa.	530 н 60)8 J 12 37	11 9	$9\frac{1}{2}$ 4		48 Psc	$\frac{20}{27}$
90 31 S-	529 н6.0)9 J 12 40		$ 10\frac{1}{4} 5_{M}^{A}$	$06 ext{ } extsf{k} 10^{\text{A}}$		28

19	
MARCH hath 31	l days. [1946]
The hill that stands upon our i Was first to know It gave In a small chirp that found a Lonely and sweet, to thaw the A small word for so large a mo But in the stillness, widely hee From dawn of day to dusk of To startle listeners, everywher The hill was first — but how t Now, everybody knows!	the word, way, air — puth, ard, day,
X Aspects. Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
1 Fr. Sl. David. C. J. Swan Hol. [9.6] Far 2 Sa. Torger D. Torkle Hol. [10.1] k. 1945 (3rd) Texas [9.2] from 3 F Quinqua. S. (shroves.) [10-spring- 4 M. Mindiri $\delta Q C. \Box \odot \odot . \delta Q C. [10.7]$ 5 Tu. Mardi Gras Day Y Peri. CEq. [10.8] 6 W. Ash UHed. The Ides [10.6] [10.6] 7 Th. 1944 $\delta Q C. \Box \odot \odot . \delta Q C. [10.7]$ 5 Tu. Mardi Gras Day Y Peri. CEq. [10.8] 6 W. Ash UHed. The Ides [10.6] [10.6] 7 Th. 1945 Calif. Tides [10.6] [10.6] 7 Th. 1945 Calif. Tides [10.6] [10.6] 8 Fr. Yanks cross Tides [10.6] [10.6] [10.6] 9 Sa. $\Psi EI. E. \delta \odot C. Tides [10.6]$	It's high time that you waded through the seed cata- logues and put in your orders. These are not things to be entered upon lightly but with due consideration for the seeds still on hand (not over two years old), and there are sure to be some. The annual waste of seed due to extrava- gant ordering is enormous— and needless. Let Mother have the last word on the flowers. In considering your cash crops, it is usually wise to plant more heavily of crops that were low-priced the pre- vious year. Follow your mar- kets closely by radio and bul- letin and draw on your own conclusions—not those of your neighbors. You should have finished pruning your fruit trees by the end of the month. Piek up and burn all prunings as you go. April may be too late. Many large orchards use tractor drawn incinerators (they can be homemade) to burn the limbs directly they are cut. A great time saver. Mud and haste make waste. Don't be in too much of a hurry to get your manure out if the ground is soft, but have a thought to draining or graveling over the mucky spots in the barnyard and around the manure pile. Don't roll your lawn till the first sogginess is out of it, other- wise it will pack the grass roots too hard. Wood cut now will be well dried for next winter, though it will not split so well as that cut carlier.

1946]	APRIL,	Four	тн М.о	NTH.								
A	ASTRONOMICAL CALCULATIONS.											
d Days. 0 / 1	Days. 0 /	Days.		ays.	0 /	Days.	0 /					
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	13 14	$\begin{array}{c c} 9 & 00 \\ 9 & 22 \end{array}$		11 08 11 28	$\begin{array}{c} 25 \\ 26 \end{array}$	13 09 13 28					
3 5 16 4 5 39	9 7 32	15 16	9 43		11 49 12 09	27 28	13 47					
∞ 5 6 01	11 8 16	17	$\begin{array}{c c} 10 & 04 \\ 10 & 26 \end{array}$	23	12 29	29	$\frac{14}{14} \frac{06}{25}$					
0 6 6 24	12 8 38	18	10 47	24	12 49	30	14 44					
New Moo												
D First QuaO Full Moo												
C Last Quar							W.					
KEY LETTERS REFER TO (11 - 1 117 -		12, FOR AL			- 1-	NGLAND.					
Year Year Month Month Month Month Meek Week	Sets. Z D	of in Section and	Boston. Morn Eve	Rise	Key	ouths.	Age S. C					
	[h. m. h. [6 10 J 12	<u>m. m.</u> 43 12	$\frac{h}{10\frac{1}{2}}$ 10 $\frac{3}{4}$	5 ^A 3	$4 _{J} _{1}$	$\frac{\text{m.}}{1_{M}^{A}30}$ A	ri 29					
92 2 Tu. 525 H	6 11 ј 12	46 12	11^{-1114}	sets	- 1	2 в 22 А	ri 1					
93 3 W. 523 H 94 4 Th. 522 H	12 1 11	$\begin{array}{c c} 49 & 13 \\ 51 & 13 \end{array}$	$\begin{vmatrix} 11\frac{1}{2} \\ - \\ 0\frac{3}{4} \end{vmatrix}$	8 ^P _M 1 9 2		$egin{array}{cccc} 1 & 15 \ 1 \ 2 & 10 \ 1 \ \end{array}$						
95 5 Fr. 520 G	614 к 12	54 13		10 4		$\frac{2}{3}$ $\frac{10}{07}$ G						
96 6 Sa. 518 G		57 13	$2^{-} 2^{-}_{\overline{4}} $	11 ^P 5		4 07 G						
97 7 S 5 17 G 98 8 M. 5 15 G		$\begin{array}{c c} 00 \\ 03 \\ 14 \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		1 11	$5 07 0 \\ 6 06 0 $						
99 9 Tu . 5 13 G		06 14	5 5	1 5		7 03 L						
10010 W. 512G		08 15	$6\frac{1}{4}$ 7	24		7 56 L						
101 11 Th. 5 10 G 102 12 Fr. 5 08 G			$egin{array}{c c} 7 \hat{1\over 4} & 8 \hat{1\over 4} \\ 8 \hat{1\over 2} & 9 \end{array}$	$\begin{array}{c c} 3 & 2 \\ 3 & 5 \end{array}$		8 46 V 9 32 V	1 1					
103 13 Sa. 507 G	623 к 13	17 15	$9\frac{1}{4}$ $9\frac{3}{4}$	1	9 L 1							
10414 S. 505G			$10 10\frac{1}{2}$	44	$\frac{3}{J}$ $\frac{1}{J}$							
105 15 M. 503 F 106 16 Tu. 502 F	626 L 13 627 L 13	$\begin{array}{c c} 22 & 16 \\ 25 & 16 \end{array}$	$\frac{10\frac{3}{4}}{11}\frac{11\frac{1}{2}}{11\frac{3}{4}}$			$\frac{1}{M}$ 40 L	ib 14					
107 17 W. 500F	628 L 13	28 16	$11\frac{3}{4}$	7 ^P 4		2A22S	co 15					
108 18 Th. 4 59 F	629 L 13		$0\frac{1}{4} 0\frac{3}{4}$	84	$6 \mathbf{N} $	1.04 S	co 16					
109 19 Fr. 457 F 10 20 Sa. 455 F	6 30 L 13 6 31 L 13	$3317 \\ 3617$	$\begin{array}{c c} 0\frac{3}{4} & 1\frac{1}{4} \\ 1\frac{1}{2} & 2 \\ \end{array}$	9 4 10 4	70 6 p	$\begin{array}{c} 1 & 49 \mathrm{S} \\ 2 & 35 \mathrm{S} \end{array}$	$\begin{array}{c} \mathrm{co} & 17 \\ \mathrm{gr} & 18 \end{array}$					
11121S.454F	632 L 13	38 17	$-2 + 2\frac{3}{4}$	11.4	$1 \mathbf{P} $	3 23 S	$\operatorname{gr} \left[\begin{array}{c} 10\\ 19 \end{array} \right]$					
112 22 M. 452 F	633L13	41 17	$2\frac{3}{4}$ $3\frac{1}{2}$	-		4 13 C	20					
113 23 Tu. 4 51 F 114 24 W. 4 49 E	636 M13	44 18 46 18	$\begin{array}{c c} 3\frac{1}{2} & 4\frac{1}{4} \\ 4\frac{1}{2} & 5\frac{1}{4} \end{array}$	12 [▲] 3 1 1		5 03 C 5 55 A						
115 25 Th. 448E	637 м 13	49 18	$\begin{array}{c c} 1_2 & 0_4 \\ 5\frac{1}{2} & 6\frac{1}{4} \end{array}$	1 5	8010	646A						
116 26 Fr. 446 E	638 м13 с 20 м12	52 18	$-6\frac{1}{2}$ $7\frac{1}{4}$	2 3	$2 \mathbf{N} $	7 37 A	$\operatorname{qr} 24 $					
117 27 Sa. 445E 118 28 S_ 444E		57 10	$\begin{array}{c c} 7\frac{1}{2} & 8 \\ 8\frac{1}{4} & 8\frac{3}{4} \end{array}$	$\begin{array}{c c} 3 & 0 \\ 3 & 3 \end{array}$		8 27 P 9 16 P						
119 29 M. 442E	641 м 13	5919	$-9\frac{1}{4}$ $-9\frac{3}{4}$			0.07 A						
120 30 Tu. 441 E	642 м 14	02 19	$10^{-1}10^{\frac{1}{2}}$	4A2		$O_{M}^{\Lambda}59$ A						



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KE	Y LET	TERS R	EFER	то с	ORRE	CTION	IS TA	BLE.	PAGE	12, F	OR AL	L POIN	ITS O	UTSI	NEW	ENGLA	ND.
ay of	Day of Month	he of		Key			Lei	ngth of	Sun Past.	Ful Bo	l Sea. ston. a Eve	D		6	D	D's	000's Age
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127	1 -	1	432	4	65		14		1 -1	$\frac{2}{3^{3}}$	$4\frac{1}{2}$	12 ^A / _M	14 P	11		Leo	6
128			$\frac{1}{4}30$	1	65		14		$\frac{1}{20}$	$4\frac{4}{3}$	$5\frac{12}{5\frac{1}{2}}$		24 0			Leo	7
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134	1	Tu.			65			34			$10\frac{1}{2}$		56 G			$\operatorname{Sco}_{\widetilde{a}}$	14
135		W. Th.	422 421		$\begin{array}{c} 6 \ 5 \\ 7 \ 0 \end{array}$			36			$11\frac{1}{2}$	TISE			м 46	Sco	15
130	1.00	Fr.	$[4\ 2]$ $[4\ 2]$		70770		14	$\frac{38}{40}$	$\frac{20}{20}$	$11\frac{3}{4}$	01		390		2421	d	$\frac{15}{16}$
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139	1 4 4	S.	418		70	1	11	44		1	$1\frac{1}{2}$		30 P			Sgr Cap	$117 \\ 18$
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141	21	Tu.	417	C	70	50	14	48	20	$1\frac{1}{2}$ $2\frac{1}{4}$	$\frac{2}{3}^{4}$	11 ^{PE}				Cap	$\frac{10}{20}$
142	22	W.	4.16	C	70	60	14	50	20	3	$3\frac{3}{4}$		-	4			$\overline{21}$
143	23	Th.	415	6 C	70	70	14	52		4	$4\frac{3}{4}$	$ 12_{M}^{AS}$	35 r	1 5	5 30		22
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146	20	S.	418	B	$\begin{bmatrix} 1 \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\$	9P	14	57	19	$6\frac{3}{4}$	$7\frac{1}{2}$	2()1 J	7		Ari	25
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		Tu.		B	$\frac{71}{71}$	1 P	15	00	19	834	9		55 G	0		Tau	
149	30	W.	$\frac{411}{410}$	B	$\frac{71}{71}$	2P	10	01	19	$9\frac{3}{4}$	10		27 E	10	32	Tau	28
150	31	Th. Fr.	4 10	B	$\frac{71}{71}$	OP 1 D	$15 \\ 15$	04	19	10克 11		set			M32	G'm	29
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	MAY hath 31	days. [1946
	Now, orchard-bridals on And who remembers how The tortuous root, was r In labors meant for mor Too brief, inconsequenti That's on its way to bei	v the root, never still, e than this al kiss
D.M. D.W.	Aspects, Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
1 W. 2 Th 3 Fr. 4 Sa. 5 F 6 M. 7 Tu 8 W. 9 Th 10 Fr. 11 Sa. 12 F 13 M. 14 Tu 15 W. 16 Th 17 Fr. 18 Sa. 19 F 20 M. 21 Tu 22 W. 23 Th 24 Fr. 25 Sa 26 F 27 M. 28 Tu 29 W. 30 Th	Surrender 6:01 P.M. & Gr. Hel. [2:5 at Rheims EWT & Lat. S. [3:6 Good mess of dandelions [3:2] Warms Hol. Tides [3:9 Snowed last & U.C. Tides [3:0 year & Mother's & & & & & & & & & & & & & & & & & & &	are greatly exaggerated. This, of course, is but small list of the edible ined bles to be found in our wood and fields this time of yea but still it is long enough be dangerous. Few, if any us, know what we're lookin for and so are likely to brows on the Lord knows what. It a lot safer to go back to th old diet of beans and spinad till the radishes come up. H

1946]		JI	JNE,	SIXT	н Мо	NTH.					
ASTRONOMICAL CALCULATIONS.											
d Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /	Days.	0 /		
Declination.	22N.02 22 10	7 8	22 45 22 50	$\begin{array}{c} 13\\14 \end{array}$	23 12 23 16	19 20	23 20 23 20		23 24 23 22		
allo 3	22 18	9	22 55	15	23 18	21	23 27	7 27	$\begin{vmatrix} 23 & 22 \\ 23 & 20 \end{vmatrix}$		
	$ \begin{array}{ccc} 22 & 25 \\ 22 & 32 \end{array} $		23 00 23 05	16 17	23 21 23 23	22 · 23	23 27 23 26		23 18 23 15		
	2 2 38		23 09	18	23 24	24	23 2		23 11		
D F	irst Qu	arter,	5th	day, 1	11 h. 0	6 m.,	mor	ning, l	E.		
O F	ull Mo	on, 14	lth da	ay, 1	h. 4 <mark>2 1</mark>	n., ev	venin	g, Ĕ.			
	ast Qu										
	${ m [ew Mo}$ s refer to	· · · ·		- ·		· · · · ·		<i>Gi</i>			
Provide the second seco			> Lei	ngth gt		· D	1 11		's loon's		
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156 5 W				_	$3\frac{1}{4}$ 4	:	· [ir 6		
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158 7 Fi 159 8 Sa							04 K	7 39 L	ib 8 ib 9		
160 98	5_ 4 06 1	в 7 20	р 15	14 17	$ 7\frac{1}{2} 8$		39 н	8 20 I	ib 10		
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162 11 T 163 12 W	u.4061	11					24 F 50 E 1	$944 _{S}$ 1029 _S			
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165 14 F			$ \mathbf{Q} 15$	17 16	$11\frac{1}{4}11$	$\frac{1}{4}$ rise	s -				
16615 Sa				17 16	$11\frac{3}{4}11$	$\frac{3}{4}$ $S_{M^2}^{PC}$		$ 2_{M}^{A}05 S$			
167 16 S	4 06	$\begin{array}{c c} 1 & 7 & 23 \\ 1 & 7 & 24 \end{array}$	Q 15 0 15	$1816 \\ 1815$	$\begin{bmatrix} - & 0 \\ 0 & 1 \end{bmatrix}$	$\frac{1}{2}$ 9 1 9 5	15 P] 58 P]		Cap 16 Cap 17		
169 18 T	u. 4 06 /	724	Q 15	18 15	$1\frac{1}{4}$ 1	$\frac{3}{4}10$	36 o		qr 18		
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173 22 Sa	a. 4 06	725	Q 15	1914 1914		12 ^A)2J	5 02 P 5 49 P			
174 23 8	4 07	7 25	Q 15	1914	$5\frac{1}{4}$ 6		28 T	6 37 A	ri 24		
175 24 M	.4074	1725	Q 15	18 14	$\begin{bmatrix} 6\frac{1}{4} & 6\\ 71 & 7 \end{bmatrix}$	312 E	54 н	7 26 A			
170 20 1 177 26 W	1.4071	$\frac{1}{7}\frac{7}{25}$	Q 15 0 15	18 14 18 13	81 8	$\begin{array}{c} \frac{3}{4} 12 \\ \frac{3}{4} 12 \\ \frac{3}{4} \\ \frac{3}{4} \\ 1 \\ \frac{1}{2} \\ 2 \\ \frac{1}{2} \\ 3 \\ \frac{1}{4} \\ \frac{1}{2} \\ 3 \\ \frac{1}{4} \\ \frac{1}{2} \\ \frac{1}{2} \\ \frac{3}{4} \\ \frac{1}{2} \\ \frac{1}{2} \\ \frac{1}{2} \\ \frac{3}{4} \\ \frac{1}{2} \\ \frac{1}{2}$	2 F	8 17 T 9 13 T	Cau 2 6 Cau 27		
178 27 T	h.4084	1726	$ _{Q} _{15}$	18 13	$9\frac{1}{9}9$		35 C 1		$\frac{1}{27}$		
179 28 F	r. 408	1726	$ \mathbf{Q} 15$	17 13	$10\frac{1}{4}10$	$\frac{1}{2}$ $3_{\rm M}^{\Lambda 2}$	23 A 1	$1_{M}^{A}18C$	2m 29		
167 16 (C) 168 17 M 169 18 Tu 170 19 W 171 20 Ti 172 21 Fi 173 22 Sa 174 23 (C) 175 24 M 176 25 Tu 177 26 W 178 27 Ti 179 28 Fi 179 28 Fi 180 29 Sa 181 30 (C)	4091	3 7 25	P 15	17 13	$11\frac{1}{2}11$	$\frac{1}{4}$ set	s – 1	$\begin{array}{c c} 1_{M}^{p}22 & 0 \\ 1_{M}^{p}25 & 1 \end{array}$	Cnc 1		
181 30 8	-# 091	8 17 25	P 15	10 13	- 0	9_{M}^{P}	$2 \mathbf{P} $	$1_{M}^{P}25 1$	leo 2		

