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AY81,F306 1965

The 173 rd Continuous Year of Publication


PB Weather Forecasts, Secrets of the Zodiac, Recipes


He showed Yankee independence with an artist's brush...
Go down to Maine, to Prouts Neck, and stand on the hard rocks with the smell of salt and the crash of the ocean all around you and you'll know what it is that made Winslow Homer a different kind of painter from the rest.
Rather than study other artists' work, he taught himself to paint by studying nature.
Other artists had grown rich painting important people. He painted men who worked in the forest, men who sailed ships and fished in the sea, children who played out of doors in the New England summer.
Other artists had painted for the popular taste. He painted only what he wanted to... the gray, choppy waters of Gloucester Harbor, black waves that battle the coast of Maine, the translucent turquoise seas of the Bahamas.

Eccentric, some people called him. For how else could you describe a man who would go out in all the cold wet and wind - to set up an easel and paint? Others stood before his canvases and saw what Winslow Homer saw. They felt the spray on their cheeks. They heard the boom and hiss of the breakers. They called him a genius.


## When the Almanac says it's going to be cold.

That's the time for a nice cup of hot tea made with Salada Tea Bags. Each bag contains a blend of over 23 different teas.


## When the Almanac says it's going to be hot.

That's the time for a cooling glass of iced tea made with Salada Iced Tea Mix. The sugar and lemon flavoring are already in it.


## When the Almanac is wrong.

That's the time to be ready with a jar of $100 \%$ pure Salada Instant Tea-for delicious hot or iced tea in seconds.

## Wayside Gardens



NEW YEHOW LILAC

Primrose

## The catalog

## that outshines all others . . .

This is not a boastful claim Wayside’s catalogs really are the largest, most beautiful ever published. One glance, and you'll agree with gardeners from coast to coast who say . . . they are truly America's finest horticultural book-catalogs. They contain more new introductions, more rare and unusual items . . . and more dependable quality than you have ever seen in any other catalog.

Send for Wayside's outstanding catalogs
The Spring-planting edition (224 pages) is available from Dec. through April. The Fall-planting issue is released in June and may be had through October.

## ONLY YELLOW LILAC, Primrose

Primrose, the only yellow lilac in existence, was a sensation in London's famous Chelsea Show because of its unusual coloring and beauty ... Exquisite fower heads of softest cream yellow, bloom in abundance, blending beautifully with the blue, lavender and lilac shades. Another superb Wayside exclusive destined for top honors. $2-3 \mathrm{ft}$., bushy plants.

Each, \$6.00

## SEND FOR THE WORLD'S FINEST <br> HORTICULTURAL BOOK-CATALOGS

To get a copy of Wayside's valuavle garden catalog please send $\$ 1.00$ to cover postage and bandling for this beavy book. No other catalog can compare with them in size or wealth of selection. Specify whether you want the Spring or Fall-planting edition . . . they are both filled with bundreds of true-color illustrations and belpful cultural directions.
201 MENTOR AVE., MENTOR, OHIO Wayside Gardens

There is no other publication which for so long has served as a year round reference book in the American home as has The Old Farmer's Almanac. How mant millions of readers have lived, we wonder, with Jrm \& Hanmer Soda Bicarbonate on the Almanac's inside back cover since 1867? Or bought insurance from John Hancock (on the inside front) since the turn of the century? Or used Slade's spices, cream tartar and Bell's seasoning and stuffing directly from an OFA back cover ad which started rumning long before any auto ever did? The "Boston Five" also a back cover advertiser since way, way back, may surely be said to be responsible for the disappearance of most "pin money" saucers from the mantle.

But what about today? Here they are - all these and Absorbine, Jr., Grandma's Molasses, Underwood's Deviled Ham and other goodies, Salada teas $\&$ custards $\&$ \& fudge, Harris seeds, Wayside Gardens, and an host of other compames - and suppliers ready and willing to be at your service, just as they were for your parents, grandparents, and theirs before them.

Continued on Page $F$.


## No matter how you

## 『صワصصロ it mix it

 Seqree Ret
 （ROPSO OT\}

## or just plain enjoy it ．．．



UNDERWOOD DEVILED HAM MAKES A SANDWICH！
Wm．Underwood Company，Watertown，Mass．，Est． 1821


## Remember: this is the woman who predicted...

MARGUERITE CARTER
Lyndon Johnson's sudden ascension to presidency! Goldwater's entry in the race for candidacy! The Panama Canal crisis!
Richard Nixon's return to the limelight!
Robert Kennedy unearthing hidden evidence to convict James Hoffa!

Published predictions, by Miss Carter, concerning events of national and world importance, have attracted notice, nation-wide. The accuracy of these predictions has been phenomenal! She is an internationally famous lecturer, author and authority on planetary influences. Her horoscope features have appeared in metropolitan newspapers and magazines in the United States, Canada and England.

Years of intense study took Marguerite Carter to the remote corners of the earth. It has given her work a sincerity and genuineness not found in any other counseling. You can find the solution to problem areas, despite today's uncertainties, with the warm guidance of someone who has your interests at heart. Miss Carter's Forecast with Special Notations covers outstanding indications of your opportunities, financial outlook, home life, health, etc., for your year ahead.
Test her accuracy, you'll be amazed! Your Forecast will be individually assembled to your birthdate. Print month, day, year, place and hour of birth (if known) and include $\$ 3.00$ plus $25 \phi$ toward mailing costs. (Or send $\$ 2.00$ for Forecast without her special work.) Allow three weeks for careful, proper attention. Address: Marguerite Carter, Dept. OFA, 65 Jackson Building, Indianapolis, Indiana 46225.

# BOROLEUM ${ }^{\circledR}$ OINTMENT RELIEVES 

HAYFEVER - SINUS - BURNS SUNBURN - DIAPER RASH and ATHLETES FOOT

A preporation hoving many uses ond recommended by doctors since 1906. Get Boroleum todoy ot your druggist. May be sofely used on all ports of the body.
Contoins Menthol, Camphor, Eucalyptol, Methyl Solicylote, Boric Acid and Petrolotum.

TIME TESTED AND MEDICAiLY APPROVED INGREDIENTS<br>Guaranteed \& Prepared only by

## SINICLAIR PHARMACAL CO., Inc.

 FISHERS ISLAND, NEW YORKIf your druggist is out of stock, send $\$ 1.00$ for o tube

## VALUABLE CANADIAN LANDS

Seized for Tox Sale As as $\$ 1$ AN ACRE

Non-Profit - Buy Directly From Locol Tax Authorities Would You Buy At These Prices?

- 100 Acres, Rural, no Bldg Waterfront Cottage, 2 Acres $\$ 1027$
Hunting Camp, Northland
- 200 Acre Farm w/Bldgs
- City Building Lot

100 Acres near large city

- Bldg \& Lot, small town
- Wooded Vacation Island

Unusual investment or retirement opportunity. Thousands of valuable properties in Canada are offered for tax arrears sales each year. All at far below their true market value. Exclusive Tax Journal each month bublishes official Government lists of aroperties offered for sale because of tax arrears due to death, illness or financial hardship. NON-PROFIT, $\mathrm{N}_{0}$ middleman. You buy directly from local tax authorities, get perfect legal title with tax deed. Hundreds of campsites, islands, buildings, homes, farmlands, vacation and retirement properties included in latest list. Majority located near Canadian border. Not nccessary to travel to inspect. Check over legal descriptions frem your armehair and evaluate properties with simple formula we supply you. Then order and take possession later on your vacation or retirement. Free cony of latest monthly list and photos mailed promptly, plus inside reports on best hunting and fishing areas, and copy of official hunting and fishing regulations. Simnly send \$1 (refundable) to ONTARIO REGISTER, Room 199, 92 King Street East, Toronto I, Canada. For rush air mail add 50 c .

These ads for young and old (monuments, dentures. glasses, geraniums, tomatoes, corn, shrubs, trees, horoscopes, ointment, wild Canadian lands) on pages B-F, comprise not only listings, as on the Yellow Pages, but accurate descriptions of "what you get when you send your money." Intimate, some of them (see Page H), you bet they are and not for dinner table conversation either-but right up on the hook for you when the only person you want to talk with about these things is yourself. But, take care, as most of these ads say, your doctor knows best.

Contimued on Page I

## Remember the fragrance of Grandma's kitchen?

## Mmmmm...molasses!

Recapture her magic touch with Grandma's unsulphured Molasses-in beans, on ham, in cookies or toppings. Grandma's Molasses has a sunny tropical flavor just right for modern tastes...delicately light and sweet! Only fancy unsulphured molasses like Grandma's is mellow enough to blend tenderly with griddle cakes, waffles or milk shakes. Grandma's unsulphured molasses is made from West Indian sugar cane...no sulphur bleaching to leave a bitter after-taste. Grandma's Molasses is one of nature's most nutritional sweeteners!
SEND FOR FREE 36 -page Booklet, "Molasses Classics for Modern Cooks." Write: OFA-65 Box 33, Wall Street Sta., N. Y. 5, N.Y.

Rich in iron...
Always sweet...
Never bitter...
It's Unsulphured


# CHANGE-OF-LIFE... does it fill you with terror...frighten you? 

## Read how countless women have found the way to overcome change-of-life fears

Have you reached that time of life when one minute you feel suffocating hot flushes and the next are clammy, cold, nervous, irritable? Are you in an agony of fear?

Don't just suffer these miserable symptoms of change-of-life! Find relief the way
countless women have, with gentle Lydia E. Pinkham Tablets. In doctor's tests 3 out of 4 women who took them reported effective relief without expensive "shots."

Don't brood. Don't worry yourself sick. Get Lydia E. Pinkham Tablets today.

The gentle medicine with the gentle name LYDIA E. PINKHAM

Ladies: SLIM your appearance ...relieve your BACKSTRAIN with New, Non-Slip
 Beautÿ Belt Strictly for the ladies! New Princess Beauty Belt relieves strain on tired back musclesbuoys you up firmly yet gently-gives you that welcome "rested" feeling that lets re; you work or play without nagging inches slimmer without that heavy "corseted" look. Delicately feminine in style. Weighs just 4 ounces-hugs your hips like the skin itself. Adjusts in seconds. Foam rubber back pad for extra-gentle support: Only $\$ 4.98$ postpaid hip meassure 28 thru 44 . Larger sizes, $\$ 1.00$ extra. Send hip and waist measure. Removable long garter attachments available- 69 c for set of 4 . Money-back guarantee if returned within 30 days postpaid.
PI PEER COMPANY Dept. ON-115L 811 Wyandotte St., Kansas City 5, Mo.

ASK GRANDPA, he knows all about ROCK CANDY, the old reliable for coughs from colds. Always had some about the house. Sometimes he gave us some if we were good. Also kept some for himself, - mixed it with some stuff from a bottle . . . Said it was his medicine. Ask your dealer. Refined by Dryden \& Palmer, Long Island City, N. Y. ever since 1880.

## Shrinks Hemorrhoids

## New Way Without Surgery Stops Itch - Relieves Pain

For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain - without surgery.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

Most amazing of all - results were so thorough that sufferers made astonishing statements like "Piles have ceased to be a problem!"

The secret is a new healing substance (Bio-Dyne (®) -discovery of a world-famous research institute.

This substance is now available in suppository or ointment form under the name Preparation $\mathrm{H}^{(8)}$. Ask for it at all drug counters.


Slip-On Magnifiers-\$2.98 Having trouble seeing fine print and close work? Slip these magnifiers on your prescription glasses and SEE CLEARER INSTANTLY! Powerful 2.50 diopter lenses. Fits all glasses. Low $\$ 2.98$ postpaid price saves you $25 \%$ over usual cost. If not satisfied, return postpaid in 30 days for refund. State age. NEL-KING Products, Dept. ON115S, 811 Wyandotte, Kansas City 5, Mo.

Advertising is a wonderful world. It can be real "naughty" - make us miserable when it is too blatant or gets in our way. But goodness me, look at this page - observe what you can buy for only $\$ 5.10$ shopping on foot or by car for these things would cost a small fortune. Behind the scenes is us, waiting for hours in the lobbies of Madison Avenue agencies for guys (and dolls) who in turn have been spending months (and lives) writing copy and making pictures for advertisers who, think ads are sold direct by this one editor in the spare time between the weeding of his garden and the shovelling of his front (and back) walks.

 Back Guarantee. for FREE CATALOG HITCHCOCK SHOES, Hingham 104-B, Mass.


Send only $\$ 1.00$ for complete plans and instructions plus catalog of clock movements, dials, case plans and kits for building Grandmother, Grandfather, Terry, Steeple, and other fine clocks.
Mason \& Sullivan Co.
Dept. AL, Osterville, Mass.


## HAPPY BIRTHDAY IDEA

NOW you can have us send, in your name, to any friend or relative a handsome two-color BIRTHDAY PLAQUE inscribed with his or her name, horoscope (in part), and great events which have happened on this day down through the years. SEND us the name, date of birth, address, and the first, nick, or full name you wish on it as the donor . . . and . . .

## ONLY ONE DOLLAR

## Does

HEARING LOSS rob you of Togetherness with Family and Friends?

## Beltone

UTOPIAN instrument


Discover how you may now hear clearly whenever you want to, with this amazing new electronic capsule. Look at the diagram above. See how naturally the Beltone capsule fits in the ear. It slips in and out of the ear as easily as snapping your fingers! NO cords, NO wires, NO plastic tubes. Tiny as a thimble, weighs $1 / 3$ of an ounce. Yet amplifies sound 22 times. The Beltone Utopian provides higher fidelity hearing at natural ear-level.

It may end your fears that you'll miss out on what folks say. Discover how it may help you stay actively happy in family, social, church and community life. Write today for descriptive FREE book, sent in plain wrapper. Address: Dept. 4-729. Beltone Electronics Corporation, 4201 W. Victoria St., Chicago 46, III.

## BARGAINS IN BOOKS

THE OLD FARMER'S
ALMANAC(K) SAMPLER
Best of this Almanac
since 1792
$\$ 2.00$
RAIN, HAIL, \& BAKED BEANS
Truly seasonal recipes
214 pgs.
$\$ 3.50$
THE YANKEE COOK BOOK New Edition
398 pgs. $\$ 4.95$
THE NEW ENGLAND
PRIMER ALPHABET
Humorous, hand lettered
collector's item
40 pgs. hard cover
two colors
$\$ 3.00$
ROBB's CABINET OF
CURIOSITIES
2 vols. 64 pgs. each
paper binding
$50 \notin$ each.
BLIZZARD OF 1888
Eye-witness account of
14 page pamphlet
$\$ 1.00$
Any two of the above
$10 \%$ discount, postpaid.
YANKEE, INC. BOX FEA, DUBLIN, N.H.

UNICEF, the United Nations Children's Fund, offers new Datebook Calendar, left ( $\$ 2.00$ ), and distinctive Greeting Cards at $\$ 1.25$ a box of ten. The proceeds provide milk, medicine and equipment for needy children. Free catalogue available from UNICEF, United Nations, New York.

We started out to have this column of "ad text" to run beside every ad in the book. But then we found, to do this, we would have to omit Charlie in Trouble (see page N ), and the little girl who is trying to make him a bit less lonely in it. Most of our advertisers would agree this would

Continued on Page $P$.


Fish are drawn to the flashing blood-red color, trailing behind your hook,-the bubbling sound as it wobbles and twists, the pungent smell that all fish love,-and the "Iive" action of a wounded minnow.

## GUARANTEED TO CATCH MORE FISH-OR NO COST

JUST OUT: America's most exciting fish lure. Now an all-in-one lure that attracts fish "like magic". It's called "SCREAMING MEEMY". It's a crazy way to fish, but you'll agree it's the best way known to catch more and bigger fish. Guaranteed to catch all kinds of fish-Bass, Trout, Pike, Muskies, Bream, Perch, Salmon, Bone Fish-even Catfish! So, whether they strike by sight, smell, sound or because they're mad, they'll streak toward your hook-the big ones get there first.

## WORKS IN ALL WATERS LEGAL IN ALL STATES

 No matter if you still fish with cane pole, bait cast, spin or troll-if you fish lakes, creeks, ponds or the ocean, night or day"Screaming Meemy" helps you catch your limit. So new-it's not yet sold in stores. So to get your season's supply, order by mail.IMAGINE! Catching Fish Like These!


Jack Caddell, Homewood, Ala., restaurant man, and an ardent fisherman, was one of the first to test the Screaming Meemy. Here are beauties landed by him. You, too, can catch fish like these with your SCREAMING MEEMY Fish Bait Pills.

## Read This Sensational NO RISK GUARANTEE

We offer to let you try "SCREAMING MEEMY" without risking one penny. Order a package of these magic " 4 -way" Capsules today. Try them on your next fishing trip. Then, if you haven't caught more fish, than on any previous trip, return the empty carton for refund of your purchase price. But hurry, the supply is limited.

## SEND NO MONEY

Simply fill in and mail coupon. On arrival pay postman only $\$ 2.98$ plus C.O.D. two for $\$ 5.00$. Cash orders sent postage paid. Order within 10 days and receive FREE of extra cost wonderful book "99 Secrets of Catching Catfish". Rush order to

WALLING KEITH CHEMICALS, INC.
Dept. 29-C
100 South 41st Street - Birmingham, Alabama

[^0]

Number One Hundred and Seventy-three

## THE

( OLD )

## FARMER'S ALMANACK,

 CALCULATED ON A NEW AND IMPROVED PILAN FOR THE YEAR OF OUR LORD$$
1065
$$

Being 1st after Bissextile or Leap Year, and (until July 4) 189th year of American Independence
Fitted for Boston, and the New England States, with Special Corrections and Calculations to Answer for all the United States.
Containing, besides the large number of Astronomical Calcnlations and the Farmer's Calendar for every month
in the year, a variety of
NEW, USEFUL, AND ENTERTAINING MATTER.
ESTABLISHED IN 1792
BI TBATBERM B. THIGNERS.

These, as they change, Almighty Father, these Are but the varied God. The rolling year Is filled with Thee. Forth in the pleasing Spring They beauty walks, Thy tenderness and love. Then comes Thy glory in the Summer months, With light and heat refulgent. They Thy sun Shoots perfection through the swelling year. Thy bounty shines in Autumn unconfined, And spreads a common feast for all that lives. In Winter, Almighty Thou, with snows and storms Riding sublime, Thou bidst the world adore, And humblest all men with Thy northern blast.
1824
Copyright, 1964, By
ROBERT HAYNES, Est. of MARY S. SWAN, MRS. EUGENE L. SWAN

Please address all correspondence to Yankee, Inc., Dublin, N. H.

## Innuex




[^1]
## GLOSSARY OF ASTRONOMICAL TERMS, ETC.

Aph. - Aphelion . . . Planet revolving about Sun reaches point in its orbit farthest away from the Sun.
Apo. - Apogee . . . Moon reaches point in its orbit farthest from Earth.
Conj. - conjunction . . . moment of closest approach to each other of any two heavenly bodies.
Declination (see top left hand calendar pages) . . . measure of angular distance any celestial object lies perpendicularly north or south of celestial equator. Exactly analogous to terrestrial latitude. OFA gives declination at time each day the Sun is due South.
E1. - elongation . . . apparent angular distance of a member of the solar system from the Sun as seen from the Earth.
Inf. - Inferior . . . Inferior conjunotion is when the Planet is botween the Sun and the Earth.
Moon Runs High or Low . . . day of month Moon Souths highest or lowest above the horizon.
Opposition . . time when Sun, and Moon or Planet appear on opposite sides of the sky (elongation 180 degrees).
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.
R.A. - Right Ascension . . . the measure Eastward along the celestial equator of any oelestial body fron the vernal equinox to the point where the circle which passes through the object perpendioular to the celestial equator intersects the latter.
Stat. - stationary . . . when the apparent movement of a Planet against the background of Stars stops - just before same comes to opposition.
Sunrise and Sunset . . . visible rising and setting of Sun's upper limb across the unobstructed horizon of an observer whose eyes are 15 feet above ground level.
Sun Fast . . . the times given in this column must be subtracted from your Sun Dial to arrive at the correct time.
Sup. - Superior . . . Superior Conjunction is when the Sun is between the Planet and the Earth.
 at the Zenith - or the Sun is appr. 18 degrees below the horizon.
Underground Moon . . . one which changes its phases between 12 M. and 1 A.M.

## $\mathbb{T}_{0}$ \}atroms



This is the 173 rd consecutive annual edition of The Old Farmer's Almanac(k) . . . the oldest continuously published, in the same name and format, periodical in America. This edition is for the year 1965 or Atomic Year 21.
The plaque reproduced above was received this past year from the National Trust for Historic Preservation of Washington, D.C. in recognition of the Almanac's "continuing operations" and its "support of the National Preservation Movement."

Our good and dear friend, Frank Sullivan of Saratoga Springs, New York, writes us as we go to press:
"Regretfully I retract that boast I made to you of inviting you to join me at Saratoga's next Centennial of Racing (2063). The inroads of the past winter, part of which I had to spend in the Albany Medical Center, have forced me to hedge, and reverse my earlier figures. Make your visit not less than fifty years from now. I have intimations of mortality which lead me to suspect I won't last longer than that."
To Frank, we reply, we doubt that any such retraction on his part is necessary. We are reminded in this of a doctor friend who had kept putting off his fishing vacation on account of the critical illness of one of his patients. After many weeks he decided that, although the patient was not yet deceased, he was close enough to it for the event to be anticipated by a few hours. So, he signed the death certificate and went on vacation. Upon his return, three weeks later. he was astounded to find his "deceased" patient not only alive but well. In fact, he remaiued that way for another thirty years.

The serious and somber tones which have long occupied this page have suggested (we regret to say) to another friend, Brooks Atkinson, that our portrait must reveal us as a dour man who has just eaten a morsel of a bad fish-and that of our wife as one who has just seen her grandson break her best piece of Sandwich glass. To this conjecture we reply it is not easy to seem young and unharassed after some fifty years of continuous communication with the Smith Brothers, makers of cough drops in Poughkeepsie, N.Y. As their beards muffle whatever sounds that do escape from their cough drop filled mouths, it took us half of these years to understand they were trying to tell us the Ides of March begin on March 15-and not on the OFA's traditional date of the 5th. The calendar has changed, of course, these teu days since they were in school but as they are getting on, this year we have included their date as "Bisbee's Ides". The "Bis" and the "Bee" being, respectively, their baptismal nicknames.
Loring Andrews has, as usual, prepared the astronomical material. Benjamin Rice, the Farm Calendars, and Abe Weatherwise, the weather forecasts. Other contributions are by-lined.

Again our gratitude is expressed to the very many friends who arc always glad to help us in maintaining the character and popularity of this publication. We trust our own efforts in its behalf may continue to warrant your approbation. Man, however, in these things ean onls propuse goa is the true diquace. In the if is hy olir works and not our words we would be judged. These we hope will sustain us in the humble, though proud, station we have so long held, in the name of

Your ob'd servant,

June 7, 1964

## 

After a record-breaking ( $82^{\circ}$ ) day on October 27, 1963, last winter (Nov. 1963-Apr. 1964) was on the whole, excepting Maine, the South, Ohio, and Idaho, one most states would be glad to have over again. The average temperature at Blue Hill, Boston, the bsae point for our forecasts, was $34.1^{\circ}$ ( $2.4^{\circ}$ below normal) ; average monthly precipitation ( $5.16^{\prime \prime}$ ) was slightly ( $1.63^{\prime \prime}$ ), above average despite a real rainy November ( $8.7^{\prime \prime}$ ). And snow fell in an amount of $75.5^{\prime \prime}$-Some 29.2" more than the jear before (Old Abe's forecast called for $27.2^{\prime \prime}$ more). Abe, however, missed out in calling for a $37^{\circ}$ temperature arerage by $2.9^{\circ}$ - and in expecting average precipitation of $4^{\prime \prime}$ was out by $1.16^{\prime \prime}$ per month.

Nevertheless, on his 48 individual forecasts orer periods from one day to one week, he was $74 \%$ correct-and on 28 monthly summary forecasts, $80 \%$ correct. When we say correct, we mean OFA readers got, for weather, just about what he said (on pages 5 and 71) they would get. This compares with the United States Weather Bureau's 30-day-ahead forecast for Boston this way- $80 \%$ correct by Abe Weatherwise, $46 \%$ by U.S.W.B. On a national basis, an OFA reader would have been forewarned of 32 out of the 49 major storms, or better than $65 \% \ldots$ a creditable record for this infant prognosticator now 172 years of age. Month by month, the weather events of note were as follows:

## November 1963

Nov. 2, Me., wind and tide; 6, Ida., wind and snow; G-8, Me. N.II., Mass., northeast storm; 17, Ill., hail; 19-20, So. Cal., wind and rain; 20-30, Me., N.H., Mass., Conn., N.Y., wind, rain, tide.

## December 1963

Dec. 2, Alas., $51^{\circ}$ below; 3-4, Me., snow ; 6-8, N.D., blizzard ; 1011, Wash., heavy rain-N.D., snow and ice; 14-20, N.Y., heavy snow; 18-19, Cape Cod and Muskegon, Mlch., snow-Ill., very cold; 2023, Ark., Minn., Ga., Me., big snows; 31, New Orleans, 1st real snow since 1895-Ala., Ga., snow.

## January 1964

Jan. 1-2, Mass., N.Y. snow, icc, wind; 5-25, Idaho, steady snow and wind; $9-10$, N.Y., ice, rain, Wind ; 12-14, Del., Tenn., Ind., D.C., N.Y., N.J., Pa., Vt., N.H., Conn., Mass., Me., N.C., blizzard conditlons; $15-16$, Okla., N.Y.,
snow; 17-20, Ore., wind, rain, snow: 23-25, Minn., snow and wind-Col., $35^{3}$ below; 27-28, Mass., Conn., snow.

## February 1964

Feb., 1-29, Miss., unusually cold; 2-3, N.M., blizzard; $3-\overline{0}$, Tex., worst snow of year; 6-7, Mass., N.H., snow, rain; 19-20, W. Va., Mass., Vt., snow; 24-25, Ida., blizzard.

## March 1964

Mar. 1, Ida., snow, wind; 4-5, Ohio, floods-N.Y., rain, wind; 7, Cal., unusual fire whirl; 10-11, Mass., Me., N.H., snow, rain; 1113, Ida., snow, wind; 17, Ohio, floods; 19-20, Kans., Minn., snow, dust storms; 23-24, S.D., blizzard; 24-25, Kan., hail, sleet, snow; 27, Alas., quake and tidal wave (see page 71) ; 20-31, Ga., cold wave.

## April 1964

Nothing remarkable.

George Hyland, Maintenance Engineer, Massachusetts Turnpike Authority, reports he used $12,49+$ tons of salt, 32,862 tons of sand, and 322 tons of chloride during the winter. The Turnpike had $2^{\prime \prime}$ snow in Nov.; 21-23 $1 / 2^{\prime \prime}$ in Dec.; $17-351 / 2^{\prime \prime}$ in Jan.; $231 / 2-351^{\prime \prime \prime}$ in Feb.; $91 / 2^{\prime \prime}$ in Mar.; and $2-4^{\prime \prime}$ in Apr. Total, $74.5^{\prime \prime}$ min., or within one inch of Blue Hill's total. (At some stations, the Turnpike was $45^{\prime \prime}$ higher.) The Turnpike's really bad days were Dee. 23, 24; Jan. 10, 21, 31; Feb. 7, 8, 19, 20 ; Mar. 10, 11, 17, 18. Of these, Old Abe forewarned him correctly on 10 of the 13 -or $7 \% \%$.

## Weatyer forecast 1964-5

(Applies only to Blue Hill summit, near Boston, but will work for other places by subtracting one day for each Time Zone west, by reading five degrees lower temperature for every 100 miles north of 42 Lat. N. or five degrees higher for every 100 miles South of 42 Lat . N. and by considering every 1000 feet of altitude is 3.3 degrees cooler.)
Herewith as of May 15, 1964, are the foreeasts by Abe Weatherwise for the fourteen months beginning with November, 1964. There are two summations-that for the Winter of November 1964 through April 1985; and that for the Year (Jan.-Dee.) 1965. There are also fourteen monthly summaries, as well as individual summaries within eaeh month. (For versifieation of these summaries, see italies pages 11-33.)
This year we have dropped the U.S. Weather Bureau " 75 -year average" and its "20-year normal" and substituted (as more meaningful) a 20 -year ( 192 -63) average. Although the Weather Bureau has maintained that eity smog has raised temperatures some two degrees, this twenty-year average indieates only that Winter temperatures have beeome slightly higher-and those for Summer a bit lower, by about one degree. Also, the eurve indieates, in general, that our climate has for some years now been growing eooler. In some years we have offered to make speeial six-months-ahead forecasts for various parts of the eountry. As one faetor (sunspots) in our "formula" is so inaetive at present as to make it meaningless, we suggest that the following foreeast, eorreeted by the first paragraph above, will be as useful as any special foreeast we might make. (No questions assswered without a return postpaid, self-addressed envelope.)

## THE YEAR

(January 1-Deeember 31, 1965)
The year will average $47.17^{\circ}$ temperature, or $1.13^{\circ}$ below average. There will be $47.39^{\prime \prime}$ of preeipitation, or $1.18^{\prime \prime}$ below average. Although Spring will be unusually early-and Fall linger unusually longgrowers are eautioned to hold off planting until after the first good rain in the last week of May or first week in June. Also, August will be dry.

## THE WINTER

(Nov., Dee., 1964, Jan., Feb., Mar., Apr., 1965)
The average temperature will be $34.15^{\circ}$ or slightly (. $15^{\circ}$ ) below average. Preeipitation will be $21.23^{\prime \prime}$ for the six months $4.88^{\prime \prime}$ below average-but snowfall will be $75.85^{\prime \prime}$, some $11.25^{\prime \prime}$ above averagewith most of the inerease over average and over last year falling in January.

## THE FOURTEEN MONTHS

Nov. (1964) : Temp. $43^{\circ}-1^{\circ}$ above ave.; pree. $2.0^{\prime \prime}$-below ave. by $2.73^{\prime \prime}$; snow $2^{\prime \prime}-.16^{\prime \prime}$ below ave. 1-2, niee; $3-6$, rain; $7-10$, eool, overeast; 11-16, northeast rainstorm (1") ; 17-20, overeast; 2124 , nice; $25-28$, rain, sleet, snow ; 29-30, unsettled.
Dec. (1964): Temp. $32^{\circ}-2.4^{\circ}$ above ave.; pree. $3^{\prime \prime}-1.32^{\prime \prime}$ below ave.; snow $10^{\prime \prime}-2.7^{\prime \prime}$ below ave.
1-2, rain; 3-7, clears then cloudy; 8-12, severe storm of rain (1"), wind; 13-16, niee; 17-21, unpleasant; 22-24, snows $8^{\prime \prime}$ (some rain or sleet); 25-27, mild and overeast; 28-31, snow flurries and sleet.
Jan. (1965) : Temp. $24^{\circ}-2.4^{\circ}$ below ave.; pree. $5.18^{\prime \prime}-$. $^{\prime \prime \prime}$ " above ave.; snow $40^{\prime \prime}-24.1^{\prime \prime}$ above ave. (oh, my aching baek!).

1-3, clear and eold; 4-7, rain, sleet, snow ( $5^{\prime \prime}$ ); 8-9, mueh colder; 10-14, sunny; 15-17, lowery; 18-21, storm of the win-ter-20" snow; 22-25, thaw ; 2627, cold; 28-31, warm snowstorm ( $15^{\prime \prime}$ ).

Feb. (1965) : Temp. $22^{\circ}-5.5^{\circ}$ below ave.; pree. $2.41^{\prime \prime}-1.36^{\prime \prime}$ below ave.; snow $28.5^{\prime \prime}-13.7^{\prime \prime}$ above ave.
$1-2$, niee; 3-6, snows $10^{\prime \prime} ; 7-10$, eold and elear; 11-12, snow flurries; 13-15, elear; $16-19$, blizzard eonditions, 12 " snowfall; 20-22, elear; 23-25, rain, sleet; 26-28, not pleasant.
Mar. (1965): Temp: $29.6^{\circ}-5.2^{\circ}$ below ave.; prect $3.79^{\prime \prime}-.55^{\prime \prime}$ below ave.; snow,s $15^{\prime \prime}$, or ave. $1-2$, windy: $3-6$, rain ehanges to snow; 7-10, cold but elear; 11,

## ECLIPSES FOR THE YEAR 1965

There will be four eclipses, two of the Sun and two of the Moon, during 1965. Ne one of these will be visible generally throughout the United States.
I. A Total Eclipse of the Sun, May 30, 1965. The one-hundred mile wide path from which this celipse's totaiity will be visible lies almost completely across the waters of the South Pacife. It extends from just west of the northernmost tip of New Zealand's North 1sland, where totallty will oecur just after sunrise, northeastward toward the Equator, which it skirts between longitudes $130^{\circ}$ and $105^{\circ}$ west, before turning southeastward to end on the coast of Peri, just north of Lima, where the Sun will be in total eelipse as it sets. As a partial eelipse, it will be visible from New Zealand and the islands of Meiancsia to fts northwest as far as the Solomons, throughout the South Pacifie and the North Pacific east of the International Date Line as far north as Hawaii and the head of Baja California, as well as for observers throughout Mexico, Caba, the Greater Antilles, Central America, and northwest South America.
II. A Partial Eclipse of the Moon, June 13, 1965. The beginning of this eclipse will be visible in the southeastern part of the Pacific Ocean, South America, the east coast of North America, the Atlantic Ocean, Furope, Africa, southwestern Asia and Antaretica. The end of the eclipse will be visibie from western Europe, Africa except the Somali coast, the Atlantic Ocean, the southeastern half of North America, South America, the southeastern part of the Pacific Ocean and Antarctica. The umbral phase of this ecllpse will start at 7.58 P.M., E.S.T. and end at 9.40 P.M., E.S.T. The penumbral phase, which precedes the beginning of the umbrai phase, starts at 6.15 P.M., E.S.T., while that which follows the end of the umbral phase, ends at 11.22 P.M., E.S.T. Since the moon rises at Boston at 7.17 P.M., E.S.T. on June 13 th, the umbral phase will start less than an hour thereafter and last only an hour and forty-two miautes. This phase will thus have ended before the moon rises for observers in the Mountain and Pacifo Time zoncs in general.

I11. An Annular Eclipse of the Sun, November 22, 1965. The path from which this annular ecilpse will be visible, a path that ranges in width from 100 to 200 miles, has its beginning with observers on 1ndia's Northwest Frontler, who will see it near sunrise. Thence it sweeps across northern 1ndia, Southeast Asia, Tadonesia as far as northwest New Guinea, before sweeping out to sea to its end about midway between the Marshall and Gibert Istands. As a partial cclipsc it wili be seen by observers eastward from the line extending roughly from the head of the Persian Gulf through the Caspian Sea along the Ural Mountains, aeross all of East and South Asia, Indonesia, Australia, and the islands of the Pacific which lie, in general, west of the International Date Line. and the watcrs of the western Pacife between latitudes $45^{\circ}$ north and $30^{\circ}$ south and west of the Date Line.

TV. A Penumbral Eclipse of the Moon, December 8, 1965. The beginning of this colipse will be visible from the castern hall of Europe, northeast Africa, nost of the Indian Ocean, Asia, Australia, Oceania, the Pacife Occan except the southeastern part, the extreme nortliwestern part of North Amerlea, and the north polar regions. 1ts end will be vislble from the castern part of the Pacife Ocean, Europe, Africa, the Indian Ocean, Asia, the northwestern Dart of the Pacffe Ocean, western Alaska and the north polar regions.

## EARTH IN PERIHELION AND APHELION, 1965

The Earth will be in Perihelion on January 2nd, distant from the Sun 91,350,000 miles. The Earth will be in Aphelion on July 3rd, distant from the Sun $94,453,000$ miles.

## FULL MOON DAYS

|  | 1965 | 1966 | 1967 | 1968 | 1969 |  | 1965 | 1906 | 1967 | 1968 | 1969 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jan. | 17 | 7 | 26 | 15 | 3 | July | 13 | 2 | 21 | 9 | 28 |
| Feb. | 15 | 5 | 24 | 14 | 2 | Aug. | 12 | $1-30$ | 19 | 8 | 27 |
| Mar. | 17 | 6 | 25 | 14 | 4 | Sept. | 10 | 29 | 18 | 6 | 25 |
| Apr. | 15 | 5 | 24 | 12 | 2 | Oct. | 10 | 29 | 18 | 6 | 25 |
| May | 15 | 4 | 23 | 12 | $2-31$ | Nov. | 8 | 27 | 17 | 4 | 23 |
| June | 13 | 3 | 22 | 10 | 29 | Dec. | 8 | 27 | 15 | 4 | 23 |
|  |  |  |  |  |  |  |  |  |  |  |  |

## 1965䊈olidays

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

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

Jan. 1 (* $\dagger$ ) New Year's, Fri., Clear and Cold.
Jan. 8 (**) Battle of New Orleans Jan. 15 (**) Arbor Day (Fla.) $^{(*)}$
Jan. 19 (**) Robert E. Lee's Birthday (South)
Jan. 26 (**) MacArthur (Ark.)
Jan. 30 (**) F.D.R.'s Day (Ky.)
Feb. 12 (*) Lincoln's Birthday (13 States) Fri., Snowy
Feb. 14 (**) Admission Day (Arlz).
Feb. 14 (***) Valentine's Day
Feb. 15 (***) Susan B. Anthony
Feb. 22 (* $\dagger$ ) George Washington's Birthday, Mon., Nice.
Mar. 1 (**) State Day (Nebr.)
Mar. 2 (**) Mardi Gras (Ala., Fla. La.)
Mar. 2 (**) Texas Ind. Day
Mar. 7 (**) Burbank Day (Cal.)
Mar. 15 (**) Jackson Day (Tean.)
Mar. $17\left({ }^{(* *)}\right.$ St. Patrick's or Evacnation Day (Boston)
Mar. 25 (**) Maryland Day
Mar. 26 (**) Kuhio Day (Haw.)
Mar. 30 (**) Seward's Day (Alas.)
Apr. 2 (**) Arbor Day (Ariz.)
Apr. 12 (**) Halifax Day (N. C.)
Apr. 13 (**) Jefferson Day (Ala., Mo., Nebr.. Okla., Va.)
Apr. 16 (**) Good Friday (Ark., Cal., Conn., Del., Fla., Ill., Ind., La., Md., Minn., N. J., N. D., Penn. \& Tenn.) Rain and Fog.
Apr. 19 (**) Patriots' Day (Me., Mass.) Mon. Mild, Unsettled.
Apr. 19 (**) Gaster Mon. (N. C.) Apr. 21 (**) San Jacinto (Tex.)
Apr. 22 (**) Okla. Day. Arbor Day (Nebr.)
Apr. 26 (**) Memorial Day (Ala., Fla., Ga.. Miss.)
Apr. 26 (**) Fast Day (N. H.), Mon., Rain.
Apr. 30 (**) Arbor Day (Utah)
May 4 (**) R. I. Indep. Day
May 10 (**) Men. Day (N. \& S. C.)

May 9 (***) Mother's Day

## LONG HOLTDAF WEEKENDS

The "long stretch" for sklers is good for New Year's and Lincoln's (both on a Friday) and Washington's (a Monday). Faster is, of course strctehed by some, but with both Memorial Day and the Fourth falling on Sunday, many will be crying "we was robbed." Christmas (a Saturday) is no help either. But for those who are not punching time clocks, the following four-day vacations don't involve too many lost days of work-Bnnker Hill (June 17, a Thurs.), Columbus (Oct. 12, a Tnes.) and Veterans' (Nov. 11, a Thurs.).

Memorial Day (Sun.) offers a good chance for combined church and
"parade serviees."

May 15 (**) Armed Forces Day May 20 (**) Mecklenburg (N. C.) May 30 (*) Decoration or Memorial Day, Sun., Showery.
June 3 (**) Jefferson Davis Day
(Ala., Fla., Ga., Ky., La., Miss.,
S. C., Tenn., Tex.)

June 11 (**) Kamehameha (Haw.)
June 14 (**) Flag Day (Pa.)
Jnne $15{ }^{(* *)}$ Pioneer Day (Idalio)
June 17 (**) Bunker Mill (Suffolk Co., Mass.), Thurs., Hot, Nice.
June 20 (**) West Virginia Day June 20 (***) Father's Day
July 4 (* $\hat{\prime}$ ) Independence, Sun., Hot.
July. 13 (**) Forrest's Day (Tenn.)
July 24 (**) Pioneer Day (Utah)
Aug. 1 (**) Colorado Day
Aug. 14 (**) Victory (R. I.)
Aug. 16 (**) Penniugton, Vt. Bat. Aug. 30 (**) Huey Long (La.) Sept. 6 (*†) Labor Day, Mon., Unsettled.
Sept. 9 (**) Admission Day (Cal.)
Sept. 12 (**) Defender's (Md.)
Sept. 16 (**) Cherokec (Okla.)
Sept. 17 (***) Citizenship Day
Sept. 24 (***) Am. Indian Day
Oct. $10\left({ }^{(* *)}\right.$ Okla. Hist. Day
Oct. 11 (**) Pulaski Day (Nebr.)
Oct. 12 (*) Columbus (All States exc. 10). Tues., Rainstorm.
Oct. 18 (**) Alaska Day
Oct. 24 (***) United Nations Day Oct. 31 (**) Nevada Day
Nov. 1 (**) All Saints' Day (La.)
Nov. 4 (**) Will Rogers (Okla.)
Nov. 11 (*i) Veterans' (All States exc. 4) Thur's., Rainy.
Nov. 13 (***) Sadie Hawkins Day
Nov. 23 (**) Repudiation (Md.)
Nov. $25\left({ }^{*} \dagger\right)$ Thanksgiving Day Thnrs., Heavy Rain.
Dec. 1 (**) Arbor Day, Ark.
Dec. 10 (**) Wyoming Day
Dec. 15 (***) Bill of Rights Day
Dec. 21 (***) Forefathers' Day
Dec. $25(*+)$ Christmas Day, Sat., Rain and Sleet.

JANUARY. S|M|T|W|T:F|S \begin{tabular}{c|c|c|c|c|c|c|}
\hline- \& - \& - \& 1 \& 2 \& 3 <br>
5 \& 6 \& 7 \& 8 \& 9 \& 10 \& 11

 

\hline 5 \& 6 \& 7 \& 8 \& 9 \& 10 \& 11
\end{tabular}


 2627 28 29.30 MAY.


JUNE. | 7 | 8 | 2 | 4 | 4 | 5 | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4 | 9 | 10 | 11 | 12 | 13 |  |
|  | 15 | 16 | 17 | 18 | 19 | 20 |

 | 5 | - | -1 | 2 | 3 | 4 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12 | 6 | 7 | 8 | 9 | 10 | 11 |
| 13 | 14 | 15 | 16 | 17 | 18 |  |

| 1 | 22 | 23 | 24 | 25 | 26 | 27 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| - | 29 | 30 | - | - | - | - |
|  | - | - | - | - | - | - |

## OCTOBER.


$\square$
NOVEMBLR. 3

10 \begin{tabular}{l|}
\hline 1 <br>
8

 

5 \& 6 \& 7 \& 8 \& 9 \& 10
\end{tabular} $27282930-1-2526|27| 28.2930|31| 2930$ 1965



## 18 (1)



## Intronuction

STANDARD TIME IS USED THROUGHOUT THIS ALMANAC Add 1 hr April 25, (deduct it Oct. 31) for Daylight Saving Time For States which retain September D.S.T. Closing Date, Deduct it Sept. $\mathbf{2 6}$.

## Chronological Cycles for 1965.

| Golden Number . . 97 |  |
| :---: | :---: |
| Epaet . . . . . . . 27 | Dominical Letter* . . C |

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

Movable Feasts and Fasts for 1965.

SeptuagesimaSun. Feb. 14
Shrove Sunday Feb. 28
Ash Wednesday 1st Sun. in Lent Palm Sunday

Mar. 3
Mar. 7
Apr. 11

## Good Friday

 Easter Sunday Low Sunday Rogation Sun. Ascension DayApr. 16 Whitsunday
Apr. 18 Trinity Sunday Apr. 25 Corpus Christi May 23 1st Sunday in May 27 Advent

June 6 June 13 June 17

## THE SEASONS OF 1965

Winter (1964) December 21 2.50 p.M. (Sun enters Capricornus)

Spring (1965) Summer Fall Winter

Mareh 20 June 21 September 23 December 218.41 p.m. (Sun enters Capricornus)

## Names and Characters of the Principal Planets.

O Venus.
$\oplus$ The Earth.
of Mars.
24 Jupiter.
$\Psi$ Neptune. E Pluto.

## Names and Characters of the Aspects.

of Conjunction, or in the same degree.
$\square$ Quadrature, 90 degrees.
8 Opposition, or 180 degrees.
¿ Dragon's Tail, or Descending Nod.

## Calendar Page Explanations and Signs

On the right hand pages you will find every now and again the symbols given above conjoined in groups of three to give you what is happening in the heavens. See Glossary, Page 2. Example: $\delta l_{2}$ on page 13 opposite Feb. 3 means Saturn and the Moon are on that day in conjunction, or nearest to eaeh other. See also pages 81-85 whieh explain how you may eorreet pages $10-33$ for use anywhere in the U.S.A, ine. Alaska and Hawaii.

## highlights of the calendar pages

This ALMANAC is not easily produced. There are some 400,000 ealeulatiom whieh must be made, and verified. Before use, therefore, a thorough study of the explanations and eross referenees is reeommended. Queries inust be a eeompanied by stamped addressed reply envelope.

The LONG RANGE FORECASTS about the weather appear in prose on page 5 , and in verse, in italics, on pages 11 through 33. Opposite January 18-22 on page 11 you will note: Tanks needed for these snow banks. This means the Almanae expeets a big snowstorm sometime during this period... in the Boston area. For adjustments to other localities, see pages 5 (para. one) and 80 .

The PLANETS tables on pages $34-35$ are found useful by many in helping them to determine whieh bright planet(s) they are seeing in the eastern or western sky. Also, the configurations and aspects of the planets, as these appear on pagea 11-33, are helpful for determination of radio weather - other weather - and space projects, to learn when certain planets are nearest our own earth.

The LONGEST DAY column (pages 10-32) is perhaps the most elosely followed on these pages. Those conversant with it beeame fascinated, for example, with how the shortest day does not always mean the earliest sunset, ete.

The TIDES, pages 11-33, are the height of the morning and evening high tidos throughout the year, correeted, as are the times (pages 10-32), on page 83, for our East, South, and West Coast ports and beaelies. Being conversant with the rhythms and eyeles of the sun, moon, planets, tides, ete., and how one gears in with another, gives one an assurance, found in no other way, that all is right with the world.

A full eoverage of zodiaeal and daily signs (and the superstitions connected therewith) is given in Part II, beginning on Page 38 .

| JANUARY, First Month. |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASTRONOMICAL CALCULATIONS. |  |  |  |  |  |  |  |  |  |  |
| a | Days. | 0 | Days. | 0 | Days. |  | Days. | 0 | Days. |  |
| \% | 1 | 22s. 59 | 7 | 2220 | 13 | 2126 | 19 | $20 \quad 17$ | 25 | $18 \quad 53$ |
| $\stackrel{ }{ }$ | 2 | $22 \quad 54$ | 8 | 2212 | 14 | 2115 | 20 | 2004 | 26 | 1838 |
| \% | 3 | 2248 | 9 | 2204 | 15 | 2104 | 21 | 1950 | 27 | 1823 |
| ค | 4 | $\begin{array}{ll}24 & 42\end{array}$ | 10 | 2155 | 16 | 2053 | 22 | 1937 | 28 | 1757 |
| $\stackrel{\square}{0}$ | 5 | 22 | 11 | 2146 | 17 | 2042 | 23 | 1923 | 29 | $17 \quad 51$ |
| $\bigcirc$ | 6 | $122 \quad 28$ | 12 | 2136 | 18 | 2030 | 24 | 1908 | 30 | $17 \quad 35$ |

- New Moon, 2nd day, 4 h. 07 m., evening, W.

D First Quarter, 10th day, 4 h. 00 m., evening, E O Full Moon, 17 th day, 8 h .38 m ., morning, W. © Last Quarter, 24th day, 6 h. 07 m., morning, W.
KEY LETTERS REFER TO CORRECTIONS TABLE, PAGES 81-85, FOR ALL POINTS OUTSIDE NEW ENGLAND

| 危 |  |  | $\left\|\begin{array}{c} 0 \\ \text { Rises } \\ \text { h. m. } \end{array}\right\|$ | es | $\begin{gathered} C \\ \text { Sets } \\ \text { h. m. } \end{gathered}$ |  | $\begin{gathered} \text { of } \\ \text { Days } \\ \text { h. m. m. } \end{gathered}$ |  |  |  | $\begin{gathered} \text { Rises } \\ \text { h. m. } \\ \hline \end{gathered}$ |  | $\begin{gathered} \substack{\text { Sets } \\ \text { h. m. } \\ \hline} \end{gathered}$ |  | ${ }_{\text {Place }}^{D}$ | D |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I | 1 | Fr. 17 | 713 | O 4 | 423 | C\| | \| 910 | 11 | $10^{\frac{1}{4}}$ | $10^{\frac{3}{4}}$ | $6_{\text {M }}^{\text {A }} 16$ |  | - $3_{M_{M}^{P} 23}$ | C | c | 29 |
| 2 | 2 | Sa. 7 | 713 |  | 424 | C | 911 | 11 | $10^{\frac{3}{4}}$ | $11 \frac{1}{4}$ | 710 |  | 410 | C | c | 30 |
| 3 | 3 | C 7 | 713 | - 4 | 425 | C | 912 | 11 | $11 \frac{1}{2}$ | - | 759 |  | - 502 | C | A | 1 |
| 4 | 4 | M. 7 | 713 |  | 426 | C | 913 | 10 | , | 0 | 841 |  | - 600 | - | , | 2 |
| 5 | 5 | Tu. 7 | 713 | - 4 | 427 | D | 914 | 10 | $0 \frac{1}{2}$ | $0 \frac{3}{4}$ | 918 | N | 701 | D | , | 3 |
| 6 | 6 | W. 7 | 713 | N 4 | 427 | D | 915 | 9 | $1 \frac{1}{4}$ | $1 \frac{1}{2}$ | 949 |  | i 803 | E | - | 4 |
|  | 7 | 7 | 713 | N 4 | 428 | D | 916 | 9 | 2 | 2 | 1016 |  | c. 906 | G | PSC | 5 |
| 8 | 8 | 7 | 712 |  | 429 | D | 917 | 8 | $2 \frac{3}{4}$ | $2 \frac{3}{4}$ | 1041 |  | (10 10 | H | PSC | 6 |
| 9 | 9 | Sa. 7 | 712 |  | 430 | D | 918 | 8 | $3 \frac{1}{2}$ | $3 \frac{3}{4}$ | 1105 |  | J $11_{\mathrm{M}}^{\mathbf{P}} 15$ |  |  | 7 |
| IO | 10 | C 7 | 712 | N 4 | 432 | D | 920 | 8 | $4 \frac{1}{4}$ | $4 \frac{1}{2}$ | 1129 |  |  |  |  | S |
| I I | 11 | M. 7 | 712 | N 4 | 433 | D | 921 | 7 |  | $5 \frac{1}{2}$ | $11_{\text {M }}{ }^{\text {A }} 55$ |  | a $12^{\text {A }} 21$ | J | TAU | 9 |
| I | 12 | Tu. 7 | 711 | N 4 | 434 | D | 922 | 7 | 6 | $6 \frac{1}{2}$ | $12^{\text {P }} 23$ |  | F 131 | K | TaU | 10 |
| I | 13 | W. ${ }^{7}$ | 711 |  |  | D | 924 | 6 | 7 | $7 \frac{1}{2}$ | 1257 |  | E 244 | 1. | M | 11 |
| 14 | 14 | Th. 7 | 710 |  | 436 | D | 925 | 6 | $7 \frac{3}{4}$ | $8 \frac{1}{2}$ | 139 |  | D 400 | N | $\mathrm{G}^{\prime} \mathrm{M}$ | 12 |
|  | 15 | Fr. 7 | 710 |  | 437 | D | 927 | 6 | $8 \frac{3}{4}$ | $9 \frac{1}{2}$ | 231 |  | c] $5 \quad 15$ | 0 | CNC | 13 |
| I 6 | 16 | Sa. 7 | 710 |  | 438 | D | 929 | 5 | $9 \frac{3}{4}$ | $10^{\frac{1}{2}}$ | 335 | c | 6 | 0 | CNC | 14 |
|  | 17 | C ${ }^{7}$ | 709 |  | 439 | D | 930 | 5 | $10^{\frac{3}{4}}$ | 111 $\frac{1}{4}$ | 448 | c | 727 | 0 |  |  |
| 18 | 18 | M. 7 | 708 |  | 441 | D | 932 | 5 | $11 \frac{1}{2}$ |  | 606 |  | - 818 | 0 | LEO | 5 |
| 19 | 19 | Tu. 7 | 708 |  |  | D | 934 |  | $0 \frac{1}{4}$ | $0 \frac{1}{2}$ | 724 | F | S 5S | M |  | 16 |
| 20 | 20 | W. 7 | 707 |  |  | D | 936 | 4 |  | $1 \frac{1}{4}$ | 838 | G | 931 | $4$ |  | 17 |
| 2 I | 21 | Th. 7 | 707 |  | 444 | D | 938 | 4 | $1 \frac{3}{4}$ | $2 \frac{1}{4}$ | 950 |  | 958 | J | VIR | 18 |
| 22 | 22 | Fr. 7 | 706 |  |  | D | 940 | 3 | $2 \frac{3}{4}$ | 3 | $10_{\mathrm{M}}^{\mathrm{P}} 57$ |  | J 1024 | 1 | LIB | 20 |
| 23 | 23 | Sa. 7 | 705 | $\mathrm{N}$ |  | D | 942 | 3 | $3 \frac{3}{4}$ | 4 |  |  | 1049 | H |  | 21 |
| 24 | 24 | C 7 | 704 | N 4 |  | D | 944 | 3 | $4 \frac{1}{2}$ | 5 | $12{ }^{\text {A }} 02$ |  | -1113 | G |  | 22 |
| 25 | 25 | M. 7 | 704 | M 4 |  | E | 946 | 3 | $5 \frac{1}{2}$ | 6 | 107 |  | 11 ${ }_{\text {A }}{ }^{\text {a }} 40$ | F | Sco | 23 |
| 26 | 26 | Tu. 7 | 703 | m 4 | 451 | E | 948 | b | $6 \frac{1}{2}$ | 7 | 209 |  | $12_{\text {m }}{ }^{\text {P }} 09$ | E | SGR | 24 |
|  | 27 | W. 7 | 702 |  | 452 | E | 950 | 2 | $7 \frac{1}{4}$ | 8 | 311 |  | 1242 | D |  | 25 |
| 28 | 28 | Th. 7 | 701 | M 4 | 453 | $\mathrm{E} \\|$ | 952 | 2 | $8 \frac{1}{4}$ | $8{ }_{4}^{3}$ | 409 |  | 121 | $c \mid$ | SG | 26 |
| 29 | 29 | Fr. 7 | 700 |  | 454 | E | 954 | 2 | 9 | $9 \frac{3}{4}$ | 505 | o | 206 | $\mathrm{c} \mid$ | cap | 27 |
| 30 | 30 | Sa. 6 | 659 |  | 456 | E. | 957 | 2 | $9 \frac{3}{4}$ | $10_{4}^{1}$ | 555 | O | 257 | C | CA | 28 |
| 31 | 31 |  | 658 |  | 457 | E | 959 | 2 | $10 \frac{1}{2}$ | 11 | $6{ }_{\text {M }}{ }^{\text {A }} 40$ | N\| | - $3_{\text {m }}$ | C | AQR | 29 |



Bchold the liquid surface of the lakes Changed into pavements of black marble. See the rapid river arrested in its course, An ldle torrent which only seems to roar. 1824

\begin{tabular}{|c|c|c|c|}
\hline a

8 \& A \& High \& Farmer's Calondar. <br>
\hline \& Fr. \& Circmmcision. Tides $\left\{\begin{array}{l}9.7 \\ 8.3 \\ \text { colder }\end{array}\right.$ \& Since Colnmbus discovered <br>
\hline 2 \& S \&  \& America, we have invented a <br>
\hline 3 \& \&  \& world. What his staunch little Santa Maria was made of and <br>
\hline \& M \& Shortest twilights
now to April 11 Tides $\left\{\frac{8}{9.8}\right.$ Sheets \& by whom and by what means it conld have gone to such <br>
\hline \& \& Twelfth Kings were chosen this of rain \& far-away strange places was <br>
\hline \& \&  \& as perfectly understood then by Pancho in Madrid's market <br>
\hline 7 \& \& Discord and $\quad$ lechery rampant 6 ช̛̣ $\left\{\begin{array}{l}8.6 \\ 9.4\end{array}\right.$ \& sleet. \& place as was how he could squirt wine into his open <br>

\hline 8 \& \&  \& | mouth. |
| :--- |
| The restless questing of the | <br>

\hline 9 \& Sa \&  \& Vikings and the incredible <br>
\hline \& \&  \& journeys of Polynesian war-riors-and how they made <br>
\hline \& \& Plotgh N01. First U.S. ${ }_{\text {Sedan }} 1913$ ( ${ }_{8.6}^{9.1}$ will \& legends of the lands they peo- <br>

\hline \& 'T \& 6. \& | pled-were as well nnderstood. |
| :--- |
| I have no doubt, by people of | <br>

\hline \& \& Big wave causes orgy
Packet Columhia, 1845 Tides $\left\{\begin{array}{l}9.8 \\ 8.8\end{array}\right.$ their \& their times and cllmes as was Pancho's understanding <br>
\hline \& \& St. Hil. Coldest Lexington earmuffs. \& I have the unhappy ficeling that I know more of these <br>
\hline 1 \& \& Take a woman's first ${ }^{\text {Hol }}$ Hol. A dull \& fabulous legends-or at least <br>
\hline 1 \& \& ${ }^{\text {The full (17th) }}$ Wolf moon $\mathbb{C}_{\text {Perl high }}^{\mathrm{ln}}$ (ominous) \& am somehow more akin to them -than of this wondrous <br>
\hline \& \& 2 nl a. 迪p. $\mathrm{Storm}^{1817}$ Tides $\left\{_{9.9}^{11.6}\right.$ lull. \& Polaris, and the meeting of submarines under the north <br>
\hline \& V \& Year's highest A.M. Tides $\left\{\begin{array}{l}11.7 \\ \text { high tide }\end{array}\right.$ \& polar icc; bombs that can de- <br>
\hline 1 \& T \& high tide
Antarctic Cont. Lee's B'dy. $\left\{\begin{array}{l}10.1 \\ \text { disc. } 1840\end{array}\right.$ needed
11.5 Hol. So. \& stroy all the world at once; "thinking" machines; and jets <br>
\hline 2 \& \&  \& so fast yon are literally (timewise) there beforc you started; <br>
\hline \& \& De-tar © $\begin{aligned} & \text { Chimeys } \mathbb{C} \text { Tides }\left\{\begin{array}{l}10.1 \\ 10.6\end{array} \text { snow }\right.\end{aligned}$ \& wise) there beforc
and the moon, thi moon <br>
\hline 22 \& \&  \& of course the moon. We are told all about these things. <br>

\hline 2 \& \& Stanley's | Sides $\left\{\begin{array}{l}9.6 \\ \text { Ret. } 1878\end{array}\right.$ O pshaw,,$~$ |
| :--- | \& Perhaps we are told too much, Pancho-and just still like <br>

\hline \& \& 3riva. 崌p. б ¢̧¢ \& Columbus and ballgames bet- <br>
\hline \& \& ConV. of St. Padl o $\ddagger$ \& But not quite that. History <br>

\hline \& \& | Nelly Bly world |  |
| :--- | :--- |
| trip 72 days, 1890 | Hol. |\(\quad\left\{\begin{array}{l}9.0 <br>

7.9\end{array}\right.\) Below \& and legend have touched with a wand and made almost holy <br>
\hline 2 \& \& Snell mile record 3m. $54.4,1962$ Tldes $\left\{\begin{array}{l}8.9 \\ 7.7\end{array}\right.$ zero, \& the grails and the seckings of <br>
\hline \& T \& Coast Guard $\begin{aligned} & \text { Crost } \\ & \text { created 1915 }\end{aligned}$ \& Jesteryears-but these things of steel are still clothed only <br>
\hline 2 \& \&  \& in themselves. For me, no machinc can qulte explain the <br>
\hline \& Sa, \&  \& ders of its being or its <br>
\hline \& \&  \& nltlmate lan <br>
\hline
\end{tabular}

## 1965] <br> FEBRU-ARY, Second Month.

ASTRONOMICAL CALCULATIONS.

| a | Days | $0 \quad 1$ | Days. |  | Days. | 0 | Days. | 0 | Days. | $0 \quad 1$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 17 s .01 | 7 | 1513 | 13 | 1316 | 19 | 1110 | 25 | 859 |
|  | 2 | $16 \quad 44$ | 8 | 1454 | 14 | 1255 | 20 | 1049 | 26 | 837 |
|  | 3 | $16 \quad 26$ | 9 | 1435 | 15 | 1235 | 21 | 1027 | 27 | 814 |
| $\stackrel{\circ}{8}$ | 4 | $16 \quad 08$ | 10 | 1416 | 16 | 1214 | 22 | 1005 | 28 | 751 |
|  | 5 | $15 \quad 50$ | 11 | 1356 | 17 | 1153 | 23 | 943 |  |  |
| (3) | 6 | $15 \quad 32$ | 12 | 1336 | 18 | 1132 | 24 | 921 |  |  |

New Moon, 1st day, 11 h. 36 m., morning, E.
D First Quarter, 9th day, 3 h .53 m ., morning, W.
O Full Moon, 15th day, 7 h. 27 m., evening, E.
© Last Quarter, 23rd day, 12 h .40 m ., morning, E.
GEYLETTERS REFER TO CORRECTIONS TABLE, PAGES 81-35. FOR ALL POINTS OUTSIDE NEW ENGLAND

|  |  |  |  |  | $\begin{gathered} \begin{array}{c} \text { sets } \\ \text { h. m. } \end{array}, \end{gathered}$ |  |  |  |  |  | $\begin{aligned} & \text { e. } \begin{array}{l} \text { Rises } \\ \mathrm{h} . \\ \text { m. } \end{array} \\ & \hline \end{aligned}$ |  | $\begin{aligned} & \text { Sets } \\ & \text { m. } \end{aligned}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 1 M . | 657 |  | 458 | E 10 | 1001 | 2 | 11 | 112 | $\frac{1}{2}$ 7 <br> A 19  |  | $4{ }_{4}^{\text {P }} 53$ |  |  | \| 30 |
|  | 32 | Tu | 656 |  | 500 |  | 1004 | 1 | $11 \frac{3}{4}$ |  | 751 | n | 556 |  |  |  |
|  | 3 | W. | 655 |  | 501 |  | 1006 | 1 | $0 \frac{1}{4}$ | $0 \frac{1}{4}$ | ${ }^{\frac{1}{4}}$ S | 1 | 700 |  |  |  |
|  | 4 | Th | 654 |  | 502 |  | 1008 | 1 | $0 \frac{3}{4}$ | 1 | S 45 | K | S 03 | a |  |  |
|  | 5 | Fr. | 653 |  | 504 |  | 1011 |  | $1 \frac{1}{2}$ | $1 \frac{3}{4}$ | ${ }_{4}^{3} 40909$ |  | 907 |  |  | 4 |
|  | 6 | Sa. | 651 |  | 505 |  | 1013 | 1 | 2 | $2 \frac{1}{2}$ | ${ }^{\frac{1}{2}}$ |  | 1012 |  |  |  |
|  | 7 | C | 650 |  | 506 |  | 1016 | 1 | $2 \frac{3}{4}$ | $3 \frac{1}{4}$ | $\frac{1}{4} 1957$ | H 1 | $11_{\text {M }}{ }^{\text {P }} 20$ |  |  |  |
|  | 8 | M. | 649 |  | - 07 |  | 1018 | 1 | $3 \frac{1}{2}$ | 4 | 1024 |  |  |  |  |  |
|  |  | Tu. 6 | 648 |  | 509 |  | 1021 | 1 | $4 \frac{1}{2}$ | 5 | 1054 | E 1 | $12{ }_{\text {m }}{ }^{\text {A }} 30$ |  |  |  |
|  | 10 | W. | 646 |  | 510 |  | 1024 |  | $5 \frac{1}{2}$ | 6 | $11_{\text {M }}^{1} 1{ }^{1} 1$ | D | 143 |  |  |  |
|  | 11 | Th | 645 |  | 511 | F 10 | 1026 | 1 | $6 \frac{1}{2}$ | 7 | $12_{\text {m }} 17$ | c | 255 |  |  | 0 |
|  | 12 | Fr. | 644 |  | 513 | F 10 | 1029 | 1 | $7 \frac{1}{2}$ | $S_{4}^{1}$ | $\frac{1}{4}$ 1 14 | c | 405 | - |  | 11 |
|  | 13 | Sa. | 6 |  | , 514 |  | 1031 |  | $8_{2}$ | $9{ }_{4}$ | $\frac{1}{4} 221$ | c | 508 |  |  | 12 |
|  | 14 | C | 641 |  | L 515 | F 10 | 1034 | 1 | $9 \frac{1}{2}$ | 10 | 336 | D | 604 |  |  | 10 |
|  | 15 | M. | 640 |  | 516 |  | 1037 | 1 | $10 \frac{1}{2}$ | 11 | 454 |  | 649 |  |  |  |
|  | 16 | Tu | 63 |  | 518 | F 10 | 1039 | 1 | $11 \frac{1}{4}$ | $11 \frac{3}{4}$ | $\frac{3}{4}$ 6 11 | r | 725 |  |  |  |
|  | 17 | W. | 63 |  | ) 519 | F 10 | 1042 | 1 | - | $0 \frac{1}{4}$ | $\frac{1}{4}$ 7 26 | H | 756 | к |  | 16 |
|  | 18 | Th | 636 |  | -5 20 | F 10 | 1045 |  | $0 \frac{3}{4}$ |  | 838 |  | 823 |  |  |  |
|  | 19 | Fr. | 63 |  | ) 522 | F 10 | 1047 | 1 | $1 \frac{1}{2}$ | $1 \frac{3}{4}$ | ${ }_{\frac{3}{4}}^{\frac{3}{4}} 9.945$ | 5 | 849 |  |  |  |
|  | 20 | Sa. | 6 |  | ${ }_{5} 523$ | G 10 | 1050 | 1 | $2 \frac{1}{4}$ | $2 \frac{3}{4}$ | ${ }^{\frac{3}{4}} 11052$ |  | 914 |  |  | 19 |
|  | 21 | C | 631 |  | - 524 |  | 1053 | 2 | 3 | $3 \frac{1}{2}$ | $\frac{1}{2} 11_{\text {P }}{ }^{\text {P }} 58$ |  | 940 |  |  | 0 |
|  | 22 | M. | 630 |  | F 25 | G 10 | 1056 | 2 | 4 | $4 \frac{1}{2}$ | $\frac{1}{2}$ |  | 1008 |  |  | 21 |
|  | 23 | Tu. | 628 |  | - 527 | c 10 | 1058 | 2 | $4 \frac{3}{4}$ | $5{ }_{4}^{1}$ |  |  | 1040 |  |  | 22 |
|  | 2 | W. | 627 |  | 4 28 | G 1 | 1101 | 2 | $5 \frac{3}{4}$ | $6 \frac{1}{4}$ | 5 |  | $11_{\text {m }}^{12} 17$ | C |  |  |
|  | 25 | 5 Th | 625 |  | k 29 | G 1 | 1104 | 2 | $6 \frac{3}{4}$ | $7 \frac{1}{2}$ | ${ }_{-1}^{1} 2059$ |  | 1200 |  |  | 24 |
|  | 26 | Fr. | 6 |  | 530 | G 1 | 1107 | 2 | $7 \frac{1}{2}$ | $\bigcirc_{\frac{1}{4}}^{1}$ | $\frac{1}{4}$ |  | $12{ }_{\text {P }} 50$ |  |  |  |
|  | 27 | 7 | 6 |  | 531 | G 1 | 1110 | 2 | ${ }^{1}$ | $9 \frac{1}{4}$ | $\frac{1}{4} 4337$ |  | 145 |  |  |  |
|  | 28 | 8 C | 62 |  | 5 |  | 1112 | 3 | $9 \frac{1}{4}$ | $9{ }_{4}^{3}$ | ${ }_{4}^{\frac{3}{4}}$ |  | $2_{\text {M }}^{\text {P }}$ |  |  |  |

Now from beneath the warm blankets of snow
Asconds a new growth and the rising sap.
Hobble bush, forsythla buds begln to show;
Soon the sugar house its bush will tap.
R.S.

## Farmer'ィ Calendar.

Aspocts, Holidays, Helghts of High Water, Weather, etc.
\$t. Bridget $\underset{\substack{\text { Gable } \\ \text { b. } 1902}}{\text { Gides }\left\{_{8.5}^{9.7} \text { Clear, }\right.}$ Tu. Pur. of M. G.H. Day Tides $\left\{\frac{9.8}{-}\right.$ hear? Four Sun-Sun Diais ${ }_{\text {Chaplains }}$ Agree ( 1 min.) $[2-20] \quad 6$ C Propitious for marriage
and troubie. The "Furies" Now shovel Are about, about, about. Tides $\{9.1$ out
and the gout. Unlucky
days (6-8) $\mathbb{C}_{\mathrm{E}_{2}}^{\mathrm{on}}$. Tides $\left\{\begin{array}{l}9.2 \\ 9_{9}^{2}\end{array}\right.$ your 5tha. 迎ई. ${ }_{\text {R.I. } 1934}^{22} \quad\{9.2$ hovel. $\begin{array}{lll}\begin{array}{l}\text { Schenectady } \\ \text { Massacre } \\ 1690\end{array} & \text { б }\end{array}$ The only sting of reproach is the truth in it $\{8.6$ Victoria Normandie Lucky m. 1840 capsized 1942 Day $\left\{_{8.4}^{9.6}\right.$ only Great Eastern Bilzzard
$(11-14)$
1899 Linc, Bdy. $\mathbb{C}_{\text {high }}^{\text {runs }} 32$ states $\left\{\begin{array}{c}10.2 \\ 8.8 \\ \text { fire }\end{array}\right.$ ${ }_{1640}^{\text {Braintree }} \begin{aligned} & \text { Hauptman } \\ & \text { Guity } 1935\end{aligned}\left\{\begin{array}{c}10.7 \\ 9.2\end{array}\right.$ Shower 8ept. \&. Val, D. $\mathbb{C}^{\text {in }}$
The Full 46.4 below $193\left\{\begin{array}{l}11.4 \\ \text { Snow Moon Mi. Wash. } \\ 10.1\end{array}\right.$ ठ $\widehat{C} \mathbb{C}\left[\begin{array}{lll}17 \\ \text { th } & \delta \delta \mathbb{C}\end{array}\right]\left\{\begin{array}{l}11.5 \\ 10.4 \\ \text { gracious, }\end{array}\right.$ Do as thou should not And hear what thee would not $\{11.4$ how
 So tornadoes Gulf Tides $\left\{\begin{array}{l}10.4 \\ \text { States today } 1884\end{array}\right.$ scations! $\Psi^{\text {Stat. }}$ Sn ${ }^{[20-1] \mid 11 / z z a r d s}\left\{\begin{array}{l}10.1 \\ 9.8\end{array}\right.$ Fine, 20 Sa
 24 F.
25 Th . Year's lowest P.M. Tides $\left\{\begin{array}{l}8.6 \\ \text { high tlde }\end{array}\right.$ you'll



[^2]I smelled the furious Vesuvlus of Squire Brown's old briar pipe. He was at his woodpile and attaeking a yellow bireh chunk. The axe squeaked in the bireh as he put his foot on it and pulled. Then he grunted axe and ehunk over hls head, and with one joyous blow brought them crashing down on the block. The stringy pieee spllt. "A murraln on thee, thou iean and hungry Cassius. Thy strings are dead, sirrah." And the great man paused to iight his pipe. Then he threw a bushy brow at me. "I take it you are aequainted with Shakespeare, young friend?"
"To some extent, thongh I eonfess I eannot follow your quotatlons exaetly."
"Of eourse you cannot. I have purposefully mlxed my quotations, as did master Shakespeare. He was not a man to be tied to a pound of flesh or a piekled herring. I find my reeent delving into the works of the bard a solaee when I am here at my woodpile to chop up my friends. I shali introduee you.
"This strlngy old frlend is Cassius; the quiek hot stlek of lareh, Merentio; and the bright eedar, Hotspur. Caesar is my oakwood, and sad Brutus. this gnarled old apple that grew in his orehard. Anton $y$ this too ready ash, and this my old ehopping bioek, great Falstaff. The axe is Hai-the villain. How fell this biow upon that mighty tun," squire sighed. And then; "A Falstaff speeiai with me?" I aeeepted.

|  | Days. | 0 | Days. | 0 | Days. | 01 | Days. | 0 | Days. | $0 \quad 1$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 管 | 1 | 7s. 29 | 7 | 510 | 13 | 249 | 19 | $\begin{array}{ll}0 & 27\end{array}$ | 25 | 155 |
| . | 2 | 706 | 8 | $4 \quad 47$ | 14 | 225 | 20 | $0 \mathrm{s}$. | 26 | 219 |
| - | 3 | $6 \quad 43$ | 9 | 423 | 15 | 202 | 21 | 0n. 20 | 27 | 242 |
| $\stackrel{\odot}{\circ}$ | 4 | $6 \quad 20$ | 10 | 400 | 16 | 138 | 22 | $0 \quad 44$ | 28 | 306 |
| $\cdots$ | 5 | $\begin{array}{ll}5 & 57\end{array}$ | 11 | 36 | 17 | 114 | 23 | 108 | 29 | 329 |
| 3 | 6 | $5 \quad 33$ | 12 | 313 | 18 | 051 | 24 | 132 | 30 | 352 |

- New Moon, 3rd day, 4 h. 56 m., morning, E.

D First Quarter, 10th day, 12 h .53 m ., evening, E.
O Full Moon, 17th day, 6 h. 14 m., morning, W.
© Last Quarter, 24th day, 8 h. 37 m ., evening, E.
KEY LETTERS REFER TO CORRECTIONS TABLE, PAGES 81-85. FOR ALL POINTS OUTSIDE NEW ENGLAND

|  | $12$ |  |  | $\dot{s}$ |  |  |  |  | $\begin{gathered} \substack{\text { Rises } \\ \text { h. } \\ \text { m. }} \end{gathered}$ |  | $\underset{\substack{\text { Sets } \\ \text { n. m. }}}{\text { d }}$ |  |  | D |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | M. 6 | \|619| | k\|5 34 | G\|1115 |  | 10 | $0 \frac{1}{2}$ | 5 |  |  |  |  | 28 |
|  |  | Tu. | 617 |  | G 1 |  | $10 \frac{3}{3}$ | ${ }_{4}^{3} 11$ |  |  | 450 |  |  | 29 |
|  |  | W |  | k 5 | G 1121 | 3 | 11 ${ }^{\frac{1}{4}}$ | $11 \frac{3}{4}$ | 649 |  | 554 |  |  |  |
|  |  | Th. 6 | 614 | k 5 | G 11 | 3 |  |  | 7 |  | , 700 |  |  |  |
|  |  | Fr. | 612 |  | н 11 |  |  | ${ }_{2}$ |  |  |  |  |  |  |
|  |  | Sa. | 610 | J 540 | H 112 | 4 |  | $1 \frac{1}{4}$ | 801 |  | 913 |  |  |  |
|  |  | C | 609 | J 54 | H 11 | 4 | $1 \frac{1}{2}$ | 2 | 827 |  | 1022 |  |  |  |
|  |  | M. |  |  | H 11 |  |  | $2{ }^{\frac{3}{4}}$ | 856 |  | $11_{\text {M }}{ }^{\text {Pr }}$ |  |  |  |
|  |  | Tu. | 6 | J 543 | H 11 | 5 | 3 | $3 \frac{3}{4}$ | 930 |  |  |  |  |  |
| 69 | 10 | W. 6 | 604 | 5 | H 11 |  |  |  | 1012 |  |  |  |  |  |
|  | 11 | Th. 6 | 6 |  | E 1144 | 5 | 5 | $5 \frac{3}{4}$ |  |  | 154 |  |  |  |
|  | 12 | Fr. 6 | 600 | $55^{5} 47$ | H 1147 | 5 | 6 | $6{ }_{\frac{3}{4}}$ | $12{ }^{\text {P }}$ |  | 259 |  |  | 0 |
| 72 | 13 | Sa. | 559 | 35 | н 1149 |  | $7 \frac{1}{4}$ | $\frac{1}{4}$ S | 114 |  | 55 |  |  | 1 |
|  | 14 | C | 5 | - 5 | แ 1152 | 6 | $8 \frac{1}{4}$ | 9 | 228 |  | 442 |  |  | 12 |
| 74 | 15 | M. 5 | 5 | J 550 | I 1155 | 6 | $9 \frac{1}{4}$ | $9{ }^{\frac{3}{4}}$ | 3 |  | 521 |  |  | 3 |
| 75 | 16 | Tu. 5 | 5 | I 5 | ${ }_{1} 1158$ |  | $10_{4}^{\frac{1}{4}}$ | $10^{\frac{3}{4}}$ | 501 |  | 553 |  |  | 14 |
|  | 17 | W. 5 | 5 | I 5 | I 1201 | 7 | 1 | $11 \frac{1}{2}$ |  |  | 621 |  |  |  |
|  | 15 | Th. 5 | 5 | I 5 | 112 | 7 | ${ }^{\frac{3}{4}}$ |  |  |  |  |  |  |  |
| 78 | 19 | Fr. | . |  | ${ }_{1} 1207$ |  | $0 \frac{1}{4}$ | $0 \frac{1}{1}$ |  |  | 712 |  |  |  |
|  | 20 | Sa. | 5 |  | ${ }^{1} 1210$ | 8 |  |  | 940 |  | 738 |  |  | 7 |
|  | 21 | C | 5 |  | 112 |  | $1 \frac{3}{4}$ | $2{ }_{4}^{1}$ | 1047 |  |  |  |  |  |
|  | 22 | M. 5 | 5 |  | I 12 |  |  | 3 | $11_{\text {M }}{ }^{\text {P }} 0$ |  | - 836 |  |  |  |
| 82 | 23 | Tu. 5 | 5 |  | I 12 |  | $3 \frac{1}{4}$ | $3{ }_{4}^{3}$ |  |  |  |  |  | 0 |
|  | 24 | W. 5 | 5 |  | 112 |  |  | $4 \frac{3}{4}$ | $12_{\text {ल̆ }}{ }^{\text {5 }} 0$ |  | 53 |  |  |  |
|  | 25 | Th. 5 | 5 |  | I 12 |  | 5 | $5 \frac{3}{4}$ |  |  | 1041 |  |  | 2 |
|  | 26 | Fr. 5 | 5 | I 603 | ${ }^{3} 12$ |  | 6 | $6{ }^{\frac{3}{4}}$ |  |  |  |  |  |  |
|  | 27 | Sa. 5 | 5 | H 604 | J 12 |  |  | 7 |  |  | 12 ${ }_{\text {P }} 31$ |  |  |  |
|  | 28 | C | 5 | H 6 | ${ }^{1} 12$ | 10 | $7 \frac{3}{4}$ | $8{ }_{2}^{1}$ | 353 |  |  |  |  | 25 |
|  | 29 | M. 5 | 5 |  | J 12 | 10 |  | $9 \frac{1}{4}$ |  |  | 236 |  |  | 26 |
|  | 30 | Tu. 5 |  | ${ }_{\text {H }}$ | J 12 | 11 | $9 \frac{1}{2}$ | 10 |  |  | 340 |  |  | 27 |
|  |  |  | 527 |  | 12 |  | $10 \frac{1}{4}$ | $10 \frac{1}{2}$ |  |  |  |  |  |  |

Like leaves on trees the race of man is found.
Now green in youth. now with riug on the ground.
Another race the following Spring supplies.
They fall and successive rise:
So generations in their course decay,
So flourish these, when those are pass'd away.
Pope's Homer

|  | $0$ | High Water, Weather, etc. | armer's Cal |
| :---: | :---: | :---: | :---: |
|  | 1 M . | Hel. Tides $\left\{_{8.5}^{9.5}\right.$ Gales shred | If a man is fearful of his |
|  | 2 Tu |  | own thoughts he may not walk alone with them. They |
|  | 3 W |  | are but haggard company. He |
|  |  |  | may choose himself a com- |
|  | 5 |  | versation and distractions devised by man, nor all the |
|  | 6 Sa. |  | birds in the dell, nor a wilder- ncss of New York Fairs will |
|  |  |  | 第t his troubled thoughts to |
|  | 8 M . | Even the sharpest saw wlil not shave thy face $\delta \geq \nmid \mathbb{C}$ sun | - |
|  | Tu. | $\bigcirc \bigcirc \bigcirc$ Tides $\left\{_{8.9}^{9.9}\right.$ is no | bid his thoughts, but he can |
|  | W | Paper money Ember |  |
|  | T |  |  |
|  | F |  | change the trouble-or do |
|  | Sa. |  |  |
|  |  |  | c- |
|  |  | ${ }_{\text {Pert }}^{\mathrm{n}}$ [ $\left\{_{0.8}^{0.4}\right.$ indoors |  |
|  | M |  | matter should ceasc since I shall have done all that I can |
|  | T |  | do. For I am not only making |
|  | W | 888 | $\mathrm{my}_{\mathrm{ily}}$ |
|  | Th |  | He will find, if he ca |
|  | Fr | St Ins, swailows ret. $\{10.7$ will rate | peace with his thoughts, that |
|  |  |  | will with him-and the rest |
|  |  | , | go on their own walks. |
|  |  |  | any choice), let him choose |
|  | 2 M . | ${ }_{\text {Easillest possibie }}^{\text {Easter date }}$ ( ${ }_{8,8}^{9.9}$ Precipitation | $\begin{aligned} & \text { any choice, cet him choose } \\ & \text { the city today. There can be } \end{aligned}$ |
|  | 3 Tu | 俍 The fortunate are often | a pleasant aloneness in the |
|  | W. |  | nanionship in crowds. Elbows |
|  | Th | ldes | that brush his, the pulse or |
|  | Fr. | but sur | sharing with so many people |
|  |  | but sur | 's |
|  | Sa. | Good Frrday quake Alaska 0 Skelter for | business, and come back from |
|  |  |  | shower on their shoulders or a |
|  | M. | ¢ |  |
|  | Tv |  | Yes, I think a brisk, |
|  |  | War, 1948 \{9.3 | tring |

ASTRONOMICAL CALCULATIONS.