JUNE hath 30 days. [1946 The sleep ... the riot ... on the hill, Was summer's self; that is to say, The alternately too loud and still, The bloom that flowers and falls away, The indolent and violent will, Is she whose contradictory fame Subsides into a single_name. Aspects, Holidays, Heights of High Water, Weather, etc. H B Farmer's Calendar. Nicomede. g in 69 C. C high 11.9 1|Sa. This is the month of young Sun.a. As. 6hC. {11.7 Fine. love and young leaves. Look for trouble on both. Get your Tonana R. 6 \$. Jefferson Davis {11.8 breaks up 6 \$. Day {9.7 3 M. sprays ready. Tides {10.7 9.3 Spell N E appie crop {10.1 frosted 1945 {9.1 Young fruit trees should have a stout circle of mesh wire around them when set Rome, 63C. 4 Tu. St.Boniface. Shev-5 W. out to guard against mice and rabbits. Cut the wire a foot or more in height, about ten Great Invasion, Tides \$ 9.5 Th. 6 of 1944 Laurel blooms in N.H. Tides {9.0 7 Fr. rain. inches wide, and roll it very tightly before placing around the tree. If this is done, the wire will recurl naturally— C Eq. 6ΨC. 630. 64C. {3.7 8 Sa. Whit S. Pente-9 F Tides { 8.6 9.1 cost whe will recurl naturally-just tightly enough. Stuff ex-celsior 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 Tides {8.4 9.3 Warm Guantanamo Bay, 10 M. 1898 1 Tu. St. Ballabas. & Gr.Hel. Attu, Tides {9.6 2 W. Ember & Y Lat. N. 1943 Tides {9.6 Days & P L. C Apo. {9.6 . and 13 Th. 12, 14, 15 Tides $\begin{cases} 8.4\\ 9.7 \end{cases}$ showers. of the tree. Destroy shavings or excelsior after eggs are C Total Q Gr. Hel. Tides { ... Flag 14|Fr. Day. laid. 15 Sa. Ist rob. bombs 2 Stat. in Si. Bernard { 9.8 Crops to be harvested in fall **UtinitySun.** Chides Father's 9.8 Battle of Bunker Ψ in R.A. (8.8 Hill, 1775 Ψ in R.A. (8.3 I Bat. Philippine Sea, (9.6 1944 (8.8 (8.8 growing)) should be planted early this month: squash, turnip, cab-16 F bage, etc. When resetting young plants, such as cab-bage, be sure to choose the late afternoon. It is well to place two or three wooden 17 M. 18 Tu. St. of Liberty arr. Tides 8.8 weather, U.S. 1885 19 W. Th. Corpus Christi, Guam, Hol. Tides (9.8 $\mathbf{20}$ shingles (save your old ones for this purpose) upright on the south to the west side Okinawa SUMMER Oers Of. Tides {9.1 BEGINS. Oers Of. Tides {8.6 21 Fr. the south to the west sides of the plants. This will pro-Petain Treaty, Tides {9.0 ould be hot. 22 Sa. tect them from the hottest lst. S.af. C. 62 h. CEg. Tides {9.0 23 F rays of the sun. Nat. John the Baptist Saiem Fire, It's the early bird that gets Tides {9.1 9.9 24|M.Thunderyour strawberries, so cover them with cheesecloth in the Tides { 9.2 25 Tu. storms. 1914 evening and remove after a.m. when the leaves h United Nations Charter sgd. 1945 ten Tides { 9.5 $\mathbf{26}$ W. have Cherbourg, 6 3 C. C Perl, Tides { 9.7 dried off. 27 Th. 1944 WWI beg. 1914 Don't spare the hoe. Your g ar d en c an 't h av e t o o much cultivation this month. Tides 11.7 $\mathbf{28}$ Fr. **□Ψ**⊙. St. Peter & St. Paul. C runs O Par. 10.0 29 Sa. Keep the weeds down now 3rd S.af. 伊. るた C. る な C. {11.3 and from now on you'll have 30 F clean sailing-maybe. Coldest June on record was in 1897.

1946] JULY, SEVENTH MONTH.														-1				
ASTRONOMICAL CALCULATIONS.																		
5 Days. 0 / Days.								/		.ys.	0		Days.	0	/	Day		
Declination.								22 37 22 30		1 3		$51 \\ 43 \\ 1$	19 20	20 20	$\frac{53}{42}$	25 26		$\frac{42}{29}$
clir	2 23 03 3 22 59		1	1 1		$\frac{30}{23}$				$\frac{1}{33}$	20	20	30	27	· · · · · · · · · · · · · · · · · · ·	$\frac{29}{15}$		
De				10	22	16			21	24	22	20	19	28		02		
0's		-	2	$\frac{48}{43}$		11 12	22 22	08 00	1 7	17 18		14 04	23 24	20	$\frac{07}{54}$	29		$\frac{48}{33}$
'	1	<u>v 12</u>		410	1		44	00			121	041	21	110	04	1 00		
	D First Quarter, 6th day, 12 h. 15 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. 																		
	•	Ne	ew	M	100	on,	$\mathbf{28t}$;h (lay	, 6	h. (53	m., 1	mor	nin	ıg, l	E.	
KEY				R TO		RREC	TION	S TAI	BLE,	PAGE			L POIN	rs ou	ISIDE	NEW	ENGLA	ND.
Day of Year	ay o onth	Day of the Week.). Lises.	Key	Set	Key	D	ngtn of Nys.	Sun Sun	Full Bost Morn	ton.	n Set	s. Kev	R	D uths.	D's	Moon's Age
		IA B	h.	m.	1_1	h. 1			_ <u>m</u> .	<u>m</u> .	<u>n</u> .	<u>† n.</u>	<u> n</u> ,	m.][h.	<u>m</u> .	Place	M
182			1			$72 \\ 72$	5 P 5 P		$16 \\ 15$			$\begin{vmatrix} 1 \\ 1 \end{vmatrix}$	9 ^P _M	54'0			Leo	$\begin{vmatrix} 3 \\ 4 \end{vmatrix}$
183 184	$\begin{vmatrix} 2\\ 3 \end{vmatrix}$	Tu. W.		10 11		$7\frac{2}{72}$		15_{15}		$\begin{vmatrix} 12 \\ 12 \end{vmatrix}$		$\frac{1}{2}$	$\frac{3}{4}10$	28 n 56 l	11		Leo Vir	$\begin{vmatrix} 4\\5 \end{vmatrix}$
185	0 4	Th.				$7\frac{2}{2}$				$12 \\ 12$		$\begin{vmatrix} 2\\ 3 \end{vmatrix}$		20 J	4			$\begin{vmatrix} 5\\ 6 \end{vmatrix}$
186	. –			12	1 1	$7\overline{2}$								431	5		Lib	7
187				13		$7\overline{2}$				11	$4\frac{3}{4}$				$\ \check{6}$		Lib	8
188	7			13		72		15		11		6		05 E			Sco	9
189	8	M.	4	14		72		15	10	11	$6\frac{3}{4}$	7	$\frac{1}{12}$	28 F	7		\mathbf{Sco}	10
190	9	Tu.				72		15	09		$7\frac{3}{4}$	8	12	53 E	8		Sco	11
191		1		15		72		15		11	$8\frac{1}{2}$			22 d	9		Sgr	12
192	11	Th.				$\frac{72}{2}$					$9\frac{1}{2}$	9		55 C	10		Sgr	13
193						$72 \\ 72$				1	10^{10}	10		34 B	10		Cap	
194				$\frac{18}{18}$		$rac{7}{7}rac{2}{2}$			$04 \\ 02$		$10\frac{3}{4}$			20в		№42	Cap	15
195 196			1	$10 \\ 19$	I F	$7\frac{2}{2}$		$15 \\ 15$	$\frac{02}{01}$	$10 \\ 10$	$11\frac{3}{4}$	$11\frac{1}{2}$		37 o	12	122	Aqr	16
				$\frac{10}{20}$		$7\overline{1}$				$10 \\ 10$	$0\frac{1}{4}$	0		10 N			Aqr	17 17
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204												$6\frac{1}{2}$		- E			Tau	
205 206		Th.	4	28	C	$\frac{71}{71}$	20	$14 \\ 14$	40	10	$\begin{bmatrix} 7\\ 8 \end{bmatrix}$	0			0		G'm	
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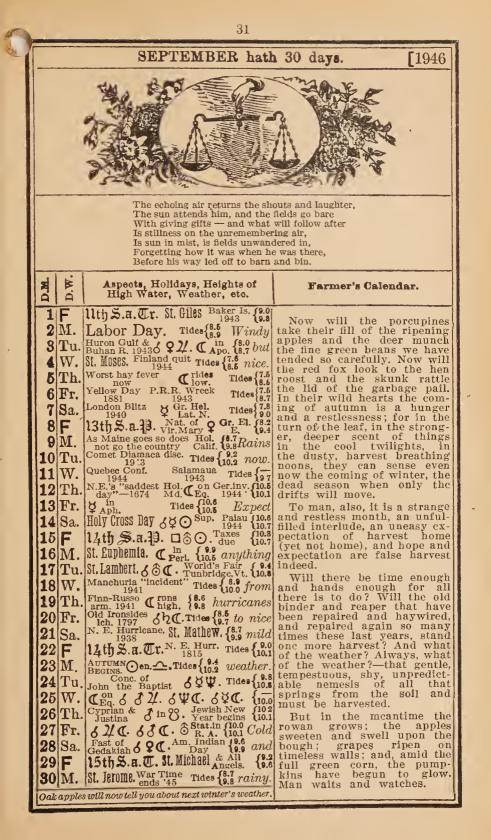
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	27	
	JULY hath 31	days. [1946]
	Where is the brown and Earth that he looked upo Just here just here is He stood in an earlier su And dreamed what well r His dream is what you se	on? where a, might be
D.M. D.W.	Aspects, Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
1 M. 2 Tu. 3 W. 4 Th. 5 Fr. 6 Sa. 7 F 8 M. 9 Tu. 10 W. 11 Th. 12 Fr. 13 Sa. 14 F 15 M. 16 Tu. 17 W. 18 Th. 19 Fr. 20 Sa. 21 F 22 M. 23 Tu. 24 W. 25 Th. 26 Fr. 27 Sa. 28 F 29 M. 30 Tu.	Oliver Blood of $\mathcal{G} Q \mathbb{C}$. [11.6 Vari- Plunkett Christ $\mathcal{G} Q \mathbb{C}$. [11.6 Vari- VISIL Of MaIY. WWI officially [11.2 able $\mathcal{G} a \mathbb{C}$. \bigoplus Apph. [9.6 with signs INDEFENDENCE TIdes [9.1 of rain. DAY Gr. \mathcal{G} In \mathcal{G} . \mathcal{G} C. \mathcal{G} fain. DAY Gr. \mathcal{G} In \mathcal{G} . \mathcal{G} for an. \mathcal{G} \mathcal{G} In \mathcal{G} . \mathcal{G} \mathcal{G} \mathcal{G} . \mathcal{G} for an. \mathcal{G} \mathcal{G} In \mathcal{G} . \mathcal{G} \mathcal{G} \mathcal{G} for an. \mathcal{G} \mathcal{G} In \mathcal{G} . \mathcal{G} \mathcal{G} \mathcal{G} for an. \mathcal{G} \mathcal{G} In \mathcal{G} . \mathcal{G} \mathcal{G} \mathcal{G} for an. \mathcal{G} \mathcal{G} In \mathcal{G} . \mathcal{G} \mathcal{G} \mathcal{G} for an. \mathcal{G} \mathcal{G} In \mathcal{G} . \mathcal{G} \mathcal{G} \mathcal{G} for an. \mathcal{G} \mathcal{G} in \mathcal{G} for \mathcal{G} . \mathcal{G} for an. \mathcal{G} \mathcal{G} in \mathcal{G} . \mathcal{G} for \mathcal{G} . \mathcal{G} \mathcal{G} in \mathcal{G} . \mathcal{G} for \mathcal{G} . \mathcal{G} \mathcal{G} in \mathcal{G} . \mathcal{G} for \mathcal{G} . \mathcal{G} \mathcal{G} in \mathcal{G} for \mathcal{G} . \mathcal{G} in \mathcal{G} in \mathcal{G} in \mathcal{G} in \mathcal{G} in \mathcal{G} . \mathcal{G} in \mathcal{G} . \mathcal{G} in \mathcal{G} and \mathcal{G} in \mathcal{G}	whole back? Save your grass cuttings for the compost heap. Store away in a dry mouse-proof place any seeds you have not used this year. Keep your fer- tilizers under cover. Put away your gardening tools each time you have used them, and see that Junior does the same. He will remind you. Dried alfalfa, mullein, corn- silk and raspbcrry leaves are now in season and will insure you a hot time in the old pipe to-night. But you could do worse when it comes to rolling your own.

		20											
1946] AUGUST, EIGHTH MONTH. ASTRONOMICAL CALCULATIONS.													
· IDava LO / ID		1 1	ATIONS. Days. 0 /	Days. 0									
I I <thi< th=""> <thi< th=""> <thi< th=""> <thi< th=""></thi<></thi<></thi<></thi<>		$\frac{3}{14}$ $\frac{3}{14}$ $\frac{1}{43}$	$\frac{19}{19}$ 12 50	25 10									
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2 6 16 45	12 15 01 1	8 13 09	24 11 10	30 9	03								
D First Quarter, 4th day, 3 h. 55 m., evening, E.													
O Full Moon, 12th day, 5 h. 26 m., evening, E.													
C 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 12, FOR ALL POINTS OUTSIDE NEW ENGLAND.													
Day of Rear Month Day of The Week Week Key	Sets. h. m.	Boston.		D 'S ouths. m. Place	Age								
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214 2 Fr. 4 36 D	7 04 N 14 27	$ 10 2\frac{1}{2} 3$	10 08 н	4 12 Lib	5								
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	6 00 n 14 21 6 59 n 14 18	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		6 21 Sco 7 06 Sgr	8 10								
	6 57 N 14 16			7 54 Sgr	11								
	656 N 1414	$10 8 8\frac{1}{4}$	12 _м 30 в 8	8 44 Car	1!								
	6 55 n 14 11	$11 8\frac{3}{4} 9$	1 13в 9	9 35 Car									
	653 м 1409	$11 \ 9\frac{1}{2} \ 9\frac{3}{4}$		1001									
	6 52 м 14 06 6 51 м 14 04	$1110\frac{1}{4}10\frac{1}{2}$		1 _M 18 Aqr	15								
	649 m 1404	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c} rises - \\ 7_{\rm M}^{\rm P}42 \ {\rm M} \ 12 \end{array}$	$2_{M}^{\Lambda}08$ Aqr	16								
	648 m 1359			$2_{M}^{\Lambda}08$ Aqr 2 57 Psc	17								
	646 м 1357	$12 0^{\frac{3}{2}} 1$	8 36 J		18								
	645 м 1354	$ 12 1\frac{1}{4} 1\frac{1}{2}$	9 01 н 2	2 32 Ari	19								
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235 23 Fr. 4 58 F	634L 1336	13 $7\frac{3}{4}$ $8\frac{1}{4}$	12 <u>*</u> 52 A 8	8 52 Cno	26								
236 24 Sa. 4 59 F	633L 13 33		1 59 A 9										
$23725 S_{-} 500 F_{-}$ $23826 M. 501 F_{-}$	6 20 r 12 28			50 Leo	28								
23927 Tu. 503 F	6 28 L 13 25	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	sets – 11 7 ^p 20 n 12	$_{M}^{A}44$ Vir P34 Vir	$29 \\ 1$								
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243 31 Sa. 507 G	5 21 K 13 14	$16 \ 2 \ 2\frac{1}{2}$	$8_{M}^{P}56 F$ 3	Mal Sco	5								

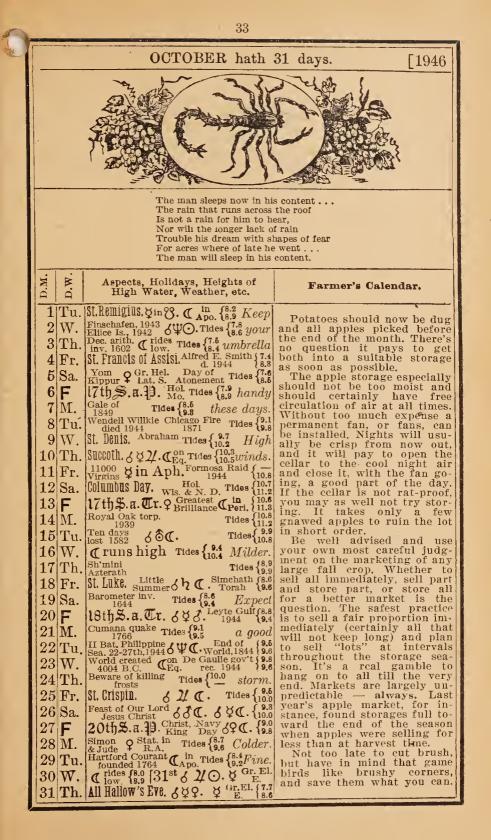
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The heavy-headed grain. Yearn earthward and would be At home azahn, and sleep,— Being wearied of the sun. At home azahn, and sleep,— Being wearied of the sun. At home asking nothing more Than that the cyclic span Return where it began.Image: State of the sun. Being spent of all desire i Being spent of all desire i Aspects, Holldays, Heights of High Water, Weather, etc.Farmer's Calendar.Image: State of the sun. Coll C. C and State of the sun. Coll C. C and State of the sun. State of the sun. Tornadose, Tudes [3.5]A good day is likely just a good day — not a "weather month. Be ready for that long sond as water holes. Tansfast. Tates [3.5]A good day is likely just a good day — not a "weather month. Be ready for that long is or become too muddled and staranant. Would it be pend on natural water holes. Tansfast. Tates [1.5]A good day is likely just a good day is likely just a good day — not a "weather month. Be ready for that long tor become too muddled and staranant. Would it be pend on natural water holes. Tansfast. Tates [1.5]Tu. Tansfast. Tates [1.5]Clear Tansfast. Tates [1.5]If the sun a prayer for tor the sun aprayer for tor wheat a good hose will reach is bit S. at C. I. My feyer seasant [2.5]Tu. K. Statienette. Ture [1.5]St. Laurence. Tates [1.5]Clear the sun aprayer for the sun aprayer for to be of years. but look hat a good hose will reach is state the sun aprayer for to be of years. but look hat a good hose will reach to reach of a sun aport of the sun aprayer for transfast. The sun aprayer for the sun water supply?The Stip S. at C. L. My feyer sea		
AHigh Water, Weather, etc.Lannes Day. Hol.1Th.Lannes Day. Hol.for the formation of the second day is likely just a2Fr.6 2/4 C. C for 6 & Ø O Int. for a formation of formations.for the formation of formatio	The heavy-headed grai Yearn earthward and v At home again, and sie Being wearied of the si Feeling the weight of s Being spent of all desir And asking nothing mo Than that the cyclic sg	in, would be sep,— un, ky, re ore pan
 2 Fr. 3 2 μ (C. Condot of the second seco	Aspects, Holidays, Heights of High Water, Weather, etc.	Farmer's Calendar.
29 Th. C Eq. 54C. 66C. Tides 10.6 you want natural reforesta tion to take place. A few	2 Fr. $\beta \angle \angle C$ $(\Box e_{0}, \beta \lor O \operatorname{Int}, \{ e_{0}, \delta \lor O \wr O \operatorname{Int}, \{ e_{0}, \delta \lor O \wr O \wr O \wr O \circ O \circ O \circ O \circ O \circ O \circ O \circ$	and stagnant. Would it be worthwhile to repipe a new trough directly from your main water supply? It is said that a good hose is better than a prayer for rain—but the good rain falls everywhere (when it falls) and the good hose will reach just so far. If you do have a constantly sufficient supply of water and some sound unused pipe, consider making an ir- rigation or sprinkler system that will cover your whole vegetable garden. Have you tried "2-4-D," the new weed killer? It hasn't had a full trial over a num- ber of years, but look into it. anyway, and test it on the weeds in a portion of your corn. There are some good well-tested poison ivy killers on the market. Why let the ivy claim your walls and apple trees any longer? Now is the month when ro- tation of pastures proves its value. There's mighty little feed left in that one big pas- ture, but if it had been divid- ed into four, you would have found more than enough grass

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	• New Moon, 25th day, 3 h. 45 m., morning, E. key letters refer to corrections table, page 12, for all points outside new england.																			
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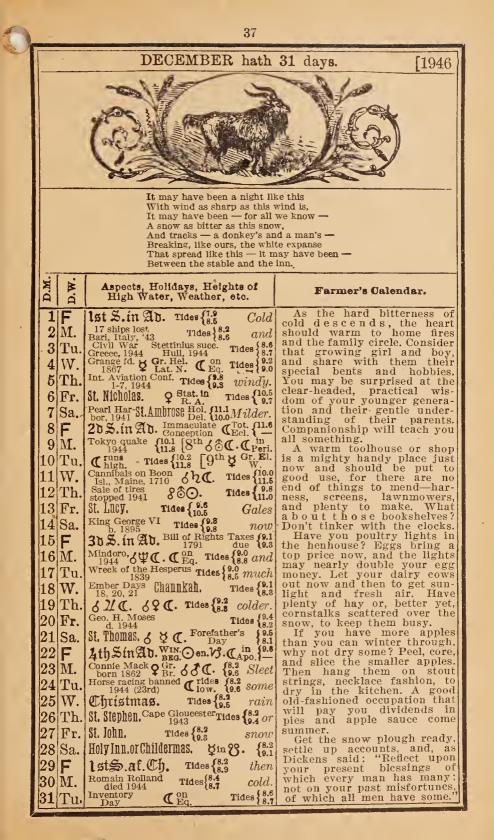
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35 NOVEMBER hath 30 days. **[**1946 Look where the last denuded tree Dreams neither back nor forward, now, Regretting nothing from the bough, And hoping nothing. . . . Here you see The strict infinitive: to be. ₿ M Aspects, Holidays, Heights of High Water, Weather, etc. Farmer's Calendar. A a All Saints. DbO. Lisbon quake {7.6 1|Fr. You will be getting things All Souls. 1st pub. Mass. Tides {7.6 Fine snug Boston, 1788 20th S.a. Cr. St. Hubert. Mission {7.8 about file 2 Sa. and shipshape now about the farm-all comfort-able for winter; mice in the attic, cricket on the hearth, 3 F Eugene Field Tides $\begin{cases} 8.2 \\ 8.8 \end{cases}$ 4 M. then d. 1895 wood in the shed, barn in good A. 1995 Fawkes Gen. Election Tides [8.6 snow Day Day Tides [9.5 snow St. L&OHAIL & QQ. Con Tides [9.6 North Africa invasion [10.2] flurries 1942 flood Tu. 5 st. Leonard. 893. CEq. 6 W .. 7 Th. and It is not good husbandry to Prune your Tides {10.9 8 Fr. grapevines (10.4) It is not good husbandry to plough now, even if you can, as it is too late to sow a crop [10.5] that will cover before winter, and you will only invite the [10.4] taching, washing, and blow-9 Sa. Tides {11.4 stormy 21st S.a. Tr. C in Luther Armistice Day & Stat. in 6 C C $10|\mathbf{F}|$ 11 M. Tides 11.5 land should have some cover C runs high. 12Tu. st. Martin. Indian at this time, even if it be but litter. 13 W. Tides { 9.8 14|Th. 6 h C. 6 \$ J. Tides 10.4 Summer King's Name Day C. E. Dallin Tides [9.1 Belgium d. 1944 USA EUSS R. d. 1944 (9.9) that mulch is not piled too 15|Fr. comes close about your fruit trees. This invites rodent damage. U.S.A. & U.S.S.R. est. rel. 1933 Tides {8.9 9.4 16|Sa. est. rel. 1933 23rb S.af.] 3.69 O Inf. [8.8 along If your climbing roses arc in an exposed position, wrap 17|F 1st heavy Berlin raid Tides (9.0 1943 Tides (9.0 18M now. them carefully in straw and ÿin Q. (^{on}_{Eq.} Tides {8.9</sub> burlap. Bc sure roof gutters and drains are free and clcar. 19 Tu. δΨα. Metz-Belfort h Stat. Tarawa 19.4 Some Check your pumps and 20 W. Tres. at 6 ♀ ⊙ Inf. 624 C. {9.6 temple 6 ♀ ⊙ Inf. 624 C. {9.6 s.6 st. Cecilla. 6 ♀ C. Tides {9.6 s.6 st. Cecilla. 6 s.6 st. Cecilla. 6 st. 6 st. Cecilla. 6 st. 6 st. Cecilla. 6 st. Cecilla. 6 st. Cecilla. 6 st. 6 st. Cecilla. 6 st. 6 st. Cecilla. 6 st. Cecilla. 6 st. 6 st. Cecilla. 6 st. 7 st. 6 st. 6 st. 6 st. 6 st. 6 st. 7 st. 6 st. 6 st. 7 st. 6 st. 7 st. 21 Th. St. Cecilia. & Q C. Tides (8.8 22 Fr. St. Clement. \bigcirc Partial $\bigotimes \boxtimes \mathbb{C}$. Tides $\{ \overline{\mathbf{y}}, \mathbf{g} \}$ sheet metal, dig a pit down and $\widehat{\mathbf{y}}, \mathbf{g} \}$ sheet metal, dig a pit down and $\widehat{\mathbf{y}}, \mathbf{g} \}$ sheet metal, dig a pit down and $\widehat{\mathbf{y}}, \mathbf{g} \}$ sheet metal, dig a pit down and $\widehat{\mathbf{y}}, \mathbf{g} \}$ sheet metal, dig a pit down and $\widehat{\mathbf{y}}, \mathbf{g} \}$ sheet metal, dig a pit down and $\widehat{\mathbf{y}}, \mathbf{g} \}$ sheet metal, dig a pit down and $\widehat{\mathbf{y}}, \mathbf{g} \}$ sheet metal, dig a pit down and $\widehat{\mathbf{y}}, \mathbf{g} \}$ sheet metal, dig a pit down and $\widehat{\mathbf{y}}, \mathbf{g} \}$ sheet metal dig a pit down and $\widehat{\mathbf{y}}, \mathbf{g} \}$ sheet metal and $\widehat{\mathbf{y}}, \mathbf{g} \}$ sheet metal and $\widehat{\mathbf{y}}, \widehat{\mathbf{y}} \}$ sheet metal and $\widehat{\mathbf{y}} \}$ sheet metal and $\widehat{\mathbf{y} } \}$ sheet metal and $\widehat{\mathbf{y} }$ 23 Sa. 25 M. St.Catherine (In Tides 18.5) [24th (8.7) [24th (8.7) [9.8] start a small fire next the rock. Throw the metal over the fire and against the rock dest. 1703 The Portland Tides (8.2 storms) sank 1898 Th. Thalksgivillg. Tides (8.3 storms) for cock with a sledge hammer. Enlarge the seams that appear and before long you will have your boulder in easily moved pieces. 23rd S.a. T. (S. bef. & In. 6 d. inear start SL Catherine C Apo. Tides [8.5 [24th [8.5] rock. Quarter of a lemon squeezed into coffee cup removes "sleeplessness."

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348				05			131			08		$3\frac{1}{2}$	$3\frac{1}{4}$	$11_{\rm M}$	00	G	5		Vir	21
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350				06		-	131			07	20	$5\frac{1}{2}$		12			6		Lib	23
351	17	Tu					131			07_{02}	20	$\begin{array}{c} 6\frac{1}{2} \\ 7\frac{1}{2} \\ 8\frac{1}{4} \end{array}$	7	$\left \begin{array}{c} 1 \\ 0 \end{array} \right $	17		7		Lib	24
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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° -70° F. 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 Hampshire lily-of-the-valley roots of high forcing quality was demonstrated. Fertlle 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 McIntosh 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 difficult or impractical 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 with respect to yield and size of fruit. Color of fruit was better on the sawdust 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 lb. per acre of corn fertilizer as 5-10-5, 5-8-7, or 3-12-6 in hills, or twice as much broadcast; planting 5-7 lb. 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. although as much as 2 tons per acre has been obtained in station tests. Up to 19 tons of silage were made per acre, comparable with corn. Sunflowers have 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 in potatoes: 96 per cent of the farms 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, harvesting costs 11, storage 23, and selling 3 per cent. Cost of production of potatoes averaged \$167 per acre or \$1.70 per barrel 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 breeds were found to average in weight as follows: Barred Plymouth Rock 2.35 lb., New Hampshire 2.75, Barred Plymouth Rock × New Hampshire 3.05, and New Hampshire × Barred Plymouth Rock 3.25 lb. The last group required 3.4 lb. of feed per 1 lb. of gain, w⁺ereas 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. H. SHELDON (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 dis-posal was begun experimentally in December 1939 and has 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 with water twice a week to reduce the odors common to garbage containers. The suggestion is made that when mechanical garbage grinders are again available, they can be used to good advan-tage for introducing garbage into the sanitary plumbing system from which it will flow into the septic tank without a special opening into the tank itself. the tank itself.

A relationship of square feet of floor space per bird and egg produc-tion, E. HOFFMANN 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 meteorology state that thun-der cannot normally 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.

Several notes on "The audibility of thunder" have been collected in the Monthly Weather Review, Mar., 1920, v. 48, p. 162. C. F. Brooks re-ports one of 29 mi.; C. J. P. Cave, one of 39 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 dis-tance 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 processes case, and the apple becomes 'dead' and no longer cdible. The most effective and practical method of arresting these undersirable changes is to suband the apple becomes dead and ho longer child. The most effective and practical method of arresting these undersirable changes is to sub-ject 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° to 31° F. is recommended for longest holding of most varieties. In general, apples will keep about 25 per cent longer at 30° than at 32° F."