- Now Moon, 1st day, 7 h. 21 m., evening, W.

D First Quarter, 8th day, 7 h. 40 m., morning, W.
O Full Moon, 15th day, 6 h. 03 m., evening, E.
$\mathbb{C}$ Last Quarter, 23 rd day, 4 h .07 m ., evening, W.
KEY LETIERS REFER TO CORRECTIONS TABLE, PAGES 81-85, FOR ALL POINTS OUTSIDE NEW ENGLAND





94 4C 521 н 613
J $12 \begin{array}{llll} & 53 & 12\end{array}$



98 8 Th. 514 g 6 18

Ioo 10 Sa. 510 g 620 ri 1309 14



| IO3 | 13 | Tu .5 | 06 | g | 6 | 23 | F | 13 | 18 | 15 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


IO5 15 Th. 502 g 626 k 1323 15



| 108 | 18 | $\mathbf{C}$ | 4 | 58 | g | 6 | 29 | ri | 13 | 31 | 16 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

IO9 19 M. 4.56 G 630 F 1334 13 16




II 424 Sa. 448 F 636 L 134717


| II 6 | 26 | M. | 4 | 45 | F 638 | L | 13 | 53 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

11727 Tu. 444 F 639 I 135518
II 828 W. 443 F 640 L 135818
11929 Th. 441 r 641 I $1400 \mid 18$



Beneath a wlllow long forsook
The fisher seeks his custom'd nook;
He startles irom the bordering wood
The bashful wild duok's early brood.
Wartor


Expect an early Spr ag and late Fall this year

Farmerm Calondar. A erop is somethiug we grow to lise by. It is a pleasingr thing (there is a kind of magic in it) that certain regions have their special erops: potatoes from Malne and ldaho, cot ton from almost every southern state, tobacco from Virginia and the rich soil of the Comnecticut River valley. And there are the enorinons market gardens of the california vales and New Jerses ; and Louisiana rice, and the corn and wheat of our farm belts; and Georgia peaches, and watermelons bursting on the vines in Kentucky; the vineyards of the Finger lakes region and Califormia, aud legions of Leautiful Oregon pears and lusclous apples that compete with New England's-so many good thing"s that bless our land. It is grood to see everywhere, whether it be in a hlueherry or an a roeado or a Macadamian nut, a tremendous new ritality and imagination in the methods by which these are grown, packaged, and marketed.
If we travel by air and are lucky in the weather, we get a true impaet of what makes America. Niagara Falls and the Great Lakes, as one goes west. and then the Mississippi, and later the snowcapped inountains, are no more telling to me than the thonsands of ateres of patterned farms. And we cannot lind less in the prairiey and cindery wastes of Utah and Nevada. 1 personally am slad that we have thene Wastelands. May we always keep a sreat part of their wilderness . . . their primitive infertility.

ASTRONOMICAL CALCULATIONS．

－New Moon，1st day， 6 h． 56 m．，morning，E．
D First Quarter，8th day， 1 h． 20 m．，morning，W．
O Full Moon， 15 th day， 6 h .53 m ．，morning，W．
© Last Quarter，23rd day， 9 h． $41 \mathrm{~m} .$, morning，W．
－New Moon，30th day， 4 h .13 m ．，evening，W．
KEY LETTERS REFER TO CORRECTIONS TABLE．PAGES 81－85，FOR ALL POINTS OUTSIDE NEW ENGLAND

| 한 |  | ${ }^{\circ}$ | $\bigcirc^{\circ}$ |  |  |  |  |  | P |  |  |  | D |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 詾尔 | 成产 | 號 | Res． | Sets | ： | $\\| \begin{aligned} & \text { Dirys or } \\ & \text { D. } . \end{aligned}$ |  | $\begin{gathered} \text { Boston. } \\ \text { Morn } \\ \text { h. Eve. } \end{gathered}$ | Rise |  |  |  |  |  |  |







I28
$\begin{array}{lllllllllllll}\mathrm{I} 29 & 9 & \text { C } & 4 & 28 & \text { E } & 6 & 52 & \mathrm{M} & 1424 & 19\end{array}$



| I 32 | 12 | W． | 4 | 25 | E | 6 | 56 | M | 14 | 31 | 19 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

$\begin{array}{lllllllllll}\text { I } 33 & 13 & \text { Th．} 4 & 24 & \text { 上 } & 6 & 57 & \text { m } & 1433 & 3 & 19\end{array}$

I35 15 Sa． 422 e 659 m 143719







| I 42 | 22 | Sa． 4 | 4 | 15 | D | 7 | 06 | N | 1451 | 19 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |











## MAY hath 31 days.



Born in yon biaze of orlent sky
Sweet May! thy radiant form unfoid, Unciose thy biue and tender eye. And wave thy shadowy locks of goid.

Darwin

1|Sa. St. Philip\& James Ken. Derby Va. Gold Cup High

 of cross Abrayam's 2nd Bank Hoi. $\mathbb{C}_{\text {Perl. }}^{\text {mall B.C. }} 2055$ R. 1.
$\qquad$ Make today yesterday's pupil $\mathbb{C H}_{\text {high }}^{\text {ung }}\left\{_{9.3}^{0.8}\right.$ sides.
 Fr.
Sa.
9 C
0 M .
1.1 Tu.

2 V.
Th.
4 Fr . 5 Sa. 6 C 7 M.
18 Tu. 9 W. 0 Th. 1 Fr . Sa. C 4 M. 25 Tu. 26 W . 27 Th .
28 Fr.
29 Sa.
30 C
31 M.
 ${ }^{\text {Nazis }}$ surr. $1945\left[{ }^{9}\right.$ 3roa. E. Mother's $\delta \delta \mathbb{D} \mathbb{D}\{9.6$ the Red Sox won
15
s straight
1946
Hol.
 ${ }_{\text {Pankr }}^{\text {Patas }}$ (The three Tides 9.8 and Liberatus chilly Sint saints) Tides $\left\{\begin{array}{l}9.8 \\ 10.4 \\ \text { stupid. }\end{array}\right.$
 Armed
Forces $\frac{\text { The Full }}{\text { Flower Moon }}\left\{\begin{array}{l}9.6 \\ \text { and }\end{array}\right.$


 Mrase yourseif honey
the files lll devour you
liow
rides many Best day conceive $\mathbb{C}^{\text {in }}$ Meck. male child $\mathbb{C}_{\text {Apo. Day, N.C. } a}$

 Yions. S. . $^{\text {Dsen }}{ }^{1006}$ Tides $\left\{^{8.6}\right.$
 ${ }^{\text {Lake }}$ and Erie rose 4 tris 1840 Tydes $\{8.6$ south Negro eiection day, 1780, Boston $\mathbb{C}_{\text {Eq. }}$ 19.2 is ended Ascension Day Dunkirk 26 $\begin{aligned} & \text { Owning you're wrong } \\ & \text { makes you stro }\end{aligned},\left\{\begin{array}{l}9.8 \\ 10.3\end{array}\right.$ drouth
 1,sta. $\mathfrak{A}$. Mem. ©ecl. cast (easily Auspictous for
making peace

Out in the corners of our big barn, whicl is falling down in a new place this year, are all the old nuts, bolts, and farm machinery since grandfather bought the place in 1898. There is also a wonderful sleigh, "Crumbs of Comfort," another with the coat of arms of Temple, N. H., 1812, a surrey with a fringe on top. and much considerable historical interest slecping under the discarded summer awnings decorated with bat guano.
If I dared be unfaithful to "Crumbs" and the other dear old relicts, I would suggest to my posterity that they go immediately into the business of cashing in on the contents of the old barn and many others in the vicinity. There is nothing novel about the idea, and a pretty (if very soiled) dollar has been made in the business. To lend a sense of adventure to the thing, they could buy up the old buildings-sight unseenbut nothing of the mass of incunabula to be distnrbed from the corners until the exploration got started.
It used to be in the old days when a farmer wanted to buy another jug or two, he'd sell an old plough. But the jnnk business is definitely not what it was. Barn beams are often in finc condition and no doubt there is many a hammer and blowtorch artist who wonld take the junk with joy, and you could rent him the barn as a studio. But unless you found one very long on cash and short on blowtorch, I would beware.

## 1965] <br> JUNE, Sixth Month.

ASTRONOMICAL CALCULATIONS.

|  | Days. | 0 |  | Days. | 0 | 1 | Days. | 0 | , |  | Days. | 0 |  | Days. | 0 | , |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 22N. |  | 7 |  |  | 13 |  | 14 |  | 19 |  |  | 25 |  |  |
|  | 2 | 22 | 13 | 8 | 22 | 52 | 14 | 23 | 17 |  | 20 |  | 26 | 26 |  | 21 |
|  | 3 | 22 | 21 | 9 |  | 57 | 15 | 23 | 19 |  | 21 | 23 |  | 27 | 23 | 19 |
|  | 4 | 22 | 28 | 10 | 23 | 02 | 16 | 23 | 21 |  | 22 | 23 |  | 28 |  |  |
|  | 5 | 22 | 35 | 11 | 23 | 06 | 17 | 23 | 23 |  | 23 | 23 | 26 | 29 | 23 | 13 |
|  | 6 | 22 | 41 | 12 | 23 | 10 | 18 | 23 | 25 |  | 24 | 23 |  | 30 |  |  |

D First Quarter, 6 th day, 7 h. 12 m., morning, E.
O Full Moon, 13 th day, 9 h .00 m ., evening, E.
© Last Quarter, 22nd day, $12 \mathrm{~h} .37 \mathrm{~m} .$, morning, E.

- New Moon, 28th day, 11 h .53 m ., evening, E.

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



 $\begin{array}{llllllllll}155 & 4 & \text { Fr. } 4 & 08 & \text { c } & 717 & 0 & 15 & 09 & 17\end{array}$ $\begin{array}{lllllllllll}\text { 1 } 56 & 5 & \mathrm{Sa} . & 4 & 07 & \text { c } & 7 & 17 & \text { o } & 15 & 10\end{array} 17$ 6 C 407 c|lll|llllll 7 7 M. 407 c 719 o 151216
 I60 9 W. 406 c 720 o 151416


 \begin{tabular}{ll|l|l|l|l|l|llll}
I 63 \& 12 Sa. \& 4 \& 06 \& c \& 722 \& o \& 15 \& 16 \& 15

 

164 \& 13 \& $\mathbf{C}$ \& 4 \& 06 \& $c$ \& 7 \& 22 \& 0 \& 15 <br>
16 \& 16 \& 15
\end{tabular}








 | 172 | 21 | I. 4 | 4 | 06 | c | 7 | 25 | 0 | 15 | 19 | 13 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


 17524 Th. 407 c $7250 \mid 151813$



 180 29 Tu. 409 c 725 o 151612
181 30 W. 409 c|| $725|0| 1516 \mid 12$

| 1 | 2 | 751 |  | - Le | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2 \frac{1}{4}$ | 3 | 906 | D - | - LEO | 5 |
| $3 \frac{1}{4}$ | 4 | 1022 | F 1200 | $\pi$ | 6 |
| $4 \frac{1}{4}$ | 5 | $11_{\text {di }} 134$ | G $122^{\wedge} 31$ | M V1 | 7 |
| $5 \frac{1}{4}$ | 6 | $12{ }^{\text {P }} 45$ | H 1257 | 1 | S |
| $6 \frac{1}{2}$ | 7 | 152 | J 122 | J Ll | 9 |
| $7 \frac{1}{2}$ | 8 | 259 | к 146 | 1 Sco | 10 |
| S $\frac{1}{2}$ | $8^{\frac{3}{4}}$ | 405 | L 210 | H | 11 |
| $9{ }_{4}^{1}$ | $9 \frac{1}{2}$ | 511 | H $1+36$ | G | 12 |
| 10 | $10 \frac{1}{4}$ | 615 | $\cdots 306$ | E | 13 |
| $10_{\frac{3}{4}}$ | 11 | 717 | - 340 | D | 14 |
| $1 \frac{1}{2}$ | $11 \frac{1}{2}$ | 814 | - 420 | D |  |
|  | $0 \frac{1}{4}$ | 904 | - 507 | d car | 15 |
| $0 \frac{1}{4}$ | $0_{4}^{\frac{3}{4}}$ | 948 | - 5559 | - Cap | 16 |
| 1 | $1 \frac{1}{2}$ | 1025 | N 656 | C AQR | 17 |
| $1 \frac{3}{4}$ | $2 \frac{1}{4}$ | 1056 | m 756 | , |  |
| $2 \frac{1}{4}$ | 3 | 1123 | I. 8558 | D | 19 |
| $3 \frac{1}{4}$ | $3 \frac{3}{4}$ | $11_{\text {m }}{ }^{\text {4 }}$ | K 1000 | E | 21 |
| 4 | $4 \frac{1}{2}$ | - | - $111_{\text {d }}^{\text {A }} 03$ | F Psc | 22 |
| $4 \frac{3}{4}$ | $5 \frac{1}{2}$ | $12^{\text {a }} 10$ | J $12{ }^{\text {P }} 06$ | c ARI | 23 |
| $5 \frac{3}{4}$ | $6 \frac{1}{4}$ | 1233 | 1112 | I Ari | 24 |
| $6 \frac{3}{4}$ |  | 1256 | H 220 | Jtau | 25 |
| $7 \frac{1}{2}$ | S | 122 | F 3 32 | K | 26 |
| $8_{2}^{1}$ | $8_{4}^{3}$ | 153 | E 447 | $1 . \mathrm{TaU}$ | 27 |
| $9 \frac{1}{4}$ | $9 \frac{1}{2}$ | 231 | D 603 | N G'M | 28 |
| $10 \frac{1}{4}$ | $10 \frac{1}{2}$ | 319 | c 715 | o G' | 9 |
| 11 | $11 \frac{1}{4}$ | 419 | B S 20 | P | 1 |
|  | 0 | $5{ }_{5}^{1} 29$ | C $9_{\mathbf{M}}^{\text {p }} 14$ | ${ }^{1}$ | 2 |



> Slowerl Sweet Junel Turn on Your track And send your fragrant blossoms baok: Glve me one vlolet more I pray, One apple bloom, one $111 y$ spray. Teach one more rosebud how to blow. Julla H. May Sweet Junel Be slow.

| $\dot{\Delta}$ | $\dot{B}$ |
| :--- | :--- |
| $\dot{\Delta}$ | $\dot{\Delta}$ |

$$
\begin{aligned}
& \text { Aspocts, Holldays, Heights of } \\
& \text { High Water, Weather, etc. }
\end{aligned}
$$

Tu. Nicomede $\mathbb{C}_{\text {Perı. }}^{\text {In }} \mathbb{C}_{\text {high }}^{\text {runs }}\left\{\begin{array}{l}9.7 \\ \text { 9.7 } \\ \text { Showery }\end{array}\right.$


$\begin{array}{lll}18 \mathrm{stasc} \text {. Woman } \\ \text { balloon, } 1784 & \text { D-Day } \\ \text { (6th) } 1944 \\ \text { lowery. }\end{array}$
5 Sa. $\begin{aligned} & \text { Repentance never } \\ & \text { worth its price }\end{aligned} \delta \widehat{C}\left\{\begin{array}{c}10.4 \\ 9.8\end{array}\right.$ Hot,
 Earllest
Sunrises
Sur Ember $\quad\left\{\begin{array}{l}9.6 \\ \text { Week }\end{array}\right.$ lieve it
 Avold (11th) $\begin{aligned} & \text { Ember } \\ & \text { aceidents } \\ & \text { Day }\end{aligned}{ }^{9}$ Tldes $9_{9.8}^{9.3}$ not.

11 Fr . St. Barn. Ember ${ }_{\text {Day }}^{\text {Kam. Day }}$ Humid

13 C Urír. S. Full invasion (part. ect.) cupid;
14 M.
15 Tu.
 11ts air 1785 Hol. $\mathbb{C}_{\text {low }}^{\text {rldes }}\left\{-\frac{1}{87}\right.$ you victims 1785 Idaho $\mathbb{C}_{\text {low }} 8.7$ you Soviets launeh first
female for 48 orbits 1963 $\quad\left[\begin{array}{l}17 \\ \text { tin }\end{array} \mathbb{C}_{\text {Apo }}^{\text {in }}.\right]$

18 Fr. $\begin{aligned} & \text { Waterloo } \\ & 1715 \\ & \text { Mot, } \\ & 1749\end{aligned}$ Tides ${ }_{88.5}^{9.6}$ Cross all
19 Sa. $\begin{aligned} & \text { Magna } \\ & \text { Charta } 1215 \\ & \text { Latest } \\ & \text { sunsets } \\ & 7-3\end{aligned}{ }^{6-20}\left\{\begin{array}{l}9.5 \\ 8.5\end{array}\right.$ fingers
20 C 2 tioa, 将. Father's of $\left.2 \mathbb{C}\right|_{8.5} ^{9.1}$ while Oreanie
Aet Day, v.I. $\mathbb{C}_{\text {on Eq. }}^{\text {und }}$, $\left\{\begin{array}{l}8.7 \\ 8.8 \\ \text { spell }\end{array}\right.$ He gives twice
who gives soon
St. $\left\{_{9.7}^{8.7}\right.$ lingers. $\begin{array}{ll}\text { John Bapt. Budd ran } 100 \\ \text { Born } & { }_{9.2}^{8.7} \text { sec. } 1961 \\ { }_{9.6} & \mathrm{Wet}\end{array}$ Supreme Court no. Saered debt prayer decision $1962 \quad$ Heart
Dinysius Disc. debt solar year B.C. 285 Tides $\left\{\begin{array}{c}9.1 \\ 10.6\end{array}\right.$ repaid

## Farmer's Culendar.

Many rears ago, whlle on a pack trlp in the Gros Ventres inountains of Wyomlng, we rode our horses very nearly to the top of an extraordlnary mountain. Extraordinary that for a mountain of its great height (over 12,000 feet) we could ride ap it at all-so easily and at once and find on its slopes, just below the summit, a meadow alive with grasshoppers and broken croppings of rock, iced over on their shady side, and little patches of snow. But that was not the true wonder of it. The wonder was that, here on a mountain ton, we were standing on the floor of an ocean. There was scarcely a fragment of rock that dld not show fossll imprints of fish or shell.
Thls was not easy to accept when we could look far down below to the silver thread of river, to fields and forests-a panorama of earth stretching to the Grand Tetons. The ocean was a thousand miles from here-yet we held something of it here in our hands. It was as close to us as the icy rock with its timeless, living story. And, of course, it told its story.

We were standing on what had been a great sea floor, lifted boldly, irresistibly (God knows through how many eons) till it became indeed the rooftree of the world.

So was the natural fact ac-compushed-simply, inc vitably. And we accented it, mysterious and marvelous. To this day it remains so to me.


D First Quarter, 5th day, 2 h. 37 m., evening, E.
O Full Moon, 13th day, 12 h. 02 m., evening, W.
© Last Quarter, 21st day, 12 h .54 m ., evening, W.
(3) New Moon, 28th day, 6 h. 54 m., morning, E.

KEY LETTERS REFER TO CORRECTIONS TABLE, PAGES 8I-85, FOR ALL POINTS OUTSIDE NEW ENGLAND

|  |  |  | $\left\|\begin{array}{c} 0 \\ 0 \\ 0 \end{array}\right\|$ | $\int_{\mathrm{h}}^{0}$ |  |  |  | $\left\lvert\, \begin{gathered}\text { Dises } \\ \text { h. m. }\end{gathered}\right.$ |  |  |  |  | D |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | o 1515 | 11 | $0_{4}^{1}$ | $0_{4}^{3}$ | ${ }^{\frac{3}{4}} 6_{\text {m }}^{\text {d }}$ |  |  |  |  |  |
|  | 2 | Fr. 410 | c 725 | o 1514 | 11 | 1 | $1{ }^{3}$ | $\frac{3}{4}$ 8 04 |  | 10 32 |  |  |  |
|  | 3 | Sa. 411 | c 725 | - 15 | 11 | 2 | $2 \frac{3}{4}$ | ${ }^{\frac{3}{4}}$ |  | \% 11101 |  |  |  |
|  |  | 411 | c) 724 | o 15 | 11 | 3 | $3 \frac{3}{4}$ | ${ }_{4}^{3} 101034$ |  | 1127 |  |  |  |
|  |  | M 412 | c 724 | o 15 | 11 | 4 | $4 \frac{1}{2}$ | ${ }_{\frac{1}{2}} 111_{\mathrm{L}}^{\text {A }}$ |  | ${ }_{1} 11_{15}^{\mathrm{P}} 51$ |  |  |  |
|  | 6 | Tu. | c\| 724 | o 1 | 11 | 5 | , | ${ }_{\frac{1}{2}} 122^{\text {P }} 51$ |  |  |  |  |  |
|  | 7 |  |  |  | 10 | 6 | 1 | $1{ }^{1} 58$ |  |  |  |  |  |
|  |  | Th. 414 | c 723 | - 1509 | 10 | 7 |  | 03 |  | 1241 |  |  | 10 |
|  | , | Fr | c 723 | o 15 | 10 | 8 | 1 | 408 |  |  |  |  | 1 |
|  | 10 |  |  | N 15 | 10 | 9 |  | 510 |  | 141 |  |  | 12 |
|  | 11 C | C | 1) 722 | N 1506 | 10 | $9{ }_{4}^{3}$ | $9 \frac{3}{4}$ | 6 0S |  | 219 |  |  | 13 |
|  | 12 N | M | D 721 | $\cdots 15$ | 10 | $10 \frac{1}{2}$ | $10_{2}^{1}$ | 01 |  | 303 |  |  |  |
|  | 13 「 |  | D 721 | N 1503 | 10 | 11 | $11_{4}^{1}$ | 746 |  | 354 |  |  |  |
|  | 14 | W. 419 | D 720 | N 1502 | 9 | $11^{\frac{3}{4}}$ | $11 \frac{3}{4}$ | S 25 |  | 49 |  |  |  |
|  | 15 | Th |  | N 15 |  |  | $0 \frac{1}{2}$ | 858 |  | 48 |  |  | 16 |
|  | 16 F |  | 19 | N 1459 | 9 | $0 \frac{1}{2}$ |  | 926 |  | 649 |  |  | 17 |
|  | 17 | - |  |  | 9 | $1 \frac{1}{4}$ | $1 \frac{3}{4}$ | 951 |  | 752 |  |  |  |
|  | 15 | C | 17 | - | 9 | $1 \frac{3}{4}$ | $2 \frac{1}{2}$ | 11014 |  | S 54 |  |  | 9 |
|  | 19 | IV |  |  | 9 | $2 \frac{1}{2}$ | $3 \frac{1}{4}$ | $\frac{1}{4} 1036$ |  | 956 |  |  |  |
|  | 20 | Tu |  | , | 9 | $3 \frac{1}{4}$ | 4 | 1058 |  | $10_{\mathrm{M}}^{1} 59$ |  |  | 1 |
|  | 21 | W. |  | N 14 | 9 | $4{ }_{5}^{1}$ | $4 \frac{3}{4}$ | ${ }_{4}^{3} 1122$ |  |  |  |  | 22 |
| 203 | 22 I | Th |  |  | 9 | 5 | $5 \frac{1}{2}$ | ${ }_{2}^{1} 11{ }_{\text {M }}{ }^{\text {P }} 50$ |  |  |  |  |  |
|  | 23 F | F | D 713 |  | 9 | 6 |  |  |  |  |  |  |  |
|  | 24 | Sa, 427 D | D 712 |  | 9 | 7 | $7 \frac{1}{2}$ | $12{ }^{1} 23$ |  | 339 |  |  |  |
|  | 25 |  | D 711 | $\cdots 14$ | 9 | 8 |  |  |  | c 452 |  |  |  |
|  | 26 | ' | D 710 |  | 9 | 9 | - |  |  |  |  |  |  |
|  | 27 | Tu. 430 | D 709 |  | 9 | 10 | $10 \frac{1}{4}$ | 303 |  | 700 |  |  | 28 |
|  | 28 | W. | E 708 | m 1437 | 9 | $10_{4}^{3}$ | 11 |  |  |  |  |  |  |
|  | 29 | Th. | e 707 | m 143 | 9 | $11 \frac{3}{4}$ | - | 537 |  | 828 |  |  |  |
|  | 30 | Fr. | ェ 706 | m 14 | 9 |  | $0_{2}^{1}$ | 658 |  | 900 |  |  | 2 |
|  | 31 |  |  | 14 | 9 | $0_{4}^{3}$ | 12 |  |  | $9_{\text {M }}{ }^{\text {P }}$ |  |  |  |



The groves, the flelds, the meadows, now no more With melody resound. 'Tis sllence all, As if the lovely songsters, overwhelmed By bounteous nature's plenty, lay intrane'd In drowsy lethargy.

## Aspects, Holidays, Heights of High Water, Weather, ete.

Dominlon Prov.-Worc. Day Canal op. 1528

Lightning VISit, of Mary Haverhill $\begin{aligned} & 1690\end{aligned}\left\{\begin{array}{l}11.4 \\ 9.9\end{array}\right.$ may be
 4tha. 39. Ind. Day bo © Untether
 5.5" hail stone fell, Potter, Neb. $1928\left\{\begin{array}{l}9.5 \\ 9.6\end{array}\right.$ even those Lincoln consp. Rec. raln $\{9.1$ in the exce. 1865 N.Y. $1935\{9.6$ in the 8 Th . 9 Fr . $\delta \Psi \mathbb{C} \begin{aligned} & \text { Shelley } \\ & \mathrm{D} .1822\end{aligned} \mathrm{Tides}_{\{9.7}^{8.8}$ heather -
 Getting half your wishes means doubling your troubles $\{9.8$ fine
 Vinegar glven better
than
$\mathbb{C}_{\text {low }}^{\text {rldes }}$ weather. The full Lucky Hol. $\left\{\begin{array}{l}\text { 8.5. } \\ 10.0 \\ \text { Eust by }\end{array}\right.$ Tu.





 St, Margare bewarel $\mathbb{C}_{\text {Eq }}$. Suntan Frost Md.., Lucky
Ct. 1890
Day Tides $\left\{_{9.2}^{8.9}\right.$ lotion's II. Magdalent Hot tides $\left\{_{9.5}^{8.7}\right.$ our

 Culcazo 1915 Utal) 10.2 Suilors
 St. Allue Dog days $\mathbb{C l}_{\text {nilbh }}^{\text {runs }}$ nol alHurr. season Sevcin $\left\{\begin{array}{l}9.6 \\ \text { V.1. beann } \\ \text { sleperers } \\ 11.5 \\ \text { ways fair. }\end{array}\right.$ Year' shighest P.M. P10.0 $_{10,0}$ Low-flying
 $\Psi$ in tat: $\quad \delta 9 \mathbb{C} \delta \widehat{O} \mathbb{C}$ Rain soon $\overbrace{\text { In R.A }}^{\text {stat.A. }}$ Drought
1949

## Farmer's Calendar.

## The Rake Tooth.

"Therc you careless rascal, you ought to have your neck broke, there goes another rake tooth!" "Hang me, and be darn'd to ye, if I hear any more of your confounded botheration," cried Tom Snib; and giving the rake a toss, he left the tield. But unfortunately the stale rebounded and hit farmer Fretful in the shin. So then a suit was brought for assault and battery. And it was a point mucb mooted and disputed among the gentlemen of the law, whether this was trespass or trespass on the case. All the lawyers far and bear were engaged and it was quibble, quirk and quodlibet on both sides for a long while, and the case went through every ranification of investigation. What the conclusion finally was we have never heard; and perhaps and vory probably, the point is not yet settled. One thing however was determined, viz that farmer Fretful had to sell his farm and ponr Tom went to gaol for the cost.
When passion gets her hook into your nose, she will lead you a strange round. Look out therc, friend Ilasty! Me thinks 1 see the jade within your territorics.

OFA 1824

ASTRONOMICAL CALCULATIONS.

| - | Days. | 0 , | Days. | 0 I | Days. | 0 , | Days. | $0 \quad 1$ | Days | 0 |  |
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| \% | 1 | 17N. 57 | 7 | 1621 | 13 | 1436 | 19 | $12 \quad 42$ | 25 |  |  |
| 硡 | 2 | $17 \quad 42$ | 8 | $160 t$ | 14 | 1417 | 20 | $12 \quad 22$ | 26 | 10 | 20 |
|  | 3 | $17 \quad 26$ | 9 | 1547 | 15 | 1359 | 21 | 1202 | 27 |  | 59 |
|  | 4 | $17 \quad 10$ | 10 | 1530 | 16 | 1340 | 22 | $11 \quad 42$ | 28 |  | 38 |
|  | 5 | $16 \quad 54$ | 11 | 1512 | 17 | 1321 | 23 | 1122 | 29 |  | 16 |
| e | 6 | $\begin{array}{ll}16 & 38\end{array}$ | 12 | 1454 | 18 | 1301 | 24 | $11 \quad 01$ | 30 |  | 85 |

D First Quarter, 4th day, 12 h .48 m. , morning, W. O Full Moon, 12th day, $3 \mathrm{~h} .23 \mathrm{~m} .$, morning, W. © Last Quarter, 19 th day, 10 h .51 m. , evening, E. - New Moon, 26th day, 1 h. 51 m., evening, W. KEY LETTERS REFER TO CORRECTIONS TABLE, PAGES $81-85$, FOR ALL POINTS OUTSIDE NEW ENGLAND

|  |
| :---: |


215 Tu. 437 e 701 n 14249

| 216 | 4 | W. | 4 | 38 | E | 7 | 00 | м |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1422 | 9 |  |  |  |  |  |  |  |

2175 Th. 439 E 659 M 14209
2186 Fr. 440 e 658 M 1417 9
219 T Sa. 441 E 656 M $1415 \quad 9$
220 S C 442 E 655 N 141310
221 9 M. 443 E 654 M 1410 10 22210 Tu. 445 E 652 I 140810 223 11 W. 446 F 651 I 140510
 225 13 Fr. 448 F 648 I. 140110 22614 Sa .449 F 647 L 135811 22715 C 450 I 645 L 1356 228 16 M. 4551 F 644 I. 1353.11
 23018 W. 4.53 F $\operatorname{ll} 641$ L 13 4S 11
 232 20 Fr. 455 F 638 L $133: 3$ 23321 Sa. 456 r 636 I. 1340 12
 23523 M. 458 r 2633 r 133512 23624 Tu. 450 g 632 r 133213 237 25 W. 500 G 630 r 1330 13
 23927 Fr. 503 G 627 K $1324 \mid 14$ 240 2S Sa. 5044 g 625 K 132114
 24230 M. 5006 G 622 K 131614
24331 Tu. 507 G 620 K 131315
$0 \frac{1}{2}$

| $2 \frac{1}{4}$ | $3 \frac{1}{4}$ | 10 | 39 | 5 | 10 | 17 | 1 | LIB | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| $3 \frac{1}{2}$ | 4 | $11_{\mathrm{H}}^{\mathrm{A}} 1 \mathrm{~S}$ | k | 10 | 43 | G | SCO |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| 5 | $122_{10}^{\mathrm{P}} 5$ | M | 11 | 10 | F | sCo |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

 3030 - - SGR 10 403 O 12 12 18 H SGR 11

 $\begin{array}{lllllll}5 & 45 & 1 & 49 & \mathrm{Cap} \\ 13\end{array}$ $\begin{array}{llllllllll}6 & 25 & 0 & 2 & 44 & \text { C } & \text { RR } & 14\end{array}$ $700 \times 342$ c AQR 15 $\begin{array}{lllllll}7 & 29 & 1 & 4 & 42 & \mathrm{D} & -\end{array}$ | 0 | 7 | 55 | 1 | 5 | 41 | D | $\operatorname{PSC}$ | 16 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | $\begin{array}{llllllllllllllll}0 & 0 \frac{1}{2} & S & 19 & \mathrm{~K} & 6 & 47 & \mathrm{E} & \operatorname{rsc} & 17\end{array}$ $0_{4}^{3}$ $1 \frac{1}{2}$



| $3 \frac{1}{2}$ | 4 | 10 | 20 | E | 12 P 10 | F |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| K | TAU | 22 |  |  |  |  |






| $9 \frac{1}{2}$ | 10 | 3 | 07 | D | 6 | 20 | O | Leo | 28 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| $10_{2}^{1}$ | $10_{4}^{3}$ | 4 | 28 | E | 6 | 55 | M | VIR | 29 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| $11_{4}^{\frac{1}{4}}$ | $11_{4}^{3}$ | 5 | 48 | $G$ | 7 | 26 | I | vir |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |






The lightnin' roared, the thunder flasbed,
And granny's tea-pot it got smashed!
The raln it wbistled, the wind it poured,
While daddy, sleeplng soundly, snored and snored.
1848

| e. |
| ---: |
| 0 |
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## $\dot{B}$

Aspects, Holidays, Heights of
High Water, Weather, etc.
 Sodom \& "Worth makes the man
"Wor'h formakes the solder"' 1821 trecs'll be $\delta \Psi \mathbb{C}$ Undorground ${ }_{9.6}^{9.2}$ laid low. б早 $6 \begin{gathered}\text { Gaies } \\ 1915\end{gathered}$ Tides ${ }_{9.4}^{8.7}$ Turgid, Transfig. La, hurr. Tides ${ }_{19.3}^{18.3}$ tumid, Name of Eng. train (sth) Tides ${ }_{9.3}^{8.1}$ then
Jesus
rob. 1963 8tfa. $\mathbb{C}$ AVC $\mathbb{C}_{\text {low }}^{\text {rides }} \quad\left\{\begin{array}{l}8.1 \\ 8.1 \\ \text { humid. }\end{array}\right.$ $\underset{\&}{\text { Hurr. Connle }}$ Diane (18-13) $\quad \begin{aligned} & 8.2 \\ & 9.5\end{aligned} \quad$ Rowdy
 World's most famous
hurricane-Barbadoes- 1831 cloudy. The full Moon St.
Sturgeon Mora Tie ueon Moon Te up your
temper (14-15) St.


 Cat $1300^{\text {abiove }} 1885 \quad\{9.5$ Cool
 then desire Evan $\{9.5$ at the
 Destroy bushes
and sprouts
Oswin Wiil swop-this
day for one in May 10 tja. II. $\delta 2 \mathcal{L} \mathbb{C}\left\{\begin{array}{l}8.6 \\ 10.2\end{array}\right.$ this week Bear and forbear $\stackrel{\text { vietor }}{\text { St. }} \mathbb{C}_{\text {high }}^{\text {Runs }}$ if fair
 Last U.S. wbaler $\delta \not \subset \mathbb{C} \mathbb{C}_{\text {Per1. }}^{\text {Ln }}$ you
 Contueius
born 550 B.C. St. Hugh Rain soalcd born 550 B.C. Hugh Rain soakicd Squantum 1822 Tides $\{10.8$ moors


 epid. 1807 o $\ddagger$ ( Tides 10.8 wooers.

## Farmer's Calendar.

## The Ilaymakers.

Uncle Ben Hedger was abotit the best mower that ever latd seythe to sod in these parts. It was fine to see with what eame he would take down the tall timothy, and wlthout ever erouehing! As to his prlce, he was, to be sure, "a triffe above the market;" but I nerer balked hlm ln that, being always willng to pay him to hls satisfaction. One morning between daybreak and sunrise, four of us, Unele Beb. Joe Sykes, Peter Whistler and myself, stood together it front of my "ILersey lot," wlth seythes in hand, made keen and sharp the night before for the purpose. "Come," said I, "Uncle Ben, lead off, and turn the double swarth." And so he did, followed by Joe and Peter, whlle I eut in behind. Now, don't you know that there is poliey in the owner"s thus backing up? Well, no matter for that; after thls sort we drove buslness; that is to say, Uncle Ben at the head, myself in the rear, until the "Hersey lot" was all prostrate! "That ls the way to do business! Wllling hands mako light work," said Unele Ben. And so indeed they do. We took the horse-rake and had it all $\ln$ eock before the dew fell. The surface then looked smooth as a plece of velvet.

OFA 1855


D First Quarter, 2nd day, 2 h. 28 m., evening, E.
O Full Moon, 10th day, 6 h. 32 m., evening, E.
© Last Quarter, 18th day, 6 h. 59 m., morning, W.

- New Moon, 24th day, 10 h. 18 m., evening, W.




> When Autumn scatters hls departing gleams . Warn'd of approaching wlnter, gather'd play The swallow-people, and toss'd wlde around O'er the calm sky, in convolution swift The feather'd eddy floats, rejolcing once, Ere their wintry travels they commence.

Thomson

| $\dot{\vdots}$ | $\dot{B}$ |
| :--- | :--- |
| $\dot{Q}$ |  |
| 1 | $W$ |

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

1 W .
2 Th .
3 Fr .
4 Sa .
5 C
6 M.
7 Tu.
8 W.
9 Th.
10 Fr.
11 Sa.
12 C
13 M.
14 'Tu.
15 W.
16 Th .
17 Fr.
18 Sa.
19 C
20 M.
21 Tu.
22 W.
23 Th
24 Fr .
25 Sa.
26 C
27 M.
28 Tu
29 W.