1945-6 GAME LAWS

Open seasons include both dates. "Rabbit" includes hare; "quall" includes "partridge" In South; "grouse" includes Canada grouse, sharptailed, ruffed (known as partridge in North and pheasant in South) and all other members of family, except prairie chickens, ptarmigan and sage hens. VERIFY these tables — we can not guarantee them.

o' males only. †Local exceptions. ° Last year's laws.

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Alabarna* Deer RabbitNov. 20-Jan. 10 $\dagger \sigma$ Oct. 1-Feb. 20 Oct. 1-Feb. 20 (Nov. 20-Feb. 121 σ Squirrel Mar. 20-Apr. 15 $\dagger \sigma$ Delaware Rabbit Squirrel Quall PheasantNov. 15-Dec. 31 Sept. 15-Nov. 1 Nov. 15-Dec. 31 σ Alaska Deer MooseSept. 1-Nov. 15 $\dagger \sigma$ (Dec. 1-Lee. 15) (Dec. 1-Lee. 15) 	State and Species	Seasons	Limita. Season	State and Species	Season	Limits. Season
Alaska DeerSept. 1-Nov. $15 + \sigma^2$ (N*-Sept. 1-Oct. $15 + \sigma^2$) (Surrel (Surrel) (Quall (Surrel) 	Deer Rabbit Squi rrel Quall	Nov. 20-Jan. 10 † 3 Oct. 1-Feb. 20 {N-Oct. 1-Jan. 1 S.Nov. 1-Jan. 31 Nov. 20-Feb. 20 [Nov. 20-Jan. 1† 3]	3	Rabbit Squirrel Quali	Nov. 15-Dec. 31 Sept. 15-Nov. 1 Nov. 15-Dec. 31 Nov. 15-Dec. 31 a	
Arizona° Deer Bear AutzonaN-Oct.16-Nov.15 σ Nov. 1-Nov. 304 σ Oct. 16-Nov. 151Turkey RabbitNov. 1-Feb 284 No closed season2Arizona° Deer $\left\{ N-Oct.16-Nov.151 \\ Oct.16-Nov.151 \\ Oct.16-Nov.117 \\ Oct.16-Nov.117 \\ Oct.16-Nov.117 \\ Oct.16-Nov.115 \\ Oct.16-Nov.2117 \\ Oct.16-Nov.2117 \\ Oct.16-Nov.2117 \\ Oct.6-Nov.2117 \\ Oct.6-Nov.2117 \\ Oct.6-Nov.2117 \\ Oct.16-Nov.2117 \\$	Alaska Deer Moose	Sept. 1-Nov. 15† ♂ {N-Sept. 1-Oct. 15 ♂ {Dec. 1-Dec. 15 S. Nov. 16-Dec. 15 ♂	2† 1	Deer Squirrel Quaii Grouse, pheasant	Nov. 20-Dec. 31† 3 Nov. 20-Feb. 15† Nov. 20-Feb. 15† No open season Nov. 20-Feb. 15†	,
Arizona° DeerN-Oct.16-Nov.15 σ S-Nov.1-Nov.30 σ TurkeyIdaho Local seasonsBear Abert Squirrel QualiOct.16-Nov.15 σ Nov.1-Jan.31† Oct.16-Nov.15 σ Oct.16-Nov.15 σ I I I I Deer Arkansas DeerIdaho Deer, elk Antelope Idaho Deer, 15 σ Local seasons I Local seasons 	Carlbou Mountain goat Mountain Sheep Grouse	(Aug. 20-Sept. 30† Dec. 1-Dec. 15† Sept. 1-Oct. 31 Aug. 20-Sept. 5 °°† Aug. 20-Feb. 28† Aug. 20-Feb. 28†	2† 2	Deer Bear Squirrei Quàli Grouse Turkey	Oct. 15-Jan. 15† 3 Nov. 20-Feb. 28† Sept. 15-Jan. 15† Nov. 20-Feb. 28 Nov. 20-Jan. 15 Nov. 1-Feb. 28† No. dised seeson	
Arkansas Deer[Nov. 12-Nov. 17 d]t (Dec. 10-Dec. 15 d]t (May 15-June 15) (Oct. 1-Jan. 1t Dec. 1-Jan. 31 Apr. 1-Apr. 15 d]while) (Quall distance (Quall distance PheasantLocal seasons Local seasonsCalifornia Deer AntelopeAug. 1-Oct. 15 d]t (Oct. 15-Dec. 31) Oct. 15-Dec. 31 Deter dott Dates not set2tGolorado Deer Quall PheasantSept. 17 d]t (Oct. 6-Nov. 21t d)t1 2tColorado Deer Deer Deer Deer DeerOct. 6-Nov. 21t d)t (Oct. 6-Nov. 21t d)t1 1 2tColorado Deer ElkOct. 6-Nov. 21t d)t1 t tBear Quall Dutes not setOct. 6-Nov. 21t d)t1 tBear Quall Dutes not set0 t t Sept. 11 t tBear 	Deer { Bear Rabbit Abert Squirrel Quaii	N-Oct.16-Nov.15 3 S-Nov. 1-Nov. 30† 3 Oct. 16-Nov. 15† Nov. 1-Jan. 31† Oct. 16-Nov. 15† Nov. 16-Nov. 30† Oct. 16-Nov. 30†	1	Idaho Deer, elk Antelopo Bear Goat	Local seasons Local seasons Jan. 1-Dec. 31† Local seasons	
California Aug. 1-Oct. 15 ort 2t Rabbit Nov. 11-Jan. 31 Deer Aug. 1-Oct. 15 ort 2t Squirrel Aug. 15-Nov. 15t Bear Oct. 15-Dec. 31 1 1 Nov. 11-Dec. 11 Bear Oct. 65-Dec. 31 2 Nov. 11-Nov. 20t Quali Dates not set 2 Indiana Nov. 11-Nov. 20t Pheasant Dates not set 2 Indiana Nov. 10-Jan. 10 Aug. 10-Oct. 8 Quali Nov. 10-Dec. 20 Dates not set Deer Oct. 6-Nov. 21t or t Hun. partridge Nov. 10-Dec. 20 Bear Oct. 6-Nov. 21t or t t Indiana Nov. 10-Dec. 20 Bear Oct. 6-Nov. 21t or t t Indiana Nov. 10-Dec. 20 Bear Oct. 6-Nov. 21t or t t Indiana Nov. 10-Dec. 20 Mathematic Nov. 8-Dec. 16 Sept. 1 Sept. 1 Sept. 15-Nov. 15 Nov. 1-Nov. 30 Rabbit Nov. 1-Dec. 31 Oct. 20-Nov. 24 30 Nov. 12-Nov. 30 Nov. 12-Nov. 30 Grouse Oct. 20-Nov. 24 <t< td=""><td>Deer Squirrel</td><td>{ Nov. 12-Nov. 17 37 Dec. 10-Dec. 15 37 { May 15-June 157 { Oct. 1-Jan. 17 Dec. 1-Jan. 31 Apr. 1-Apr. 15 37</td><td></td><td>White) Quail (others) Hun. partridge Sage hen Pheasant</td><td>Local seasons Local seasons Local seasons</td><td></td></t<>	Deer Squirrel	{ Nov. 12-Nov. 17 37 Dec. 10-Dec. 15 37 { May 15-June 157 { Oct. 1-Jan. 17 Dec. 1-Jan. 31 Apr. 1-Apr. 15 37		White) Quail (others) Hun. partridge Sage hen Pheasant	Local seasons Local seasons Local seasons	
Pheasant Dates not set Rabit Nov. 10-Jan. 10 * Golorado Oct. 6-Nov. 21† ♂ † Rabit Aug. 10-Oct. 8 Deer Oct. 6-Nov. 21† ♂ † † Hun. partridge Nov. 10-Dec. 20 Bear Oct. 6-Nov. 21† ♂ † † Hun. partridge Nov. 10-Dec. 20 Bear Oct. 6-Nov. 21 † † Hun. partridge Nov. 10-Dec. 20 Bear Oct. 6-Nov. 21 † † Hun. partridge Nov. 10-Dec. 20 Bear Oct. 6-Nov. 21 † † Hun. partridge Nov. 10-Dec. 20 Bear Oct. 1-Feb. 1 Nov. 8-Dec. 16 Squirrel Squirrel Oct. 28-Oct. 30† ♂ Nov. 1-Feb. 1 Oct. 20-Nov. 24 30 Nov. 1-Nov. 30 Nov. 12-Nov. 14† Grouse Oct. 20-Nov. 24 30 30 Nov. 12-Nov. 30 Nov. 12-Nov. 30 Grouse Oct. 20-Nov. 24 15 Squirrel June 15-Nov. 30 Intermittent 25	Deer Antelope Bear Rabbit Quaji	Sept. 8-Sept. 17 of Oct. 15-Dec. 31† Dates not set		Rabbit Squirrel Quail Pheasant	Nov. 11-Jan. 31 Aug. 15-Nov. 15† Nov. 11-Dec. 11 Nov. 11-Nov. 20†	 (
Sage grouse Pheasant Sept. 1 Nov. 8-Dec. 16 Oct. 1-Føb. 1 Rabbit Squirrel Pheasant Aug. 1-Mar. 1 Squirrel Quali Connecticut Rabbit Nov. 1-Dec. 31 Oct. 20-Nov. 24 30 0 0 dt. 20-Nov. 24 30 0 15 Connecticut Rabbit Nov. 1-Dec. 31 Oct. 20-Nov. 24 30 0 15 Squirrel Quali Dates not set Oct. 20-Nov. 24 30 15 Squirrel Quali Dates not set Dote. 20-Nov. 24 15	Pheasant • Colorado Deer Elk	Oct. 6-Nov. 21† 5 ⁷ Oct. 6-Nov. 21† 5 ⁷	1	Rabbit Squirrel Quail Pheasant	Aug. 10-Oct. 8 Nov. 10-Dec. 20 Dates not set	
Rabbit Nov. 1-Dec. 31 30 Squirrel Oct. 20-Nov. 24 30 Quali Dates not set 18 Pheasant Oct. 20-Nov. 24 15 Grouse Oct. 20-Nov. 24 15 Quali Intermittent 25	Quall Sago grouse Pheasant Rabbit	Nov. 8-Dec. 16 Oct. 1-Feb. 1		Rabbit Squirrel Pheasant Quail Hungarian	Sept. 15-Nov. 15 Oct. 28-Oct. 30† ♂ Nov. 1-Nov. 30	
	Rabbit Squirrel Quall Pheasant	uirrel Nov. 1-Dec. 31 Oct. 20-Nov. 24 Dates not set		Quali	Intermittent	25