30 Th . St Jerome. $69 \Psi$ Tides ${ }_{19,7} 9.1$ row.
Oysters $\begin{aligned} & \text { in season } \\ & \text { Gr. E1. }\end{aligned}\left\{\begin{array}{l}9.5 \\ 9.8\end{array}\right.$ Unsetlled, Lafayette, Bolton, $\left\{\begin{array}{l}8.8 \\ 9.4\end{array}\right.$ changeable; Hay fever Hay fever Thls day bec. worst
Moses,
Abundance
good one Patr. pears 1963 day $\left\{\begin{array}{l}7.9 \\ 8.9\end{array}\right.$ day 12tha. (1. Dog days $\mathbb{C}_{\text {low }}^{\text {rides }}$ poor the Labor Day $8 h_{2} \odot \mathbb{C}_{\text {Apo. }}^{\text {in }}\left\{_{9.0}^{7.9}\right.$ next,
 Nativ.
of Mary
ó
L $\mathrm{C}_{\text {day }}^{\text {Lucky }}$ Old Abe's $\underset{\text { Proph. death }}{\text { Hol }}$ Hol TIdes ${ }_{9.6}^{8.8}$ text. James IV 1513 Calif. ${ }^{\text {Indes }} 99.6$ lext. The full
Harvest Moon $\quad \delta^{2} \mathbb{C}$ Magnificent, Lucky
day
Tides $\{9.8$
99.3
grandiloquent


 Holy Cross Ember st. Training cay ${ }_{1641}$ Ember $\{9.5$ Nearly 1st Am. hol. 1641 Day $\{9.9$ Nearly | Worcester, Mass. Dells |
| :--- |
| tolled 1000 times, |
| times |
| 19.8 |
| 9.8 |
| clear, |

 Day foiliage Day Ember $\delta \nVdash \mathbb{C}$ Another
 $\begin{array}{llll}\text { Noanh made } \\ \text { Ark, B.C. } & 2348 & \text { Pante } \\ 1873\end{array} \quad \begin{array}{lll}8.6 \\ 10.0\end{array} \quad$ week St. Mathew Evern" that vacationWilkins female mummy $\mathbb{C}_{\text {Perl. }}^{\text {In }}$, ers
 begins A.m. Ters $-\mathbf{O}$. ( ( seek. John Bap. Am. Ind. Wood chucks
Hibernate
conc.
Day
 frosts back one hri Eq. 111.2 (6tl) a. 扫. Daytisht saving now; Rosh Hashanall care $\delta \stackrel{y}{7} \odot$ sup. sly $\delta ¢ \mathbb{C} \delta \Psi \mathbb{C} \delta \delta \mathbb{1}\{10.7$ and sea St. Michael Gedalia $\left\{\begin{array}{l}0.8 \\ 10.3 \\ \text { in a big }\end{array}\right.$

The year ends, some say with Fall.
With God, it was not that way at all.

Hurricanes, like great earthquakes, can make their own chapters in history-chapters that may well embrace centuries or have no final writing till the end of earth. Of course, we may as well say that the coral and the earthworm write their never-ending ehapters. But I think now of hurricancs that were so violent and frequent (and will be again) in the United States, and particularly the alinost unheralded tempest that whirled up the Hudson and Connecticut Rivers to The Plains of Abraham-the hurricane of September 1938.
The first known chapter of that dreadful storm was clear enough : ancient elms on historic commons and whole forests were felled; there was everywhere the smell of bruised and beaten leaves and needlcs, the wine of the trces, the vintage of the hurricane; there was the silence when the storm passed, the silcnec ot great trecs that had been as high as the sky, lying prone now for us to walk upon from their boles to their crests.
And the second chapter, swift upon the first-a chapter that told the swift dryness of death, the bone dryness of the spills and leaves about the barren limbs from which the bark had curled in lips of death-and the inevitable flames that could not be quenched.
But the third chapter-the ageless promise of rebirth, regrowth, fulfillment-these we watch now.
1965] OCTOBER, Tenth Month.
ASTRONOMICAL CALCULATIONS.

|  | Days. | 01 | Days. |  | Days. | 0 | Days. | 01 | Days. | 01 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 3s. 17 | 7 | 536 | 13 | 752 | 19 | 1004 | 25 | 1211 |
|  | 2 | $3 \quad 40$ | 8 | 559 | 14 | 814 | 20 | 1026 | 26 | 1232 |
|  | 3 | $4 \quad 04$ | 9 | 622 | 15 | 837 | 21 | 1047 | 27 | 1252 |
|  | 4 | $4 \quad 27$ | 10 | 644 | 16 | 859 | 22 | 1109 | 28 | 1312 |
|  | 5 | 450 | 11 | 707 | 17 | 921 | 23 | 1130 | 29 | 1332 |
|  | 6 | 513 | 12 | 730 | 18 | 943 | 24 | 1151 | 30 | 1352 |

$D$ First Quarter, 2nd day, 7 h. 38 m., morning, E. O Full Moon, 10th day, 9 h. 14 m., morning, W. $\mathbb{C}$ Last Quarter, 17 th day, 2 h .00 m ., evening, W. - New Moon, 24th day, 9 h. 12 m., morning, E. KEY LETTERS REFER TO CORRECTIONS TABLE, PAGES $31-85$ FOR ALL POINTS OUTSIDE NEW ENGLAND


Now sotten'd suns a mellow hustre shed,
The laden orchards glow wlth tempting red.
On hazel boughs the clusters hang embrown'd.
And with the sportsman's war the shorn fields resound.
1824

| $\begin{array}{\|l\|l} \dot{2} \dot{\theta} & \dot{\beta} \\ \dot{\theta} \end{array}$ | Aspects, Holidays, Heights of High Water, Weather, etc. | Farmer's Calendar. |
| :---: | :---: | :---: |
| $1{ }^{1} \mathrm{Fr}$ | ucts day ${ }^{\text {Lucky }}$ No com- |  |
| 2 Sa. |  | trees protected (wherever fea- |
|  |  | sible) for later gencrations. <br> But I would hope in equal |
| 4 M . |  | measure that we might pre- |
| 5 Tu |  | serve trecs everywhere that are historical or symbolic-- |
| 6 W |  | not necessarily yery old or rery great trees, like red- |
| 7 T | First Worcester catte show 1819 d | woods and Douglas firs I |
| 8 Fr . |  | would continue preservation to protect the little old bent |
| Sa. |  | cypresses and other sorts on rocky heallands by the sea, |
|  |  | and sections of trce-line for- |
| 11 M | 18) D.A.R. 81890 sleezy, | specimens. |
| 12 Tu | Columbls Day Tides $\left\{10.2\right.$ Hol ${ }^{\text {dotates }}$ wet | We respect tree patriarchs with all the reverence that |
| W |  | we pay our cemererics, whose |
| 14 Tl |  |  |
| Fr. |  | never scem as given to weath- ering and decrepltude as |
| Sa. |  | tombstones. Even when they |
|  | \#f( | have lain prone for they are usually allve |
| 18 M . |  | mosses and ferrs and bright |
| T | Rejolcing $\delta ¢ \% \psi_{\text {in }}^{\text {Stat.A. }}$. be late. | their own and other kinds. |
| 20 W. |  | These fallen piants are canled |
| 21 T |  | literal sense they achierc re- |
| 22 |  | Whatione have returned re-- |
| 23 Sa . |  | cently to New Snyland after seeing the ciant trees, and |
|  | 20tha.抲. W... Tides 111.0 no tax. | seere back among our own |
| M |  | trees-quite but small in comparison-my |
| 26 Tu | m | wife said, "I don't think the sky looked any higher above |
| W |  | the redwoods than above our |
| 28 Th | Simoll \& Jude Adam \& 69 © year's | My wife's perspective may |
| 29 Fr . | Prune or plant Iruit trees ssee | $\left\lvert\, \begin{aligned} & \text { have been a little wrong, but } \\ & \text { to be sentimental, heaven } \end{aligned}\right.$ |
| 30 Sa |  | close to the crown of all |
| 31 C |  | trees. |

## ASTRONOMICAL CALCULATIONS.

|  | Day | 0 | 1 | 1 | 01 | Days. |  | Da | 0 | Days. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 14s | 31 | 7 | 1621 | 13 | 1801 | 19 | 1931 | 25 | 2048 |
|  | 2 | 14 | 50 | 8 | 1638 | 14 | 1817 | 20 | 1945 | 26 | 2059 |
|  | 3 | 15 | 09 | 9 | 1655 | 15 | 1833 | 21 | 1958 | 27 | 2110 |
|  | 4 | 15 | 27 | 10 | $17 \quad 12$ | 16 | 1848 | 22 | 2011 | 28 | 2121 |
|  | 5 | 15 | 45 | 11 | $17 \quad 29$ | 17 | 1902 | 23 | 2024 | 29 | 2131 |
| O | 6 | 16 | 03 | 12 | 1745 | 18 | 1917 | 24 | 2036 | 30 | 2141 |

D First Quarter, 1st day, 3 h. 26 m., morning, W.
O Full Moon, 8th day, $11 \mathrm{~h} .16 \mathrm{~m} .$, evening, E.
© Last Quarter, 15 th day, 8 h. 54 m., evening, E.
(3) New Moon, 22nd day, 11 h. 10 m., evening, W.

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

|  |  |  | $\\|_{\text {det }}$ |  |  |  |  |  | $\begin{gathered} D \\ \begin{array}{c} \text { Rises } \\ \mathrm{h} \\ \text { m. } \end{array} \end{gathered}$ |  | $\begin{gathered} \text { ets } \\ \text { ets } \\ \text { m. } \end{gathered}$ |  |  | $\left.\right\|_{\text {Ag }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | M. 616 L | I 4 |  | F\|10 21 | 32 | $4_{4}^{3}$ | 5 | ${ }^{\text {P }}$ P6 ${ }^{\text {P }}$ |  |  |  |  |  |
|  | 2 | Tu. 617 I | I. 436 |  | F 1019 | 32 | $5 \frac{3}{4}$ | 6 | 205 |  |  |  |  |  |
|  | 3 | W. 619 L | L 435 |  | E 1016 | 32 | $6 \frac{3}{4}$ | 7 | 231 |  | 1. $12{ }_{4}^{\text {A }} 13$ |  |  | 10 |
|  |  | Th. 620 m | , 434 |  | = 1014 | 32 | 7 | $7 \frac{3}{4}$ | 253 |  | - 116 |  |  | 11 |
|  |  | Fr. 621 m | 1433 |  | E 1012 | 32 | $8 \frac{1}{4}$ | s | 315 |  | J 219 |  | ARI | 1 |
|  |  | Sa. 623 m | 1432 |  | 10 09 | 32 |  | $9{ }^{\frac{1}{4}}$ | 338 |  | 323 | H |  |  |
|  |  | C 624 m | 4431 |  | : 1007 | 32 | $9 \frac{3}{4}$ | 10 | 400 |  | G 429 |  |  |  |
|  |  | M. 625.11 | 1429 |  | = 1004 | 31 | $10 \frac{1}{4}$ | $10_{4}^{3}$ | 426 |  | F 537 |  |  | 16 |
|  | 9 | Tu. 626 m | 428 |  | 10 02 | 31 | 11 | $11 \frac{1}{2}$ | 456 |  |  |  |  |  |
|  | 10 | W. 628 m. | 427 |  | 1000 | 31 | $11 \frac{1}{2}$ |  | 533 |  | 802 |  |  |  |
|  | 11 | Th. 629 m | ${ }^{4} 426$ |  | 957 | 31 | $0 \frac{1}{4}$ | ${ }^{4}$ | 619 |  | 914 |  |  | 18 |
|  | 12 | Fr. $630 \times 1$ | 425 |  | - 955 | 31 |  |  | 716 |  | B 102 |  |  | 9 |
|  | 13 | Sa. 631 m | $1+24$ |  | 953 | 31 | $1 \frac{3}{4}$ | 2 | 822 |  | B $11_{\text {m }}{ }^{\text {a }}$ |  |  | 20 |
| 31 | 14 | C 633 m | 1423 |  | 951 | 31 | $2 \frac{3}{4}$ | 3 | 9 |  | $C^{1-\mathrm{m}}$ |  |  | 21 |
|  | 15 | M. 634 m - | - |  | 949 | 31 | $3 \frac{1}{2}$ | 4 | $10_{\text {dr }}^{\text {P }} 50$ |  | E 1254 |  |  | 22 |
|  | 16 | Tu. 635 m - | - 422 |  | 947 | 30 | $4{ }_{4}^{3}$ | 5 |  |  | 12 |  |  | 23 |
| 32 | 17 | W. 636 m | 421 |  | 945 | 30 | $5 \frac{3}{4}$ | $6 \frac{1}{4}$ | $12{ }^{\text {A }} 05$ |  | F 155 |  |  | 24 |
|  | 18 | Th. 638 n | -420 |  | 942 | 30 | $6{ }_{4}^{3}$ | 7 | 118 |  | H 220 |  |  | 25 |
|  | 19 | Fr. 639 N | - 419 |  | - 91 | 30 | $7 \frac{3}{4}$ | $S_{\frac{1}{4}}$ | 230 |  | 245 |  |  | 26 |
|  | 20 | Sa. 640 N | +19 |  | 938 | 30 | $8 \frac{3}{4}$ | $9{ }_{4}^{1}$ | 340 |  | 3 |  |  | 27 |
|  | 21 | C 641 N | , 418 |  | 937 | 29 | $9 \frac{1}{2}$ | 10 | 451 |  | I 335 |  |  | 28 |
|  | 22 | M. 642 N | 417 |  | 935 | 29 | $10 \frac{1}{4}$ | $10^{\frac{3}{4}}$ | 602 |  | 40 |  |  | 29 |
|  | 23 | Tu. 644 | 4 |  | 933 | 29 | 11 | $11 \frac{1}{2}$ | 710 |  | 4 |  |  | 1 |
|  | 24 | W. 645 N | 416 |  | 931 | 29 | $11 \frac{3}{4}$ |  | S 17 |  | 18 |  |  | 2 |
|  | 25 | Th. 646 N | - |  | 929 | 28 | $0 \frac{1}{4}$ | $0 \frac{1}{2}$ | 918 |  | P 605 |  |  | 3 |
|  | 26 | Fr. $647 \times 4$ | 415 | D | 928 | 28 |  | 1 | $10 \quad 12$ |  | 658 |  |  |  |
| 33 | 27 S | Sa. $648 \times 4$ |  | D | 926 | 28 | $1{ }_{4}^{3}$ | $1 \frac{3}{4}$ | 1057 |  | 756 |  |  | 5 |
| 33 | 28 C | C 649 N | 14 | D | 925 | 27 | $2 \frac{1}{2}$ | $2 \frac{3}{4}$ | $11_{\mathrm{m}}^{\text {A }} 35$ |  | 8 57 |  |  | 6 |
| 33 | 29 | M. 651 N | 41 | D | 923 | 27 | $3 \frac{1}{4}$ | $3 \frac{1}{2}$ | $12^{\text {P }} 06$ |  | 959 |  |  | 7 |
|  | 30 | Tu. 652 N |  |  | 922 | 27 | $4 \frac{1}{4}$ |  | $12^{\text {P }}$ |  | $11^{\text {P }}$ |  |  |  |



Now a ieal
Incessant rusties from a mournfui grove To startle such as studious walk below. And slowly circles through the waving air.
182.4


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

Ail Lisbon © in Hoi. Spurious, Ail Jenny Lind 1 ides ${ }_{183}^{7.8}$ furious,
Souis D. I887 1st metai 1887 Lh Lucky 18.0 and 1st metai 1897 62 $\mathbb{C}$ Lacky $\left\{\begin{array}{l}8.0 \\ 8.4\end{array}\right.$ and He threatens
who is arraid $\begin{cases}8.4 & \text { Hol. } \\ 8.6 & \text { Okia. injurious. }\end{cases}$ The plot
ne'er forgot Tides $\{8,9 \quad$ Hey diddle Noah's b'day
B.C. 2948 2211 a. $7^{2}$ © Fan Tides ${ }_{19.1}^{9.2}$ diddle, cattie Tides ${ }_{9.3}$ w Travel Moon E. E.R. 62 Tides $\left\{\begin{array}{l}10.0 \\ 9.5\end{array}\right.$ upa
 Take off this day
and stretch the hoil lay The thunder 11 Th. St. Martin Lucky Hol. Hel

13 Sa. Indian Summer Tides $\left\{_{10.5}^{9.2}\right.$ wonder.
14 C 15 M.
16 Tu. 17 IV.
18 'Th.
22nd a. U. $\mathbb{C}_{\text {Peri. }}^{\text {in }}$ hin R.A. $_{\text {sitat. }}^{\text {s. }}$ Sum안. Gr . El. $\left\{\begin{array}{l}8.8 \\ 9.8 \\ \text { mer's now Indian; }\end{array}\right.$ Opportunity
brecas thieves day
 19 Fr.
20 Sa. U.5.S. Maine leh. $1890{ }^{\text {Dickens }} 1855$
un-pinion,

## 21 C

22 M.
23 Tu.
24 W.
25 Th.
26 Fr.
27 Sa.
28 C
29 M.
30 Tu. St, Andrew Pipissiwav cured ail 1818 \{8.0 wintry.
The days are now shorter by over six hours.

Farmer's Calendar.

Yankees have a tradition of generous thrift. "Waste not, want not." Thrift leaves no scraps-pigs and ehiekens eat them. Between the eows and the horses and the pigs, ehickens, sheep, pigeons and ducks, our ancestors lived high. They were really selfsubsistent.

Steady ineome was usually from milk. Seasonal from wool, eordwood or logs, maybe hay and fruit. Oceasional from ehickens, egrs, veal or a beef eritter, pigs, or just plain swopping.

Expenses were ehiefly for equipment replaeement, horseshoeing maybe. Usually there was enough old iron around to have the repairs made with just the eost to the blacksmith. And there was church. taxes, the eountry fair, and dresses and the like (when you liad to) for the women folk.
Ma's backlog of production came from fifteen hours a day of steady labor, her string and rag bags from which she produeed such wonders as patehes, mittens, and baly elothes. And there was her weaving or spinning or knit ting-lier garden and preserving.
Today Ma's and Pa's way of life would be economic dis:aster. A few folks live that way, but our stream-lined eeonomy is built on thuemore time for leisure, more time to buy on time. Ma's rag bag, the Yankee peduler, or Pa's ploughshare thrift is out of this league.

| $1965]$ |  | DECEMBER，TWELFTH Month． |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASTRONOMICAL CALCULATIONS． |  |  |  |  |  |  |  |  |  |  |
| $\cdots$ | Days． | $0 \quad 1$ | Days． | $0 \quad 1$ | Days． | 0 | Days． | 0 | Days． | 0 |
| $\stackrel{3}{7}$ | 1 | 21s． 51 | 7 | 2239 | 13 | 2310 | 19 | 2325 | 25 | 2324 |
| 嚈 | 2 | $22 \quad 00$ | 8 | 2245 | 14 | 2314 | 20 | 2326 | 26 | 2322 |
| 亏 | 3 | $22 \quad 08$ | 9 | 2251 | 15 | 2317 | 21 | 2327 | 27 | 2319 |
| $\AA$ | 4 | $22 \quad 16$ | 10 | 2256 | 16 | 2320 | 22 | 2327 | 28 | 2316 |
| $\cdots$ | 5 | $22 \quad 24$ | 11 | 2301 | 17 | 2322 | 23 | 2326 | 29 | 2313 |
| $\bigcirc$ | 6 | $22 \quad 32$ | 12 | 2306 | 18 | $23 \quad 24$ | 24 | 2325 | 30 | 2309 |

D First Quarter，1st day， 12 h． 25 m．，morning，W． O Full Moon，8th day， 12 h .22 m ．，evening，E．
© Last Quarter， 15 th day， 4 h． 52 m．，morning，E． New Moon，22nd day， 4 h． 03 m．，evening，W．
D First Quarter，30th day， 8 h .47 m ．，evening，W KEY LETTERS REFER TO CORRECTIONS TABLE，PAGES $81-55$ ，FOR ALL POINTS OUTSIDE NEW ENGLAND

|  | RE二解 |  |  |  |  |  | $\begin{array}{c\|c} D \\ \text { Rises } \\ \text { h. m. } \end{array}$ |  | $\begin{gathered} D \\ \text { ets } \\ \text { m. } \end{gathered}$ | ｜D |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 33 | 1 W． 653 | N 413 | D 920 | 26 | 5 |  | $\frac{1}{4} 12_{12}^{\text {P }} 56$ |  |  |  |  |
| 336 | 2 Th． 654 | N 413 | D 919 | 26 | 6 | $6 \frac{1}{1}$ | $\begin{array}{lllll}\frac{1}{4} & 1 & 17\end{array}$ |  | J $12{ }_{\text {din }}{ }^{\text {a }} 03$ | F ARI | 10 |
|  | 3 Fr． 655 | N 412 | D 918 | 25 | $6 \frac{3}{4}$ | 7 | 139 |  | 106 | G ARI | 11 |
|  | 4 Sa 656 | $\mathrm{N}+12$ | 916 | 25 | $7 \frac{1}{2}$ | S | 201 |  | H 209 | H | 12 |
|  | ${ }_{5}$ C 657 | ¢ 412 | 915 | 25 | $8_{4}^{1}$ | $8_{4}^{3}$ | $8{ }^{3} 42205$ |  | G 316 | J tau | 13 |
| 340 | 6 M． 658 | $\mathrm{n}+12$ | 914 | 24 |  | $9 \frac{1}{2}$ | 91－233 |  | E 426 | I | 14 |
|  | 7 Tu． 659 | O． 412 | 913 | 24 | $9 \frac{3}{4}$ | $10 \frac{1}{4}$ |  |  | D 539 | I．G＇M | 15 |
|  | S W． 700 | － 412 | 912 | 23 | $10 \frac{1}{2}$ | 11 | 409 |  | c 654 | x － |  |
|  | 9 Th． 701 | o 412 | 911 | 23 | 114 ${ }^{\frac{1}{4}}$ | $11 \frac{3}{4}$ | $\begin{array}{lllll}\frac{3}{4} & 5 & 03\end{array}$ |  | B． 806 |  | 16 |
|  | 10 Fr． 70 | o 412 | 910 | 22 |  | 0 | 607 |  | B 913 | r cnc | 17 |
|  | 11 Sa .702 | － 412 | 910 | 22 | $0 \frac{3}{4}$ | $0 \frac{3}{4}$ | $0 \frac{3}{4} 720$ |  | c 1009 | P CNC | 18 |
|  | 12 C 703 | o 412 | 909 | 22 | $1 \frac{1}{2}$ | $1 \frac{3}{4}$ | ${ }^{\frac{3}{4}}$ S 38 |  | D 1054 |  | 9 |
|  | 13 M .70 | 0.12 | c 908 | 21 | $2 \frac{1}{2}$ | $2{ }^{3}$ | $2 \frac{3}{4} 95$ |  | F 1129 | $\cdots$ Leo | 20 |
|  | 14 Tu .705 | 0.413 | 908 | 21 | $3 \frac{1}{4}$ | $3 \frac{3}{4}$ | $3 \frac{3}{4} 11_{\text {R1 }}^{\text {r }} 09$ |  | G $11{ }_{\text {an }}{ }^{\text {a }} 99$ | M VIR | 21 |
|  | 15 W .70 | 0413 | C 907 | 20 | $4 \frac{1}{4}$ |  | ${ }_{4}^{3}$ |  | $-12_{\text {d2 }}{ }^{\text {P }} 25$ | к | 22 |
|  | 16 Th． 706 | 0.413 | C 9007 | 20 | $5 \frac{1}{2}$ | $5 \frac{3}{4}$ | $5 \frac{3}{4} 12{ }_{31}^{1} 21$ |  | H 1249 | J Lib | 23 |
| 351 | 17 Fr． 707 | O 413 | 906 | 19 | $6 \frac{1}{2}$ | 7 | 131 |  | 11 |  | 24 |
|  | 1 S Sa． 708 | o 414 | C 906 | 19 | $7 \frac{1}{2}$ | 8 | 241 |  | 1 | G SCO | 25 |
|  | 19 C 708 | 0 | 906 | 18 | $S_{4}^{1}$ | $S_{4}^{3}$ | $\begin{array}{lllll}\frac{3}{4} & 3 & 50\end{array}$ |  | 205 | F SCO | 26 |
|  | 20 M． 709 | － 415 | 906 | 15 | $9 \frac{1}{4}$ | $9{ }^{\frac{3}{4}}$ | ${ }^{\frac{3}{4}} 4558$ |  | 237 |  | ， |
|  | 21 Tu． 709 | － 415 | 06 | 17 | 10 | $10 \frac{1}{2}$ | ${ }^{\frac{1}{2}} 6$ |  | － 315 | D | 8 |
|  | 22 W． 710 | O 416 | 90 | 17 | $10 \frac{3}{4}$ | $11 \frac{1}{4}$ | $\frac{1}{4}$ 707 |  | O 358 |  | 0 |
| 357 | $2: 3$ Th． 710 | 0416 | 906 | 16 | 11 ${ }^{\frac{1}{4}}$ |  | S 03 |  | 4 |  |  |
|  | 24 Fr． 711 | － 417 | 900 | 16 |  | 0 | S |  | 546 | B | 2 |
|  | 25 Sa .711 | － 417 | 906 | 15 | $0^{\frac{1}{2}}$ |  | ${ }_{0}^{3} \mathbf{3}$ |  | － 646 | c | 3 |
| 360 | 26 C 711 | o 418 | 907 | 15 | $1 \frac{1}{4}$ |  | $1 \frac{1}{2} 1007$ |  | 747 | c |  |
|  | 27 M． 712 | of 419 | 907 | 14 | 2 | 2 | 1034 |  | S 49 | D | 5 |
| 362 | 28 Tu． 712 | － 419 | 907 | 14 | $2{ }^{3}$ | 3 | 31059 |  | 4950 | E | 6 |
|  | 29 W． 712 | 0.420 | 9 | 13 | $3 \frac{1}{2}$ |  | $3 \frac{3}{4} 1120$ |  | к 1052 | F | 7 |
|  | 30 Th． 712 | o 421 | 90 | 13 | $4 \frac{1}{4}$ |  | $4{ }^{\frac{1}{2}} 11{ }_{1}^{\text {A }} 41$ |  | ${ }^{3} 111_{\mathrm{S}^{\mathrm{P}} 54}$ | G | 8 |
|  | 1 Fr． | $\mathrm{O}+$ | 0 | 12 | 5 | $5 \frac{1}{2}$ | $5 \frac{1}{2}$ |  |  |  |  |



> December, last of months, but best, Who gave A Christ to Man, a Saviour to the Slave.
> Whist falsely grateful, Man at the full Feast
> To do God Honour, sometimes makes hiniself a Beast.
> Churchill

|  |
| :---: |
| 1 |
|  |
|  |
|  |
| 8 W . |
|  |
|  |
| ${ }_{13}^{12}$ |
| 14.12 |
|  |
|  |
| 18 18 |
| 20 M . |
| ${ }^{21}$ |
| ${ }_{23}^{22}$ |
|  |
| ${ }_{26}^{25} \mathrm{~S}$ |
| 27.1 |
|  |
| 30 Th |
|  |

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

Farmer's Calendar.
$\delta h a$ Underground Lides ${ }_{8.8}^{8.1}$ Poon Pours None knows where
another's shoe pinches $\sigma \zeta \bigcirc$ Inf. and Earliest (3-13) $\mathbb{C}_{\mathbb{E}}^{0 \mathrm{n}}$. Tides $\left\{\begin{array}{l}8.5 \\ 8.4\end{array}\right.$ Sunsets Eq. Tides ${ }_{8.4} .5$ roars. Kill pork Ford peace Woolies don 2ni S. 2. CIO-AFL Tides $\left\{\begin{array}{l}9.4 \\ 8.8 \\ \text { from }\end{array}\right.$ Better to hear Larks sing now on. $\begin{array}{ll}\text { Pearl } & \text { Suttees } \\ \text { Harbor abol. } 1829 \text { Tides } & 10.8 \\ 9.2\end{array}$ Ground Conception The full in Penumbral
of V. M. Bewitt ban.
Boston 1640 If planes and
Luther burnt Luther burnt ${ }_{\text {the Bull }} 1520$ high cars; this one's Danny Kaye's $\mathbb{C}_{\text {Peri. }}$ in from Mars.
 St. LILCY Ember week beg. $\left\{\begin{array}{l}9.8 \\ 10.4\end{array}\right.$ overcoats Be of good cheer $\delta \widehat{\odot} \mathbb{C}\left\{\begin{array}{c}9.2 \\ 10.0 \\ \text { live another expect }\end{array}\right.$ Bill of Ember Tides $\left\{\begin{array}{l}9.2 \\ 9.5\end{array}\right.$ Sore Rights
lst sustained
fight $1903(17 \mathrm{th})$
©
Ea. $\left\{\begin{array}{l}9.3 \\ 9.3\end{array}\right.$ throats. flight 1903 (17th) CEq. 9.8 throats. Lazarus dled $\begin{aligned} & \text { Ember } \\ & \text { 2nd ti., } 63 \text { A.D. Day }\end{aligned}$ 9.5 Warmth Shortest $\underset{\text { Ember }}{\text { Em }}$ \# $\odot$ now's a
 ठ $\Varangle \mathbb{C}\left[\begin{array}{l}21 \text { Venus great- } \\ \text { est brilliance }\end{array}\right]\left\{\begin{array}{l}10.2 \\ 9.0\end{array}\right.$ storms
 begins 8:41 P.M. © ters $\downarrow \mathrm{W}$. "The vendeans are no more" Keber, 1793 are a-borning. Laconia $1963 \mathbb{C l}_{\text {lisaster, }}^{\text {lides }}$ Pitter-patter, $\begin{array}{l}\text { Many leaves on } \\ \text { trees you'll freeze }\end{array}$ tho $\left.4 \mathbb{C}\right]$ frozen
 15t 5. a. © f. St. Stephen $\left\{\begin{array}{l}8.6 \\ 9.6\end{array}\right.$ Much St. Johll Judas d in $\left\{\begin{array}{l}8.5 \\ \text { born } \\ \text { apo }\end{array}\right.$ colder Childermas $\mathrm{L}_{\mathrm{in} \text { R.A. }}$ Stat. we fear St. Patron Saint
David of Wales $\quad \begin{aligned} & 8.4 \\ & 8.7\end{aligned}$ as snows Masquerade Balls Culed immoral, 1809 Eq. greet the $_{\text {En }}$ Happy Year! ${ }_{\text {New }}^{\text {St. }}$ Regis $\left\{\begin{array}{l}8.5 \\ 8.3 \text { New Year. }\end{array}\right.$

## Farmer's Calendar.

"Health without any money is half sickness", but we trust that every industrious farmer has now a little cash in his pocket, after having sold his produce and paid his taxes and small debts. He can now afford to take a little bit of a sleigh ride to visit his friends, and partake of a good roast turkey.

Kill hogs for home use and make your bacon.

There will be no need of bellows if your wood is dry, and you build your firc right.

This is a fine season for the farmer to enjoy the company of his friends. In these jong evenings he can now have leisure to peep into the newspaper; but read both sides of the question before you judge. Believe not every story you hear. Pin your faith upon no man's sleeve.

A good library in town could now be enjoyed.
"As the branches of a tree return their sap to the root from whence it arose; as a river poureth his streams to the sea where his spring was supplied; so the heart of a grateful man delighteth in returning a benefit received." Look up then at the close of this year, and acknowledge thy obligations.

OFA 1804

## VENUS, MARS, JUPITER AND SATURN, 1965 MORNING AND EVENING STARS, TOO

Below are given the times of the rising or setting of the Planets named, on the first, eleventh and twenty-first of each month. The time of the rising or setting of any one of said Planets between the days named may be found with sufficient accuracy by interpolation. For explanation of keys (used in adjusting times given to your town) see pages 81-84. These appear below in capital letters.
(A Planet is called Morning Star when it is above the horizon at sunrise, and Evening Star when it is above the horizon at sunset. More precisely, it is a Morning Star when it is less than $180^{\circ}$ west of the Sun in right ascension and Evening Star when it is less than $180^{\circ}$ east. When the planet is near conjunction or opposition, the distinction is unimportant.)


VENUS
Venus is a Morning Star through the beginning of the year until April 11 th when it comes to superior conjunction. It is an Evening Star for the balance of the year. Its brilliance remains essentially constant throughout the year until fall arrives. Thereafter its brilliance increases until its maximum around the middle of December. Its greatest apparent distance from the Sun occurs during the year on November 15th when it will set 2 h .52 m . after the Sun.

| Jan | 1st rises | 523 А.м. |
| :---: | :---: | :---: |
|  | 11th "' | $542 \mathrm{~A} . \mathrm{M}$. |
|  | 21st | 558 ^ |
| Feb | 1st rises | $607 \mathrm{~A} . \mathrm{m}$. |
|  | 11th | 609 A.m. |
|  | 21st | $607 \mathrm{~A} . \mathrm{m}$ |
| Mar | 1st rises | 602 A.m. |
|  | 11th | $553 \mathrm{~A}, \mathrm{M}$. |
|  | 21st | 541 A.m. |
| Apr | 1st rises | 528 A.M. |
|  | 11th " | $516 \mathrm{~A} . \mathrm{M}$. |
|  | 21 st sets | 641 P |


| Ma | 1st sets | 707 P.M. |
| :---: | :---: | :---: |
|  | 11th | 732 Р.м. |
|  | 21st | 757 P.м. |
| Jun | 1 st sets | 819 P.M. |
|  | 11th | 835 Р.м. |
|  | 21st | 844 P.M. |
| Jul | 1 st sets | S 48 P.M. |
|  | 11th | 845 P.M. |
|  | 21st | 838 P.M. |
| Aug | 1st sets | 825 P.M. |
|  | 11th | 811 P.M. |
|  | 21st | 757 P.m. |


| Sep | 1st/sets | 740 P.M. |
| :---: | :---: | :---: |
|  | 11th | 726 P.x. |
|  | 21st | 713 Р.м. |
| Ост | 1 st sets | 702 P.M. |
|  | 11th | 656 Р.м. |
|  | 21st | 654 P.m. |
| Nov | 1st sets | 657 P.M. |
|  | 11th | 704 P.M |
|  | 21st | 714 P.M. |
| cc |  | 723 |
|  | 11th | 728 P |
|  | 21st | 725 |
|  | 31st\|sets | 710 P |

## MARS

Mars is a Morning Star until it comes to opposition on March 9th. Thercafter it is an Evening Star for the rest of the ycar. It is at its brightest for the year at the time of opposition, when it rises as the Sun sets. Its brightness continually lessens thereafter to the year's ond.




## JUPITER

Jupiter is an Evening Star from the year's beginning until it comes to conjunction on May 30th and again from its opposition on December 18th until the end of the year. Between May 30th and December 18th it will be a Morning Star. An occultation of Jupiter, visible from the United States, occurs about 1 A.M. on July 27 th, less than a day before New Moon. The nearness of both Jupiter and the Moon to the Sun at the time precludes its easy visibility to naked eye observers.

Jan 1st sets 300 A.m. $\mid$ M $\begin{array}{ccc}11 \text { th } \\ 21 \mathrm{st} & \text { ". } & 220 \mathrm{~A} \text { A.M. } \\ \text { 2 } & 142 \mathrm{~A} . & \mathrm{M} \\ \mathrm{M}\end{array}$ Fes 1st sets $102 \mathrm{~A} . \mathrm{M}$. . M
 Mar 1st sets 1125 p.m. M 11th "" 1054 P.M. M 21st " 1024 P.M. M APR 1st sets 952 P.M. M


|  | 1st/se | 827 |
| :---: | :---: | :---: |
|  | 11th | 759 |
|  | 21st sets | 731 |
| Jun | 1 st rises | 408 |
|  | 11th | 337 |
|  | 21st | 307 |
| Jul | 1st rises | 236 A . |
|  | 11th | 205 A . |
|  | 21st | 133 |
|  | 1 1st rises | 1259 |
|  | 11th | 1227 |
|  | 21st |  |

TVPITER


Sep 1st'rises 1115 P.m. $\mid$ E 11th "، 1041 p.m. E 21st " 1006 P.M. E

Oct 1st rises 930 p.m. E 11th "" 852 P.M. E 21st " 813 P.M. E Nov 1st rises 729 P.m. E | 11th | 21st |
| :---: | :---: |
|  | 648 P.M. |

Dec 1strises 519 P.m. E 11th rises 435 P.M. . 21st sets 701 A.m. 0 31st sets 616 A.m. 0


## SATURN

Saturn is an Evening Star until February 26th when it comes to conjunction with the Sun. Thence to September 6th, when it is in opposition, it is a Morning Star. Thereafter it is an Evening Star again for the balance of the year.



Sep 1st|rises 632 p.m. K

Oct 1st sets 331 A.m. G 11th "6 249 A.M. G 21 st " $207 \mathrm{~A} . \mathrm{M}$. G
Nov 1st sets 122 A.m. G 11th " 1242 A.M. G 21st " 1203 A.M. G
Dec 1stlsets 1121 P.m. G 11th " 1044 P.M. G 21st " 1008 P.M. G 31st sets 932 P.M. G

## MERCURY

Mercury will be favorably situated for being seen as an Evening Star when near its greatest eastern elongations about March 21, July 18, and November 12. On these dates it will set $1 \mathrm{~h} .38 \mathrm{~m} ., 2 \mathrm{~h} .27 \mathrm{~m}$. , and 0 h .52 m ., respectively, after sunset. It will be seen most readily as a Morning Star when near its greatest western elongations about January 8, May 6, September 1, and December 21, on which dates it will rise $1 \mathrm{~h} .41 \mathrm{~m} ., 0 \mathrm{~h} .50 \mathrm{~m} ., 0 \mathrm{~h} .54 \mathrm{~m}$. , and 1 h .48 m. , respectively, before sunrise.

## OUTDOOR PLANTING TABLE, 1965

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

The "Moon Most Favorable" columns give the superstitious times when the phase of moon is "right" for planting the crop indicated during 1965. See also pages 38-41. For flowers, use same dates as Beans, except bulbs, for which use the Beets column. These columns show, for crops bearing fruits above ground, the "light" (new to the full) of the moon; for crops bearing fruits below ground the "dark" (full to the new).
In using the figures below, bear in mind that the Moon Most Favorable dates do not always coincide with suggested planting dates. If you go by the moon, therefore, and use the most favorable moon dates, you may have to plant slightly earlier than the suggested planting dates indicated. Use column 1 by referirng to last column pages 10-32.

| Above Ground Crops Best Signs: ARI, CNC, LIB, AQR, PSC. Below Ground TAURUS | $42^{\circ} 21^{\prime} 44^{\prime \prime}$ <br> Boston Latitude |  | $\begin{gathered} 39^{\circ} 56^{\prime} 58^{\prime \prime} \\ \text { Phila. Latitude } \end{gathered}$ |  | $33^{\circ} 45^{\prime} 10^{\prime \prime}$ Atlanta Latitude |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Plant |  | Plant |  | Plant |  |
|  | Anytime | Moon | Anytime | Moon | Anytime | Moon |
|  | Between | Most | Between | Most | Between | Most |
|  | Dates Below | $\underset{\text { Favorable }}{\text { Between }}$ | Dates Below | Favorable Between | Dates Below | Favorable Between |
| Barley | 5-15/6-21 | 5, 1-15 | 3-15/4-7 | 3, 15-17 | 2-15/3-7 | 2, 1-15 |
| Beans (Early) | 5-7/6-21 | 5, 7-15 | 4, 15-30 | 4, 1-15 | 3-15/4-7 | 3, 15-19 |
| (Late) | 6-15/7-15 | 6-28/7-13 | 7, 1-21 | 7, 1-13 | 8, 7-30 | 8, 7-12 |
| Beets (Early) | 5, 1-15 | 4, 16-30 | 3-15/4-3 | 3, 18-31 | 2, 7-29 | 2, 16-29 |
| (Late) | 7-15/8-15 | 7, 15-27 | 8, 15-30 | 8, 15-25 | 9, 1-30 | 9, 11-23 |
| Broccoli (Early) | 5, 15-30 | 5, 1-15 | 3, 7-30 | 3, 7-17 | 2-15/3-15 | 2, 1-15 |
| (Late) | 6-15/7-7 | 6-28/7-7 | 8, 1-20 | 8, 1-12 | 9, 7-30 | 9, 7-10 |
| Brussels Spr. | 5, 15-30 | 5, 1-15 | 3-7/4-15 | 3, 7-17 | 2-11/3-20 | 2, 11-15 |
| Cabbage (E) | 5, 15-30 | $5,1-15$ | 3-7/4-15 | 3, 7-17 | 2-11/3-20 | 2, 11-15 |
| Plants (L) | 6-7/8-7 | 6, 7-13 | 7-1/9-7 | 7, 1-13 | 7-15/9-30 | 7-28/8-12 |
| Carrots(Early) | 5, 15-30 | 5, 16-29 | 3, 7-31 | 3, 18-31 | 2-15/3-7 | 2-16/3-2 |
| (Late) <br> Cauliflower ( E ) | 6-15/7-21 | 6, 15-27 | 7, 7-30 | 7, 14-27 | 8-1/9-7 | 8, 13-25 |
| Cauliflower(E) Plants (L) | $5,15-30$ $6-15 / 7-21$ | 5, 1-15 | 3-15/4-7 | 3, 15-17 | 2-15/3-7 | 2, 1-15 |
| Celery (Early) | 5-15/6-30 | 6-28/7-13 $5,16-29$ | $7-1 / 8-7$ $3,7-30$ | 7, 1-13 $3,18-30$ | 8, 7-30 2, 15-28 | 8, 2, 16-128 |
| (Late) | 7-15/8-15 | 7, 15-27 | 8-15/9-7 | 8, 15-25 | 9, 15-30 | 9, 15-23 |
| Corn Sweet (E) | 5-10/6-15 | 5, 10-15 | 4, 1-15 | 4, 1-15 | 3, 15-29 | 3,15-17 |
| (Late) | 6, 15-30 | 6, 28-30 | 7, 7-21 | 7, 7-13 | 8, 7-30 | 8, 7-12 |
| Cucumber | 5-7/6-20 | 5, 7-15 | 4-7/5-15 | 4, 7-15 | 3-7/4-15 | 3, 7-17 |
| Eggplant Plants | 6, 1-30 | 6, 1-13 | 4-7/5-15 | 4, 7-15 | 3-7/4-15 | 3, 7-17 |
| Endive(Early) | 5, 15-30 | 5, 1-15 | 4-7/5-15 | 4, 7-15 | 2-15/3-20 | 2, 1-15 |
| (Late) | 6, 7-30 | 6, 7-13 | 7-15/8-15 | 7-28/8-12 | 8-15/9-7 | 8, 15-26 |
| Kale (Early) | 5, 15-30 | 5, 1-15 | 3-7/4-7 | 3, 7-17 | 2-11/3-20 | 2, 11-15 |
| (Late) | 7-1/8-7 | 7, 1-13 | 8, 15-31 | 7-28/8-12 | 9, 7-30 | 9, 7-10 |
| Leek Plants | 5, 15-30 | 5, 16-29 | 3-7/4-7 | 3, 18-31 | 2-15/4-15 | 2-16/3-2 |
| Lettuce | 5-15/6-30 | 5, 1-15 | 3, 1-31 | 3, 3-17 | 2-15/3-7 | 2, 1-15 |
| Melon (Musk) | 5-15/6-30 | 5, 1-15 | 4-15/5-7 | 4, 1-15 | 3-15/4-7 | 3, 15-17 |
| Onion Plants Parsley | 5-15/6-7 | 5, 16-29 | 3, 1-31 | 3, 18-31 | 2, 1-28 | 2, 16-28 |
| Parsley | 5, 15-30 | 5, 1-15 | 3, 1-31 | 3, 3-17 | 2-20 /3-15 | 2, 1-15 |
| $\mathrm{Parsnip}_{\text {Peas (Early) }}$ | 4, 1-30 | 4, 16-30 | 3, 7-31 | 3, 18-31 | 1-15/2-4 | 1, 18-31 |
| Peas (Early) | $4-15 / 5-7$ $7,15-30$ | $4,1-15$ $7,28-30$ | 3, 9 , 7-31 | 3, 7-17 | 1-15/2-7 | 1, 15-17 |
| Pepper Plants | 5-15/6-30 | 5, 1-15 | $9,7-30$ $4,1-30$ | 9, $7-10$ | 10, 15-30 | 9-24/10-9 |
| Pumpkin | 5, 15-30 | $5,1-15$ | 4-23/5-15 | 4, 1-15 | 3, 1-20 | 3, 3-17 |
| Potatoes | 5, 1-15 | 5, 16-19 | 4, 1-15 | 4, 16-30 | 2-10/3-1 | 2-16/3-1 |
| Radish (Early) | 4, 15-30 | 4, 16-30 | 3, 7-31 | 3, 18-31 | 1-21 /3-1 | 1,21-31 |
| Spinach(Early) | 8, 15-30 | 8, 15-25 | 9, 7-30 | 9, 11-23 | 10, 1-21 | 10, 11-21 |
| Spinach(Early) | $5,15-30$ $7-15 / 9-7$ | $5,1-15$ $7-28 / 8-12$ | 3-15/4-20 | 3, 15-17 | 2-7/3-15 | 2, 7-15 |
| Swiss Chard | 5, 1-30 | 5, 1-15 5, | 8-1/9-15 $3-15 / 4-15$ | 8, 1-12 $3,15-17$ | 10; $1-21$ | 10, 1-10 |
| SummerSquash | 5-15/6-15 | 5, 1-15 | 4-15/5-1 | 4, 1-15 | 3-15/4-15 | 2, 7-15 $3,15-17$ |
| Tosorats ilante | 5,15,30 | 5,146 | 4, 7-30 | 4, 7-15 | 3, $3-20$ | 3, 3 , $7-17$ |
| Turnip (Early) | 4, 7-30 | 4, 16-30 | 3, 15-30 | 3, 18-30 | 1-20/2-15 |  |
| Wh (Late) | 7-1/8-15 | 7, 14-27 | 8; 1-20 | 8, 13-20 | 9-1/10-15 | $1 ; 20-31$ $9,11-23$ |
| Wheat(Winter) | 8, 11-15 | 7-28/8-12 | $9-15 /$ $10-20$ | 8-26/9-10 | 10-15/ | 9-25/10-10 |
| (Spring) | $4 ; 7-30$ | 4, 7-15 | 4, 1-20 | 4, 1-15 | 13-15-31 | 3; 15-17 |

## KILLING FROSTS

and

## GROWING SEASONS

Courtesy of U. S. Weather Bureau

| City | $\begin{gathered} \text { G.S. } \\ \text { (Days) } \end{gathered}$ | Last <br> Frost Spring | First Frost Fall |
| :---: | :---: | :---: | :---: |
| Lander, | 123 | May 18 | Sept. 18 |
| Bismarck, N.D | 133 | May 11 | Sept. 21 |
| Alpena, Mich. | 141 | May 13 | Oct. 1 |
| Helena, Mo | 145 | May 7 | Sept. 29 |
| Reno, Nev. | 145 | May 14 | Oct. 6 |
| Marquette, M | 149 | May 13 | Oct. 9 |
| Concord, N.H | 149 | May 7 | Oct. 3 |
| Duluth, Minn | 152 | May 6 | Oct. 5 |
| Green Bay, Wis | 157 | May 5 | Oct. 9 |
| Pocatello, 1da. | 160 | Apr. 29 | Oct. 6 |
| Denver, Col | 160 | May 3 | Oct. 10 |
| Pierre, S. Dak | 160 | Apr. 30 | Oct. 7 |
| Minneapolis | 166 | Apr. 27 | Oct. 10 |
| Detroit, Mich | 170 | Apr. 28 | Oct. 15 |
| Des Moines, la | 171 | Apr. 21 | Oct. 9 |
| Fort Wayne, lnd. | 171 | Apr. 25 | Oct. 13 |
| Ludington, Mich. | 172 | May 2 | Oct. 21 |
| Albany, N.Y. | 174 | Apr. 24 | Oct. 15 |
| Madison, Wis | 174 | Apr. 26 | Oct. 17 |
| Santa Fe, N.M | 177 | Apr. 25 | Oct. 19 |
| Hartford, Conn | 177 | Apr. 20 | Oct. 13 |
| Toledo, Ohio. | 179 | Apr. 22 | Oct. 18 |
| Portland, Maine | 181 | Apr. 19 | Oct. 17 |
| Spokane, Wash | 182 | Apr. 14 | Oct. 13 |
| Parkersburg | 184 | Apr. 17 | Oct. 18 |
| Omaha, Nebr | 184 | Apr. 14 | Oct. 15 |
| Salt Lake City | 185 | Apr. 18 | Oct. 20 |
| Chicago, 111. | 186 | Apr. 16 | Oct. 19 |
| St. Joseph, M | 191 | Apr. 9 | Oct. 17 |
| Trenton, N.J | 191 | Apr. 16 | Oct. 24 |
| Springfield, Mo. | 193 | A pr. 12 | Oct. 22 |
| Boston, Mass. | 195 | Apr. 14 | Oct. 26 |
| Wichita, Kans | 197 | Apr. 9 | Oct. 23 |
| Cincinnati, Ohi | 198 | Apr. 8 | Oct. 23 |
| lewiston, Ida. | 201 | Apr. 6 | Oct. 24 |
| Harrisburg, Pa | 202 | Apr. 9 | Oct. 28 |
| Evansville, lnd | 207 | Apr. 5 | Oct. 29 |
| Cairo, 111.. | 212 | Mar. 31 | Oct. 29 |
| Richmond, Va | 216 | Mar. 31 | Nov. 2 |
| Roseburg, Ore. | 217 | Apr. 8 | Nov. 11 |
| Oklahoma City | 218 | Mar. 30 | Nov. 3 |
| Chattanooga. | 220 | Mar. 29 | Nov. 4 |
| Raleigh, N. | 223 | Mar. 27 | Nov. 5 |
| Little Rock, A | 241 | Mar. 18 | Nov. 14 |
| El Paso, Tex. | 242 | Mar. 19 | Nov. 16 |
| Tueson, Ari | 243 | Mar. 11 | Nov. 9 |
| Macon, Ga | 245 | Mar. 14 | Nov. 14 |
| Columbia, S.C | 246 | Mar. 17 | Nov. 18 |
| Montgomery, Ala. | 250 | Mar. 8 | Nov. 13 |
| Shreveport, La. . . | 251 | Mar. 6 | Nov. 12 |
| Portland, Ore. | 251 | Mar. 15 | Nov. 21 |
| San Bernardino | 259 | Mar. 8 | Nov. 22 |
| Eureka, Calif. | 277 | Mar. 16 | Dec. 18 |
| Del Rio, Tex. | 277 | Feb. 23 | Nov. 27 |
| Sacramento: | 283 | Feb. 19 | Nov. 29 |
| Phoenix, Ariz | 296 | Feb. 10 | Dec. 3 |
| Yuma, Ariz. | 334 | Jan. 20 | Dec. 20 |
| San Francisco | 350 | Jan. 13 | Dec. 29 |
| Los Angeles | * |  |  |
| Miami, Fla | * | * |  |
| San Diego.. | * | * |  |

*Frosts do not occur every year.


## BEST FISHING DAYS,

## 1965

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

> Jan. 15,16
> Feb. 3,4
> Mar. 3,4
> Apr. 7,8
> May 5,6
> June $1,2,9,12$
> July 7,8
> Aug. $3,4,30$
> Sept. $1,9,10$
> Oct. 6
> Nov. 30
> Dec. $1.27,28.20$

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

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

Water temperatures between $55^{\circ} \mathrm{F}$ and $74^{\circ} \mathrm{F}$ are best.

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

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

## PART TWO <br> Secrets of the Zodiac \& Zlanets

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

## FAMOUS DEBOWELLED MAN of the SIGNS

$\bigcirc$ Aries, head. ARt Mar. 21-Apr. 19
8 Taurus, neck. tau Apr. 20-May 20
ㅁ Gemini, arms. G' ${ }^{\prime}$ May 21-June 20

- Cancer, breast. cnc June 21-July 22
$\Omega$ Leo, heart. leo July 23-Aug. 22
ITP. Virgo, belly. vir Aug. 23-Sept. 22
$\bumpeq$ Libra, reins. Lib Sept. 23-Oct. 22
m Scorpio, secrets. sco Oct. 23-Nov. 21
I Sagittarius, thighs. sGR Nov. 22-Dec. 21
is Capricornus, knees. cap Dec. 22-Jan. 19
- Aquarius, legs. AQR

Jan. 20-Feb. 18
犬 Pisces, feet. PsC
Feb. 19-Mar. 20


Man of the Signs used by Abe Weatherwise, 1784
These signs abbreviated appear for each day pages 10-32, and their "meaning" on 38-41.

Those signs which follow are actual patterns from the sky, as the aneients saw these in 1570 (see Hygini. Augusti Liberti, published in that year).
Now with this Almanack in hand you don't need any glass To find out for yourself how to rise to the top of the class. Just ask someone who knows the exact time of your birth Then find in the next three pages your sign, and its worth. Also, Part I ( $10-32$ ) you must use (last column) for each day. For example, September 3 rou were born : your sirn's VIR. we say. O.K. (page 40) you are all fear a Virgoan and wed to it as a mate But (pages 10-32) each day may bring it or another sign for a date. Scptember 3 this year (page 0 ( $)$ you'll see has the Archer called SGR. On that day, both VIR and SGR will make you a winner or just a nag. About one thing, however. we ask you to be really careful:
We don't guarantce you'll win that man or girl or the N.H. raflle.
N.B. If all else fails, turn to Page $\mathbf{7} 6$ and reset your sails.

The best superstitions times for the activities listed below (regardless of your sign) appear under cach sign on paycs 39-41. For the best hairdo just find the sign(s) under which "K" doth appearTAU, CNC, LEO, VIR, LIB. SGR, AQR, are all good this ycar, then pick your day (10-32) on which any of these (but none others) is there. Scpt. 3, again, is SGR, good. Sept. 1, with its sign SCO is not
good.

A Cut brush, grass, pull weeds.
B Cut, set posts, timbers.
C All pruning, cut hay.
D Plant above-ground crops.
E Plant root crops, paint house.
F Harvest crops, herbs.
G Breed, create, bake, set hens.

H Weaning.
I Slaughtering.
$J$ Operations, pull teeth, etc.
K Do hair, shear shecp, buy clothes.
L Business, taking risks.
N Travel, inarriage, romance.
M Fishing.

## ARIES

ABBR: "ARI"
SIGN: LAMB
Controls the head and face
Belongs to those born Mar. 21-Apr. 19
Ruling Planet, Mars; Birtlistone
Jasper or Bloodstone; Color, Red.
Best for D, L, G, F, I.


The year's first sign, Aries, proelaimed Romulus with fervor, Makes March our first month, one protected by Minerva. She, wise girl, kecps tawny, fierce, old, helmeted Mars Quiet, with spade, sowing seeds, filling baskets with stars. Just so. you Arians, better your heads rule your hearts; In medical careers or handcrafts you will play your best parts.


## TAURUS

ABBR: "TAU"
SIGN: BULL
Controls the throat and neck
Belongs to those born Apr. 20-May 20
Ruling Planet, Venus; Birthstone Diamond or Sapphire; Color, Blue. Best for E, K, B, I, F, G. April, universally known as "to open," refers to the buds. Venus rules over it with love, much moisture, and floods. The Bull, of course, refers to the Sun's now strong rays For growing things-for which we give God praisc. Take care, all Taureans, you stay in Nature's parade. Artists, gardeners, architeets are for what you are made.

## GEMINI

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

Best for J, G, L, A, I, F.
Maia, Mercury's mother, gave this month its name-
Exprcssing the heat and angry temper of this old dame.
The Saxons called it Tri-Milchi (cows milked thrice a day),


Banished Maia, dressed Mcrcury in roses and lute (real gay).
You Gemini are poets or publishers, good at commerce or gain.
Stick to communication of all kinds and you'll suffer no pain.


## CANCER

ABBR: "CNC"
SIGN: CRAB
Controls breast and stomach Belongs to those born June 21-July 22 Ruling Planet, Moon; Birthstone, Agate; Color, Green.
Best for D, M, K, G, I, A, C.
Juno, consort of Jupiter, shared (with Minerva) his temple. From her comes June and her moon-it's that simple. Some, noting how the Sun in solstice wavers baek, then fro, Thought of the Crab-the only animal whose motion is just so. People born in this sign an almanack should buy.
After moon's full 'til the new all new ventures go awry.

## LEO

ABBR: "LEO"
SIGN: LION
Controls the heart
Belongs to those boru July 23-Ang. 22
Ruling Planet, Sun; Birthstone, Rulyy; Color, Red.
Best for K, B, A, F, N.


Mare Antony named July for his friend Julius Caesar,
Despite Cleopatra's remarks that this did not please her.
She made him a girdle and a jacket of yellow,
And gave him to play with a beast called Leo.
Since then all Leos have taken great care
To harvest their hay before their secrets they share.


VIRGO
ABBR: "VIR" SIGN: TIRGIN
Controls the lower intestines Belongs to thase horn Aug. 23-Sept. 22 Ruling I'lanet. Mercury : Birthstone, Sardonyx: Color:, Onyx and Carnelian. Best for J. K, L, A, I, F.
August bears, also by edict, a Roman Emperor's name;
That Virgo the Virgin represents him is an outright shame.
Anglo-saxons named it for corn-filled barns and meeds
With a widow for their nascot, her hair full of seeds.
Virguans have Mercury and the Dipper star Spicalı
To help them know the diff between real gold and mica.

[^3]
## SAGITTARIUS

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

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


Centaur, great son of Jupiter, ofer this month holds sway;
His arrows of cold mean no more crops until May.
Long, long ago this meant winter's meat was all salted, And the tyranny of the Belly became greatly exalted. Archbishop Neville (for one meal alone) killed all the egrets That's why Sagittarians come off well as doctors, surgeons or vets.


## CAPRICORNUS

ABPR: "CAP"
SHEN: GOAT
Controls the knees Belengs to those born Dec. 22-Tan. 19 Ruling Planet, Saturn: Birthstone, Turquoise: Color, Sky Blue.

Best for J, G, I, H.
The first Roman (Alban) calendars in years B.C.
Had 35 days in this month, daughters of Saturn and Rhea.
The goat got into it because he can easily climb, After the Solstice, up the Sun's ladder of Time.
Young goats (and old) pretty much do as they please, Just as long as they spend some humble time on their knees.

ABBR: "AQR" SIGN: WATER BOY Controls the legs
Belongs to those born Jan. 20-Feb, 18 Ruling Planet, Tranus; Birthstone, Garnet; Color, Mixed.
Best for D. K, B, I, H, A.
This word "month" really means the Hebrew "new moon."
Numa named January after Janus, the twofaced tycoon.
Looking back, and ahead, this title appeared on all doors
For letting in blessings, or closing out troubles
 and bores.
Tranians (please note) don't fool around or ever get tight.
As managers and bosses you must start (and keep) the year right.


# BOB FELLER'S NO HIT - NO RUN <br> GAME 

by Hal Lebovitz

April 16, 1940 came up cold and windy in Chicago. Comiskey Park, where the White Sox were opening the baseball season against the visiting Cleveland Indians, was an ice box. The weather kept the crowd down to a scant 14,000 , many of them there only because Bob Feller, just turned twenty-one and already an established major league star, was scheduled to pitch for Cleveland.
Bob's dad and mother and his younger sister, Marguerite, had journeyed from their Van Meter, Iowa farm to see the pride of the family perform. And perform he did! That day Bob Feller pitched a no-hitter, the first and only no-hit game in the major leagues on opening day.

He would not have predicted success as he warmed up, finding it difficult to become loose. The raw, gusty day, with the wind blowing toward the plate, made it difficult to control his curre. Still, he hurled in stellar Feller fashion in the first inuing, striking out two and walking one. The second inning he struck out the side, but not before the White Sox loaded the bases on a dropped fly ball and two walks.

The curve was giving, him trouble. The cold ball seemed slippery to his touch. He couldn't apply the proper spin. After walking Joe Kuhel to lead off the third, the youthful pitcher made a decision: fast balls ouly. Hitter after hitter went back to the bench muttering about the Feller blazer. One-two-three, he retired them iu order. By the seventh inning his teammates had stopped talking to him. It's a superstition among players never to mention the possibility of a nohitter.

As Feller swabbed his perspiring face with a towel in the dugout, Teff Heath, the Indians' left fielder, who had scored the game's only run in the third inning, suddenly found it impossible to remain quiet.
"Well, Robert." he began
Seated next to the broad-shouldered Heath was the slight, lefthand pitcher Harry Eisenstat. Angrily he interrupted, "Another word and I'll stick my hand down your throat." Heath, noting the other Indians glowering at him too, buttoned up.

A photographer moved onto the top step of the dugout to snap Feller's picturc. Traincr Lefty Weismau jumped up and pushed him away.
By the eighth inning the fans, who had been huddling together for warimth, had forgotten ahout the tcmperature. They were standing, tense. Again Bob rctired the side iu order. As he strode to the mound in characteristic swaying farm boy gait to work the bottom of the ninth, the stands were in an uproar.
"I tried to put all thoughts of a no-hitter behind me,", revcaled Bob later. "I kept saying to myself, "Protect the 1-0 lead.",
That sizzling ninth was jam-packed with drama.
First batter was Mikc Krecrich, considered by many the most dangerous in the White sox lineup that year. The first pitch was a ball. Then "Ball two"" said plate umpire Harry Gcisel. Next came a strike, followed by a fonl. Kreevich swung under the fifth pitch and lofted a towering fly toward sccond base. As it uestled in Ray Mack's glove the roar of the crowd became ear-splitting, leaving no doubt the Chicagoans were rooting for Bobby.

Next up was Julius Soltcrs, a former member of the Indians. Twice before ex-teammates had spoiled perfect games for Fellcr. Would it happen again? Solters grounded to sure-handed shortstop Lou Boudreau. Two outs. The big one to go.


## SCIENTIFIC PROGRESS 1963-64

If those conversaut with science find this presentation something less than comprehensive, we wish to call their attention to the fact that the amount of scientific information published in the world every twenty-four hours would fill seven complete, $24-$ volume sets of the Encyclopedia Brittanica. . Or enough to keep one man reading around the clock every day for 460 years to cover the output of one year.

## MAKING LIFE

Biochemists, with the aid of nuclear science, are exploring how a living cell may be directed to become a sparrow, a giant sequoia, or a man. Aging processes, some scientists now believe, can be slowed down, halted, or reversed. How to create the living cell, however, has not been discovered.

## SENSE EXTENSION

Electronic and other devices allow man to observe events taking place billions of light years away. In the microcosmic world are being noticed the detailed structure of self-reproducing viruses so sinall a billion of them would fit onto the head of a pin. Micrometeorite transducers can now measure the heartbeats of tiny bird embryos.

## CHEMO-THERAPY

is now an (if not the) effective treatment for mental diseases, correction of aberrations, and even reconstruction of personality.

## SHORTER WORK WEEK

Machines are being developed which are in the direction of relieving man of all but the highest order of thouglit. The work week, presumably, will be shortened to twenty hours. Many factories will be "push button" affairs-with no employees except a manager to push the button. The new dial telephone buildings are one good example of this.

## FOOD PROCESSING

Canners and freezers, using radioactive isotopes, are now able to scan their annual production of some 75 million containers and 3 billion pounds of frozen products for detection of undesirable low- (or high-) level residues of pesticides and detergents.

## COMMUNICATION

It took James Strong thirty years to index the last previous (1894) complete Concordance to the Protestant (King James Version) Bible. The Rev. John Ellison of Winchester, Massachusetts recently completed this job for the Revised Standard Version (with the help of Remington Rand's computing center), in his time off from his regular duties, in less than two years. A library in Italy recently has inscribed all of the words in the Summa Theologica of St. Thomas Aquinas on some $1,600,000$ punched cards. A similar program is under way for the study of the Dead Sea scrolls. Machine translation of languages is also becoming helpful to scholars. Carbon 14 techniques, based upon radioisotope decay, are now available for dating archeological and other discoveries. The magnetometer helps locate buried articles. Activation analysis is now being used to determine chemical compositions without any destruction of original form and beauty.

Television Satelites, soon to broadcast directly to each of the world's millions of sets, will establish world-wide instant, present-day communieation among the nations and peoples of the world. The Retrometer is a new device which allows voice communication up to 200 feet along a light beam, to and from a receiver holding a small mirror, on the energy of oue six-watt bulb.

## IRRADIATION

Wood, impregnated with a liquid plastic and then irradiated with gamma rays from Cobalt 60 , becomes $300 \%$ harder than natural wood,
has greater compression strength, absorbs moisture more slowly, has improved bending strength, yet can be sawed, etc., just as natural wood can be. The process is now adaptable to volume production.

## TEMPERATURE

Noctilucent cloud particles coated with ice, at about 50 miles above the earth, measured by scientists in Sweden, were seen to produce temperatures as low as $-1+3^{\circ}$ Centigrade-the lowest ever measured in the Earth's atmosphere.

## CYCLES

The salmon are back in the rivers of New Brunswick. Their absence in recent years had been blamed on DDT spraying. It now seems that they were gone only by reason of a 9.6 -year cycle in salmon abundance. Cycles by now have been recognized throughout nature in almost every field or phase one can lmagine... even unto the sensltivity of one's teeth. Cyclical experts like Edward R. Dewer say that fortunes are to be made by guidance from cyclical rates of growth (rather than actual growth), the observance of the increase of stability, maturity, and industrial old age for the indications of when to introduce something radically new into tłe economy.

## ANTARCTICA

Geologists are continuing studies of the structure of the Antarctica land mass. Thus far it has not been seen to be at rariance with the general world structure. However, as $98 \%$ of it is under glacial ice, a structural geological map of that region may never be arailable. As this goes to press, Carleton Ray plans to make several 50 -foot dives from the ice shelf with native seals through a hole in seven-footthlck ice. He will spend about 15 mlnutes under the ice with these seals, occasionally at a depth of 200 feet. He will be photographing them in their natural habitat-with some enphasis on trying to learn how they relocate their breathing holes. He will try to ascertain if they have a sonar mechanism much like that of whales. (Te hope Mr. Carleton has one too!) In another area, G. L. Kooyman will study the diving behavior of the Weddell Seal-a mammal able to dive 1,000 feet (and more) and surface without suffering "the bends."

## FALLOUT - AIR POLLUTION CONTROL

Radioactive contents of rain, falling on the nuclear-powered aircraft Enterprise at Newport News, Virginia in 1961, was traced to the 1961 series of USSR nuclear tests. Monitors showed amounts exceeding allowable limits by 10 to 20 times had fallen on the ship, and its crew of 4,600 members. These levels remained high for at least a month. The Navy reported that the men aboard were never in danger-nor were the people in the immediate area-but that sensitive machinery was. Radiation levels in this same area rose even more serinusly in 1962 and 1963 , when both the U.S. and the USSR were testing. The "Cobalt Bomb" is no less or more nowerful than the present bomb. The addition of cobalt to a nuclear weapon serves only to increase radioactive fallout. Plutonium is more versatile, far more dangerons. and, as a fuel, holds great ard useful posslbilities. A "plutoniuni machine" will produce more fuel than the fuel needed to run it.
U.S. Public Law 88-206 authorizes government aid to state and local agencies up to two-thirds of the cost of alr pollution prevention and control programs, three-quarters to inter-clty or inter-state agencies. The first appropriation request under this hill is for $\$ 4,400,000$. Fut for a change in the wind, many smog deaths might have occurred in October 1963 in New York City.

## MEN FROM MARS AND THE MOON - OUTER SPACE

Dr. G. G. Simpson of Harvard University sees no prospect of finding life on Mars. He termed the present space program a "wlld spree rather than a sober scientific one"-and declared far more ls to be learned by study of life on carth than from Martian microbes.

The next steps in landing astronauts on the moon (NASA's goal is 1970) will be seen in unnanued space craft missions. By late this year, for example, the lunar landing vehicle Surveyor sliould be ready, and by carly in 1966 lunar satellites reporting back topographic data on
specific lunar areas. Ranger will provide high-revolution television pictures. Project Apollo-the manned space, station begun before Surveyor or Ranger-may have to be "retrofit" or delayed by results of the findings made by the latter.

Over 80 space launches were accomplished in the 14 mouths preceding November 1963 . The U.S. achieved a 22 -orbit space flight; the USSR one of 82 orbits. The Mariner (U.S.) Venus fly-by-the first flight to a planet other than our own-was the most significant space flight to date. The Tiros satellites, with six consecutive successful launches, have contributed over 200,000 pictures of world clouds and weather.

The projected Mars fly-bys-by two Mariner spacecraft-may, by the beginuing of 1965 , have given inan close-up looks at Mars. Most of the value of these close-ups, however, will not be apparent for some eight months after they have taken off-the estimated length of that particular voyage. (Mariner II's voyage to Venus took $1091 / 2$ days to travel $181,920,000$ statute miles.)

Yenus was found to have surface temperatures of between $260^{\circ}$ (F.) and $570^{\circ}$ and no magnetic field at the distance of the fly-by ( 25,000 miles). Venus was found to be $0.81485 \pm$ times the mass of the earth. (Clemence estimated it at 0.813 in 1943, Robe at 0.8148 in 1954.)

## WEATHER FORECASTS

For the MA-6 manned orbital Mercury flight, weather men, using information gathered from all over the world (some of which was from the Tiros satellites), were able to forecast successfully the winds, state of the sea, clondiness, and visibility for all areas beneath the orbit. This was a practical application of Tiros information which, thus far, has seemingly been useful only in determining storm and clond patterns and certain leretofore unknown geological patterns. With more weather satellites covering greater segments of the earth, meteorologists may or may not be able to reach sufficient weather causal conclusions to warrant accurate month-ahead forecasts. As yet, about 48 hours ahead is still the limitation-and even that few hours is not $100 \%$ certain.

## RADIO FREQUENCY ALLOCATIONS

One of the most successful experiments in international agreements has been that, since 1903, in international radio communications. Frequency allocation on a world-wide basis has been accomplished by dividing the world into three major regions. A fourth region (on the dark side of the moon) is under consideration. Allocation problems now under consideration, on an international basis, are those posed by the radio astronomers and oceanographers-both of which scientific groups require certain short-wave lengths exclusively their own-now allocated, in part at least, to other scientists. Radar communication with planets, stars, etc., is extremely sensitive-any interference at all means complete interference.

## ASTRONOMICAL PHOTOGRAPHY

The present penetration of the camera is now over 1,000 million light years into the void of the universe; radio astronomy can increase the range another ten thousand million. Inasmuch as what has been seen indicates that. what is beyond this boundary is of such extent and variability, scientists are beginning to wonder if these visions of the horizon may not be illusory. That is, the cameras may be giving them reflections of images rather than the real thing.

## SONIC BOOMS

The thunder clap of jet planes breaking through the sound barrier is here to stay. The larger the plane, the greater the boom. In 1963 some 7,200 claims were made for damage compensation. Some 2,268 were approved and $\$ 239,450$ paid in damages.

## THE AURORA BOREALIS

The penetration of energetic particles into the ligh atmosphere is now thought to be the dominant cause of the luminous aurora. There seems to be indirect evidence for an association among particle bombardment and auroral phenomena: alignment of auroral forms with the geomagnetie field. However, various findings have yet to be correlated.

# WITH THE OCEANAUTS 

## Courtesy: James R. Stewart, Diving Officer Scripps Institution of Oceanograpby

A French Naval officer, Jacques Cousteau, along with Emile Gagnan, invented the aqua-lung in the early 1940's. During the next twenty years he was continuously involved in all types of underwater research mainly under the auspices of the French Navy and more recently under the Musee Oceanographique in Monaco. Cousteau envisioned an underwater building in which a diver could eat. sleep, study-could live, in fact, while working on jobs for as long as he wished. Since he would never have to rise above the pressure at which he worked, he would need to decompress only when he was through with the entire job.

The detailed planning for this French venture culminated in a successful Conshelf I in September, 1962. Off Marseilles, in the Mediterranean, two men lived at thirty-three feet in an eight by seventeen foot steel cylinder for a week, working to depths of eighty-fire feet, returning to their underwater home with no need to decompress. The next French project was Conshelf II in June of 1963. This time. in the Red Sea, two houses and a garage were anchored at thirty-six and ninety feet; seven men lived here for thirty days. Their worls included fish studies and collecting, general hiological studies, and the experimental use of newly developed techniques and tools for photography, exploring, and collecting. A "Diving Saucer," housed in their underwater garage, was used daily in the work and proved that a submersible relicle could be completely maintained underwater. The two-man saucer was used to carry a man to depths of 1000 fcet for observation, but divers could not enter or leave it except in its garase since it is a "dry" craft. A large part of the men's time ras occupied in housekeeping. The outside surfaces of all the buildings had to be scraped every day to remove plant and animal life. Kerular watches were stationed at the instrument pauels. One man was a fulltime chef. The others assisted in scientific and gear testing assignments. After the end of thirty days, the divers changed to a mixture of $80 \%$ Oxygen and $20 \%$ Nitrogen for several hours. The men then swam to the surface with aqua-lungs. The two men who had lived in a house at nillety feet for a week swam to the house at thirty-six feet for a day betore continuing on to the surface.

This was such a tremendous advance in underwater accomplishment that Cousteau's group is now scheduled to move iuto gradually deeper areas until they reach Conshelf V in 1965 or 1966 , with fire men living at 500 feet for two weeks, and working to 000 feet. Beyond this, Cousteau hopes to move on down to even greater depths with both houses and diving limits.

In the meanwhile, Edrin Link, as a private American citizen, carried on tests which permitted him to successfully keep a man at a pressure equivalent to 200 feet for twenty-sis hours in a submerged steel chamber. Since then he has been preparing for deeper tests for a house at a denth of 400 fect. The results of his current work are not now available.

The U. S. Navy's interests were re-activated early in 1983. Genesis I was resumed at the Medical Research Laboratory in New London. Connecticut, under the leddership of Captain Bond, and information previously mained was applied to men in a twelve-day cxperiment late in 1963. The next Nary project is scheduled for July of 1964 : called Sea Lab, it will support four men at 193 feet in a house thirty-fire feet long and ten feet wide for betwcen two and three weeks.

The next logical step is to convert one of our present submarines or build a new one, which will have in the front cnd an entrance and a separate laboratory and living area. This arrangement would be both mobile and self-containcd. Smail swimmer propulsion units could be carried on decks for excursions from the submarine.

Men living and working in this way would have the ability to spend an indetinite period of time at depths which nay approach 2000 feet. A geologist could prospect for minerals, dirct mining operations, search for oil-bearing structures, or work in submerged oil fields. The biologist would be in a position to carry on behavioral and ecologic studies of many kinds. A physical oceanographer would be able to study deep water mass movements or temperature structure. Finally, there might be considerable military application including those of salvage and instrument recovery.


During the miscellaneous reading which this editor undertakes for the preparation of his annual editions, more than once his attention has been called to the Little People of the Big Ears. None, apparently, lave been seen since the Fifth Century of the Christian Era; but until that century such people were commonly known in the country of India.

These people had such large ears that they could use one for a mattress, the other as a blanket. The ears served for wings, as well as flaps for discouraging the attacks of insects. When necessary, one or the other ear served as an umbrella, or defense against the storms of snow, wind, or sand. A Big-Eared man, upon taking a wife, would clip her ears-thus assuring that she could not follow him around. Others, whose noses were born to them upside down, used an ear occasionally for keeping the water of rain from running down their nostrils.
The Big-Cared People were always hard ones to find because, when pursued, they would stop and, enfolding themselves in their ears, squat upon the ground to appear as stumps or rocks and thus stay unnoticed. Big-Eared men were always greatly feared by LittleEared women as the former, in pursuing then for mates, simply enfolded the latter in their ears and walked away with them, their cries completely muffled.

It was also written. some centuries before the last we heard of the Big-Eared People, that the little toes of humanity would, by reason of non-usefulness, soon disappear. These little toes are still with us; but it seems odd that, with the exception of our animal friends like the Elephant and Basset Hound, man has been deprived, long since, of the big ears that would seem to have been extremely useful aural appendages. We understand, however, that in recent years descendants of certain Indian tribes lave heen engaged in crossbreeding, exercises, and use of jungle drugs for the purpose of eardistending. In fact, these descendants whose ears now measure some dimension about like that of a large apple pie are in a way of bringing back to the race real Big-Eared People. They are said to have speerled up their experiments in the last decade so that they, not the Russians, or ourselves, will be first to the moon. It is, of course, possible these are the Flying Saucers so many seem to have seen in recent years-just revisiting us from the Moon (or Mars) for old times' sake.
For them, modesty is of little concern; when they appear in public, they simply wrap their ears around themsclves and have a sheath as good as, or better than, any they could purchase. And by the artistic use of vegetable dies on the backs of their cars-which become the front when thus folded for clothing-the Big-Eared styles are attractive too.
Lest you become concerned that this article is for pulling your leg, or is written tongue (not ear)-in-cheek, we suggest that one Bacil F. Kirtley of the American Folliore Society recently quoted some fifty-two sources for the substantiation of his conclusions with regard to the Big-Eared People.
It is not too fantastic to suggest, for example, that man once had a long (or short) tail which, one way or another, now ceases to be with him. It would seem that, with all the scientific advances (including those concerned with biology, it is just as sensible to suppose that the development of Big Ears would be just as useful to humanity as are Social Security numbers. I.B.M. machines, I.R.S. forms, dial phones, television commercials, electric pencil sharpeners, electric carving knives, and the Gallup polls.
"What Big Ears you have, Grandma!" is the remark Little Red Riding Hood of the 5th century may have made to the wolf. But this would have heen impossible, of course, because the wolf, having eaten Grandma. would then have had none of Grandma's clothes in which to disguise himself. She, of course, having Big Ears would have had no need of other clothcs-even for a wolf. Furthermore, she'd have just folded herself within her ears-and the wolf would never have known she was there?

## Aneciotes ano pleasantries

## CHOICE OF WEAPONS

The captain of a Tankee whaler, stopping at a West India Island, had a quarrel forced upon him by an officer in a British regiment stationed there. Accepting the challenge, he was on the ground at the appointed hour, provided with two harpoons of equal length, which he insisted upon as the weapon he lhad the right to choose for the fight. Forced to assent, the officer had to station himself opposite his now formidable antagonist, who stood poising the long spear of his weapon in his right hand, while his left held the coil of rope attached to it. Though greatly troubled, yet shame and desperation for a while kept up his show of courage-till the whaler cast his coil of rope into the hands of his second (the mate of his ship), exclaiming in a gruff but cool voice, as though very much a matter of course, "Stand by, to haul the critter in!"--"Aye, aye, sir!"-the ready response; but before it was well uttered, the "crittcr" was far beyond the reach of harpoon or tackle.

But the most sensible use made of privilege which we have ever heard was by a gentlcman, a Nember of the New York Legislature, distinguished for his wit and lumor. Receiving a challenge, he expressed his readiness to accept it, with the privilege of the choice of ground and weapons. Ife fixed the place of cucounter on the opposite banks of a certain stream in his comntry (St. Lawrence), the weapons being broad-swords: He expressed himself, at the same time, willing to use pistols, in the following manner-the two principals to stand back to back on the top of a certain sharp conical hill indicated by him, to walk each forward in a straight line down the opposite descent to the bottom, and then, at the word, to turn and fire!.