Kentucky Rabbit Squirrel Quail Ruffed Grouse	Nov. 10-Dec. 31 {Aug. 1-Sept. 15 Nov. 24-Dec. 31 Nov. 10-Dec. 31 Dec. 1-Dec. 15	10	Montana Deer Bear Elk Goat Grouse Quall, turkey Sage hen	Oct. 15-Nov. 15† d' Apr. 15-Nov. 15† Oct. 15-Nov. 15† Local seasons†	1 1 1 -1
Louisiana Deer Bear Rabbit Squirrel Quail Turkey	Nov. 15-Jan. 1 Nov. 1-Jan. 1 Oct. 1-Mar. 1 Oct. 1-Jan. 15 Dec. 1-Feb. 20 Apr. 1-Apr. 15 d	$25 \\ 120 \\ 120 \\ 1 \\ 1$	Hun. partridge Pheasant Nebraska° Rabbit Squirrel Pheasant) No closed season Oct. 15-Dec. 31 Oct. 14-Jan. 1†	
Maine Deer Bear Rabblt Squirrel Pheasant Grouse	Oct. 21-Nov. 30 [†] No closed season Oct. 1-Feb. 28 [†] Oct. 1-Oct. 31 Nov. 1-Nov. 15 Oct. 1-Nov. 15	1 12	Nevada Deer Rabbit Quall Pheasant	Oct. 1-Nov. 14 3 Nov. 1-Dec. 31† Oct. 15-Oct. 29	1
Maryland Deer Rabbit Squirrel Quall Grouse Pheasant Turkey	Dec. 3-Dec. 8† d' Nov. 15-Dec. 31† Nov. 15-Dec. 31† Nov. 15-Dec. 31† Nov. 15-Dec. 31† Nov. 15-Dec. 31† Nov. 15-Dec. 31†	1 6 6 1	New Hampshire Deer Bear Rabbit, hare Squirrel Quall Grouse Pheasant	Oct. 15-Dec. 21† No closed season Oct. 1-Freb. 15 Oct. 1-Nov. 1 Oct. 1-Oct. 31 Oct. 1-Dec. 1 Oct. 15-Nov. 16 3†	1 25 10
Massachusetts Deer Rabbit, hare Squirrel Quait Grouse Pheasant	Dec. 3-Dec. 8t Oct. 20-Feb. 15t Oct. 20-Nov. 20 Dates not set Dates not set Dates not set	1 15 20 15 6 7	New Jersey Deer Rabbit, squirrel Quall Grouse Pheasant	Dec. 17-Dec. 21 d ³ Nov. 10-Dec. 15 Nov. 10-Dec. 15† Nov. 10-Dec. 15 Nov. 10-Dec. 15 Nov. 10-Dec. 15 d ³	1 30
Michigan Deer Deer (bow & arrow) Bear Rabbit Squirrel	r Nov.15-Nov. 30† r (bow & Oct, 1-Nov. 5 r orw) Nov.15-Nov. 30† r (U-Oct, 1-Mar, 1 blt {L-Oct, 15-Jan, 31†		New Mexico Deer Elk Bear Antelope Blue grouse Turkey Squirrel	Nov. 10-Nov. 21† d Nov. 10-Nov. 21† d Nov. 10-Nov. 21† Shooting by permit† d Sept. 22-Sept. 25 Nov. 10-Nov. 21† Nov. 10-Nov. 21	1 1 1† 5 2 5
Grouse, prairie chicken Pheasant Woodchuck Minnesota° Deer (Bow and Arrow)	{U-Oct. 1-Oct. 201 {L-Oct. 15-Nov. 5† L-Oct. 15-Nov. 5† L-Oct. 15-Jan. 31 Oct. 16-Nov. 1†	25 25 8 	New York Deer Bear Rabblt Squirrel Quall Grouse	Oct. 20-Nov. 20† Oct. 20-Nov. 20† Oct. 15-Jan. 31† Oct. 15-Nov. 15 No open season (Dates not set	1 1 15
Deer Bear Squirrel Quall Pheasant Hun, partridge	Arrow) Nov. 15-Nov. 25† No closed season el Oct. 15-Dec. 31 Oct. 28-Nov. 12† ant Oct. 28-Nov. 12†		Pheasant Long Island Rabbit, squirrel Quali Grouse Pheasant	Nov. 1-Dec. 31 Nov. 1-Dec. 31 Nov. 1-Dec. 31 Nov. 1-Dec. 15 Nov. 1-Dec. 31 d*	$ \begin{array}{c} 15 \\ 4 \\ 40 \\ 15 \\ 30 \\ \end{array} $
Mississippi Deer Bear Rabblt Squirei Quail Turkey	Nov. 20-Dec. 1† {Dec. 20-Jan. 1† No open season Same as Game Local seas. 5 zones Dec. 10-Feb. 20† Apr. 1-Apr. 20 d	1	North Carolina° Deer Bear Rabblt Squirrel Quall Grouse Turkey	Oct. 1-Jan. 1† o ⁷ Oct. 1-Jan. 1† Nov. 25-Feb. 10 Oct. 1-Jan. 15† Nov. 25-Feb. 10† Nov. 25-Jan. 1 Nov. 25-Feb. 10†	$3 \\ 2 \\ 150 \\ 10 \\ 3 \\ 2 \\ 2$
Missouri Deer Squirrel Quail Pheasant Rabbits, groundhogs	Nov. 2-Nov. 3 † 5 May 30-Oct. 31 Nov. 10-Dec. 30 Nov. 10-Dec. 31† Jan.1-Oct.31	1	Russian boar North Dakota° Grouse (All) Pheasant Hun, partridge	Oct. 15-Jan. 1† Sept. 20-Oct. 15 Sept. 20-Dec. 31† Sept. 20-Dec. 15	
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Ohio Deer Rabblt Squirrel Pheasant Hun, partridge Grouse	Dec. 3-Dec. 8† 6 ⁷ Nov. 16-Jan. 12 Sept. 15-Oct. 1 Nov. 16-Dec. 1 Nov. 16-Dec. 1 Nov. 16-Dec. 1	2	Utah Deer Elk (By permit) Grouse, sage hen, prairie chicken {Pheasant {Quail	Oct. 21-Oct. 31† o [*] No open season Nov. 4-Nov. 8	1 1 3†
Oklahoma Squirrel Quall	May 15-Dec.31 Intermittent†		Vermont Deer Squirrel Rabblt Quall Grouse Pheasant Bear	Nov. 10-Nov. 20† 5 Oct. 1-Oct. 31 Oct. 1-Feb. 28 Oct. 1-Nov. 9 Oct. Sat. & Wed. 5 June 1-Dec. 31	25
Oregon Decr Eik Antelope Squirrel Quaii Blue grouse Pheasant Hun, partridge	Sept. 29-Oct. 28 d ^{*†} Nov. 3-Nov. 25 d ^{*†} Sept. 22-Sept. 30† Sept. 15-Oct. 20† Oct. 13-Nov. 4† Oct. 13-Oct. 28† Oct. 13-Nov. 4† Oct. 13-Nov. 4†	1 1 1 4 6	Virginia Deer Beer Elk Rabbit Squirrel Quall Grouse	Nov. 20-Jan. 5† 3 Nov. 20-Jan. 5† 3 Nov. 20-Jan. 5† Nov. 13, 14, 15 Nov. 20-Jan. 20† (Sept. 15-Sept. 30 (Nov. 20-Jan. 20 Nov. 20-Jan. 20†	1 1 75 75 125
Pennsylvanla Deer Bear Rabblt Squirrel Quall Ruffed grouse Pheasant	Dec. 1-Dec. 15 d ⁷ Nov. 26-Nov. 29 Nov. 1-Nov. 30 Nov. 1-Nov. 30 Nov. 1-Nov. 30	$ \begin{array}{c} 1 \\ 25 \\ 24 \\ 12 \\ 8 \\ 8 \end{array} $	Pheasant Turkey Washington ^o	Same as qualit	15 20† 4†
Turkey Hun. partridge Woodchuck	Nov. 1-Nov. 30 d ³ Nov. 1-Nov. 30 Nov. 1-Nov. 30 July 1-Sept. 30	1 8	Deer Bear Elk Rabblt Grouse Quall	Oct. 8-Nov. 5† 5 Oct. 29-Nov. 5† Nov. 5-Nov. 19† 5 Oct. 15-Feb. 28† Oct. 8-Nov. 1†	1 1 1
Rhode Island Rapblt Hare Squirrel Quall Grouse Pheasant	Nov. 1-Dec. 31† Nov. 1-Dec. 31 Nov. 1-Dec. 31 Nov. 1-Dec. 31 Nov. 1-Dec. 31† Nov. 1-Dec. 31 d		Pheasant Hungarian partridge	Oct. 15-Nov. 26†	
South Carolina Deer Rabbit Squirrel Quali Turkey	Aug. 15-Jan. 1† 5 Sept. 1-Mar. 1† Sept. 1-Mar. 1† Nov. 23-Mar. 1† Nov. 22-Mar. 1† 5	5 20	West Virginia° Deer Rabbit Squirrel Quail Grouse Turkey Bear Woodchuck Pheasant	Dec. 4-Dec. 9† 5 Nov. 11-Jan. 15 Oct. 12-Nov. 25 Oct. 12-Dec. 25 Oct. 12-Dec. 25 Nov. 27-Dec. 2 July 1 Dec. 31† Nov. 11-Nov. 18† 5	$ \begin{array}{r} 1 \\ 40 \\ 24 \\ 35 \\ 12 \\ 1 \\ 1 \\ 3 \end{array} $
South Dakota° Deer Grouse, prairle chicken Pheasant Hun. partridge	Nov. 1-Nov. 20† 3 Sept. 20-Oct. 19† Sept. 20-Jan. 17† Sept. 20-Oct. 19†	1	Wisconsin [°] Deer Deer (bow & arrow) Bear	Nov. 25-Nov. 30† o Nov. 7-Nov. 19† Oct. 1-Nov. 30†	1
Tennessee Deer Bear Rabblt Squirrel Quall Grouse Wild boar	Special seasons Special seasons Nov. 25-Jan. 25 Aug. 1-Dec. 31† Nov. 25-Jan. 25 Nov. 25-Jan. 25 Special seasons	1† 1†	Bear (Bow & arrow) Rabbit Squirrel Grouse Pheasant Hun, partridge Quail	Oct. 17-Nov. 19† Oct. 21-Feb. 15† Oct. 21-Dec. 5 Sept. 30-Nov. 5† {Oct. 21-Nov. 5† Nov. 1-Nov. 5†	1
Texas Deer Bcar Peccary Squirrel Quall Turkey	Nov. 16-Dec. 31† 3 Nov. 16-Dec. 31 Nov. 16-Dec. 31† (Oct. 1-Dec. 31† (May 1-July 31† Dec. 1-Jan. 16† Nov. 16-Dec. 31† 3	2† 1 2 3	Wyoming Deer Moose Elk Bear Sheep Antelope Pheasant	Local seasont of Local seasons of Local seasons of Local seasons Local seasonst of Local seasonst of Local seasonst Nov. 4-Dec. 9t of	11112
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MIGRATORY GAME BIRD LAWS - 1945-1946

DUCK, GOOSE, BRANT AND COOT

Northern Zone, Sept. 20-Dec. 8 — Iowa, Maine, Michigan, Minnesota, Montana, 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), South Dakota, Vermont, Wisconsin. (Scoters or sea coots may also be taken in open coastal waters of Maine and New, Hampshire from Sept. 15 to Sept. 19, and in those of New York, Connecticut, Massa-chusetts and Rbode Island, Sept. 15-Oct. 12.)

Intermediate Zone, Oct 13-Dec. 31 — California (Modoc, Lassen, and Siskiyou Cos, only), Colorado, Connecticut, Idaho, Illinois, Indiana, Kansas, Kentucky, Massachusetts, Missouri, Nebraska, Nevada, New Jersey, New York, Obio (Pymatuning Reservoir only), Oklahoma, Oregon, Rhode Island, Utah, Washington, West Virginia, Delaware, Pennsylvania, Wyoming.

Southern Zone, Nov. 2-Jan. 20 — Alabama, Arizona, Arkansas, California, (Modoc, Lassen, and Siskiyou Cos. only), Florida, Georgia, Louisiana, Maryland, Mississippi, New Mexico, North 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

ODDCOCK Ark., Okla, — Dec. 1-Dec. 15; Conn., Mass., N. J. — Oct. 20-Nov. 3; Del., Md. — Nov. 15-Nov. 29; Ga., La., Miss. — Dec. 15-Dec. 29; Ind., W. Va. — Oct. 16-Oct. 30. Maine (Aroostock, Penobscot, Piscataquis, Somerset, Franklin 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, Carroll and Grafton Cos.) — Oct. Oct. 15; rest of N. H. — Oct. 16-Oct. 30; N. Y. (northern) — Oct. 10-Oct. 24; N. Y. (southern) — Oct. 15-Oct. 29; Long Island — Nov. 1-Nov. 15; R. 1. — Nov. 1-Nov. 15; Vt. (Bennington and Windsor Cos. South of Highway 4) — Oct. 16-Oct. 30; rest of Ver-mont — Oct. 15; Virginia — Nov, 20-Dec. 4.

RAIL AND GALLINULE Sept. 1-Nov. 30, except as follows: Alabama — Nov. 20-Jan. 31; Louisiana — Sept 16-Dec. 15; Maine and Wisconsin — Sept. 20-Dec. 8; Massaebusetts and New York — Oct. 15-Dec. 31; Minnesota—Sept. 16-Nov. 30; Puerto Rico — Dec. 15-Feb. 12; Mary-land — Sept 1-Oct. 31; Mississippi — Oct. 15-Dec. 30. No open season in California; District of Columbia, Hawali, Idaho, Iowa, Montana, Nevada, Oregon, Tennessee and Washington.

MOURNING DOVE Ariz., Calif., Kan., Mo., Okla. — Sept. 1-Oct. 30; Ark., Miss. — Sept. 16-Sept. 30 and Dec. 18-Jan. 31; Col., Nev., N. M. — Sept. 1-Oct. 12; Del. and Tenn. — Sept. 16-Nov. 14; Fia. (Dade and Monroe Cos.) — Oct. 1-Oct. 31; rest of Florida — Nov. 20-Jan. 18; Idabo and Ore. — Sept. 1-Sept. 15; III. — Sept. 1-Sept. 30; Ky. — Sept. 1-Oct. 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, Ken-dall, Blanco, Burnet, Williamson, Milan, Robertson, Leon, Houston, Cherokee, Nacoq-docbes and Shelby Cos. and all cos. north and west — Sept. 1-Oct. 30; rest of Tevas except Cameron, Hidalgo, Starr. Zapata, Webb, Maverick, Kinney, Dimmit, Lasalle, Jim Hogg, Brooks, Kenedy and Willacy Cos. — Oct. 20-Dec. 13 ½ 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, Terreli, Brewster, Presidio, Jeff Davis, Culberson, El Paso Counties — Sept. 13. 16, 18, 20, 23, noon to sunset.

BAND-TAILED PIGEON

Arizona, Colorado, New Mexico, Wash-ington — Sept. 16-Oct. 15; California — Dec. 1-Dec. 30; Oregon — Sept. 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 the aggregate of snow and white-fronted geese in the Pacific Coast States or (B) 4 singly or in the aggregate of blue and snow geese elsewhere than Pacific Coast States. Possession limit 4 geese, including brant, but not including blue, snow or white-fronted geese and in addition, not more than 8 singly or in the aggregate blue, snow or white-fronted geese and in addition, not more than 8 singly or in the aggregate blue, snow or white-fronted geese. In Alexander County, 11., geese may be taken only from one-half bour before sunrise until noon. Coot and sora, 25, singly or in aggregate, daily and possession. Rail and gailfuule 15 in aggregate; possession. Woodcock 4; 8 in possession, Mourning and white-winged doves, 10 in aggregate; possession mourning doves 10, white-winged 10. Band-tailed pigeons 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. Galiatin and Madison Counties, in Montana, on wood duck in Massachusetts and North Dakota. Live decoys, baiting, and use of live-stock as "binds" prohibited. Migratory waterfowl may be taken with bow and arrow, or with shotgun not larger than 10-gauge, and not capable of holding more than 3 shells. All waterfowl, coot, rails, gallinule, woodcock, mourning and white win ed doves and band-tailed pigeons may be taken from one-half bour before sunrise to sunset. Federal duck stamp required of all waterfowl humets over 16 years. Migratory 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! Tell mc, nurse, is it a boy a girl?

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 Strat-ford, N. H.:

Frech, the husband of Mary, for her faults, blame him, for her virtues, honor her. I have 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 so least to say! the soonest has the

Also at Bath, Maine: '

Accidentally shot as a mark of affection by his brother.

And finally in the Mount Auburn Cometery, Boston:

Here lies John Witherbee.

A Boston gallant chap was he, God has no use for such 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 dog 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 turn all your lead into gold.

GOOD SENSE - YANKEE FASHION

The city fellow was discussing the general wild state of spending

and nobody paying with a resi-dent 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 ean 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, d when we paid the milk told 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 have her say, Our Pa jes' thought "Old Far-mer's" way.

THE RETORT PERSONAL

"I see villainy in your face, sir," said the judge scowling scowling

down at the prisoner. "May it please Your Honor," "May said the latter, "that is a personal reflection.

WHITTLING IN VERMONT

Because Vermonters like a knife And stick and pile of shavings

The city 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 deflects your eye

- When April gets to running, Than three or four benign "boys," old
- 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 ach-
- ing; Perhaps '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 ple 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 right 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 and whittle.
Daniel L. Cady- Rhymes of Vermont
Finnish conversations can some- times 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 to-F gether

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 morn-

ing. "The wind blew straight up and down"---a gale.

"Looking for salt pork and sundown"-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 it that the works of many sepa-female authors be properly separated on her bookshelves. proximity, unless they happen to be married, should not be tolerated.

Godey's Lady Book c. 1853

BOTH GOOD MEN

Joel Stevens and Deacon Epha-rium 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 good wife felt obliged to delay the wife felt obliged to delay the meal while she prepared some-thing 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 in-tended."

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.

crop from trampled-The hay down meadows is small.

So she picks her field berries well over the wall.

And on a spring morning, as pert as you please,

and begging your peas! Comes parsnips,

Florence B. Jacobs in Yankee Magazine

OLD FASHIONED PUZZLES

1. Enigma

I'm made, I'm sought Soon as with eare;

For one whole year consulted: time elapsed, I'm thrown That 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

youngsters add day in the year. What admire every

two letters from it, and Take then, without doubt, You are what it is, if you don't

find it out.

Arithmetical Puzzles

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

To half a dozen add half a score, Then you will plainly see

Just twenty-neither less nor more. Explain the mystery.

5. Conundrums

a. Why is a salt herring like a waterproof coat?

b. When do two and two make more than four?

Why ought the stars to be C.

d. Why are crows the most sensible birds?

6. Enigma

I am not of flesh aud blood Yet have I many a bone;

No limbs, except 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 in the alphabet?

d. What of had kind hair 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 hack 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.
- ninth is in you, but not in MV 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 contradiction: I'm new and I'm old;
- I'm sometimes in tatters, and oft deeked in gold. Though I never could read, yet
- Though I hever tound; lettered I'm found; Though I'm blind, I enlig though free, I am bound. I'm English, I'm German
- enlighten;
- German, I'm French and I'm Dutch.
- Some love me too dearly, some slight me too much.
- I often die young, though I some-
- times 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 voice 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 having 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 com-mences at the outer edge and mows regularly inward?

Answer to these puzzles appear on page 78

46

WORD CHARADES

1

- When parched earth in sunshine basks,
 - Or rain and hail in torrents fall my second shelters from them all;
- schoolboys busy at their And 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 make 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,
 - slaves they would have As toiled to-day.

The Boston Charades by Herbert Ingalls

4

- I build a castle in the air, Alas! upon inspection,
- My first is sure to enter there, With commonplace objection.
- As falls my second when a lady fair
- Unbinds the fillet of her streaming hair,
- My airy castle falls. No power can stop it,
- No architect can find my whole to prop it.

Original Charades by L. B. R. Briggs Б

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 tor-menting 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 message a that is quickly conveyed.

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.