## LARGEST OX TEAM?

In the year 1931. Emery Sedgley wrote some of his recollections of happenings in his home town of Bowdoinham, Maine. Deacon Nat Williams had a house to more. He wanted to relocate it on Clay Hill. With a team of fifty yoke of oxen he got as far as the Branch Bridge, and was stuck. By scurrying around the countryside, he rounded up more ox teams from Bowdoin, Litchfield, Topsham, and other nearbs towns until he had an even ONE HCNDRED YOKE OF OXEN! With these the house was easily moved to its destination. Mr. Sedgley avers that, "This was probably the largest number of ox teams erer to be brought together in our town."

The largest number of oxen pulling as a team that I have ever seen is six. I alm wondering if any reader living today knows of any team (within his memory) that can match or top the one Sedgley related?

John W. Ames


Eight diversities of kisses are mentioned in the scriptures: the kiss of salutation, 1 Samuel, xx. 41: valediction, Ruth, ii. 9; reconciliation, 2 Samuel, xiv. 33 ; subjection, Psalms, ii. 12: approbation, Proverbs, ii. 4; adoration, 1 Kings, xix. 18; treachery, Matthew, xxvi. 49 ; affection, Genesis, xiv. 15. There are some other kinds of kisses which the Scriptures do not mention-neither do the young ladies.

## FIRST "W'EIGHTEESS" DESCENT?

On the 22nd August, 1808, Messrs. Andreoli and Brioschi, of Padua, ascended in a balloon. Soon after leaving the ground, the barometer having fallen to tifteen inches, M. Brioschi began to feel an extraordinary palpitation of the heart. The barometer afterwards fell to tweive inches, and he was overcome with sleep. When the barometer stood at nine, M. Andreoli perceived the machine was completely inflated, and that he could not move his left hand. The mercury continuing to descend marked eight inches and a half, (about six miles and a quarter high) a violent detonation* was heard from the balloon, which then descended with great rapidity, and M. Brioschi awoke. The aeronauts alighted safely on the lill of Eugenea, not far from Petrarch's tomb, abont twelve miles from P'adua.
*Anglice, the balloon burst, and why necks were not broken does not appear.

## THE PROPER NAME

There is an animal peculiar to America tlat in New England is improperly called woodelinck. The first settlers called it woodchnckle. When it is in a safe place, and in good plight. it will make a ehuckling laughing noise. (see page 68)

## CURIOUS SPECTACLE

A most curious spectacle was exhibited in this city a few days ago. A female of the canine species was delivered of the most perfect lusus naturae that has ever heen beheld in this part of the world, or I believe in any other. It appears to be a composition of the human and brute parts of the creation. It has three heads, viz. one on each shoulder, and another between them-the one in the middle is the exact representation of a human face; those on the shoulders no way differing from those of a dog. It has six legs, two of which stand upright on its back, and four talls. Hands, instead of paws, are placed on the ends of those legs
and arms (whiehever they may be called) which stand upright on the back.

The owner of this curious animal expects to make a fortune by it-he sets ont in a few days on his travels.

News Dispatch from
Raleigh, N. C., Aug. 15, 1800.

## POPLLAR SUPERSTITIONS

If a hlack cat comes to you. you must take it in. It will bring good luck. If a cock crows befure the door during a rainstorm, it is soon going to clear up. If the sole of rour foot itclies. yourre going to step on strange soil. If you can't cht a pic through in a single sweep of the knife, you'll die an old maid. If you break a looking glass, someme in the family is sure to die within a year. If you sneeze between 12 and 1 , a stranger is coming. If your left lalm itches, mone? is bound rour way: if your right palm, a stranger is coming.

It's goud luck to have a cricket in the honse. It is had luck to have a bird fly in. It makes things nupleasant to have birrle nsed as a decoration on your wall paper. It's bad luck to see a cross-ered person. It's bad luck to meet and nass a person on the stairs. It's bad luck to go under a ladder. Dream of the dear. and you'll liear from the living. It's bad luck to open an umbrella in the honse. It's bad luck tor kill a ladybug or a spider. There is luck in odd numbers.


## THE LUSITANIA'S LAST VOYAGE

Fifty years ago this 7th of May, 1965 the R.M.S. Lusitania was torpedoed and sunk by a German submarine off the Irish Coast. Charles E. Lauriat, $J r$., one of the 472 passengers saved ( 785 were lost), wrote of his experiences in a bools of the above title, published by Houghton Miffin Company in October, 1915. The kind permission of the author's three sons, and his daughter, has been given to us to mark this anniversary with excerpts from that book.
"Naturally I saw the notice issued by the Imperial German Embassy published in all the New York papers of May 1, 1915.
"Like many other passengers, I gave the notice no serious thought. ... True it was a ship of a belligerent nation. . . The steamer did have in her cargo some ammunition . . . carried citizens of countries with which Germany was at war . . . I did not think an order would be given to torpedo this boat without warning
"We had a pleasant crossing, smooth seas, with sunshine and very little fog. Friday morning (May 7) early there was some fog . . . I went down to lunch at one o'clock . . . My table companion was Lothrop Withington. We had a jolly time together . . . The portholes along both sides of the dining room were open.
"After lunch . . . I went up on deck for a real walk . . . saw Mr. and Mrs. Elbert Hubbard standing by the rail. I joined them and was conversing with them when the torpedo struck the ship. In fact, Mr. Hubbard had just jokingly remarked .. . he would not be a welcome traveller to Germany, owing to the little essay he had written entitled 'Who Lifted the Lid Off Hell.'
". . . the shock of the impact . . . was a heavy muffled sound . . . the good ship trembled for a moment under the force of the blow; a second explosion quickly followed ... a boiler in the engine room ... it was exactly 8 minutes past 2 Greenwich time . . . I turned to the Hubbards and suggested that they go . . . get their life jackets ... but both seemed unable to act . . . I had no difficulty making my way to and from my cabin. I tied on a life belt, took the others in the room . . . went back to . . . the Hubbards, but they had gone and I never saw them again.
"Captain Turner and Captain Anderson were both calling . . . not to lower away the boats . . . saying that there was no danger . . . about everyone who passed me wearing a life belt had it on incorrectly .. I stopped these people . . . and persuaded them to let me help them on with the belts
"I had been watching carefully the list of the steamer, and was confident . . . the end was coming fast . . . I remembered one or two personal things in my stateroom which I very much wanted . . . Going along the passages (on Deck B) . . . I saw . . . portholes were open . . I consider it most extraordinary that the portholes on the lower decks should not have been closed and sealed . . . On my return I felt the steamer must make her final plunge any moment.
"I climbed into the stern of a boat which was floating flush with the rail of deck $\mathbf{B} \ldots$. We freed our end and swang the ropes clear, but we couldn't make anyone for'ard understand what to do or how to do it ... to look at the tremendous smokestack hanging out over us only added to the terror... I saw the hopelessness of ever clearing the for'ard davit . . . so I stepped out and made a try for it by swimming
"I swam about 100 feet away from the ship . . . and then turned around . . . to see . . . the final plunge . . . As I waited . . . something caught me on the top of my head and slipped down to my shoulders, pressing me under the water; I couldn't inagine what it was but on turning to see I found it was one of the aerials . . . it took me down under the water and turned me upside down ... I came up none the worse for my ducking.
". . . the waves bearing the wreckage and people were upon me I saw . . . a collapsible lifeboat a short distance away ... and climbed aboard . . (After about) fifteen people were in our "noncollapsible" boat . . . we headed back into the wreckage and picked up those most urgently in need.
"I arned afterwards... she was aboard when the final plunge came and the suction took her part way down one of the funnels, but the thankful explosion blew her forth . . . The clothes were almost blown off the poor woman . . . but she wasn't hurt and proved a great help cheering us ... We had about as many . . . as we ought to take when I heard a woman's voice say ... 'Won't you take me next? you know I can't swim' . . all I could see was a woman's head, with a piece of wreckage under her chin and with her hair streaming out over other pieces. . . we pulled her through.
"Then we rowed for the shore. . . I steered for a lighthouse on the coast . . . on the Head of Old Kinsale . . . We must have rowed abont a quarter of a mile... when I saw one lone man floating around by himself . . . he was in pretty bad shape but recovered ... after we got him ashore ... After rowing about two miles we came up with a fishing smack . . . Before anyone left our boat I . . . found we had 32 aboard.
"Aboard the fisherman was the husband of the temporary negress we had picked up . .. There were over 80 people on the small boat . . . After being on board about an hour, we were picked up by the steamer Flying Fish . . . a sidewheeler . . . We were torpedoed at 8 minutes past 2. I went overboard and my watch stopped at $2: 30 \ldots$ we reached the fishing smack at 6:00... by 7:00 we were on the Flying Fish, and tied up to the pier in Queenstown at 9:15.
"I wrote Parts I and II before reading . . . the Official Inquiry held by Lord Mersey and his Assessors. . My findings. . . are as diametrically opposite from those of Lord Mersey's Court as they could be."

Briefly, inasmuch as there is not space here to include Lord Mersey's findings, we might summarize these as complete vindication of the Captain's actions-as well as those of the crew. Mr. Lauriat, an experienced ocean traveler, felt there was little excuse for open portholes or slow speed in the war zone . . . and that the Lusitania crew might have been better trained.

The Frankfurter Zeitung, a Gerinan newspaper, of May 9,1915 is quoted in Mr. Lauriat's book, in German as well as in English, without comment except to point out that whereas the paper mentions that some 12 guns were mounted on the Lusitania at the time of the torpedoing, this was not so. The German paper considered the sinking a great victory at the time but, inasmuch as this sinking was to become a major factor in arawing the United states into the wat against Germany, historians may regard it as one of the greatest tactical errors any warring nation ever made.

## A- Courtesy <br> American Automobile Association

| State | Max. <br> Speed <br> Open <br> Hwy. <br> (R-Rea- <br> sonable) | Date Regis. Expires (Incl. Grace) | $\begin{aligned} & \text { Driv- } \\ & \text { ing } \\ & \text { License } \\ & \text { Mini- } \\ & \text { mum } \\ & \text { Age } \\ & \hline \end{aligned}$ | Gasoline Tax | Per <br> Cent <br> Sales <br> Tax | Days of Stay ${ }^{1}$ (R-Reciprocal) | Min. Cost of Regis. (3M lbs.100 HP ) | Cost <br> Term <br> Driver's <br> License | Chem. Test Law |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ala. | $60-50 \mathrm{~N}$ | 11/15 | 16h | \$.07 | 11/2 | 30 | \$ 3.75 | 84.2--2Y | B |
| Alaska. | 50 | 5/31t | 16 au | . 08 |  | 90 | 30.00 | $5.00-3 \mathrm{Y}$ | B |
| Ariz. | $50-45 \mathrm{~N}$ | 12/31 | 18 b | . 06 | 3 | 4 | 4.00 | $2.50-3 \mathrm{Y}$ | A |
| Ark. | 60 | 1/31 | 14 ac | . 065 | 3 | 90 | 14.50 | 2.00 | A |
| * Cal. | 65 | 2/4 | 16 du | . 07 | $3 \dagger$ | 8 | $8.00 \dagger$ | $3.00-3 \mathrm{Y}$ | B |
| Colo. | 60 | 2/28 | 17 bd | . 06 | 2 | 30 | 7.10 | $2.25-3 \mathrm{Y}$ | A |
| *Conn. | 60 | , | 16 fu | . 06 | $31 / 2$ | 180 | 10.00 | $6.00-2 \mathrm{Y}$ | C |
| Del. | 50 | 2 | 16 | . 06 |  | 90 | 10.00 | $4.00-2 \mathrm{Y}$ | A |
| *D.C. | 25 | 3/31 | 16 a | . 06 | 2 | R | 22.00 | $3.00-3 \mathrm{Y}$ | A |
| Fla. | $65-55 \mathrm{~N}$ | $2 / 20$ | 16 ag | . 07 | 2 | R | 21.67 | $3.00-2 \mathrm{Y}$ | B |
| *Ga.. | $60-50 \mathrm{~N}$ | 4/1 | 16 h | . 065 | 3 | 30 | 5.00 | 1.00 | A |
| Haw | 45 | 3/31 | 15 i | .085-11 | - | 10 or ${ }^{2}$ | 16.00 | 3.00 | A |
| Ida. | $60-55 \mathrm{~N}$ | 12/31 | 16 g | . 06 | - | R | 17.50 | $4.00-2 \mathrm{Y}$ | C |
| *Ill. | 65 | 3/1 | 16 a | . 05 | $31 / 2$ | R | 22.00 | $3.00-3 \mathrm{Y}$ | A |
| *Ind.. | 65 | 2/28 | 16 | . 06 | 2 | 60 | 12.00 | $1.50-2 \mathrm{Y}$ | A |
| Iowa. | $70-60 \mathrm{~N}$ | 1/31 | 16 gu | . 06 | 2 | R | $12.00 \dagger$ | $3.00-2 \mathrm{Y}$ | C |
| Kan. | $70-60 \mathrm{~N}$ | 2/15 | 16 g | . 05 | 21/2 | R | 10.00 | 2.00 | C |
| Ky.. | $60-50 \mathrm{~N}$ | 3/1 | 16 a | . 07 | 3 | R | 5.00 | $2.00-2 \mathrm{Y}$ | A |
|  | 60 | $2 / 6$ | 15 | . 07 | 2 | R | 3.00 | $2.50-2 \mathrm{Y}$ | B |
| Me. | 45 | $2 / 28$ | 17aj | . 07 | 4 | R | 15.00 | $5.00-2 \mathrm{Y}$ | A |
| *Md. | 55 | 3/31 | 16 k | . 06 | 2 | 90 | 15.00 | 7.00-2Y | A |
| Mass.. | 45 | 12/31 | 16 a | . 055 | - | R | 6.00 | $5.00-2 \mathrm{Y}$ | A |
| *Mich... | $65-55 \mathrm{~N}$ | 2/28 | 16 agu | . 06 | 4 | 90 | 10.50 | $4.00-3 \mathrm{Y}$ | A |
| *Minn. | $65-55 \mathrm{~N}$ | 3/1 | $16{ }^{\text {e }}$ | . 06 | - | R | $30.00 \dagger$ | $3.00-4 \mathrm{Y}$ | C |
| *Miss. | 65 | 10/31 | 15 | . 07 | 2 | 30 | 12.00 | 2.50 | B |
| *Mo. | 65-60N | ${ }_{2}$ | 16 ju | . 05 | 3 | R | 37.50 | $1.00-3 \mathrm{Y}$ | B |
| Mont. | R-55N | 2/15 | 15 ae | . 06 | 11/2 | 60 | 10.00 | $4.00-2 \mathrm{Y}$ | A |
| *Nebr.. | 65-55N | 3/1 | 16 gm | . 07 |  | R | 8.50 | $3.00-2 \mathrm{Y}$ | C |
| Nev.. | R | 12/31 | 16 n | . 06 | 2 | , | 5.50 | $3.00-5 \mathrm{Y}$ | A |
| N.H. | 50 | 3/31 | 16ju | . 07 | - | R | 12.00 | $5.00-2 \mathrm{Y}$ | A |
| N.J. | 50 | , | 170 | . 06 | - | 60 | 15.00 | 3.00 | A |
| *N.M. | 70-60N | 3/2 | 18jqu | . 06 | 11/2 |  | 24.00 | $3.25-2 Y$ | B |
| *N.Y. | 50 | 1/31 | 18 bp | . 06 | - | R | 15.00 | 2.50 | C |
| *N.C.. | 65 | 2/15 | 16 af | . 07 | 11/2 | R | 10.00 | $2.50-4 \mathrm{Y}$ | D |
| N.D. | 60 | 12/31 | 16 g | . 06 | $21 / 4$ | R | 32.00 | $3.00-2 \mathrm{Y}$ | C |
| Ohio. | $60-50 \mathrm{~N}$ | 3/31 | 16 g | . 07 | 3 | R | 10.00 | .75-3Y | B |
| Okla. | $65-55 \mathrm{~N}$ | 3/2 | 16 d | . 065 | 2 | 60 | $30.00 \dagger$ | $4.00-2 \mathrm{Y}$ | B |
| Ore. | 55 | , | 16 g | . 06 | - |  | 10.00 | $2.75-2 \mathrm{Y}$ | A |
| Pa. | 50 | 3/31 | 18 b | . 07 | 5 | R | 10.00 | $4.00-2 \mathrm{Y}$ | A |
| *R.I. | $50-45 \mathrm{~N}$ | 3/31 | 16 | . 07 | 3 | R | 11.00 | $8.00-2 \mathrm{Y}$ | A |
| S.C. | 55 | 10/31 | 16 g | . 07 | 3 |  | 4.30 | . $50-4 \mathrm{Y}$ | A |
| S.D. | 70-60N | 3/31 | 16 g | . 06 | 2 | 60 | 22.00 | 2.00-4Y | C |
| *Tenn. | $65-55 \mathrm{~N}$ | 3/31 | 16 | . 07 | 3 | 30 | 11.50 | $4.00-2 \mathrm{Y}$ | A |
| Tex.. | $60-55 \mathrm{~N}$ | 4/1 | 16 g | . 05 | 2 | R | 11.88 | $3.00-2 Y$ | B |
| Utah. | 60-50N | 2/28 | 16 r | . 06 | 3 |  | 6.00 | $3.00-3 \mathrm{Y}$ | C |
| *Vt. | 50 | 3/31 | 18 b | . 065 | 3 | R | 32.00 | 2.50 | C |
| *Va... | 55 | 4/15 | 18ahp | . 07 | - | 60 | 10.00 | $2.00-3 \mathrm{Y}$ | C |
| *Wash. | 60 | 1/31 | 16 | . 075 | 4 | R | $7.60 \dagger$ | $4.00-2 \mathrm{Y}$ | A |
| W.V. | 55 | 6/30 | 16 s | . 07 | 3 | 30 | 20.00 | $5.00-4 \mathrm{Y}$ | A |
| *Wis.. | $65-55 \mathrm{~N}$ | 2 | 16 g | . 06 | 3 | R | 16.00 | $2.50-2 \mathrm{Y}$ | A |
| Wyo... | 65 | 3/1 | 15 su | . 05 | 2 | 120 | 7.50 | $2.00-3 \mathrm{Y}$ | A |

1Applies to non-residents. "Reciprocal" means same as home state. Those intending permanent residence must buy new plates and secure new driving license at once. Employment or placing children in public school is to reside permanently. ${ }^{2}$ Staggered. ${ }^{3}$ Until expiration of home registration. ${ }^{9}$ Visitor's pernit req. after 10 days.
(A). State has drunken driving test law. (B). State does not. (C). Law with imp. cons. prov. (D). Same but refusal doesn't auth. license susp.
(a) Under 18 must have consent of par or guard; (b) Jr p'mt 16; (c) 14-16 nced accompaniment by lic. op.; (d) Instruction p'mt 151/2; (e) Provisional license to 21 ; (f) 16-18 app. must have completed driver coursc; (g) Jr. p'mt 14; (h) Learner's p'mt 15; (i) Under 20 need par. /guard consent; (j) Jr. P'mt 15; (k) Under 21 nced par./guard consent \& proof of fin. responsibility; (l) Probationary lic. to $20 ;(\mathrm{m}) 14-16$ accomp. by lic. driver over $21 ;(\mathrm{n})$ With consent of par./ guard.; (o) 16 for agric. pursuits; (p) Exc. some cities; (q) Provisional lic. 16-18; (r) $151 / 2$ if drive course comp.; (s) Under 21 birth certif. or par. sig. req.; ( $t$ ) Visitors must regis. car in 48 hrs . (a) Learier': pernit int foo.
$\dagger$ Plus various adj. *Seat belts req.


In the October 13,1003 issue of The Word of God, a Catholic weekly, the above photograph, and an article about it, appeared under the signature of Father Elmendorf, Chaplain of the Holy Cross Hospital in Austin, Texas. He explained that he had found it with some old papers and a note. The latter stated it was taken during a severe storm in the inountains of New Hampshire. Another version explained that a woman who had stated "There is no God" was asked to come out of doors and see how even the slirubbery grows in praise of the Lord. She went out and is said to have seen this picture, which her friend snapped at the time. It is the Sacred Heart of Jesus. Father Elmendorf made no claim of anything supernatural about the picture but did ask for confirmation of its origin.

We wrote to Father Elmendorf and asked what he had learned. He has sent us a good handful of answers. These are summarized as follows:

Manchester, N. H., Jan. 10, 1964
At night in the Fall of 1940 a party of ladies were caught, in Vcrmont in a severe lightning storm. One of the ladies attempted to take a picture of the lightning from the car. When the roll was developed, this picture was apparent. It is also said that about this time a similar picture was taken in or near Detroit but not the same as this one.

Sister Mary Immarulate, M.P.B.
Irescott, Ariz., Nov. 1, 1964
Saw this same picture in Vincent Peale's "Guideposts" in 1948. The one I have was given me by a Lutheran-and still another by an Episcopalian. In 1955, a friend snapped a picture of a pinõn tree at the rim of the Grand Canyon. The print of it showed a darling St. Francis and the birds.

## Emma Andres

Manchester, Conn., Nov. 26, 1963
In Collingswood, N. J. in 1938 I was given this picture by a Mcthodist nelyhbor. She had received it from a member of her church but had no details about it except it was taken in a snowstorm in New Hampshire.

Virginia Prlor
Yankton, S. D., Oct. 15, 1963
"I have the original picture. A group of girls in Los Angeles were having a weiner roast. One of the girls, burning her finger, took the Lord's name in vain. A friend rebuked her, saying 'Don't you know our Lord is everywhere?' 'Well,' she replied, 'if He is here I will take His picture.' With that she turned about and snapped the shutter of her camera. What she took was this plotograph and when she saw what she took, she was rushed to the hospital and died of sliock. The original was given to me by my nephew's. wife, her kister, who, in turn had obtained it from the nun who was at the bedside of the stricken girl." This version was written by Bill Kappel of Omaha, and given to me in 1953.
B. Dllger


A hundred generations and more have dealt with the problems of health, sought for ways to preserve it, and experimented with ways to restore it once lost. Only an arrogant generation, and it is very possible that all generations are arrogant, casts aside the oft-times wonderful empirical knowledge of the ages.

Observation of cause and effect did not wait for scientists to label it. Such observation started whenever it was that men started.

Students of the Middle Ages usually say that modern surgery started in the barber shop, aud other students make a similar mistake in supposing that medicine started with Aesculapius. Originally, both came from prehistoric kitchens: both the cauterizing lance and the healing medicines. We know this because in stone-age cultures that survive they still do.

In one way, at least, ancient medicines stand on firmer footing than more recent tinctures and concoctions as deriving from a longer history of trial and error. That their successes and failures have been poorly recorded in print is true, but they were recorded, often dramatically because tragically, on human minds. These minds we have no right to despise. We know from Hesiod and Homer and elsewhere that our ancient ancestors were not fools, certainly no such fools as to continuc to use a remedy that gave bad results or none. They did unfortunate things iu treating the sick, as we still sometimes do, but there can be no question that they brought intelligence equal to ours to the problem.

When you think of the history of the American Indiaus, your thoughts encompass their experience on this Contiueut, and then turn North and West, and at last to the Alcutians which served as a bridge for them wheu they came from what is uow Siberia. What they brought with them over that bridge we shall probably never know, but we're entitled to wonder. Recipes? Ancient remedies? Is it possible that some of their knowledge dearly bought over thousands of ycars has been lost? Did their descendants, the American Indians, hold on to some of it?

That the carly English and French settlers on the North American Continent learned from the Indians, we know. How much they lcarued and just what they learned are questions that keep us woudering and scarching the records.

Mrs. John B. Rieg of Springfield, New Jersey, reaches a long way back to take hold of the long memories of the American Indians. At the age of 92 , she wishes to pass aloug an ancient cough remedy :
"A long used recipe for coughs has been handed down from generation to geueration iu my family and is truly American in origin. It was given to my great, great, great maternal grandmother by a member of an American Indiau tribe in Northwestern Pennsylvania."

The story skips then to the War of 1812 and one of its brave though indecisive battles. "One of the generals in the Battle of Lundy's Lane was an ancestor of mine. (When tourists visit Niagara Falls, their guide will point out Lundy's Lane.) Included in this general's personal supplies was, inevitably, this ancient cough syrup.


#### Abstract

"I vividly recall, now being 92 , the frequent times my mother prepared this syrup. Not only did she keep her own houseliold supplied, but also her friends and their friends. How pungent was the odor which permeated the entire house as the syrup was being prepared, and the ingredients mingled and blended! This is truly a 'back to Mother Nature' cure. One last admonition is to follow directions with


 utmost care.
## Indian Cough Syrup

## Two ounces hoarhound One ounce elecampane <br> One ounce camfrey <br> One ounce sarsaparilla

These ingredients are grouped together, and then comes an additional one: one pint of strained lioney.
Place the first four ingredients in a kettle with two quarts of cold water. Boil for two hours. Add more water if needed, but let the residue be just one pint at the end of two hours. Strain through a piece of cheese cloth. Return this liquid to the kettle, adding the pint of honey. Place back on the stove, and simmer until the whole product is one pint."
This pungent and potent-sounding medicine is to be administered: "One teaspoonful three times daily, morning, noon, and at bedtime." One is moved to say "blessings on thee, Clara Old Rieg, and on tliee Emmanuensis R. R. H."

Skipping ahead for half a century from the War of 1812 , we find another remedy that suggests the reaching back into remote time, though apparently it became a matter of record only so recently as during our Civil War. Elizabeth Loftus of Rockport, Massachusetts, has offered herself as sponsor for an extremely interesting bit of Americana as well as do-it-yourself mediciue.
"This Civil War incident," Miss Loftus records, "concerns a recipe brought home from the War by my father, a Zouave in the 19th Massachusetts Volunteer Infantry. (His Zouave uniform, a daguerreotype of the wearer, and his half tent, can be viewed at the Children's Museum in Boston.) His regiment was made up chiefly of men from Essex County, was known as 'the Tiger Fire, Fighting Essex.'
"On one occasion Father and his tentmate were on scout duty in a terrain rugged and suspect. The tentmate struck lis foot against a partly exploded shell. The shock blew off one of lis boots. Although the foot seemed intact, it was painfully burned.
"Father loaded his helpless comrade shouldcrwise, like a sack of grain, and carried him through woods and swamps until an isolated farmhouse was discovered.
"All the men having gone to war, women were working the farm. An elderly grandmother took in at a glance the desperate plight of the young soldiers, almost spent, covered with mud, blistered by insects, and chafed by burdock. She sent the children to gather cool, green rushes which they piled on the scrubbed floor for a bed. Then she dressed the burns with compresses of baking-soda solution, fed the famished comrades, aud served each a mugful of what she called her 'tonic.'
"After a refreshing sleep, the young soldiers prepared to take their" leave, hoping fervently to make camp, but the generous granduother interposed:
"'Not a step will you take, lads! We have no horses left, but Si and Zeb can hitch the bull to the hayrack. They'll get you there.'
"While the thrilled youngsters were coaxing the bull into the shafts, Father timidly asked the grandmother for the recipe of her wonderful tonic, adding: 'So I cau send it to my mother.'
"The grandmother graciously scribbled the recipe on the fly leaf torn from an old copy book, and Father pinned it securely inside his tunic, failing to read it then and forgetting all about it under the stress of subsequent lostilities.
"When he arrived home after the war, his mother set about cleaning the tunic, preparatory to putting it away, and in so doing discovered the long-forgotten recipe:

Civil War Tonic
Two tablespoons of strong, ground ginger
One pound of sugar
Juice of one lemon
One quart of red currants
One half pint of best whiskey."

How much use this formula fond in the Loftus family is a serious question, thongl it has its humorons side, too. "Father", was a teetotaler (which we shonld explain to the ronng meant that he was determined never to have alcohol in any form pass his lips) and so was his mother. When she looked throngh the recipe and reached the last item, her indignation flared: "Now," she said, "now I know that war is Hell!"

A drink that no one could possibly snspeet of sinful propensities, may well be a elose relative of the Endian Cough Syrup: It would seem to eall for an Indian or a botanist to seek out the ingredients.

Patty Rockwell, who fived in Connecticnt a century and a halt aro, handled the difficulties with ease, or so it seems to her descendant, Mrs. Helen N. Upson of Cheshire. Connectieut.
"In the year 1810 my great-grandfather, the Rev. John Nickerson, a cireuit-riding, Methodist preacher, serving the families of that denomination in Bethel, Jewton, and Redding, in Connecticut, was married to Patty Rockwell in nearby Danbury. When her husband went about his pastoral duties, she generally rode pillion behind him. laving seen to it that there were lottles of root beer in the saddle bags. She had prepared the root beer herself.
"Patty's recipe has come down in the family, and each year my father, aided by his children, collected, cleaned, and dried the roots and herbs. Large quantities of the beverage were brewed, becanse the family expected to have it at home or in camp."

## Patty Rockwell's Root Beer

Gather a quantity of hops and the roots of burdock, sellow doek, sarsaparilla, dandelion, and spikenard. Dry them thoroughly, then chip $1 / 2$ onnce of each. Pour over this mixtnre a gallon of water and boil it hard for twenty minutes and strain while hot, then add ten drops each of the oils of spruce and sassafras well mixed. When lukewarm, stir in two-thirds pint of molasses and 3 tablespoons of Jug reast. Mix well. Let stand in a stone crock, covered with a cloth, in a warm place for two hours. Bottle. Cork bottles well and store on a cold cellar Hoor.

## Jug least

Boil $1 / 2$ lb. hops in 1 gallon water matil strong. Strain. Stir in $1 / 2$ pint malt flour and rub through a coarse cloth. Boil ten minutes. Cool slighty. Stir in $1 / 2 \mathrm{lb}$. Wrown sugar. Place in jug in warm room "to work." Then cork bottles tight, and keep eold.

## Continued from page 96

BIRCH: Spunck, an excrescence growing out of blatek lireh lielps the Sciatica or Gout of the lip or any great Ack, lurniner the Patient in two or three places upon the Thish and mpon certain Veins.
IINE: Board I'ine yields a very soveraign Turpentine for the curing of desparate Wommels.
FIR: For Plague of the back you make a larre Toast or Cake and dip it in the 'Tar from any kind of Pitel Wood such as the Firr Tree and hind it warm to the affected Slde.
AIRUCE: The tops of Green Hpruce Fouglis hoiled in Kear with LIony and Allum makes a rood Lotion. luoiled in l3ear alone and drunk is one of the best Remedies for the Scury.
HEMLOCK: To break Swellings and Sores the Indians use the inner Bark of the yomme Itemlock, boyling it very woll, then knoeking it betwixt two stones
to a Playster. The Chips of Hemlock foot boyled in Beer. being druuk, allaye the hot rage of Fearors. The Ifenulock Leaves make good Oyntment.
PUMIKINs: New-Hngland liousewives slice ripe Pumpkins, dice them, and fill a pot to 2 or 3 Gallons and stew gently a whule day. As they sink. they refill the pot. Stewed enoumin they look like hakd Apples: this they Bish, add butter, Vinesar, and spices. and serve to be eaten with Fish or Flesh. It provokes Jrin extreamly aud is rery windy.
SHEATH FISH: Sheath Fish which are covered with a thin Shell. Which shell Calcin'd and Pulverizid. is excellent to take off a Pin or Web, or any kind of rilme growing over the Five. SEA IIORKE: The Bones of the Sea Horse are a secret for the Piles-and when drank as a Powder with Liculors make a gallant Urin provoker.

## TABLE OF MEASURES

## Apothecaries

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

## A roirdupols

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

## Cubic Measure

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

## Dry Measure

2 pints ......... $=1$ quart $(q t$.
4 quarts $\ldots . . .$.
$\left.\begin{array}{l}8 \text { gallons or } \\ 8 \text { quarts } . . . . .\end{array}\right\}=1$ peck
4 pecks . ............. $=1$ struck bushel

## Linear Measure

1 foot $=12$ inches
1 yard=3 feet
1 rod= $=1 / 2$ yards $=161 / 2$ feet
1 mile $=320$ rods $=1760$ yards $=$
1 U. S. nautical mile $=6076.1033$ feet
1 knot=1 nautical mile per hour
1 furlong $=1 / 8$ mile $=660$ feet $=$
220 yards
1 league $=3$ miles $=24$ furlongs
1 fathom=2 yards=6 feet
1 chain $=100$ links $=22$ Jards
1 link $=7.92$ inches
1 hand=4 inches
1 span=9 inches
Square Measure
1 square foot=144 square inches
1 sq. yard $=9$ sq. feet
1 sq. rod=301/4 sq. Jards=
$2721 / 4 \mathrm{sq}$. feet
1 acre $=160 \mathrm{sq}$. rods $=43260$ sq. ft .
1 sq. mile $=640$ acres=
102400 sq. rods
1 sq. rod=625 square links
1 sq. cliain $=16$ square rods
1 acre $=10$ square chains

## Troy

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


## Honsehold Measures

120 drops water -1 teaspoon
60 drops thick fluid=1 teaspoon
2 teaspoons=1 desser tspoon
3 teaspoons=1 tablespoon
16 tablespoons $=1$ cup
1 cup=1/2 pt.
1 cup water $=1 / 2 \mathbf{l b}$.
3 tablespoons flour $=1$ oz.
2 tablespoons butter=10z.
3 teaspoons soda $=1 / 2$ oz.
4 teaspoons baking powder $=$ $1 / 202$.
2 cups granulated sugar $=1 \mathrm{lb}$.
$33 / 4$ cups confectioners' sugar $=$ 1 lb .
$21 / 2$ cups wheat flour=1 lb.
$31 / 2$ cups whole wheat flour= 1 lb.
$21 / 2$ cups buckwheat flour $=1 \mathrm{lb}$.
$51 / 3$ cups coffee $=1 \mathrm{lb}$.
$61 / 2$ cups tea $=1 \mathrm{lb}$.
2 cups lard=1 lb.
2 cups butter $=11 \mathrm{lb}$.
2 cups corn meal=1 $\mathbf{1 b}$.
2 cups porvdered sugar $=1 \mathrm{lb}$.
$23 / 4$ cups brown sugar=1 lb.
$28 / 8$ cups raisins $=1 \mathrm{lb}$.
$23 / 8$ cups currants $=1 \mathrm{lb}$.
9 eggs $=1 \mathrm{lb}$.

## Liquid Measure

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

|  | Matric |
| :---: | :---: |
| inch $=2.54$ centimeters |  |
|  | meter $=39.37$ inches |
| yard $=0.014$ meters |  |
| $1 \text { mile }=1609.244 \text { meters } \overline{1.61} \overline{\text { kilometers }}$ |  |
| sq. inch=6.45 sq. cm. |  |
| sq. yard $=0.84 \mathrm{sq} . \mathrm{m}$. |  |
|  | sq. mile=2.50 sq. km. |
|  | acre $=0.40$ liektars |
|  | cu. yard $=0.76$ cubic meters |
|  | cu. meter $=1.31$ cubic yards |
|  |  |
|  | hektoliter $=100$ liters= |
|  |  |
|  | U. S. liquid quart $=0.94$ liters |
|  |  |
|  | metric $\operatorname{ton}=1000$ kilograms |
| 1 kilogram=2.20 pounds |  |
|  | avoirdupois $=$ |

1 meter $=39.37$ inches
1 yard=0.014 meters
1 mile $=1609.344$ meters $=$ 1.61 kilometers

1 sq . inch $=6.45 \mathrm{sq}$. cm.
1 sq. yard $=0.84$ sq. m.
1 sq. mile $=2.59 \mathrm{sq} . \mathrm{km}$.
1 acre $=0.40$ hektars
1 cu . yard $=0.76$ cubic meters
1 cu. meter $=1.31$ cubic yards
1 liter $=1.06$ U. S. liquid quarts
1 26.42 U. S. liquid gallons
1 U. S. liquid quart $=0.94$ liters
1 U. S. liquid gallon=3.76 Jiters
metric ton $=1000$ kilograms
1 kilogra $m=2.20$ pounds
0.45 kilograms

## GESTATION AND REPRODUCTION TABLE

|  | Proper age for first mating | Period of power of reproduction in years | No. of females for one male | Period of gestation and incubation |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Shortest days | Mean days | $\begin{aligned} & \text { Longest } \\ & \text { days } \end{aligned}$ |
| Mare. | 3 yrs . | 10 to 12 |  | 325 | 336 | 352 |
| Stallion. | $4{ }^{3}$ | 12 to 15 | 20 to 30 |  |  |  |
| Cow. | 18-24 mos. | 10 to 14 |  | 235 | 282 | 300 |
| Bull. Ewe. | 12-18 18 " | 10 to 12 | 30 to 40 | 145 | 147 | 152 |
| Ram. | 12-14 " | 7 | 35 to 45 | 145 | 147 | 152 |
| Sow. | 9 | 6 |  | 110 | 114 | 120 |
| Boar | 9 " | 6 | 8 to 12 |  |  |  |
| She Goat | 18 " | 6 |  | 147 | 151 | 155 |
| He Goat. | 18 " | 5 | 20 to 30 |  |  |  |
| Ass. | 3 yrs. | 10 to 12 |  | 356 | 367 | 378 |
| Jack Buffalo | 24 ${ }^{4}$ | 12 to 15 | 20 to 30 |  |  |  |
| She Buffalo | 18-24 mos. | 8 |  | 309 58 | 315 | 325 |
| Dog. | 12-16 " | 8 |  | 58 | 63 | 67 |
| She Cat | 12 mos . | 6 |  | 58 | 60 | 64 |
| He Cat. | 12 " | 10 | 6 to 8 |  |  | 64 |
| Doe Rabbit. | 6 " | 5 to 6 |  | 25 | 30 | 35 |
| Buck Rabbit | 6 " | 5 to 6 |  |  | 30 | 35 |
| Cock . | 6 " | 5 to 6 | 12 to 18 |  |  |  |
| Hen. |  | 5 to 6 |  | 19 | 21 | 24 |
| Turkey |  |  |  | 24 | 26 | 30 |
| Duck. . |  |  |  | 28 | 30 | 32 |
| Goose. |  |  |  | 27 | 30 | 33 |
| Pigeon. |  |  |  | 16 | 18 | 20 |
| Pea Hen... |  |  |  | 25 | 28 | 30 |
| Guinea Hen. |  |  |  | 20 | 23 | 25 |
| Swan. ....; |  |  |  | 40 | 42 | 45 |
| Hen or Duck's Eggs. . . . . |  |  |  | 22 | 30 | 34 |
| Robin's Eggs. |  |  |  | 13 | 16 | 19 |

REPRODUCTIVE CYCLE IN FARM ANIMALS
Courtesy F. N. Andrews - Purdue University

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

# THE PASSING OF THE RAILROAD WATCH 

by Liam Dougherty



The other evening we heard the mouse whose name is Progress gnawing away again in the pantry where we keep our best nostalgia. At the time, we were reading that the New York Central System had put an official O . K. on the use of wrist watches by its personnel.

Blotting a testimonial tear, we harked back to those days when a respectable railroad mau would not even leave his daughter atone in the same room with a sport who wore a wrist watch. This was an era when a railroad man's watch pocket was a small shrine before which the candle of his pride burned brightly-were he operating engineer or section hand.
For as soon as tracks were laid, railroads had to begin to unify the loose variety of habits of keeping time extant among their customers and employees. First, they provided the nation with its sense of accurate time by establishing, in 1833, a pattern of time zones which varied by one hour progressively from coast to coast. Then, safe highspecd operation being dependent upon timepieces in the widely scattered hands of engineers, switchmen, conductors and statiommasters, they specified use of the wateh "of railroad grade."
"Railroad grade" meant such things as a minimum size-16. (The new wrist watch is size 13.) The dial was to be "plain, of a white silver finish, with bold, black numerals of box-car type." (The wrist watch has the garish option of a luminous dial.) Lever set, it encouraged synchronization of hour, minute and second hands. Its plus or minus latitude was thirty seconds a week. (The wrist watch is allowed twenty seconds a day-a permissiveness encouraged by radio time-checking and automatic signals.) The watch was subject to regular inspections by a Railroad Time Service, or at least a railroadapproved jeweler. Such abstruse things as the wearer's body temperature were taken into consideration by early purists, as well as the fact of his driving a Model $T$ (booster coils being a distracting magnetic field).

It is claimed that the new wrist watch is a boon to our modern trainmen who have to sell tickets and make change on suburban runs. To avoid argument, we will go along and suppose this is so. A1though we are still impertinent enough to hope out loud that "progress" in the development of the railroad wrist watch pulls up short somewhere between "Made-in-Japan" and built-in obsolescence.
Mr. Ed Phinney, the favorite conductor of our boyhood days, carried a plain, silver Hamilton leashed to a button by a braided leather thong. This leaped up from a leather-margined vest pocket to meet his sumnoning hand more quickly than the adolescent eye could follow, let alone duplicate. We retire secure in the expectation that Mr. Phinney rould have sneered benignly at a railroad wrist watch, winking toward the seat near the window. Mr. Plinney's cap was circumnavigated by a band of open wickerwork which, we are sure, ventilated an area where a sense of the fitness of things felt at home.

## AMERICA'S FIRST PATENT

The first patent granted in America was to one Joseph Jenks, an Englishman and master inechanic, who came to Lynn, Massachusetts about 1642 to establish iron and steel works. "Jenkes Monolye" reads:

At a generall courte at Boston the 6th of the 3 th mo 1646 The Cort considringe $y$ e necessity of raising, such manufactures of engins of mils to go by water for speedy dispatch of much worke wth few hands, and being sufficiently informed of ye ability of ye petitionr to pforme such workes grant his petition (yet $n$ othr pson shall set up, or use any such new invention, or trade for fourteen years whout ye licence of him ye said Joseph Jenkes) so far as concernes any such new invention, and so as it shalbe always in ye powr of this corte to restrain ye exportation of such manifactures, and ye prizes of them to moderation if occasion so require.
Further, in 1655 he patented, a grass scythe. In 1652 he made dies for the "Pine Tree Shillings," our first coinage. He built, the first fire engine in 1654, to the order of the "selectmen of Boston," History records him, in understatement, as "a very ingenious man."

## CHARADES, REBUSES, CONUNDRUMS, ENIGMAS, etc.

(For answers, see page 67)


II
Why is the letter $P$ like uncle's fat wife going up a hill?

## III

My first has wings so I'll confess Once two was one but now is less. Third drags along its sinuonsness,
And whole an animal, I guess.
One two will frighten-my belief.
Cause three two one a sign of grief,
Three two shonld soothe the whole in brief.

## IV

What letter in the alphabet is most useful to a deaf woman?

## $V$

I am composed of 12 letters: My $1,9,11$ is an animal. My $3,9,10,11$ is a grain. My 4, 5, 7 is part of a barn. My 12, 2, 6, 8 is a stone.
My whole is a body politic.

## VI

My first, if you do, yon won't hit it; My next, if you do, you won't leave it:
My whole, if you do, you won't guess it.

VII
Why is Ireland likely to grow rich:

## VIII

My first describes a person.
Add an adjective and show that person's condition.

## IX

Find five letters capable of being transposed into five different words: two nouns, two adjectives and a verb.

## X

In a word of eight letters, the first three and the last three (transposed) name the same animal. What is the word?

XI
What belongs to yourself, set is used by everybody more than yourself?

## XII

My first is but a name
My second is more small My whole is of so little fame It has no name at all!

## XIII

Not great in stature, small indeed,
His fame still spreads abroad.
Where others stood for punishment,
He sat to reap reward.
The sacred scason's gift he held,
Fruit of long expectation,
And midway in the bliss he paused
For calm self-approbation.

## NIV

Two letters will spell ine, or five if rou choose.
Or, if youl prefer it, you forty inay use.
My first is a cross and my second an angle.
My whole you will do if this meb you untangle.


(For answers see page 67)

## 1

A gentleman, dying, left a piece of land exactly square, to be divided amongst his five sons: to his eldest he gave a square piece, exactly one-fourth of the entire piece; and to each of the other four, one-fourth of the remaining three-fourths, all to be of exactly the same shape. How was the ground divided?

## II

A dealer offers eight $3^{\prime \prime}$ oranges or six $31 / 2^{\prime \prime}$ oranges for 50 cents. Which is the better buy? (Consider the oranges as geometrically similar volumes.) Courtesy of Wm. Stewart Ayers, M.E.

## III

How deep is a well in which a stone is three seconds in falling to the bottoin?

## IV

A man went into a store and said, "If yon give me as much money as I have in my pocket, I will spend ten cents." This being done, the man then went into a second store and said the same thing with the same result. After the third purchase, he had no money left. How much had he when he went to the first store?

## $v$

Two fathers and two sons went fishing. They caught three cod fish and each had a whole one. How could that be?

## VI

If 50 gallons a minute flow through a $21 / 2^{\prime \prime}$ pipe, how many, at the same velocity, will flow through a $3^{\prime \prime}$ pipe? Courtesy of Wm. Stewart Ayers, M.E.

## VII

From thirteen thousand, subtract eleven thousand eleven hundred and eleven.

## VIII

Three travelers met on the road, and diued under a tree. A had 5 loaves, B had 3, and C had none. C paid 8 equal picces of money for his dinner. How should they be divided between $A$ and $B$ ?

## IX

If a fish weighs ten pounds and half its own weight, how many pounds does it weigh?

## X

A man puts out $\$ 100$ at compound interest until it shall treble its sum and the rate percent is equal to the years. How much percent and what time is required?

## XI

Johu is twice as old as James was at a time when John was as old as James now is. How old will James be when John is twice as old as James is now? John is now 32 years old.

## XII

The proprietor of a menagerie was asked how mauy birds and how many beasts it included. He replied, "Well, the lot have 32 heads and 100 feet." How many of each kind werc there?

## XIII

Draw Figure 1 (below) in the exact dimensions described. Then cut up A, B, C, and D and rearrange these pieces to form Figure 2. Fig. 1 is $8^{\prime \prime}$ by $8^{\prime \prime}$ or 64 square inches. Fig. 2 is then $5^{\prime \prime}$ by $13^{\prime \prime}$ or 65 square inches! Where did the extra square inch come from?


## FISH AND GAME SUMMARY

（Format．copyrighted－must not be copied．）
Based on latest（mostly 1963－64）a vailable laws courtesy of State Fish \＆Game Commissioners． For the most part 1965 laws not released until after press date（June，1964）and so no attempt is made here at accuracy；in fact，only approximations of the months which may include seasons are given．This table useful only for vacation planning considerations and to satisfy curiosity as to what the various states offer in the way of hunting and fishing．Migratory Bird Regulations are available at any post office．

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

|  | $\begin{aligned} & \text { 回 } \\ & \text { 合 } \\ & \text { 鼠 } \end{aligned}$ | 咭 | $\begin{gathered} \text { صٌ } \\ \text { 郘 } \end{gathered}$ |  | 急 | $\stackrel{y}{z}$ |  | $\begin{aligned} & \underset{y}{3} \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | 会 | 7 8 8 0 4 | 苗 等 耍 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Alabama． |  | C | 11－12 |  |  | 11－2 | 10－2 | 10－2 | 10－2 | 10－2 | 10－1 |
| Alaska（1963） |  | 9－6 | 8－12 | 7－9 | 8－12 | 11－1 | 1－5 |  | 9－4 | 1－12 | 0 |
| Arizona．．．．．． | 9 | 9－2 | 9－11 | 12 | $9-11$ |  | 0 |  | － | 0 | $9-11$ |
| Arkansas（1963） |  | 11－1 | 11－1 |  | 11－1 | 11－1 | 11－3 | 11－1 | 9－1 | 11－1 | 9－1 |
| California ．．．． | C | 9－1 | 8－11 | C | C | 11－2 | 11－3 | 0 | 9－1 | 0 | 10－1 |
| Colorado， | P9 | $4-10$ | 9－12 | P8， 11 | 10－11 | 11－1 | 11－4 | 0 |  | 0 |  |
| Connecticut． |  | 0 | 11－12． |  |  | C | C | 0 | 10－1 | 9－1 | 10－1 |
| Delaware（1962）． |  |  | 11 |  |  | 12－3 | 12－3 | 11－1 | 11－12 | 11－1 | 9－10 |
| Florida．．． |  | 11－12 | 11－12 |  |  |  |  |  |  | 0 | 11－2 |
| Georgia． |  | 11－1 | 11－1 |  |  | 11－2 | 11－2 | 10－1 | 11－2 | 10－1 | 10－1 |
| Hawaii． | C |  | S | S |  |  |  |  |  |  |  |
| Idaho． | S | 0 | $9-12$ | 9 | 9－12 | 11－12 | 11－12 |  | 9－2 | 0 | C |
| Illinois． |  |  | 11－12 |  |  | 11－1 | 11－1 | 11－1 | 11－1 | 11－1 | 8－10 |
| Indiana． |  |  | 11－12 |  |  | 11－1 | 11－1 | 11－1 | 11－1 | 11－1 | 8－10 |
| Iowa（1963） |  |  | 12 |  |  | 11－12 | 11－2 |  | 9－2 | 10－2 | 9－12 |
| Kansas．．．．． | C |  | C |  |  | 12－1 | 12－1 | 12－1 | 12－10 |  | 7－12 |
| Kentucky |  |  | 11 |  |  | 11－1 | 11－1 | 11－1 | 11－1 | 10 | 11－12 |
| Louisiana |  | 12 | 11 |  |  |  |  |  | 10－2 |  | 10－1 |
| Maine． |  | 0 | 10－12 |  |  | 11 | 11 |  | 10－3 | 8－12 | 10－11 |
| Maryland． |  | C | 11－12 |  |  | 1－3 | 1－3 | 9－3 | 11－1 | $9-3$ | 10 |
| Massachusetts |  | 10－12 | 12 |  |  | 11－1 | 11－12 | $9-12$ | 10－2 | 9－12 | 10－11 |
| Michigan． |  | 9－11 | 9－11 |  | S | 11－1 | 11－1 | 0 | 10－2 | 10－12 | 10－11 |
| Minnesota． |  | O．S | 11 |  |  | 11 | 11 |  | 9－2 | 9－12 | 9－12 |
| Mississippi |  | C | 11－12 |  |  | 12－1 | 12－2 | 11－1 | 10－1 | 11－1 | 10－12 |
| Missouri． |  |  | 11 |  |  | 12－1 | 12－1 | 11－1 | 5－2 | 11－1 | 5－12 |
| Montana | 10－11 | 3－11 | 10－11 | $9-11$ | 10－11 | 11－12 | 11－4 | X | 0 | 0 | 0 |
| Nebraska | 9 |  | 11 |  |  | 11－3 | 11－3 | 0 | S | 0 | 9－1 |
| Nevada（1963）．．．． | 8－9 |  | 10 | 12 | 11 | 11－3 | 11－3 |  | 10 |  |  |
| New Hampshire．．．． |  | 9－12 | 12 | 12 |  | 11－2 | 11－2 |  | 10－3 | 9－12 | 10 |
| New Jersey ．．．．．．．． |  | C | 12 |  |  | 12－3 | 12－3 |  | 11－12 | 12－3 | 11－1 |
| New Mexico（1963）． | 9－10 | 9－11 | 10－12 | X | 9－12 | 12 | 11－3 |  | 0 | 0 | 9 |
| New York．．．．．．．．． |  | 10－12 | 10－12 |  |  | 10－3 | 10－4 | 0 | 10－2 | 10－3 | 10－12 |
| Long Island |  | C | C |  |  | 1－3 | 1－3 | 0 | 11－1 | 11－2 | 11－12 |
| North Carolina． |  | 10－12 | 10－12 |  |  | 11－2 | 11－2 | 11－2 | 11－2 | 11－2 | 10－12 |
| North Dakota． | 9 |  | 9－11 | C | C | 11－12 | C | X | 0 | 0 | 9－12 |
| Ohio．．． |  |  | 12 |  |  | 11－2 | 11－3 | 11－2 | 11－12 | 11－12 | $9-10$ |
| Oklahoma（1962）．．． |  |  | S |  |  | 12－1 | 12－1 | 12－1 | 0 | 12－1 | 5－12 |
| Oregon． | P8 | 0. | 10 | C | 10－11 | 11－1 | 11－2 | 0 | 0 | 0 | 0 |
| Pennsylvania． |  | 11 | 12 |  | C | 11－1 | 11－3 | 0 | 10－1 | 0 | 10－1 |
| Rhode 1sland． |  |  | 10， 1 |  |  |  |  |  | 11－12 | 10－1 | 11－12 |
| South Carolina． |  | S | S |  |  | S | S | S | S | S | S |
| South Dakota． | 9 | P | 11 | C | C | 11－12 | 11－12 | 11－4 | 0 | 0 | 0 |
| Tennessee（1963） |  | 10 | 11－12 |  |  | 10－1 | 11－1 | 10－1 | 10－1 | 10－1 | 9－12 |
| Texas．． | 9－10 | 11－12 | 11－12 | C | 12 | 11－1 | 11－3 | O | 0 | $\bigcirc$ | S |
| Utah． | P |  | 10－11 |  | 9－11 | 10－5 | 0 | X | 0 | X | 0 |
| Vermont． |  | 9－11 | 11 |  | C | 10－2 | 10－4 | 0 | 10－2 | 10－12 | 10 |
| Virginia． |  | 11－1 | 11 |  | C | 12－1 | 12－3 | 10－1 | 11－1 | 10－3 | 11－1 |
| W ashington： | C | 0 | 10－11 | 9 | 11 | 11－1 | 11－3 | 0 | 10－2 | 0 | C |
| West Virginia．．．．． |  | 11 | 11－12 |  |  | 11－2 | 11－2 | 0 | 11－1 | 10－1 | 10－1 |
| Wisconsin（1962）．．． |  | 10－11 | 10－11 |  |  | 10－1 | 11－12 | 11－12 | 10－1 | S | 10－1 |
| Wyoming（1962）．．． | 9－11 | 4－6 | 9－11 | 9－11 | 9－11 |  | － |  | 1 |  |  |

SPECIALS IN CERTAIN STATES：

ALLIGATOR：Ala．（C），Ga．（6－1）；Fla．（6－1）；Miss．（C）．
WILD BOAR：Cal．（10－3），Fla．（S）；N．C．（10－12）；
Haw．（0），Tenn．（10，2），Tex．（10）
BUFFALO：Alas．（C），Ariz．（10），Utah（P），Tex．（C）

CARIBOU：Alas．（S）
CHACHALACA：Tex．（12－1）
JAVELINA：Ariz．（2），Tex．（11－12）
MOOSE：Alas．（9），Idaho（P）； Mont．（9－11），Wyo．（9－10）

## SYMBOLS USED PAGES 62 AND 63

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

VERIFY EXACT OPENING \& CLOSING DATES IN EVERY CASE.

|  |  | 荅 |  |  | $\frac{\ddot{\sim}}{\stackrel{\sim}{n}}$ |  |  | 录 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8-4 |  | 11-2 | 11,12,4 | Alabam | 0 | 0 | 0 | 0 | 0 | 0 |  |
|  |  |  |  | Alaska (1963)... | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | 10-1 | 10 | Arizona.. | 0 | 0 |  |  | 0 | 0 |  |
| C | C | 12-1 | 4 | Arkansas (1963). | 0 | 0 |  | 0 | 0 | 0 |  |
| 9-1 | 11-12 | 10-1 |  | California | 0 | 0 | 0 | 5-10 | 5-10 | 5-10 | 5-10 |
| - | 11-12 | 11-12 | 5,10,11 | Colorado. | 0 | 0 | 0 | 0 | 0 |  |  |
| 10-12 | 10-12 | 10-11 | C | Connecticut | 4-10 | 4-10 | 4-10 | 4-10 | 4-10 | 4-10 |  |
|  | 11-12 | 11-12 |  | Delaware (1962) |  | 0 | 0 |  | $4-11$ |  | 0 |
|  |  | 11-2 | 11-1 | Florida. | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10-1 |  | 11-2 | 11-1 | Georgia | 4-9 | 4-9 | 4-9 | 4-9 | 4-9 | 49 | 4 |
| 11-1 | 11-1 | 10-1 | C | Hawaii | 0 | 0-X-0-X | X | X | X | X | X |
| 9-10 | 10-11 | 9-11 |  | Idaho. | 0 |  |  |  | 6-10 | 4-11 | 0 |
| C11-12 | 11-12 | 11-12 | C | Illinois | 0 | 0 | 5-11 | 0 | 0 | 0 | 0 |
| 11-12 | 11-12 | 11-12 | C | Indiana | 0 | 0 |  | 0 | 5-8 | 0 | 0 |
| 11-12 | 11-12 | 11-12 |  | Iowa. | 5-2 | 0 | 5-2 |  | 0 |  |  |
| 11 | 11-12 | 11-12 | C | Kansas | 0 | 0 | 0 |  | 0 |  |  |
| 12-1 |  | 11-1 |  | Kentuck | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | 11-2 | 4 | Louisiana | 0 | 0 | 0 |  |  |  |  |
| 10-11 | 10-11 | 10-11 |  | Maine. | 6-9 | 4-9 | 4-9 | 4-9 | 4-9 | 4-9 | 4-9 |
| 11-1 | 11-1 | 11-1 | 10 | Maryland | 0 | 0 | 0 | 0 | 4-2 |  |  |
| 10-11 | 10-11 | 10-11 | C | Massachusetts.. | 4-2 | 4-2 | 4-2 | 4-10 | 4-10 | 10-2 | X |
| 10-12 | 10-11 | c | C | Michigan . | 6-12 | 0 | $4-3$ |  | 4-9 | 4-9 | 4-9 |
| 9-11 | 10-11 | C | C | Minnesota | 5-2 | 0 | 5-2 | X | 5-9 | 1-9 | 0 |
|  |  | 12-2 | 4 | Mississipp | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | 11-1 | 4 | Missouri. | 5-2 | 0 | 0 |  |  |  |  |
|  | ${ }^{10-11} 1$ | C | 9,10,4; 5 | Montana | 0 |  | 0 |  | 5-11 | 5-11 |  |
| $9-10$1010 |  | 10-12 | $11{ }^{\text {a }}$ | Nebraska. |  | 0 | 0 | $\mathrm{S}_{\mathrm{S}}$ | 0 | 0 | 0 0 0 |
|  | $11$ | ${ }_{\text {1 }}^{11}$ |  | Nevada (1963).. <br> New Hampshire | ${ }_{\text {4-10 }}$ | - ${ }_{\text {O }}^{\text {O }}$ |  | ${ }_{4-9}^{\text {S }}$ | O-9 | 1-9 | ${ }_{1-8}^{0}$ |
| $\begin{gathered} 11-1 \\ 9 \end{gathered}$ | 11-12 | ${ }_{11-2}^{\text {C }}$ | c | New Hampshire | ${ }^{4-10} 0$ | 4-10 | ${ }^{4} 0$ | C3-4 | C3-4 | C3-4 | $\stackrel{1}{1-8}$ |
|  | 10 | X | 9-11 | N. M. (1963) | 0 | 0 | X | X | 5-11 |  | X |
| $\begin{aligned} & 9 \\ & 10-12 \end{aligned}$ |  | 10-11 | 10 | New York. | 7-11 | 0 | 5-2 | 4-9 | 4-9 | 4-9 | 4-9 |
|  | 11-12 | 11-12 | C | L. Island | 7-11 | $\bigcirc$ | ${ }_{5}^{5-2}$ |  | $4-9$ $4-9$ |  |  |
|  | $\left\|\begin{array}{l} 111-2 \\ 10-12 \end{array}\right\|$ | 11-2 | 1-2 | N. Carolina | 0 | 0 | 0 $5-2$ |  | - ${ }_{5-9}$ | 4-8 | X |
| $\stackrel{10-2}{9-11}$ |  | $\mathrm{X1-12}^{\text {¢ }}$ | $\stackrel{\mathrm{P}}{\mathrm{C}}$ | N. Dakot |  | 0 0 | ${ }_{\text {5-2 }}^{0}$ | X | ${ }_{\text {5-2 }}^{0}$ | 0 | X 0 |
| $\begin{gathered} 10-2 \\ 5 \end{gathered}$ | 11-12 |  |  | Okla. (196) | 0 | 0 | 0 | 0 | 0 | - | 0 |
| $\begin{gathered} 5 \\ 10-11 \end{gathered}$ | 11-12 | 10-11 | X | Oregon. | 0 | 0 | 0 | 410 | 4-10 | 410 | 0 |
| $\begin{aligned} & 111-1 \\ & 11-12 \end{aligned}$ | C | 11 | 11 | Pennsylvania. | 6-3 | $5-3$ | $5-3$ | 0 | ${ }_{4}^{4-9}$ | 4-10 | 0 |
|  | 11-12 | 11-12 |  | Rhode Island. | 4-2 | 0 | $4-2$ |  | ${ }_{3-10}^{4-10}$ |  |  |
| $\stackrel{11-12}{S}$ | S |  |  | So. Carolin | 0 | 0 | 0 | 0 | 3-9 | 3-9 | 0 |
| 9 |  | 11 | 10 | So. Dakota | 0 | 0 | 0 |  | 0 |  |  |
| $\stackrel{11-2}{\text { C }}$ | 10 | 11-1 | 4-5 | Tennessee | 0 | 0 | 0 |  |  |  |  |
|  | S | 11-1 | ${ }_{\text {P1-12 }}^{11}$ | Texas |  | 0 | 0 0 0 | 0 | ${ }_{6-11}^{0}$ | 6-11 | ${ }_{6 S-2}$ |
| 9-11 |  | 11-12 | $\stackrel{\mathrm{P}}{ }$ | Utah.. | ${ }_{\text {c-11 }}^{0}$ | 0 0 0 | $\stackrel{0}{0}$ |  | ${ }_{4}^{6-11}$ | ${ }_{4}^{6-11}$ | 6S-2 |
| 10 | 10 | 10 | 10 | Vermont |  | ${ }_{0}$ | $\stackrel{5}{0}$ | -9 | 4-12 | 4-12 |  |
| $11-1$ | $\left\|\begin{array}{c} \mathrm{P} \\ \mathrm{P} 0-12 \end{array}\right\|$ | ${ }_{10-1}^{11}$ | ${ }_{\text {C }}^{11-1}$ | Virginia. <br> Washingt | - ${ }_{\text {-10 }}$ | - ${ }_{\text {4-10 }}^{\text {O }}$ | 0 | 0 | ${ }_{4-10}^{4-12}$ | 4-10 | S |
| 10-1 | 11-1 | $111{ }^{10-12}$ | ${ }_{10-11}^{\text {C }}$ | Washington <br> W. Virginia | ${ }^{4} 10$ | 4 | 0 | - | 5-12 | 5-12 | 0 |
|  | $\left.\right\|^{10-11}$ | S | ${ }^{\text {C }}$ | Wisconsin. | 5-2 | 0 | 5-2 | X | 5-9 | 1-9 | 5 |
| 10-11 |  |  |  | Wyoming (1962) | 5-10 | 5-10 | 5-10 | 5-10 | 5-10 | 5-10 | 5-10 |

BLUEGILL: Ind. ( 0 ), Mich.; N. M: ( 0 ); S. D. (0), Tenn. (0)

BUFFALO: Minn. (0), S. Dak. (0), Tex. (0)
BULL FROGS: Ariz. (6-11), Ark. (5-12), Del. (5-12), Haw. (0), Ida. (6-10), Ill. (6-8), Ia. (5-11), Ind. (4, 6-10), Kans. (7-9), Mo. (7-11), Neb. (7-10), Nev. (0), N.Mex. (8); Ore. (0), Pa. (7-10), Tenn. (0), W. Va.

RAINBOW: Haw. (8-9), N. Mex. (O), Ark. (0) SHAD: Calif. (0), Conn. (4-6), Del. (3-6), Fla. (1-4), Ga. (1-4), Md. (3-9); N. H. (1-8), Ore. (O)
STURGEON: Ida. (0); Mich. (0); S. Dak. (0), Wis. (S)

TERRAPIN: Fla. (X); Pa. (11-3)
"WILD BILL" HICKOK
by G.W.N.
A personal interview-condensed from
Harper's Vew Monthly, 186

Wild Bill's real name was William Hitchcock. He was born of northern parents in the State of Illinois. He ran away when a boy and for fifteen years lived on the plains with the trappers, honting and fishing. He was an unequaled horseman, a perfect marksman, had keen sight-and he was brave to rashness. No man was better fitted for seonting than he.

Several months after the Civil War ended, I visited the City of Springfield, in southwest Missouri. The most marked eharacteristic of the inhabitants seemed to be an indisposition to move, and their highest ambition to let their hair and beards grow. I and the drowsing eity were suddenly ronsed into life by the clatter of the hoofs of a horse. The rider of the horse was Wild Bill.

As I looked at him, I thought his physique the finest I had ever seen. He stood over six feet in yellow moccasins. A deer-skin shirt hing over his shoulders. The belt about his small waist held two of Colt's nary revolvers. His gentle expression belied the history of its owner. His cyes were as gentle as a woman's. You would not believe these eyes had pointed the way to death to hundreds of men. But they had. "He shoots to kill," as they say on the border.

I was eurious to meet this man who only a few days before, in a duel at noon day in the public square in Springfield, at fifty paces had killed a man named Tutt. It was another summary killing in the murderous assaults on some 4,000 Confederates which had happened nearby Springfield in the aftermath of the war. At the outset of war the area had been largely rebel. Union sympathizers had been run out-their homes burned. After the Union victory, rebels were not welcomed hack-exeept to die. Tutt had been a reb. I asked a friend about the duel.
"When Bill got onter the square, he found a erowd of Tutt's friends. They jeered him. Then Bill saw Tutt start from the courthouse into the square. About fifteen paces brought them opposite to each other and about fifty yards apart. Tutt then showed his pistol. before he could point it, Bill had his out. Both fired, but it's hard to say which went off first. Tutt was a famons slot, but he missed. The instant Bill fired, he wheeled and pointed his pistol at Tutt's friends.
" 'Arcn't you satisfied, gentlemen?' were Bill's exaet words. 'Put up youl shooting irons, or there'll be more dead men here,' And put 'em up they did. Bill's ball har gone through Tutt's heart."

That atternoon I met Wild Bill again. This time when he came into town, his horse Blaek Nell stretehed out on the street to let him off.
"Blaek Nell hasn"t forgot her old tricks," a bystander hollered.
"No, she hasu't," replied Wild Bill, "and what's more she has some new ones. Why she'll walk up these steps and into the room and climb onto the billiard table and lie down. Anyone want to bet she won't?"

Someone did want to bet. Bill whistled. Nell walked toward him, followed him into the room, and to my extreme wonderment did cllmb upon the billiard table. When she got down, Bill mounted her, dashed through the doorway, at a single bound cleared the steps, and landed in the street. He then let Nell loose and she wandered off, alone, to her stable.

When he came back in. I asked Wild Bill about himself. He was reticent, but finally he said, "I hardly know, where to begin. Most of the stories yon have heard about me are true."

Then he told me about an affair of swimming a river under heavy
fire. After serving some months as a sny in the rebel army, he had been rccognized and had to swim for it. I asked him if he had ever been really afrid.
"I am not aslamed to say," he replied, "that I lave been so frighteded that it seemed as if all the strength and blood had gone out of my body. It was at Wilme Creek. I had fired fifty shots and each shot had killed a rebel. All of a sudden a battery opened fire just above me. I was so frightened I couldn't move. Big guns always made me nervous."
"What about the IIKandlas affair?" I asked him.
"I don't like to talk abont that one," he said. "NIKandlas and I were old enemies-from the thme lie joined with the rebs. He was Captain of a gang of desperadoes, horse thieves, murderers, and cutthroats. One day I beat him shooting at a mark and then threw him at the back-holt. ILe never forgave me and caught up with me in ' 61 in South Nebraska at the eabin of a Mrs. Waltman.
"She warned me he was about-but too late. There was ten of them and I had but one revolver. I fonnd a Hawkins rifle orer her bed. Just then M'Kandlas poked his head in the door.
"Come in here, you dog,' I shouted. 'Come in and fight.'
"M"Kandlas was no coward, if he was a bnlly. He jumped inside but wasn't quick enough. I shot him with the ritte. Then I took up my revolver and I said to myself, 'Only six shots left and nine men to kill. Save your powder, Bill, for the death-hug's a-comin'.
"There was a few seconds of awful stillness, and then ruflians eame rushlng in. I never aimed more deliberately. One-two-three-four ; and four of them were dead. That didn't stop the rest. Two got in close to me. One I knocked out with my dist. The second I shot dead. The other three clutched me. I fonght hard. I broke with my hand one man's arm. I was struck with the butt of a ritle across the chest ancl began to bleed. Then I got ugly. I was wild. I got hold of a knife and striking, slashing, I followed those devlls until I knew every last one of them was dead."
"You must have been lurt almost to death," I said.
"There were eleven buck shot in me. I carry some of them now. But old Dr. Mills pulled me safe through it after a bed siege of many a long week."

As Wild Bill started to leave, I told him I would like to see him shoot.
mbacis nelke
N.B. It is interesting to note how "legends" repeat themselves in history. Compare cut below with that on page 89.

## STATE EXTENSION DIRECTORS

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

Alabama:
Alaska:
Arizona:
Arkansas:
Califoruia:
Colorado:

Conneeticut:
Delaware:
Florida:
Georgia:
Hawaii :
Idaho:

Illinois:
Indiana: Iowa:

Kansas:
Kentueky:
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W. C. Libby, Unir. of Maine, Orono 04473.
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*.J. R. Reattie (A.D.)--same address.
N. P. Ralston. Mich. State Univ., E. Lansing 488 I 3 . R. H. Abrahan (Aet.), Univ. of Minnesota, St. Paul tindot.
W. M. luost. Miss. State Univ., State College 39762.
C. B. Ratchford. Univ. of Missouri, Columbia 6ione.
T. S. Aasheim, Mont. State Co!lege, Bozeman 59715.
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D. W. Bolınont. Thiv. of Nevada, Reno S9507.
*.J. F. Stein (A.D.)-Same address.
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New Tersey :
New Mexieo:

New York:
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North Dakota:
Ohio:
Oklahoma:
Oregon:
Penusylvania:
F. R. Robertson, Anburn Univ., Auburn 36830.
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G. E. IInll, Univ. of Arizona, Tueson S5721.
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*.J. B. Claar (A.D.)-Same address.
II. G. Diesslin. Purdue Lniversity, Lafarette 47907.
F. Andre. Iowa State ITuiversity, Ames $\mathbf{0} 0010$.
*II. A. Anderson (A.D.) -Same address.
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Maryland:
Massachusetts:
Michigan:
Minnesota:
Mississippl:
Missouri:
Montana:
Nebraska:
Nevada.
J. L. Gerwig, Rutgers Univ., New lirunswick 0 cons.
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Texas:
Utah:
Vermont:
Virginia:
Washington:
West Virginia:
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H. L. Ahlgren (A.D.), Univ. of Wisconsin, Madison 53706.
G. H. Starr, Univ. of Wyo., Box 3354, Univ. Sta., Laramie 82071.

## ANSWERS TO OLD-FASHIONED PUZZLES ON PAGE 61

 (1)
(2) The $31 / 2$ " oranges (3) 144 feet (4) $83 / 4$ (5) There were only three men-a grandfather, father and mon (6) 72 gal. ( 7 ) 889 ( ${ }^{8}$ ) A, ${ }^{7}$ pieces; B, 1 piece. (9) 20 (10) 10.754764 equal rate percent and number ot years required. (11) 40 years old. (12) 14 birds and 18 beasts. (13) This one is for you to figure out alone.

## 1965 ESSAY CONTEST

Winners of the Contest (See Pg. 67, 1964 OFA) are: 1st Prize ( $\$ 2.5 .-$ 00) to Anne Tracy, Nashua, N.H.; 2nd ( $\$ 15.00$ ) to Mrs. Annabelle Irwin, Lake View, Ia.; 3rd ( $\$ 5.00$ ) to Mrs. Henry Josephs, Gardenville, Pa. For 1965, the money will go (1st, $\$ 25.00-2$ nd, $\$ 15.00-$ 3rd, $\$ 5.00$ ) for the best 100 -word essay on "Fun on the Farm."

Contest closes June 1, 1965.
No entries returned; all become property of Yankee, Inc., which reserves all rights in the material submitted. Case of tie, place money lumped and divided. Staff of YANKEE, final judge. Winners announced 1966 OFA.

Addrcss Essay Contest, Yankee, Inc., Dublin, N. H.

## ANSWERS TO CHARADES, etc. ON PAGE 60

(1) When the cat is away, the mice will play. (2) It makes ant pant. (3) Bos (4) The letter a, for it makes her hear. (5) Commonwealth (6) Mistake (7) Its capital is always Dublin. (9) Slate, tales, least, stale, steal. (10) Cataract. (11) Your name (12) Nameless. (13) Little Jack Horner. (14) Excel. (15) If you want to thrive, rise at five, if you lave thriven, you can lay 'tili seven.

## THE REWARDS OF FARMING

## The 1964 Essay Contest Winner.

The rewards of farming are hardly of a monetary nature; upon occasion, they seem almost non-existent! The rewarding moments can only be appreciated by a fellow farmer, for who else could wax romantic over a steaming manure pile on a spring morning? Who but a farmer could feel satisfaction in seeing the new fence completed and the old rusty wire taken to the dump along with the month's accumulation of hay twine; a certain smugness in knowing the hay is all in without getting wet; pride in having the barn swept clean even though tomorrow will find the same Herculean task waiting; pleasure in a well-oiled larness and a clean spring? For the joys of farming are in these simple things: the clanking of the manure spreader distributing the winter's pile on the fields; a purring pussy curled up on an equine rump; the vicarious squelch in muddy earth as a horse rolls in the barnyard; the all-tucked-in-for-the-night feeling in the barn on a winter day when the farm chores are over and there is a moment to cnjoy the intangible rewards of one's labors.

Anne Tracy

## FELIER-Continued from Page 42.

Luke Appling stepped into the batter's box, the same Appling who was to join Feller many years later in the Hall of Fame. A magician with the bat, Appling could foul off pitclies until he found one to his liking. Earlier in the gaue he had lined to right field, one of the two solid outs off Bob.

Feller threw him pitch after pitch. Four he fouled off, all hard shots to riglit. On the bench, Cleveland manager Oscar Vitt turned to coach Luke Sewell and murmured, "Oh God, just let him get by Appling."

On the teuth pitch Appling finally walked.
Now the tying run was on base and Taft Wright, the hitter. Wright was considered a Feller nemesis. With Washington the two previous years his hits had personally beat Bob three times.

In the fourth inning he had lined hard to right, the only other strong out off Bob. The compact batter dug in. He took the first pitch, "Rall one." The next one was down the middle. Wright met it squarely and sent it humming along the ground toward right field. "I thought I was gone with that one," confessed Feller afterward.

Second baseman Ray Mack, a former college football plaver, moved rapidly to his left. The ball remained ahead of him. He lunged, knocking it down with his gloved hand. The ball rolled toward the outfield grass with Mack in pursuit. It seemed an eternity before he reached it. He whirled, shot a perfect throw to Hal Trosky at first. It beat Wright by half a step. Feller had pitched the first opening day nohitter in history.

Bob's tcammates rushed to him, pounded his back and shook his hand. A milling mob of fans escorted him to the dugout.

In the stands his dad, Bill Feller, was asked for a comment.
"Well," he drawled, "I didn't have any trouble keeping awake."

## WOODCHUCK CHUCKLES by Liam Dougherty

Recently it came to our attention that the U. S. Air Force had asked pharmaceutical scicnce to rummage about among its test tubes and come up with a pill that would do for the future space traveller what hibernation has done for Marmota monax, or garden rariety woodchuck. Object: to reduce superman's need for food, oxygen and science fiction while commuting hither and from his lunar trespass.

For half the year this shrewd little vegetarian is as warmhearted as Kiwanis. Then in Septcuber, jnst lofore national elections-get it?--he dives dowu his burrow and retrogresses a few million years. Biologically speaking, he becomes an ancestor of his former self. He reduces his body heat from about that of our owu until he becomes as cold-hlooded as a used-car salesman, 38-10 degrees. Froin $30-40$ breaths a minute, his respiratiou dwindles to $10-12$ an hour. His pituitary and circulatory system are winterized.

Snug, his motor just ticking over, he shovels no coal, buckles no arctics. In his dreams, he sueers-and he has just the right dentures for this-at helicopter-spawned Santas. Comatose, HE SENDS NO CARDS! Snoring, he attends no conventions, no testimonial diuners. Dormant, he battles no aggressively friendly hostess armed with a champagne dinner on an expensive flight to Fort Lauderdale. Head bencath the pillow, he nibbles no pencil orer a tax foru.

But, April 15 and the internecine warfare of the town meeting behind him, our hero from below the frost liue climbs the evolutionary escalator in reverse. In a matter of hours, triggered by his unique thermostat, he has warmed up as effortlessly as a TV dinuer. And there he sits whistling in the chover as if nothing had lappencd, his pockets full of free nasses to Life's summer theatre. (By the way, that February 2 Groundhog, dredged up by news photographers is a zoo inmate. He worries, even as you and I, and does uot hibernate.)

So, we are right in there bucking for Pharmacy on this project to compress evolution into a large econoluy-size trauquillizer for space pilots. A pill like this civilians could use eren more. For one instance, a population explosion could be parted right down the middle for a two-shift, roomy world. Gulp yours with your own status group and you would have it made.

Later, Terpsichore could go on to study if. monax in the interests of a more sinuous rhmmba. Or have rou never noticed a woodchuch's lackfield in motion? It brings tears to Xavier Cugat's eyes.


## LAFAYETTE'S

WELCOME

## PLAQUE

The Prize Offer on Page 8 of the 1964 Edition of this Almanae brought letters ranging from one-pagers to mnlti-pagers, from the simple to the complex, from purely deseriptive to mathematically involved. The winning letter not only arrived early (it was the second one received) from Myron G, Berry of Hougliton, Michigan, but it covered everything within the space allotted by the rules. It also pointed out the several errors-perlaps because of which, as one writer suggests, the General is scowling. Mr. Berry explains:
"The upper section of this almanac is a table for finding any chosen number less than 64. Ask a friend to choose a number between 1 an 63 (his age, for instance) and to state which ones of the six double columus contain this nnmber. The number can then be given instantly, by mentally adding the first figure of each double colunn: e.g., if the number were 39, it appears in the double colnmms headed $\mathrm{bJ} 1,2,4$ and 32 , which add to 39 .
"The lower section is for finding the day of the week on which the first of any month falls. The Snnday letter tor a given year is found in the row of letters with white backgronnds beside the century, in the column containing the odd year in the scale at the bottom. Matching the letters to the days of the week, count trom Sunday to the letter of the month, which will give the day on which the first falls. For leap years, the Snnday letter for January and Febrnary only is given in the row of letters with black backgrounds inmediately above the century."

Mr. Berry fonnd four errors in the tables: (1) The number 63 appears twice in the column directly above the "M", ot "MAR." The upper of these should be 62 . (2) The century shonld be 400 . not 460 . (3) The number 22 in the npper right-hand corner of the middle box in the scale shonld be 92. (4) The number 44 in the bottom row of the right-hand box in the scale shonld be 11.

Mr Berry also pointed ont the omission of provisions for leap sears, and added a paragraph for converting to the Jnlian Calendarsomething he felt "nobody in his right mind would try to use."

Other contestants provided interesting comments. One writer correetly identified the Number Game as a "six position binary counting system" which, as others pointed out, is the basis of our present electronie digital compnters' operation. This led him to muse that Mr. Thomas, "with (his) usual charitable hind-sight in self-appraisal, (may) lave scored another 'beat' by a century or so."

Snggested uses of the Number Game, beyond mere mind-reading of numbers, included, as many contestants stated, "ascertaining the age of reluctant temales (or other shy persons)."

Inasmnch as this plaque was originally printed in Utica, N.Y. by Very Goldthwait, of Mr. Thomas's wife's family, in honor of Lafayette's visit there, one imaginative contestant pointed out that the General's French troops, in marching from the seacoast ont that way, would have used this old military system of estimating distances covered for "a simple binary finger count by which just on ten fingers, one easily counts to 1023 without attention."