The answers to these charades will be found on page 78

GESTATION AND REPRODUCTION TABLE

	Proper age for	Period of the power of	No. of Females	Period of Gestation and Incubation				
Designation	repro- duction	repro- duction in years	for one Male	Shortest period, days	Mean period, days	Longest period, days		
Mare Stallion	4 years	10 to 12 12 to 15	20 to 30	322	347	419		
Cow Bull	3 " 3 "	$\begin{array}{c} 12 \text{ to } 13 \\ 10 \text{ to } 14 \\ 8 \text{ to } 10 \end{array}$	30 to 40	240	283	321		
Ewe Ram	2 " 2 "	6 7	40 to 50	146	154	161		
Sow Boar		6 6	40 to 50	109	115	143		
She Goat He Goat	$\frac{1}{2}$ "	$\begin{array}{c} 6\\ 5\end{array}$	20 to 40	150	156	163		
She Ass He Ass	$ \frac{1}{4} $ "	10 to 12 12 to 15	20 00 10	365	380	391		
She Buffalo Bitch	2 "	8 8 to 9		$\frac{281}{55}$	$308 \\ 60$	335 63		
Dog She Cat	$\frac{2}{1}$ "	8 to 9 5 to 6		48	50	56		
He Cat Doe Rabbit	1 " 6 months	9 to 10 5 to 6	5 to 6	20	28	35		
Buck Rabbit Cock Turkey Duck Goose. Pigeon Pea Hen Guinea Hen Hen on Duck's Eggs	6 " 6 "	5 to 6 5 to 6 3 to 5	30 12 to 15	19 24 28 27 16 25 20 40 22	21 26 30 18 28 23 42 30	24 30 32 33 20 30 25 45 34		

DURATION AND FREQUENCY HEAT SEASON

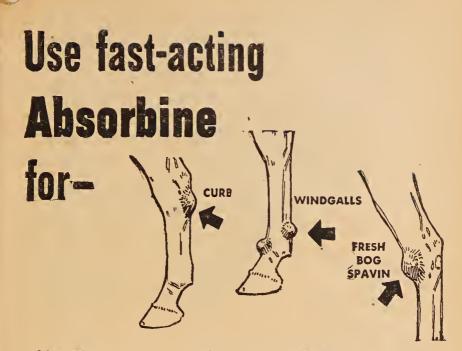
	In heat for	Reoccurs if not
Mares	6 days	3 to 6 weeks
Cows .	2-3 days	3 to 4 weeks
Ewes	2-3 days	17-28 days
Sows	2-4 days	21 days
Bitches	5-7 days	3-6 months
Cats	3-15 days'	4 months

F

bred

AVERAGE DATES FIRST AND LAST KILLING FROSTS

Boston	Apr. 14 - Oct. 26	Richmond	Mar. 31 Nov. 2
	Apr. 24 - Oct. 15		Mar. 27 - Nov. 5
	Apr. 9-Oct. 28		Mar. 14 - Nov. 14
	Apr. 8-Oct. 23	Del Rio	Feb. 23 - Nov. 27
	Apr. 22 - Oct. 18	Helena	May 7 - Sept. 29
Chicago	Apr. 16 - Oct. 19	Santa Fe	Apr. 25 - Oct. 19
Detroit	Apr. 28 - Oct. 15	Tucson	Mar. 11 - Nov. 9
Duluth	May 6 - Oct. 5	Yuma	Jan. 20 - Dec. 20
Bismarck	May 11 - Sept. 21	Portland, Ore.	Mar. 15 - Nov. 21
Omaha	Apr. 14 - Oct. 15		Jan. 13 - Dec. 29



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

A STAND-BY for over 50 years, Absorbine is used by many leading veterinarians for lameness, swellings, 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 grandmothers along the way, talked of "three square meals a day." The desire for those three square meals was one of the things that kept the men planting, hunting, and 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 meauing to the old expression. To him, a meal is "square" if it supplies foods for energy; 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

Lunch

Dinner

)

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
	tablespoon minced onion
2	teaspoons baking powder
1	teaspoon salt

1/4 cup uncooked rice 1/101/2 oz. can condensed tomato soup 1¼ cups water

1/2 cup milk

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 11/2 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
1/4	cup	milk		
47		acft hm	nod amun	ha

1		espoon		or
		argarin		
2	egg	yolks,	unbeate	en 👘
ด	OCC CP	whitne	hoston	otiff

cup SOIL 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

ehieken; 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° 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	eups dieed	potatoes
1	tablespoon	mineed onion

2 teaspoons butter 1/2 teaspoon pepper 2 eggs, well beaten

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° 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 elieese, ground sliees bread, cut in eubes 3 eggs, slightly beaten 1½ eups milk

1/2 teaspoon salt 1/2 teaspoon paprika 1 teaspoon mineed parsley

Arrange elicese 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° 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 4 eggssalt

pepper 1/2 eup buttered bread crumbs

Cut a slice 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° 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 you score less than 90%.

CREDITS FOR THE DAY		Warm Garma
*Milk		Your Score
- Trues to	$20\% \\ 10\%$	•••••
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	1001	
1 serving	10% 5%	
	0,10	
Whole Grain or Enriched Cereal or Bread	10.11	
2 servings	$\frac{10\%}{5\%}$	
1 serving	070	
Butter or Fortified Margarine		
2 tablespoons or more	5%	•••••
Water		
4-6 glasses	10%	
DEDUCTIONS FOR THE DAY		

Not clearing the plate 10%	
Skipping a meal 10%	
Sweets between meals 10%	
Tea or coffee for children 10%	
Total Deductions	
Total Score	

* 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 Almanack* 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 seem 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.



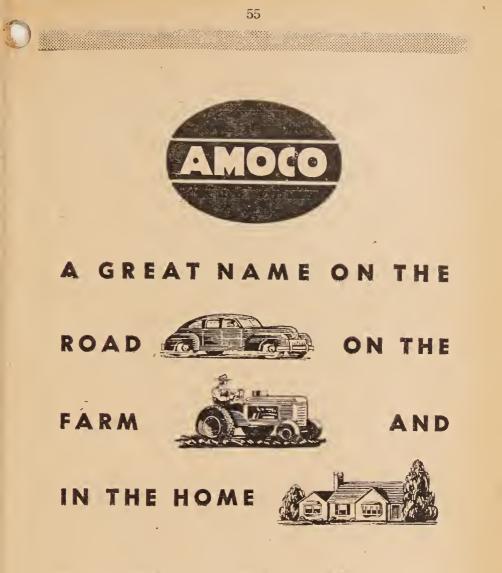
George Washington, 1783.

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 him 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 eopy will be forwarded in a few days. "The war goes on slowly. Some depredations are committed on the Lakes. Our

"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 eome back as far as Fort George which they held at last accounts but lost many taken prisoners. We expect to hear of something decisive on the Lakes as we hear that the British have sent us a challenge to meet on those waters and our commander has concluded to meet them so soon as our new Frigate was ready to sail. The new frigate was to sail last Tuesday so that we expect to hear from them soon..." In World War II, Mr. Astronomer has distinguished himself engineering the

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.



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from Maine to Florida

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Merchandise, incomplete copies of newspapers, printed and other mailable matter
each 2 ounces or fraction
Books, catalogues mailed in packages not exceeding 8 oz. in weight (must be of 24 or more pages and substantially bound, with at least 22 pages printed, seeds, cut-
tings, bulbs, roots, scions and plants, 2 ounces or iraction
Plain Printed Cards containing no writing other than the address, and not con- forming with regulation size of Post Card, shall be considered Third Class and mailed for
Permit Mail. Envelopes, folders, etc., which are to be malled under Third Class
permit privileges should indicate the amount of postage paid. Bulk Mailings. Applications for bulk mailing privilege should be submitted to the Post Office.

PARCEL POST. – FOURTH CLASS. (For Zone consult Post Office)

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

Table of fourth-class or parcel-post rates

		1 4010 (и тош гш-с	lass of pa	a cer-post	rates		
					ZONES			
Weight	Local	1-2	3	4	5	6	7	8
in Lbs.		Up to	150 to	300 to	600 to	1,000 to	1.400 to	Over
		150	300	600	1,000	1,400	1,800	1,800
		miles	miles	miles	mlles	miles	miles	mlles
1	\$0.08	\$0.09	\$0.10	\$0.11	\$0.12	\$0.13	\$0.15	\$0.16
2	.09	.11	.12	.15	.18	.20	.24	.27
3	.09	.12	.14	.18	.23	.27	.33	.38
4	.10	.13	.16	.22	.28	.34	.42	.49
5	.10	.14	.18	.25	.34	.41	.52	- 7
6	.11 .11	.14 .15	.20	29	.39	.48	.61	$.61 \\ .72$
7	.11	.16	.20 .22	.32	.44	.56	.70	.83
123456789	$.12 \\ .12$.17	.24	.36	.50	.63	.79	.95
.9	.12	.18	.26	.39	.56	.70	.89	1.06
10	.13	.19	.28	.43	.61	.63 .70 .77	.98 、	1.17
$\frac{11}{12}$.13	.20	.30	.46	.66	.84	1.07	1.29
12	.14	.22	.32	.50	.72	.92	1.16	1.40
13	.14 .15	.23	.34	.54	.77	.99	1.26	1.51
$\frac{14}{15}$.15	.24	.36 .38	.58	.82	1.06	1.35	1.63
	.15	.25	.38	.61	.89	1.13	1.44	1.74
$\frac{16}{17}$	$\begin{array}{c} .16\\ .16\end{array}$.26 .27	.40	.65	.94	1.21	1.53	1.85
18	.17	.27	.42 .44	.68	1.99	1.28	$1.63 \\ 1.72$	$ \begin{array}{r} 1.97 \\ 2.08 \\ 2.19 \\ 2.31 \\ \end{array} $
19	.17	.29	.44	$.72 \\ .75$	1.05	1.35	1.72	2.08
20	.18	.30	.48	.79	1.10	1.42	1.81	2.19
21	.18	.31	.50	.19	$\begin{array}{c} 1.15 \\ 1.21 \end{array}$	1.49	1.91	2.31
$\frac{\bar{2}1}{22}$.19	.33	.53	.82 .87	$1.21 \\ 1.27$	$1.57 \\ 1.64$	2.00	2.42
$\overline{2}\overline{3}$.19 .19	.34	.55	.90	1.32	1.04 1.71	2.09	2.53
$\overline{24}$.20	.34 .35	.55 .57	.94	1.37	1.78	$\substack{2.18\\2.28}$	2.65
25	.20	.36	.59	.97	1.43	1.05	2.28	-2.76
26	.20 .21	.36 .37	.61	1.01	1.48	$\begin{array}{r}1.85\\1.93\end{array}$	2.46	$2.87 \\ 2.99$
27	.21	.38	.63	1.04	1.53	2.00	2.55	3.10
28	.22	.39	.65	1.08	1.60	2.07	2.65	3.21
29	.22	.40	.67	1.11	1.65	2.14	2.74	3.33
30	.23	.41	.69	1.15	1.70	$\bar{2}.\bar{2}1$	2.83	3.44
31	.23	.42	.71	1.18	1.75	$\bar{2}.\bar{2}\bar{9}$	2.93	3.55
32	.24	.44	.73	1.23	1.81	2.36	3.02	3.67
33	.24	.45	.75	1.26	1.86	2.43	3.11	3.78
34	.25	.46	.77	1.30	1.92	2.50	3.20	3.89
35	.25	.47	.79	1.33	1.98	2.58	3.30	4.01

56

Weight in Lbs.	Local	1-2 Up to 150	3 150 to 300	4 300 to 600	ZONES 5 600 to 1.000	6 1,000 to 1,400	7 1,400 to 1,800	8 Over 1,800	
36 37 38 39	\$0.26 .26 .27 .27	miles \$0.48 .49 .50 .52 .53	mlies \$0.81 .83 .85		miles \$2.03 2.08 2.14 2.19	miles \$2.65 2.72 2.79 2.86	miles \$3.39 3.48 3.57 3.67	1,800 miles \$4.12 4.28 4.35 4.46	
40 41 42 43 445 46 46 47	.28 .28 .29 .29 .30	.54 .56 .57 .58	.88 .90 .92 .94 .96 .98	$1.51 \\ 1.55 \\ 1.59 \\ 1.62 \\ 1.66$	$2.25 \\ 2.30 \\ 2.36 \\ 2.41 \\ 2.46$	$2.94 \\ 3.01 \\ 3.08 \\ 3.15 \\ 3.22$		$4.57 \\ 4.69 \\ 4.80 \\ 4.91 \\ 5.03$	
48 49	.30 .31 .31 .32 .32	.59 .60 .61 .62 .63	$1.00 \\ 1.02 \\ 1.04 \\ 1.06 \\ 1.08$	$1.69 \\ 1.73 \\ 1.76 \\ 1.80 \\ 1.83$	2.52 2.58 2.63 2.69 2.74	$3.30 \\ 3.37 \\ 3.44 \\ 3.51 \\ 3.58$	$4.32 \\ 4.41 \\ 4.50 \\ 4.59$	$5.14 \\ 5.25 \\ 5.37 \\ 5.48 \\ 5.59$	
50 55 60 65 70	.33 .35 .38 .40 .43	.64 .70 .75 .81 .87	$1.10 \\ 1.21 \\ 1.31 \\ 1.41 \\ 1.51$	$1.87 \\ 2.05 \\ 2.24 \\ 2.41 \\ 2.60$	2.79 3.07 3.34 3.62 3.88	$3.66 \\ 4.02 \\ 4.38 \\ 4.74 \\ 5.10$	$\begin{array}{r} 4.69 \\ 5.15 \\ 5.61 \\ 6.08 \\ 6.54 \end{array}$	5.71 6.27 6.84 7.41 7.97	

EXCEPTIONS

(a) In the first or second zone, where the distance by the shortest regular practicable mail route is 300 miles or more, the rate is the same as for the third zone.
(b) On parcels collected on rural routes the postage is 2 cents less per parcel than shown in the foregoing table when for local delivery and 3 cents less per parcel when for

(c) Parcels weighing less than 10 pounds measuring over 84 inches, but not more than 100 inches in length and girth combined, are subject to a minimum charge equal to that for a 10-pound parcel for the zone to which addressed.
(d) For special rates on catalogs and other similar printed advertising matter, con-

sult postmaster.

Suit postmaster. Limit of size for parceis is 100 Inches in length and girth combined. Limit of weight is 70 pounds in all zones. Library Books.— Books sent by authorized libraries to readers and when returned by such readers, for delivery within the first three zones or the State in which malied: 4 cents for the first pound and 1 cent for each additional pound up to and including 47 pounds; 52 cents for 48 pounds and 1 cent for each additional pound up to and in-cluding 70 pounds. cluding 70 pounds.

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

SPECIAL DELIVERY FEES Second. Third or
SPECIAL DELIVERY FEES Second. Third or First Class Fourth Class Over 2 pounds up to 10 pounds
Over 2 pounds up to 10 pounds
The prepayment of the foregoing fee on second, third, or fourth class mall entitles it
to the most expeditious handling and transportation practicable, and also entitles it to special delivery at the office of address.
To Canada: United States Special Delivery Fees are applicable on articles prepaid at the letter rate of postage. Newfoundland and Labrador 20c prepaid in addition to
regular postage on letters or articles only prepaid at the letter rate.
Domestic Registered Mail – Fees for Indemnity limited to: \$5
50. $25c$ $400.$ $50c$ $30c$ $30c$ 3120 1.25
17595e 1,000 1.35 100
$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Domestic Insured Mail (third and fourth classes) Fees for indemnity limited to:
\$5 3c \$25 10c \$50 15c \$200 25e
Domestic C. O. D. Maii – Unregistered (third and fourth classes) and sealed domestic mail of any class bearing postage at the first-class rate: Fees for collec-
tions and Indemnity limited to:
$\begin{array}{cccccccccccccccccccccccccccccccccccc$
200.00
sult postmaster for fees and limits of indemnity.
POSTAL MONEY ORDER From \$0.01 to \$2.50
From \$2.51 to \$5
From \$5.01 to \$10
POSTAL NOTES
1c to \$10 Fee 5c
ARMED FORCES OVERSEAS
Three cents an ounce, regular, or six cents half-ounce, air, care of U.S. Postmaster or Fleet Post Office at Ports of Embarkation. Use V Mail (3c per letter) for speedy trans- mission to most of the active war fronts.

POSTAL RATES.—FOREIGN

- Letters.—For the places in the following list the postal rate is 3 cents each ounce or fraction. For all other foreign destinations, 5 cents first ounce and 3 cents each additional ounce or fraction: Argentina, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Guatemala, Halti, Honduras (Republic), Labrador, Mexico, Newfoundland, Nicaragua, Panama, Paraguay, Peru, Salvador, El; Spain and possessions; Uruguay, Venezuela.
- Letter Packages.—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 2976, must be affixed to the outside of the envelope or wrapper. The customs declaration and green label may be obtained free at the post office.
- Currency, Jeweiry, and other precious articles.—Coins, bank notes, paper money, or any values payable to bearer; plathnum, gold, or silver, manufactured or unmanufactured; preclous stones, jewelry, or other precious articles are prohibited in the unregistered mails. Moncy in cash, bank notes, or values payable to the bearer, whether sent in the registered or ordinary mails, are prohibited to certain countries, and in some cases may even be confiscated. Patrons should inquire at the main office or classified stations as to the admissibility of such articles in the letter mails to any particular foreign country.
- Post Cards.—Single post cards for places enumerated above 2 cents. Single post cards for all other foreign destinations 3 cents. Maximum size 6x4% inches, minimum size 4x2% inches.
- Printed Matter .-- 11/2 cents for each two ounces or fraction. Limit 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, Mexico or Panama, where there is no limit of weight. To Peru the weight limit for books is 11 pounds. This reduced rate is applicable exclusively to books which do not contain publicity or advertising other than that appearing on the covers or fly-leaves, when addressed to the following countries: Argentina, Bolivia, Brazii, Chile, Colombia, 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 foreign destinations, 1½ cents each 2 ounces or fraction, with a minimum charge of 3 cents. Limit of weight: 18 ounces.
- Commercial papers.—For all foreign destinations, 1½ cents each 2 ounces or fraction, with a minimum charge of 5 cents. Limit of weight 4 lbs., 6 os.
- **Eight-ounce Merchandise Packages.**—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 seeds, scions, plants, cuttings, bulbs, or roots, the rate ls 1½ 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 sealing in the case of c. o. d. 8-ounce merchandise packages for Mexico, which may be sealed.)
- Small Packets.—Three cents for each 2 ounces, with a minimum charge of 15 cents per packet. Limit of weight: 2 pounds 3 ounces. (Inquire at main post office or classified stations for list of countries which accept small packets.) Small packets must bear the green label, Form 2976. They must also be accompanied by the paper form of customs declaration (Form 2976-A), properly completed by the sender and enclosed in the small packet. It is likewise permissible to enclose in small packets an open invoice reduced to its essential terms. Every small packet must be clearly marked on the wrapper by the sender ""

terms. Every small packet must 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, even though registered. Mail service to many foreign countries has been suspended greatly curtailed, due to war conditions. In view of frequent changes, inquire at post office before mailing articles addressed for delivery abroad.

MaxImum dimensions.—For all foreign 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 reply-paid post cards, small packets, samples of merchandise and commercial papers may be registered to all foreign countries.

Fee.--20 cents in addition to postage. When a return receipt 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 Estonia Finiand France Germany Gibraltar Gold Coast Colony Great Britain and Northern Ireiand Guatemala Hungary Ireland Italy Japan Kenya and Uganda Latvia

Lithuania Luxemburg Mexico Morocco (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 coun-tries mentioned above (except Canada, where the United States domes-tic 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 cover must be marked boldiy in red ink "Exprès," directly below but never on the stamps. In some countries the service is limited to certain cities, lists of which appear under the country items in Part II of the Official Postal Guide. In Canada and Newfound-land exprès special-delivery service applies 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 compercial papers printed matter samarticles (letters, post cards, commercial papers, printed matter, samples, and small packets), but not to parcel-post packages.

INTERNATIONAL PARCEL POST.

Many foreign countries have special 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 qualified postal employee handle parcel post transactions. Therefore, parcel post packages for foreign destinations must not be posted in a letter box; such packages should be taken to the main post office or to one of the larger classified stations and handed to a postal clerk.

INTERNATIONAL INSURED MAIL

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 Union "prints" and to packages of merchandise weighing 8 ounces or less. Parcel post packages for Cape Verde Islands, Ecuador, Macao, Portugal and Portuguese West Africa may also be registered. Portuguese West Africa may also be registered.

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

Return Receipts—Return receipts for insured parcels addressed to foreign countries except Canada will 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.

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 indemnity, 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.

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 sent as registered matter provided they are sealed 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, brooches, 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 construed 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.

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340

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.

tional ordinary mail. Inquiries or Complaints Concerning Registered or Insured Mail Addressed for Delivery in Forelgn Countries and Charges Therefor— A charge of 10 cents shall be made for an inquiry or complaint in connection with registered or insured mail addressed to a foreign country unless the sender has failed to receive a return receipt for which he paid the required 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 course, 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.

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 for 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 inquiries concerning the disposal made of any ordinary article (parcel post package or Postal Union article) addressed for delivery in a foreign country. Procedure similar to above. Consult Postmaster.

Limit of a Sing. For Orders from	gle Order, \$100.	
\$0.01 to From \$10.01 to Advancing thus	\$10 \$20 \$ to	10 cents 20 cents

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

	Data man		+
D. H. Minter	Kate per	Ra Destination Ireland Ivory Coast Jamaica Keuya, Uganda Lebanon Leeward Islands: Anguilla, Antigua, Barbud	te per ounce
Destination	γ_2 ounce	Iroland 72	ounce
Aden	.10	Luony Coost	.30
Afghanistan	.70	Tvory Coast	.50
*Alaska	.08	Jamaica Ventre Ventre	.10
Algeria	.33	Kenya, Uganda	.60
Anglo-Egyptian Sudan	.70	Lebanon	.70
Angola (P.W.A.)	.60	Leeward Islands:	
Argentina	.20	Anguiila, Antigua, Barbud	
Australia	.70	Dominica, Montserra	t,
Azores	.30	Dominica, Montserra Nevis, Redonda, St. Kitts	s .10
Bahamas	.10	Liberia	.50
Bahrein Islands	.70	Libya	,33
Barhados	.10	Luxembourg	.30
Belgian Congo	.60	Madagasear	.30
Belgium	.30	Madeira	.30
Bornindo	.10	Malta	.70
Rolivia	20	Martinique	.10
Dunvia	.50	Mauritania	45
Diabin Dritich Cuiene	15	Mauriting	60
British Hondungs	10	Mexico	08
Dritish Honduras	10	Maracea (Br Er & Sp)	33
Gemeneene Dr. Stands	.10	Morembique (PEA)	60
Cameroous, Br. & Fr.	.00	Nothorlanda	.00
*Canada	.08	New Colodonia	.50
Destination Aden Afghanistan *Alaska Algeria Anglo-Egyptian Sudan Angola (P.W.A.) Argentina Australia Azores Bahamas Bahrein Islands Barbados Belgian Congo Belgium Bernuda Bolivia Bratish Guiana British Honduras British Honduras British Honduras British Honduras British Yirgin Islands Cameroons, Br. & Fr. *Camada Camat Zone Canary Islands Cape Verde Islands Cape Verde Islands Cape Verde Islands Cape Verde Islands Cape Verde Islands Corsica Costa Rica Cuba Curacao Island, Aruba Bionaire, Saba, St. Eu tatius, St. Martins Cyprus Dahomey Denmark Dominican Republic Ecuador Egypt El Salvador Eritrea Ethiopia Fance Islands Faroe Islands Fiji Franee French Equatorial Africa	.10	Nevis, Redonda, St. Kitts Liberia Libya Luxembourg Madagasear Madeira Malta Martinique Mauritania New Caledonia New Cal	.40
Canary Islands	.40	Newroundland	.10
Cape Verde Islands	.55	New Zealand	.00
Ceylon	.70	Nicaragua	.10
Chile	.20	Niger	.40
China (Unoeeupied)	.70	Nigeria	.50
Colombia	.25	Norway	.30
Corsića	.33	Nyasaland	.60
Costa Rica	.10	Palestine	.70
Cuba	.08	Panama	.10
Curacao:		Paraguay	.20
Curação Island, Aruba		Peru	.15
Bouaire Saha St Er	19-	Portugal	.30
totius St Marting	.10	Portuguese Guinea	.50
Cynrus	.70	Portuguese East Africa	
Depomor	45	(See Mozambique)	
Donmonk	20	Puerto Rieo	.08
Deminiara Ropublia	10	Reunion	.30
Dominican Republic	15	Rhodesia No & So.	.60
Ecuador		Rio do Oro	40
Egypt	10	Saudi Arahia	70
El Salvador	.10	Sanagal	45
Eritrea	.70	Senegal Storng Loopo	50
Ethiopia		Portuguese East Africa (See Mozambique) Puerto Rieo Reunion Rhodesia, No. & So. Rio de Oro Saudi Arabia Senegal Sierra Leone Somaliland, Br., Fr. & It. Southwest Africa Spain (Snarish Offloos in	.00
Falkland Islands	.20	Southwost Africe	60
Faroe Islands	.30	Southwest Africa Spain (Spanish Offices in North Africa) Spanish Guinea Surinam Sweden Switzerland Syria Tanganyika Trans-Jordan Trinidad Tunisia Turkey Union of South Africa	.00
Fiji	.40	Spain (Spanish Omees in	20
France	.30	North Africa)	.50
Fiji France French Equatorial Africa French Guiana French Guinea French Sudan French Togoland Gambia Gibraltar Gold Coast Colony Great Britain Guadeloupe Guam	.60	Spanish Guinea	.00
French Guiana	.15	Surinam	.10
French Guinea	.50	Sweden	.30
French Sudan	.50	Switzerland	.30
French Togoland	.45	Syria	.70
Gambia	.50	Tanganyika	.60
Gibraltar	.30	Trans-Jordan	.70
Gold Coast Colony	.50	Trinidad	.10
Great Britain	.30	Tunisia	.33
Cuadoloupo	.10	Turkey	.70
Cham	.35	Union of South Africa	.60
Guam	.10		.20
Guatemala	.10	Uruguay U. S. S. R.	.30
IIaiti	.15	Venezuela	.15
Hawaii		Virgin Islands, U. S.	.08
Honduras, Republic of	.10 .30	Windward Islands:	
Iceland De Boat	.00	Grenada, Grenadines,	
India, Br., Fr. & Port.	.70	St. Lucia. St. Vincent	.10
Iran	.70	Yemen	.70
Iraq	.70		.60
* Per ounce.		Zanzibar	
	and the second division of the second divisio		



Easy shart cuts that save time and wark. Produce more eggs and chicks ta sell at a profit. Your greatest paultry prablem will loak simple when you read AMERICAN POULTRY JOURNAL regularly. 500,000 poultry raisers do-why not you? Subscribe to this monthly magazine today, 25c a year-5 years \$1.00. American Poultry Journal, 523 So. Clark St., Chicago

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 catchall box for the "unsorted" collection of the future.

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 guarantee for freshness and satisfaction in every pound of Kybo coffee you buy at your First National Store.

NEVER GROUND AHEAD

Imported . Roasted and Sold only at

RST NATIONAL STORES

nly when you buy it

THE TURBULENT WINTER OF 1944-45

Mr. Weatherwise in submitting his weather indications for last year's edition, cautioued us that the winter would "probably be turbuleut." He might have added violent, vehement, impetuous, ferocious, furious and tumultuous—and still have been right. For Old Man Winter this past year was "blown with restless violence round about the pendent 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 York Times, datelined Washingtou, D. C. February 3rd, named the winter as the "coldest" snowiest, and blowiest of recent years.' Scarcely more than typical of many deeds of courage and heartwarning neighborliness born of this bitter season 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% than 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 Fleetwood 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 (B 29 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 year, too. Bluebirds sang merrily over the snowdrifts of Peekskill, N. Y., even while Nantucket was still isolated by ice floes and Southern New Hampshire was suffering its worst storm of the year. Despite March noonday temperatures of 100 or more in the direct rays of the sun, 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 in the flooded grain fields south of that city.

The season was advanced 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 bombs 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

probably further a	chnical and scientific helps for today's farmer arc advanced than at any time in the world's history.
A veritable army service. The men periment. Make a	of sclentists, and city of laboratories arc at your listed below are your guides to this realm of ex- list of your knottiest problems (you too, Ma) and the one in your state.
(Cour	the one in your state. tesy—L. A. Schlup—Division of Extension Information)
State Alabama :	P. O. Davis, Alabama Polytechnic Institute, Auburn.
Arizona : Arkansas :	C. U. Pickrell, University of Arizona, Tucson. (W. R. Horlacher, College of Agriculture, Uni-
	versity of Arkansas, FayettevIlle. *(Aubrey D. Gates, Associate Director, 524 Post Office Building, Little Rock
California:	Office Building, Little Rock. B. H. Crocheron, College of Agriculture, Univer- sity of California, Berkeley 4.
Colorado:	F. A. Anderson, Colorado Agricultural and Me- chanical College, Fort Collins.
Connecticut:	R. K. Clapp, Acting Director, University of Con- necticut, Storrs.
Delaware: Florida:	 G. L. Schuster, University of Delawarc, Newark. A. P. Spencer, Agricultural Extension Service, Experiment Station, Gainesville.
Georgia:	Walter S. Brown, Georgia State College of Agri- culture, Athens.
Idaho:	E. J. Iddings, Extension Director, College of Agri- culture, University of Idaho, Moscow,
Illinois:	H. P. Rusk. College of Agriculture University of I
Indiana: Iowa:	 Illinois, Urbana. H. J. Reed, Purdue University. La Fayette. R. K. Bliss. Iowa State College of Agriculture and Mechanic Arts, Ames.
Kansas:	H. J. C. Umberger, Kansas State College of Agri- culture and Applied Science, Manhattan.
Kentucky	T. P. COODEr College of Agriculture University I
Louisiana:	 of Kentucky, Lexington 29. H. C. Sanders, Louisiana State University and Agricultural and Mechanical College, Univer- city Station Data Physics 201
Maine:	A. L. Deering, College of Agriculture, University
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Massachusetts:	W. A. Munson, Massachusetts State College, Am- herst.
Michigan:	R. J. Baldwin, Michigan State College of Agricul-
Minnesota:	Paul E. Miller, Department of Agriculture of the University of Minnesota, University Farm, St. Paul 8.
Mississippi:	L. I. Jones, Mississippi State College, State Col- lege.
Missouri:	J. W. Burch, College of Agriculture, University of Missourl, Columbia.
Montana:	J. C. Taylor, Montana State College of Agricul- ture and Mechanic Arts Bozeman
Nebraska:	W. H. Brokaw, College of Agriculture, University of Nebraska, Lincoln 1.
Nevada:	C. W. Creel, Agricultural Extension Division, University of Nevada, Reno
New Hampshire:	H. B. Stevens, University of New Hampshire, Durham.
New Jersey:	(W. H. Martin. State College of Agriculture and Mechanic Arts of Rutgers University, New Brunswick.
	*(I. G. Cook Associate Director College of Anni
New Mexico:	culturc, New Brunswick. A. B. Flte, New Mexico College of Agriculture and Mechanic Arts, State College.
New York:	Mechanic Arts, State College. L. R. Simons, New York State College of Agricul- ture, Ithaca.
North Carolina:	t. O. Schaub, State College Station, Raleigh.



North Dakota:

Ohio:

Oklahoma:

Oregon:

Pennsylvania:

Rhode Island:

South Carolina:

South Dakota:

lege. H. O. Stuart, Rhode Island State College, King-

chanical College, Stillwater.

lege, Corvallis.

ston. D. W. Watkins, Clemson Agricultural College of South Carolina, Clemson.

E. J. Haslerud, North Dakota Agricultural Col-lege, State College Station, Fargo.

H. C. Ramsower, College of Agriculture, Ohio State University, Columbus 10. Shawnee Brown, Oklahoma Agricultural and Me-

W. A. Schoenfeld, Oregon State Agricultural Col-

J. M. Fry, Pennsylvania State College, State Col-

George I. Gilbertson, Acting Director, South Dakota State College of Agriculture and Me-

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

Logan.

J. E. Carrigan, College of Agriculture, University of Vermont, Burlington. B. Dietrick, Virginia

L. Virginia Polytechnic Institute, Blacksburg. J. C. Knott, State College of Washington, Pull-

man.

Man.
J. O. Knapp, College of Agriculture, West Virginia University, Morgantown.
W. W. Clark, Associate Director, College of Agri-culture, University of Wisconsin, Madison 6.
A. E. Bowman, College of Agriculture, University of Wavening, Laramia of Wyoming, Laramie.

*All general correspondence is conducted by the associate director. N.B. The pictures in Life magazine in the story of The Old Far-N.B. The pictures in Life magazine in the story of The Old Far-mer's Almanac which appeard last Spring were taken with the co-operation of the Extension Service at Blacksburg, Va.



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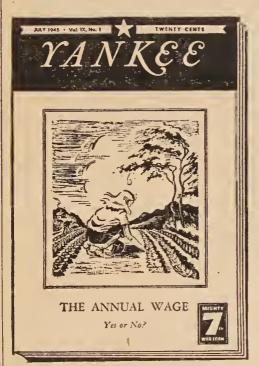
West Virginia:

Wisconsin:

Wyoming:

HERE IS CAUSE FOR REJOICING

YANKEE 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.

But that isn't all. You get a full crop of anecdotes, some of the best poetry published in America, black and white woodcut prints, notes on this and that you just would not find elsewhere.

OUR PROPOSITION: What with the paper shortage, reduced staff, and all, YANKEE is much smaller than it used to be. We feel you would gladly go along with us at the old three dollar a year rate. But we don't want you to do that. Two dollars a year is all we are asking. Fair enough? Well, just fill out the form below today—and mail with your remittance.

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Please enter my order for one year of YANKEE magazine.
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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, appears this winter, to be followed by other series in months to come.

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Johnson's BACK PLASTER



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 "waste". What is 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 wood. Edgings make kindling, and tops you can sell for summer wood or keep yourself. The brush, burned on top of the snow, is fine fertiliser for hay land, and the sawdust you use in the icehouse and to bed stock. When the roots are rotted enough to pull out easily, some people like them to burn in fireplaces.

Everything has some use. My wife got hold 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

paid.



Large Illustrated Folder showing Amazing prices

Vernon Baker, (OFA-46) Elyria, Ohio

HUDSON'S BAY Point BLANKETS

Tested by the Cold of 166 Northern Winters

72

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.

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THE HURRICANE OF SEPT. 8-16, 1944

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

The hurricane of Sept. 8-16 reaped 390 lives-344 of which it found The hurricane of Sept. 8-16 reaped 390 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 2½ to 3 1/3 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 highest 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 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 . . . with the scientific end of determining the amount of turbulence incide these storms and its offset on science of the storm of turbulence

inside these storms and its effect on aircraft flight.

These three storms and its effect on aircraft night. 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° was allowed to account for the estimated 100 m.p.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 en-countered. 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 continued on toward the assumed position of the center of the hurricane. Although the downdraft continued to be of airplane lost a speed of about 70 m.p.h. in the necessary c required to compensate for the downward motion of the air. The climb

"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 con-tinued 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 nottees made by the flyers in the pitching plane. Colonel Wood also indicated that, although the flight 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 hurricane 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.

Electoral									
	vo	tes	Popular votes						
State	Roosevelt (Democrat)	Dewey (Republican)	Roosevelt (Democrat)	Dewey (Republican)	Thomas (Socialist)	Watson (Prohibition)	Teichert ¹ (Socialist- Labor)	Others	Total
Alabama. Arizona. Arizona. Arkansas. California. Colorado. Connecticut. Delaware. Florida. Georgia. Idaho. Illinois. Indiana. Iowa. Kansas. Kentucky. Louisiana. Maine. Maryland. Mass. Michigan. Missisippl. Missouri. Montana. Nebraska. Nebraska. Nevada. N. H. New Jersey. New York. No. Carolina. Oklahoma. Oregon. Penn. R. I. So. Carolina. So. Carolina.	$\begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $	E 6 	$\begin{array}{c} \neg \neg \\ \hline \\ \hline \\ 198,918\\ 80,926\\ 148,965\\ 1,988,564\\ 234,331\\ 435,146\\ 68,166\\ 339,377\\ 268,187\\ 107,399\\ 2,079,479\\ 781,403\\ 499,876\\ 41,589\\ 41,549\\ 233,246\\ 85,315\\ 303,304,238\\ 527,399\\ 100,144\\ 1,570,763\\ 304,238\\ 527,399\\ 100,144\\ 1,570,763\\ 304,238\\ 401,549\\ 248,635\\ 517,399\\ 100,144\\ 1,570,763\\ 85,77,399\\ 100,144\\ 1,570,763\\ 304,238\\ 401,549\\ 248,635\\ 517,399\\ 100,144\\ 1,549\\ 248,635\\ 517,399\\ 100,144\\ 1,570,763\\ 304,238\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 100,144\\ 1,570,763\\ 304,238\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 248,635\\ 516,236\\ 401,549\\ 516,236\\ 516$	$\begin{array}{c} 44,540\\ 54,540\\ 56,287\\ 63,551\\ 1,512,965\\ 268,731\\ 390,527\\ 56,747\\ 143,215\\ 56,506\\ 100,137\\ 143,215\\ 56,506\\ 100,137\\ 143,215\\ 547,267\\ 442,096\\ 1,939,314\\ 857,891\\ 1547,267\\ 442,096\\ 30,137\\ 442,096\\ 1,543,2448\\ 67,750\\ 155,434\\ 4202,949\\ 921,350\\ 1,544,423\\ 527,416\\ 3,742\\ 292,949\\ 921,350\\ 1,544,423\\ 3,742\\ 292,949\\ 921,350\\ 1,544,423\\ 3,742\\ 205,647\\ 1,5535\\ 1,582,293\\ 319,424\\ 225,365\\ 1,585,048\\ 123,487\\ 4,547\\ 135,365\\ 200,311\\ 191,425\\ \end{array}$	190 190 233 3,923 1,977 5,097 154 282 180 2,223 1,511 1,613 535 4,598 5,073 1,296 3,358 1,750 1,296 943 3,785 11,721 892 594	1,095 421 14,770 294 508 7,411 12,574 3,752 2,609 2,023 973 6,503 973 6,503 4,255 148 4,255 148 549	2 327 1,220 9,677 193 326 335 2,780	6 49,594 7 1,530 9 17,823	$\begin{array}{c} 244,743\\ 137,634\\ 212,954\\ 3,520,875\\ 505,039\\ 831,990\\ 125,361\\ 482,592\\ 328,111\\ 208,321\\ 4,036,061\\ 1,672,091\\ 1,672,091\\ 1,672,091\\ 1,672,091\\ 733,776\\ 867,921\\ 349,383\\ 296,400\\ 608,439\\ 2,205,217\\ 1,125,529\\ 1,205,217\\ 1,125,529\\ 1,205,217\\ 1,125,529\\ 1,306,00\\ 1,571,678\\ 220,171\\ 3,153,056\\ 54,234\\ 229,625\\ 1,963,761\\ 152,225\\ 6,316,790\\ 790,554\\ 220,171\\ 3,153,056\\ 6,54,234\\ 229,625\\ 1,963,761\\ 152,225\\ 6,316,790\\ 790,554\\ 220,171\\ 3,784,787\\ 299,276\\ 103,375\\ 232,076\\ 510,792\\ 232,076\\ 510,792\\ 232,076\\ 510,792\\ 3,207\\ 232,076\\ 510,792\\ 332,076\\ 510,792\\ 510,792\\ 510,792\\ 510,792\\ 510,792\\ 510,792\\ 51$
Utah. Vermont Virginia Washington. W. Va. Wiseonsin Wyoming.	4 11 8 8 	3 12 3	$\begin{array}{r} 150,088\\ 53,820\\ 242,276\\ 486,774\\ 392,777\\ 650,413\\ 49,419\end{array}$	$\begin{array}{r} 97,891\\71,527\\145,243\\361,689\\322,819\\674,532\\51,921\end{array}$	340 417 3,824 13,205	459 2,396	90 1,645 1,002	314	$\begin{array}{r} 248,319\\ 125,361\\ 388,485\\ 856,328\\ 715,596\\ 1,339,152\\ 101,340 \end{array}$
Total	43 2	99	25,602,505	22,006,278	80,518	74,758		216,289	48,025,684

¹ Telehert and Albaugh were the Socialist-Labor Party candidates, but in Minnesota, New York and Pennsylvania they were the candidates of the Industriai Government Party. ² Write-In vote.

³ Scattering

⁴ Independent Democrats 3,373 votes and scattering 9 votes. ⁵ 1ndependents.

^a Independent Denotrats 3,375 votes and scattering 5 votes.
^a Independents.
^e Blanks 49,328 and scattering 266 votes.
^e America First Party.
^g Begular Democrats 9,964 votes and Independent Republicans 7,859 votes.
¹⁰ Includes 496,405 American Labor Party votes and 329,235 Liberal Party votes.
¹⁰ Includes 496,405 American Labor Party votes and 329,235 Liberal Party votes.
¹¹ Toreas Regulars 135,439 votes and Anepublican (Tolbert Faction) 63 votes.
¹² Texas Regulars 135,439 votes and Anepublican (Tolbert Faction) 63 votes.
¹³ Totas Regulars 135,439 votes and Anepublican (Tolbert Facton) 63 votes.
¹⁴ Totas Regulars 135,439 votes and Anepublican (Tolbert Facton) 63 votes.
¹⁵ Totas Regulars 135,439 votes and Anepublican (Tolbert Facton) 63 votes.
¹⁶ Texas Regulars 135,439 votes and Anepublican (Tolbert Facton) 63 votes.
¹⁷ Ottas Regulars 135,439 votes and Anepublican (Tolbert Facton) 63 votes.
¹⁸ Totas Regulars 135,439 votes and Anepublican (Tolbert Facton) 63 votes.
¹⁹ Totas Regulars 135,439 votes and Anepublican (Tolbert Facton) 63 votes.
¹⁰ Totas Regulars 135,439 votes and Anepublican (Tolbert Facton) 63 votes.
¹⁰ Totas Party Associated Press) One of the biggest surprises to political historians of the set figures were begun only after the 1942 election and a comparison for the previous Presidentia vear is not available.
¹⁰ The Democrats polled only a little more than 1,500,000 votes for Representative than the Regularans. The totals were: Democrats, 22,812,611; Republicans, 21,303,273.
¹⁰ Tuman became the 32nd President of the United States. President Roosevelt was referred to as the 31st President, although his was the 32nd occupance of the Presidence.
¹¹ The two non-consecutive terms of Grover Cleveland account for the apparent discrepaney. The two non-consecutive terms of Grover Cle

75

Tables of Measures

(English Units)

Linear Measure

1	foot=12 inches
1	yard=3 feet
1	rod=51/2 yards=161/2 feet
1	mile=320 rods=1760 yards=
	5280 feet
1	nautical mile=6080 feet
	knot=1 nautical mile per hour
1	furlong=½ mile=660 feet=
	220 yards
	league=3 miles=24 furlongs
	fathom=2 yards=6 feet
	chain=100 links=22 yards
	link=7.92 inches
	hand=4 inches
1	span=9 inches

Square Measure

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

Cubic Measure

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

Avoirdupois

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

Troy

(Used in weighing gold, silver, jewels) 1 pennyweight=24 grains

- 1 ounce=20 pennyweight
- 1 pound=12 ounces

(Metric Units)

Linear Measure

- 1 centimeter=10 millimeters
- 1 decimeter=10 centimeters
- 1 meter=10 decimeters
- 1 dekameter=10 meters 1 hektometer=10 dekameters
- 1 kilometer=10 hektometers 1 inch=2.54 centimeters 1 meter=39.37 inches

- 1 yard=0.914 meters
- 1 mile=1609 meters=

1.61 kilometers

Square Measure

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

- Cubic Measure

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

Weights

Apotheca: 1:9

1 scruple=20 grain3 1 dram=3 scruples 1 ounce=8 drams 1 pound=12 ounces

Metric

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

W00D

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 the "old long for days" back home in front of the open fire? Who wouldn't exchange his plaster walls for the softpine a ness of study? Who wouldn't give anything for the chance to bring up the birch or oak or apple 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 millionairc ever felt richer than the man with his neatly stacked full woodshed—or cellar. Here is to be found real visible wealthmade of honest labor-wealth which will provide the security of warmth many a cold over month. Here is seindeand curity. pendence 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.



INDEX

Adelbaran
Air Mail
Air Mail, foreign
Ancedores
Aphelion, Earth in 4
Aspects, Names and Characters,
Occurrence
Occurrence
Astronomy
Atomic Bomb 2
Cabinet, Merobers of 75
Calculations and Corrections
(In New England) 4
(Outside New England)10, 11, 12
Calendar, 1946, 1947,
Calendar, 1946, 19473, 14-37 Casualcies, World War I12
Charades
Christmas Tree Test
Chronological Cycles 4
Dates, Historic-alt. pages15-37
Day of Year, Month, Week14-36
Days, Length of alt. pages
Dlet
Directions for Using OFA 54
Eclipses
Editor's Note
Election Days—alt. pages
Election Days all pages
Explanations
Farmer's Calendars-alt. pages15-37
Fcasts and Fasts, Movable 4
Food
Frosts
Game Laws
Gestation Periods of 48
Glossary
Government, Agencies
Government, Officials
Heat, Animals in
Historical-Notes
Holidays, Church, State-alt. pages
13,15–37

15.07
Holy Days—alt. pages
Meals, Square
Migratory Game Birds
Moon. Age of alt. pages
Moon, Place—alt. pages
Moon, Risc and South—alt. pages. 14-36
Moon, Size of
Perihelion, Earth in
Planets, Names and Characters, Risc
and Set
Pleasantries
Poetry
Postal Rates, Domestic
Postal Rates, Foreign
Puzzles
Quiz, Square Meals
Recipes
Seasons
Scientlfic Progress
Stars, Morning and Evening
Suns Declination—alt. pages14-36
Sun. Rise and Set alt. pages14-36
Sun, Slow-alt. pages14-36
Sunspot Cycle
Thrift
Thrift. 77 Tides, Full Sea, Height of, Corrections
Tlme used
Twilight, Length of
Venus, Mars, Jupiter, Saturn
VJ Day
War of 1812 54
Washington, George
Weather Forecast 2,-alt. pages in
italics
Weatherwise, Mr
Winter, 1944–45
Wood
Zodiac, Signs of Moon's Place in 4, 14-36

FULL PAGE & HALF PAGE ADVERTISERS

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Field and Stream	W. F. Young, Inc

ANSWERS TO CHARADES ON PAGE 47

1, Con-tent. 2, Level. 3, Bondage, 4, Buttresses, 5, Xs. 6, Match-safe, 7, Telegram, 8, Ramrod, 9, Grandson,

ANSWERS TO OLD FASHIONED PUZZLES PAGE 46

1. Almanack. 2. Glass, Iass, ass. 3. $15873 \times 7 = 111111$. 4. Twe (Ive Twe)nty = 'Twenty, 5a. Because it keeps you dry all day. 5b. When they make 22. 5c. Because they have studded the heavens for thou-sands of years. 5d. Because they never complain without cause (caws). 6. An umbrella. 7a. Lay to (two). 7b. When Autumn turns the leaves. 7c. When U and I are one. 7d. Dog's hair. 8. Passama-quoddy. 9a. A book. 9b, A bell. 9c. A road. 10. Let X represent the number of times. Then, having cut X times in 1 foot, there would remain a rectangle (60 - 2X) feet in length, (40 - 2X) feet in breadth. This must be one half the surface.

 $\begin{array}{c} (60 - 2X) & (40 - 2X) \\ (30 - X) & (20 - X) \\ & X^2 - 50X \\ X^2 - 50X + 625 \\ X - 25 \end{array}$ 1200 = 300 -300 $\frac{325}{\pm}$ 18.02 - $+ \frac{625}{-25}$ Ξ 6.98 nearly.

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