Two writers took opposing views concerning Mr. Thomas's reverence for this plaque. One writer's salty comment is, "I suspect Orr. Thomas) hung it on his wall as a nemorial to human stupidity It contains so many errors that it is nnusable as it stands." The second writer thinks "Mr. Thomas used this almanac to catch people who elaimed to like numbers, but couldn't locate the errors, his test for finding people who could work on the astronomical tables and ealculations for the Alinanac."

All of the entries were reviewed by Loring B. Andrews, this Almanac's professional astronomer, as well as by. the Almanac's Editor. Both agreed that the number of intelligent solntions suggested by youngsters of 16 and under spoke well not only for that generation but also for their teaehers.


## THE WONDERFUL BUTTERNUT TREE DYE

It is the well known property of this valuable Tree, that its Bark will dye twelve distinct Colours, one for each month in which it may chance to be collected. This is noticed by Dr. Belknap, in the interesting history of New Hampshire, who observes, that it has "a quality of dying several shades of a grey and black."

It is reported, that a farmer's wife in this vicinity, has discovered a method of dying, with the bark of this tree, in such a manner, as that a piece of cloth, once well colored in the month of January without further process, will assume a new distinct color as it passes through every succeeding month of the year! besides several agreeable shades as it terminates one month and enters upon another!

This bids fair to open a wide field to American economists; as the young farmer from his internal loom and dye tub, will be able to sport to appearance twelve suits of clothes at the expense of one; and if he can only contrive to suit the joys and sorrows of the life to the color in season, he may, without a new application to the tailor or trader, with his stock suit be completely fit for a dance, a military muster, or a funeral. Like all other great discoveries, this was said to have been made by accident.

The customary liquid of the dye tub not readily being prodnced, the good woman infused, as it is conjectured, the root of the aram in water; and having dyed the cloth for her husband's coat a handsome grey, put it away in the chest. Some months after, in looking for the cloth to make it up, she was surprised to find it missing, and a bright blue in its place. Her husband being an ensign in the militia, she concluded he had changed the grey for a cloth proper for regimentals. White lapels were applied, and the regimentals, made. It was in vain the ensign asserted he had not swapped the cloth; his wife would not credit him. and he himself, inputed the exchange to some private bargain of his wife.

Training day drew near; the coat was shewn to his brother officers, and all declared it the brightest navy bluc ever seen; and the ensign's ambition was much excited at the respectable appearance he expected to make on the parade.-This was in the month of May; muster was in Junc, the druns and fifes came to salute their officers; his boots werc blacked, his hair nowdered, and the girl was sent up stairs for the regimental coat, when lo! to the bitter surprise of the fainily, down came, not a blue, but a handsome olive coloured coat! The white lapels identified the garment in such a manner as obviated all doubt! The ensign was obliged to rccur to his rifle frock. But his disappointment was compensated the ncxt month: when upon his grandmother's death, he found the changealle coat equipped him with a fine crow black for the funeral.-Greensburg (Penn.) 1811.

## DETERMINATION OF EARTHQUAKES

Note, in this Almanac, on right hand pages, 11-33, the dates when the moon $\left[\mathbb{C}_{\text {high }}^{\text {runs }}\right]$ or $\left[\mathbb{C}_{\text {low }}^{\text {rides }}\right]$. Beginning with the date of the high is the most likely five day earthquake period in the northern hemisphere, with the low in the sontheru hemisphere. You will also find on these pages a moon on the Equator notation, twice each month. At this time, in both hemispheres, is a two day quake period. [ $\mathbb{C}_{\mathrm{Eq} .}^{\mathrm{on}}$ ]

## ALASKA'S "GOOD FRIDAY" EARTHQUAKE

At 10:36 p.m., March 27, 1964 one hour and ten minutes after the full of the moon which was crossing the Equator from the northern hemisphere to the southern (a time of heavy earthquake probability), Ancloorage and other cities of Alaska experienced a temblor of from 8.2 to 8.7 magnitude. The known death toll was 129 lives-damage some five hundred millions of dollars. An accompanying tsinami smashed cities and towns rimming the Gulf of Alaska and on Kodiak Island. The seismic waves rushed on to swallow up as many more individuals along the Pacific Coast from Canada to Southern California. In Crescent City, California alone, ten died and fifty were missing. Tidal wave warnings went up, also, in Japan and Hawaii.

Although the loss of life from this temblor and tsunami was comparatively small, the damage caused will rank with similar occurrenees at Lisbon (1705) and Chile (1960), both of which had quake and wave. Other notable earthquakes, but without the sea wave, are remembered at Charleston, S. C. (18S6), at Assam, India (1897 and 1950), San Francisco (1906), Kansu, China (1920), and in Iran in 1962. Over the past 4.000 years, according to The Columbia Encyctopedia, earthquakes have destroyed some thirteen millions of the world's population.

As with the weather, man is as yet unable to forecast the time and place of earthquakes. There are various theories, but none seems to indicate much of anything excepting that there are places on the earth's erust which seem more liable to "slip" than do other places. Numerous tremors along the New England coastline, for example, have indicated a slipping probability, but whether in time measured by decades or centuries has not been made clear. There is some indication that animals and birds, even the lowly hog, do have some sort of prescience about these things which will cause them to run to high ground-or to show auxiety or alarm in some manner-some hours before the actual event. It is also true that in so far as the tsunami is concerned, places like Honolulu, Midway, Guam and Japan can determine, within a fifteen-minute accuracy, time of arrival of a wave at their shorelines-given, ot course, the knowledge of its presence at other sloore points.

A New York Times acconnt of one wave tells of its leaving Adah, Alaska at 4:40 a.m.-travelling $500-600$ miles an hour, at two or three miles below the sea's surface-and arriving at the Hawaiian chain at 8:45 a.m.

Time in the Pacific is, at best, confusing. For example, in a section of the Bering Straits, not too far from the scene of Alaska's Good Friday tragedy, the sun rises one day before it rises the day before!
It in no way minimizes the tragedy at Alaska to point out that from each of the large earthquakes and tidal waves lave come sone of mankind's most extraordinary tales. All will agree there is no experience more terrifying than this one: Mary Taylor Thomas, wife of Lowell Thomas, Jr., ran with her chiliren from their lone in Anchorage at the first tremor. Seconds later, the house a shambles, she stood outside, a cliild $\overline{0}$ n one side of a bottomless crevice in the earth's crust, hersclf on the other side. Just as suddenly the crevice elosed again, and her little family was reunited.

Tom Inkster, reporting for the National Fisherman, tells of how one Robert Lenz of Seward "looked down from our home on the hill. A wall of water and flames engulfed everything. The water rolled all in front of it. Docks on the waterfront catapulted into the air and disintegrated into flames. Railroad cars hurtled through the air I saw one box car hurtled about a block." A 60 -ton locnmotive, Inkstrer revealed, ended six blocks away. At valdez, the 423-foot freighter Chena was thrust stern first into the town, a quarter of a mile away .. was slammed down into the mud there, only to get out again, under its own power, on the last receding wave.
It will be some years before the U.S Geodetic experts will get the Alaskan and Pacific coastlines back to normal. . long after, as was the ease in San Francisco, the Alaskans have rebuilded, and well, new and glorious habitations upon the ruius of the old.

## WEATHER FORECAST 1961-5

## Continucd from page 5

overcast: 12-14, cold west winds: 15, overcast; 16-19. blizzard conditions (12" snow) ; 2021, warmer; 22-23, stormy; 2t26, uupleasant; 27-31, unsettled.

Apr. (1965): Temp. $42.3^{\circ}-3.2^{\circ}$ below ave.; pree. 4.85"-.94" above ave.; snow, $6^{\prime \prime}-3.6^{\prime \prime}$ abore ave.
$1-5$, rain and snow; 6-7, warm and windy; $8-9$, snow flurries; $10-18$, nice; $14-18$, rain and fogs: 19-23, milder but unsettled; $24-26$, storm of rain (1.5"), $27-29$, nice; 30, eool.

May (1965): Temp. $57.8^{\circ}-2.3^{\circ}$ above are. prec. only $.87^{\prime \prime}$ 2.87" below ave. (fire aud crop failure danger!).
$1-5$, overcast, high tides; 6-10, rain, cooler: 11-13, humid; 14, clear; 15 , warm; $16-21$, windy (fire hazard); $22-27$, windy, warm storm; 2s-30, showers; 31, overcast (eclipse).

June (1965): Temp. 68.5 ${ }^{\circ} 3.9^{\circ}$ above ave.; pree. 4.35"-1.22" above ave.
1, shower; 2, elear; 3-4, showers: 5-9, hot; 10-11, overcast; 12-16, heary rain (1.5") ; 17-22, hot but niee; 23-28, oecasional showers; 29-30, stormy.

July (1965) : Temp. $69^{\circ}-1.4^{\circ}$ below ave.; prec. $3.6^{\prime \prime}-.53^{\prime \prime}$ abore ave.
1, shower; 2, elear; 3. shower; 48 , hot; $9-12$, unsettled: 13-19, very rainy (1.25") ; 20-23, nice; 24-27, oecasional shower; 2S-31, eool, windy, some rain.

Aug. (1965) : Temp. $68.8^{\circ}-3^{\circ}$ beluw are. ; prec. $1.5 \pm^{\prime \prime}-9.8^{\prime \prime}$ below ave.
1-4, tempest ( $1^{\prime \prime}$ rain); $5-8$, elear, sultry: $9-1 \bar{v}$, rain threatens but doesu't come; 16-18, cooler; 19-26, hot, elear, dry; 27-31, drizzle.

Sept. (1965) : Temp. 62.4․ $7^{\circ}$ above are.; pree. 4.6"-.87" above are.
$1-S$, ehaugeable with rain ( $1^{\prime \prime}$ ); $9-10$. nice; 11-14, gale with rain; $15-17$, slowers; $1 \mathrm{~S}-23$, fine; 24 30 , no hurricane but elose to it.

Oct. (1965) : Temp. $50.3^{\circ}-2.4^{\circ}$ below are.; pree. 3.7"-. $3^{\prime \prime}$ below ave.

1. fine; 2. shower; $\mathbf{3 - 9}$, fine; $10-13$, stormy, raiu ( $1^{\prime \prime}$ ); 14-17, changeable; 18-20, mild, rain; 21-24, cool, fiue; 2-31, heavy rain (1.7").

Nor. (1965): Temp. 39.8 ${ }^{\circ}-2^{\circ}$ below are.; pree. $5.27^{\prime \prime}-.06^{\prime \prime}$ below are.
$1-1$, dull, then rains $\left(1^{\prime \prime}\right) ; 5-7$, warmer: 8-9, unsettled; 10-12, storm of rain; 13-16, clear, windy; 17. shower; 18-19, elear; 20-21. colder: 2.2, overcast; 2325, very heary rain ; 26-30, snow furries.

Dec. (1965) : Temp. $31.5^{\circ}-1.9^{\circ}$ above are.; pree. 7.23"-2.91" abore are.
1-3, N.E. storm, heary rain; 46. clear, cold; $7-11$, rain, sleet, show; 12-15, snow furries: 1620, warmer, some rain; 21-22, elear; $2: 3-2 \overline{3}$, heary rain; $20-28$, colder ; 29-31, suow.

## ELECTION DAY (Nov, 3, 1964) WEATIELR FORECAST

## Prepare for the worst, this storm bursts.

It has long been a politieal tradition that rains weather brings vietories to the Demoeratie I'arty. It will rain in most places on Eleetion Day in 1964. For the eaudidate of the Democratie Farty (not yet elosen as this forecast goes to press), this rainy weather should be a good omen. For the candidate of the Republiean Party (as jet not chosen either) it would be otherwise.


## THE ILL-NATURED LIT'TLE BOY

The original of which was published by the Babcocks of New Haven, Connecticut and Charleston, South Carolina at Sidncy's Press in Now Haven, in the year 1824.


There was once a little boy, who was so unfortunate as to have a very bad man for his father, who was always surly and ill-natured, and never gave his children either good instructions or good example: in consequence of which, this little boy, who might otherwise have been happier and better, became illnatured, quarrelsome. and disagrecable to every body. It very often was severely beaten by boys that were bigger than himself, for his impertincuce, and of ten by boys that were smaller; for, though he was very abmslve and quarrelsome, he did not much like fighting, and generally trusted more to his heels than his courage, when he had engaged himself in a quarrel. This little hoy had a cur dog that was the exact imase of himself: he was the most troublesome, surly ereature imaginable, always barking at the heels of every one he came near, and worrring every sheep he could meet with: for which reason, both the dog and the boy were disliked by all the neighbourhood.

One morning his father got up early to go to the ate-house, where he intendef to stay till night, as it was a holiday; but hefore he went out, he gave his son some bread and eold meat. and a sixpence, and told him that he might go and divert himself, as he would, the whole day. The little boy was very much pleased with his liberty; and as it was a very fine morning, he called his dog Tiger to follow him, and began his walk. He had not proceeded far before he met a little boy, who was driving a flock of sheep towards a gate le wanted them to enter. "Pray master," said the
little boy, "stand still and keep your dog close to rou, for fear you may frighten my sheep."
"Oh! yes, to be sure," answered the ill-hatured little boy; "I am to wait here all the morming till rou and your sheep have passed, I suppose! Mere liger, seize them boy!"

Tiger, at this, sprang forth into the middle of the flock, barking and hiting on every side, and the sheep, in a general consternation, hurried cach a separate way: Tiger seemed to enjoy this sport equally with his master: but in the midst of his triumph, he happened unguardedy to attack the old ram, that had more courage than the rest of the flock: he, instead of running away, faced abont, and aimed a blow with his forehcad at his cueny, with so much force and dexterity, that he knocked Tiger over and over, and butting him several times while he was down, obliged him to limp howling awhy. The ill-natured little boy, who way not capable of loving any thing, had been rery much diverted with the trepidation of the sheed, hut now he laughed heartily at the misfortume of his dog: and he would have langhed much longer, had not the other little boy, provoked beyond his pathence at thls treatment. thrown a stone at him, which hit him full upon the temples. and almost knoeked him down. He immediately began to ery, in concert with his dog, and perceiving a man coming toward then. who he fancled might be the owner of the sheep, he thought it most prudent to escape as spcedily as possible. But he hat scarcely recovered from the smart whieh the blow had oceasioned, before his former dis-

position rcturned, whlch he determined to gratify to the utmost. He had not gone far, before he saw a little girl standing by a stile with a large pot of milk at her feet.
"Pray," said the little girl, "help me up with this pot of milk; my mother sent me out to fetch it this morning, and I have brought it above a mile upon my head; but I am so tircd that I have been obliged to stop at this stile to rest me; and if I don't return home presently, we shall have no pudding to day, and, besides, my mother will be angry with me."
"What," said the boy, "you are to have a pudding to day, are you miss?"
"Yes," said the girl, "and a fine piece of roast beef; for there's uncle Will, and uncle John, and grandfather, and all my cousins, to dine with us; and we shall be very merry in the evening, I can assure you: so pray help me as speedily as possible."
"That I wlll, miss," said the boy, and taking up the jug, he pretended to fix it upon her head; but just as she had hold of it, he gave it a little push, as if he had stumbled, and overturned it upon her. The little girl began to cry violently; but the mischievons boy ran away, laumhing heartily, and saying, "Good by, little miss; give my humble service to uncle will, and grandfather, and the dear little cousins."
This prank encouraged him very much; for he thought that now he had certainly escaped without any bad consegueuces: he went on applanding his own ingenuity, and came to a green, where several little boys were at play. He desired leave to play with them, which they allowed him to do. But he could not be contented long without exerting his vile disposition; so taking an opportunity when it was his turn to fling the ball, instead of flinging it the way he onght to have done, he threw it into a deep muddy ditch: the little boys rau in a great hurry to sce what was bccome of it, and as they were standing all together humn the briuk, he gave the outeruost boy a violent push against his neighbour: he, not being able to resist the violence, tumbled against the next, the next against another, by which means they all soused into the ditch together. They soon scraiubled out, although in a dirty plight, and were goiug to punish him for his ill behaviour; but he patted Tiger upon the
back, who began a snarling and growling in such a manner as made them desist. Thus this little mischievons boy escaped a second time with impunity.

The next thing he met with, was a poor jackass feeding very quietly in a ditch. The little boy, seeing that nobody was within sight, thought this was an opportunity of plaguing the animal, that was not to be lost; so he cut a large buuch of thorns, which he contrived to fix to the poor beast's tail, and then setting Tiger at him, he was extremely diverted to see the fright and agony the creature was in. Eut it did not fare so well with Tiger, who, whilc he was bariug and biting the animal's heels, received so severe a kick upon his head, as laid him dead upon the spot. The boy, who had no affection for his dog, left him with the greatest unconcern, when he saw what had happened, and, finding himself hungry, sat down by the way side to eat his dinner.


Presently, he saw a lame beg. gar that just made shift to support himself by uneans of a conple of sticks. The beggar asked him to give him something, and the little mischievous boy, pulling out six-pence, threw it down just before him, as if he had intended to make him a present of it: but while the poor man was stooping with ditticulty to pick it up, this wicked little boy knocked the stick away, by which means the beggar fell dowu upon his face. and then suatching the six-pence, he ran away, laughing very heartily at the accldeut.
At last he caue to a lane which led to a farmer's orchard, and as he was preparing to clamber over the fence, a large dog seized him by the leg, and held him fast. We cried out in an agony of terror, which brought the farmer ont Who called the dog off, but seized him very roughly, saying :
"So! sir, you are caught at last, are you? You thought you
might come, day after day, and steal my apples, without detection; but it seems you are mistaken, and now you shall receive that punishment you have so long deserved."

The farmer then began to chastise him very severely with a whip he had in his hand, and the boy protested he was innocent, and begged for mercy. At last the farmer asked him who he was, and where he lived; but when he had heard his name, he cried out:
"What, are you the little rascal that frightened. my sheep this morning, by which means several of them are lost? Aud do you think to escape?"

Saying this he lashed him more severely than before, in spite of all his cries and protestations. At length, thinking he had punished him enougl, he turned him out of the orchard, and bade him go home and frighten sheep again, if he liked the consequences. The little boy slunk away, crying very bitterly, for he had been severely beaten, aud now, finding that no one can long hurt others with impunity, he determined to go quietly home, and behave better in future. But his sufferings were not jet at an end; for as he humped down from a stile, he felt himself very roughly seized, and looking up, found that he was in the power of the lame heggar whom he hat thrown down upon his face. It was in vain that he now cried, and entreated and begged pardon; the man, who had been much hurt by his fall, threshed hin very severely with his stick, before he would part with lim. He now again went on, crying and roaring with pain, but at least expected to cscane without further damage. But here he was mistaken; for as he was walking through a lane, just as he turned the corncr, he found himself in the middle of the very troop of boys that he had used so ill in the morning. They all set up a shout, as they saw their enemy in their power without his dog, and began persccuting him in a thousand varions ways. Some pulled him by the liair, others pinched him; some whipperl his legs with their handkerchiefs.
while others covered him with handfuls of dirt.

At length, while he was in this disagreeable situation, he happened to come up to the same jack-ass, he had seen in the mornius, and making a sudden spring, jumped on his back, hoping by this means to escape. The boys immediately renewed their shouts, and the ass, which was frightencd at the noise, began galloping with all his might, and presently bore him from the reach of his enemies. But he had little reason to rejoice at this escape; for he found it impossible to stop the animal, and was every instant afraid of being thrown off, and dashed upon the ground. After he had been thus hurried along a considerable time, the ass on a sudden stopped short at the door of a cottage, and began kicking and prancing with so much fury, that the little boy was presently thrown to the ground, and broke his leg in the fall. His cries immediately brought the family out, among whom was the little girl he had used so ill in the morning. But she, with the grcatest goodnature, seeing him in such a pitiable situation, assisted in bringing him in, and laying him upon the bed.

There this unfortunate boy liad leisure to reflect; and he determined with great sincerity, that, if ever he recovered from his present accident, he would be as careful to take every onportunity of doing good as he had before been to commit every species of mischief.


## Continued from Page 65.

"Would you?" he replied, drawing his revolver. Approaching a window, he pointed to the letter " $O$ " in a sign-board on the other side of the street. "That sign is fifty or more yards away. I will put six balls into that $O$ which is no bigger than a man's heart."
In an offhand way, and without sighting the pistol with his eye, he discharged six shots. I afterwards saw all of the bullets had entered that circle.
"Whenever you get into a row," he told me as he wandered off, "be sure and not shoot too quick. Take time. I've known many a feller to slip up for shootin' in a hurry."


## THE

 ART OF DIVINING BY LINES IN THE HANDEnglished from<br>Latin by George<br>Wharton, Esq., 1652

(Considerably Condensed)

> He sealeth up the hand of every man That all men may hnow his work. Job 37:7

Observe that hand, right or left, which shows the lines most clearly, but the one not used will help to emphasize or offset trends in the other. If both hands appear to agree, eonstancy of health and fortune are assured.

THE LINE OF LIFE proceeds from wrist joint, skirts the thumb mound, ends between thmmb and forefinger.

If broad, of lively color, withont interseetions or points, long life with fer diseases. If slender, short, dissected, the opposite. When foined to HEART LINE and blessed in the angle with parallels or cross, great wit. With branches in upper part towards HEART LLNE, riehes and honors. If branches turn baek to wrist, poverty, and deceit. Breaks anywhere denote extreme danger at age where breach appears (divide line by 70 parts and count up). Confused little lines denote diseases at age where these appear. Line extending towards ring finger denotes honor of favor from a great lady.

THE ILEART LINE passes aeross the horizontal palm center.
Straight and continued, good health. Short, not beyond palm horizontal center, short life. Long, well up to middle finger base, long life. Cut at end by sinall line, poverty in old age. Tortnous or dessieated, diseases of liver, depravity, greed. If a sister line, expect guod inheritance. HEAD or BRAIN LINE moves from eenter of palm base to base of little finger.

The triangle this line makes with IIEART LINE and LIFE LINE determines degree of wit and courage; the less deseent of triangle, the less wit. No triangle denotes a fool, a short life, a prodigal, and a liar. Unequal branches off to little finger side warn of brain weakness in men, and danger at sca; in women, of frequent sorrow and difficulty in childbearing. Eqnal ines, the opposite. It joined to wrist line, prudent, joyful old age. Fork or star at top under base of little finger at LINE OF FORTUNE, subtlety in managing affairs, craftiness for good or bad, riches and honors through ingenuity or the arts.

LINE OF FORTUNE crosses from base of little finger to mound under forefinger.

If long without incisions, constancy, strength in uan's principal members. Short and broken, the opposite. Small branches to base of forefinger, honors. Ends in base of middle finger, ranity and hypocrisy. If cuts base of forefinger, bad temper. Upward branches to between each finger, a contentious person. Branch making acute angle with IIEART LINE, sorrow. If no LINE OF FORTVNE, malevolence, contentiousuess, faithlessness, iuconstancy. Confused little lines with it, sicknesses at ages proportiouate to distance from little finger to end of liue.

## LINE OF ART separates wrist frow the hand.

If double or treble line, good healthy body. If line nearest hand unbroken, riches; cut iu middle, bad health, want of all things. Star under base of thumb position, in women meaus misfortune, infamy. Line throngh ART LINE to thumb mound, adversity through relative or wife. Through it to wound at base of palm opposite thumb mouud, adversity, private enmity. If such line clear, straight aud long, foretells many journeys; if to top of mound, great good, prominence iu public life. If up palm center to base of little finger, a man fit for many thiugs; but broken before reaching base, he is a Murmurer. If proceeds to middle finger base, wise counsellor, deep thiuker.

The mounds under each fiuger are named for planets: ThuubVenus; Forefinger-Jupiter; Middle Finger-Saturn; Ring Fingerthe Sun: Little Finger-Mercury. Prominence of mounds in general denotes influence of characteristics of these planets in an iudividual; may also serve as astrological guides. A much-elevated Venus brings cheerfulness, Inxury, love, honesty, justice. If a star or parallel liues on Jupiter, man is noble, generous, beautiful, highly esteemed. If Saturn lines all run into his mound, an excellent farmer, of wise counsel, slender, tenacions, more worldly than is fitting. If Saturu lines turn away, beware. Prominence of Sun mound with favorable lines, wisdom, high mind, honors, faithfulness, political prominence. Mercury iu prominence indicates man of seience, orator, poet, good merchant.

The spaces between the joints of each finger are man's three ages: youth, middle, old.

THUMB: Clear long lines under nail, riches and honor. Line from upper joiut to LIFE LINE, danger fromi a married woman. Lots of lines lower joint, brawlers, scolders. Line all around thuub at middle joint, the hangman approacheth. Equal furrows under bottom joint, riches.

FOREFINGER: Many lines upper joint, inheritances; in uiddle joint, evil dispositiou. Cross lines between joints, in woman, many children; in men, bitter tongue. Woman with star in first joint is lascivious.

MIDDLE FINGER: Gridirons in joints, much unhappiness. Equal lines, fortune in metals. A star, death by witcheraft. A line whole length of finger, madness.

RING FINGER: Liue whole length of finger, noble fauc. Equal lines, first joint, honor, riches. Overthwart lines, enmity of superiors.

LITTLE FINGER: Concerned mostly with merchandise and farors. Star in first joint, ingenuity, eloquence. Broken. latehed lines in first aud second joint, not to be trusted. Little lines iu uound beneath predict number of wives for man. If end of little finger below last joint of ring finger-a wise, imperious persou.

## 3postal Matus

## Corrected as of April 30, 1964.

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

## LETTERS AND POSTAL CARDS. - FIRST CLASS.

Letters and Written and Sealed Matter, 5 cents for each ounce, local and non-local except that drop letters are surbject to 4 cents for each ounce when deposited for local delivery at offices not having letter-carrier service, provided they are not collected or delivered by rural or star-route carriers.

Government Postal Cards, each.
Stamped 5 cent Envelopes No. $10-\$ 28.80,500-\$ 57.60,1000$.
Business Reply Cards 6 cents, Business Reply 1 oz . letters 7 cents.
NEWSPAPERS AND PERIODICALS.-SECOND CLASS.
Entire Newspapers or Magazines containing notice of second ciass entry when malled by public unsealed, 4 cents for 1 st two ounces, 1 cent each added 1 oz. Fourth Class Rate applies when it is lower than Second Class.

## MERCHANDISE AND MISCELLANEOUS. - THIRD CLASS.

(Limit of weight up to but not including 16 ounces)
Merchandise, Incomplete copies of newspapers, printed and other mallable matter unsealed, 4 cents for first two ounces, 2 cents each add'1 ounce-limit 16.
Identical pieces of third-ciass matter may be mailed under permit in bulk tots of not less than either 50 pounds or 200 pieces, at the rate of 18 cents a pound, or fraction thereof. In case of circulars, misceliancous printed matter, and merchandise, 12 cents a pound, or fraction thereof, in the case of books or catalogs having 24 pages or more, seeds, plants, etc., with a minimum charge of $23 / 4 \mathrm{c}$ (after $1 / 1 / 65,27 / 8 \mathrm{c}$ ) a piece ln either case. A pply to postmaster for permit. The bulk mailing fee is $\$ 30$ per calendar year.
Books, catalogs mailed in packages (must be of 24 or more pages and substantially bound. with at least 22 pages printed, seeds, cuttings, bulbs, roots, scions and piants, 2 ounces or fraction 4 cents, each added ounce 2 cents.)
Circulars and other miscellaneous printed matter, also merchandise, 4 cents for the first 2 ounces and 2 cents for each additional oz.

PARCEL POST. - FOURTH CLASS.
( 16 oz . or over, incl. books, ptd. matter, except 1 st class and second class papers mailed by publishers)
Catalogs and Similar Printed Advertising Matter, in bound form having 24 or more pages, welghing 16 ounces but not exceeding 10 pounds.
$\begin{array}{lcccccccc}\text { ZONES, Wgt. } 11 \mathrm{~b} \text {. } & \text { Local } & 1 \mathrm{st} \text { \& 2nd } & 3 \mathrm{rd} & 4 \mathrm{th} & 5 \mathrm{th} & 6 \mathrm{th} & 7 \mathrm{th} & 8 \mathrm{th} \\ \text { And not over } 1.5 \mathrm{lbs} . & 21 \mathrm{c} & 25 \mathrm{c} & 26 \mathrm{c} & 2 \mathrm{sc} & 29 \mathrm{c} & 32 \mathrm{c} & 34 \mathrm{c} & 38 \mathrm{c}\end{array}$ $\begin{array}{lllllllll}\text { And not over } 10 \mathrm{lbs} . & 36 \mathrm{c} & 50 \mathrm{c} & 56 \mathrm{c} & 65 \mathrm{c} & 77 \mathrm{c} & 91 \mathrm{c} & 1.07 & 1.25\end{array}$
Books: 10 cents for the first pound or fraction thereof and 5 cents for each additional pound or fraction thereof-24 or more pages permanently bound, not to exceed 70 ibs. Also inci. sound rccordings. Aiso incl., when marked "Special Fourth-Ciass Rate," ptd. music, 16 mm . films and catalogs (Exc. to commercial theatres), objective test matcriai, sound recordings and mss. for books, periodlcal articies and music. (Do not seal.)
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Weight Limits: 70 lbs . and 100 inches combined length and girth-except between 1st Class postoffices (Postmaster has list) where limits are: In zones 1 and $2,401 \mathrm{bs}$. with 72 incl coinbined length and girth, other zones 20 libs. and 72 inch combined length and girth. Parcels over 84 but under 100 inches combined length and girth charged as 10 pounds.

| Wt. 1 ib, but not over | LOCAL | $\begin{aligned} & \mathbf{1 - 2} \\ & \text { Up to } \\ & 150 \\ & \text { miles } \end{aligned}$ | $\begin{aligned} & 3 \\ & 150 \text { to } \\ & 300 \\ & \text { miles } \end{aligned}$ | 4 300 to 600 <br> miles | 5 600 to 1000 miles | 1000 to 1400 miles | $\begin{aligned} & 7 \\ & 1400 \text { to } \\ & 1800 \end{aligned}$ miles | $\begin{gathered} \text { 8 } \\ \text { Over } \\ 1800 \\ \text { miles } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | \$0.29 | $\$ 0.40$ | \$0.42 | \$0.46 | \$0.52 | \$0.59 | \$0.66 | \$0.72 |
|  | . 31 | . 46 | . 49 | . 55 | . 64 | . 73 | . 83 | - .93 |
| $\stackrel{4}{5}$ | . 33 | . 51 | . 55 | . 64 | . 75 | . 88 | 1.01 | 1.13 |
| 6 | . 37 | .62 | . 68 | . 80 | . 87 | 1.02 1.15 | 1.18 | 1.34 |
| 7 | . 39 | . 68 | . 75 | . 88 | 1.07 | 1.28 | 1.50 | 1.73 |
| 8 | . 41 | . 73 | . 81 | . 95 | 1.18 | 1.41 | 1.66 | 1.92 |
| $\begin{array}{r}9 \\ \hline\end{array}$ | . 43 | . 78 | . 87 | 1.03 | 1.28 | 1.53 | 1.82 | 2.12 |
| 11 | . 47 | . 88 | .93 1.00 | 1.18 | 1.38 | 1.66 | 1.98 | 2.31 |
| 12 | . 49 | . 93 | 1.06 | 1.26 | 1.58 |  |  |  |
| 13 | . 51 | . 98 | 1.12 | 1.33 | 1.69 | 1.90 2.02 | 2.44 | 2.66 |
| 14 | . 53 | 1.03 | 1.18 | 1.41 | 1.79 | 2.14 | $\stackrel{2.60}{ }$ | 3.01 |
| 15 | . 55 | 1.08 | 1.24 | 1.48 | 1.89 | 2.25 | 2.75 | 3.18 |
| 16 | . 57 | 1.13 | 1.30 | 1.56 | 1.99 | 2.37 | 2.90 | 3.36 |
| 17 | . 59 | 1.18 | 1.36 | 1.64 | 2.09 | 2.49 | 3.06 | 3.53 |
| 18 | . 61 | 1.23 | 1.42 | 1.71 | 2.20 | 2.61 | 3.21 | 3.71 |
| $\stackrel{19}{20}$ | . 63 | 1.28 | 1.48 | 1.79 | 2.30 | 2.73 | 3.36 | 3.88 |
| 51 | 1.24 | 2.53 | 3.00 | 3.84 | 5.03 | 6.26 | 7.84 | 4.06 |

## SPECIAL CLASSES. - DOMESTIC MAIL.

Speclal Dellvery: First Class Mail: Each plece under 2 lbs.-30c, over 2 up to $10-45 \mathrm{c}$,

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

## POSTAL RATES: International SURFACE RATES

Letters: To Canada and Mexico, 5c per oz., to all other countries, 11c for the first oz. and 7 c each additional oz.
Postcards: To Canada and Mexico, 4c each; 8c reply-pald. To ali other countries, 7 c each, 14c reply-paid. Maximum slze $6 \times 41 / 4$ inches, minimum size $41 / 4 \times 3$ lncies.
Printed Matter: In general, to Canada and MTexico, 4c first 2 oz. 2c each additlonal oz.; all other, 5 c first 2 oz . 3c each additional 2 oz . Books and sheet music, to countrles of the Postal Union of the Amerlcas and Spain, cxc. Spain and Spanish possesslons, 2c first 2 oz.; 1 c each additional 2 oz ; ; all other (inc. Spaln and poss.) 3 c first 2 oz ; $11 / 2 \mathrm{c}$ each additlonal 2 oz . Publishers' second class, P.U.A.S. countries, 2 c first 2 oz ., 1 c each additional 2 oz ., all other, 3 c first 2 oz .; $11 / 2 \mathrm{c}$ each additlonal 2 oz .
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Matter for the Bllnd : All countries, domestle rates apply with certain exceptlons.
Small Packets : All countrles, 5c each 2 oz . Minlmum charge, 25 c .
8-oz. Merchandise Packages: To Canada, 4c frst 2 oz.; 2c each additional oz. Minimum charge, 10 c . All other, 25 c each (flat rate).
Registration, Insurance, Return Receipts: For detaiied informatlon concerning these services, consult your local Postmaster.

## SURFACE PARCEL POST RATES

Zone 1: N. America, C Amerlca, Carlbbean Is. - 80 c first 2 lbs, , 30c each additional 1 b . Zone 2: All other countries - 90 c first $2 \mathrm{ibs}$. : 35 c each additional lb .

## AIR MAIL RATES

Three-zone rate structure as foliows: Zone A: N. America, C. Amerlca, Caribbean Is.; Zone B: S. Amerlca, Europe (exc. USSR), Mediterrancan Africa; Zone C; USSR, Asia, the Pacific, Africa other than Mediterranean.
Air Mall Letters: Canada and Mexico, se per oz.; Zone A, 13 c per half oz.; Zone B, 15 c per haif oz.; Zone $C, 25 \mathrm{c}$ per haif oz.
"Other Artlcles": Canada, 8c per oz.; Zone A, 30c first 2 oz; 10 c each addltional 2 oz. Oone $B, 40 \mathrm{c}$ first $2 \mathrm{oz} . ; 20 \mathrm{c}$ each additional' $2 \mathrm{oz} . ;$ Zone $C, 50 \mathrm{c}$ first $2 \mathrm{oz} . ; 30 \mathrm{c}$ each addltional 2 oz .
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Air Parcel Post: For detailed Information, consult your local Postmaster.

## WEATHER TABLE, <br> For foretelling the Weather through all the lunations of each year, forever.

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

This weather table will answer very well for anywhere in the United States. It is taken from the 1849 issue of The Old Farmer's Almanac and was widely used before the advent of the Weather Bureau.

The weather forecast as given on page 5 and on the right hand pages of the Farm Calendars, 11 through 33 is strietly for Boston and East of the Hudson Tiver. These forecasts contain elements which rise in the proximity of this region to the sea and to the paths of tropieal storms. The application of these forecasts to middle western, western, and southern regions will not bring any reasonable degree of accuracy. However, for a rongh rule of thumb if you insist on using the forecast on pages 5, 11-33, you may subtract one day for each time zone West of the Hudson to compensate for the Easterly path of eontinental storms. For every hundred miles north or south of 42 degrees latitude, add a five degree temperature (col der if north, warmer if south) differential and for every 1000 feet above sea level consider your loeality as 3.3 diegrees cooler than the weather as given.

## WEATHER TABLE FOR ANYWHERE

| Moon | Time of Change | In Sunmer | In Winter |
| :---: | :---: | :---: | :---: |
|  | From Midnight to 2 A.M. | Fair | Hard irost, unless wind be S. or $\mathrm{W}^{\text {. }}$ |
|  | From 2 A.M. to 4 A.M. | Cold, with frequent showers | Snow and stormy |
|  | From 4 A.M. to 6 A.M. | Rain | Rain |
|  | From 6 A.M. to 8 A.M. | Wind and Rain | Stormy |
|  | From 8 A.M. to 10 A.M. | Cbangeable | Cold Rain if wind be W.; Snow if E. |
|  | From 10 A.M. to Noon | Frequent Showers | Cold \& high wind. |
|  | From Noon to 2 P.M. | Very rainy | Snow or rain. |
|  | From 2 P.M. to 4 P.M. | Changeable | Fair \& mild. |
|  | From 4 P.M. to 6 P.M. | Fair | Fair. |
|  | From 6 P.M. to 8 P.M. | Fair - if wind N.W. Rain - if S. or S.W. | Fair \& frosty if wind N. or N.E.: Rain or snow if wind S. or S.W. |
|  | From 8 P.M. to 10 P.M. | Same as from 6 | .M. to 8 P.M. |
|  | From 10 P.M. to Midnight | Fair | Fair \& frosty. |

[^4] quarter are to midnight, the fairer will it be during the next seven days.
2. The space for this calculation occupies from ten at night till two next morning.
3. The nearer to midday, or noon, the phases of the moon happen, the more foul or wet weather may be expected during the next seven dave.
4. The space for this ealculation occupies from ten in the forenoon to two in the afternoon. These observations refer principally to the summer, though they affect spring and autumn nearly in the same ratio.
5. The moon's change, first quarter, full and last quarter, happening during six of the afternoon hours, i.e., from four to ten, may he followed by fair weather; but this is mostly dependent on the wind, as is noted in the table.
6. Tliough the weather, from a variety of irregular canses, is more uncertain in the latter part of autumn, the whole of winter, and the beginning of spring, yet, in the main, the above observations will apply to those periods also.
7. To prognosticate eorrectly, especially in those eases where the wind is coneerned, the observer should be within sight of a good vane, there the four eardinal points of the heavens are correctly placed.

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

## TO THE WEATHER-WISE

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

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

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

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

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

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

| From <br> p. 84-5 | $\begin{aligned} & \mathrm{A} \\ & \mathrm{~m} \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{~m} \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{C} \\ & \mathrm{~m} \end{aligned}$ | D <br> m | $\underset{\mathrm{m}}{\mathrm{E}}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{~m} \end{aligned}$ | $\begin{aligned} & \mathrm{G} \\ & \mathrm{~m} \end{aligned}$ | H <br> m | I | J m | $\underset{\mathrm{m}}{\mathrm{~K}}$ | L | $\begin{aligned} & \mathrm{M} \\ & \mathrm{~m} \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{N} \\ & \mathrm{~m} \\ & \hline \end{aligned}$ | \% | p | m |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line (5) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 |
| Line "e" | +10 | +9 | + 7 | 6 | + 5 | +3 | +2 | +1 | 0 | 1. | -2 | -4 | 5 | 7 | 8 | -10 | 11 |
| Constant | +36 | $+36$ | +36 | +36 | +36 | +36 | +36 | +36 | +36 | +36 | +36 | +36 | +36 | +36 | $\underline{+36}$ | $\underline{+36}$ | $+36$ |
| Correction | +46 | 5 | +43 | +42 | +41 | +39 | +38 | +37 | +36 | +35 | +34 | +32 | +31 | +29 | +28 | +26 | --25 |

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

## HOW TIMES ARE CONVERTED FOR YOUR TOWN

Sunrise and Sunset. The times of sunrise and sunset at Boston on April 10 are read directly from columns 4 and 6 on page 16. The key letters adjacent to these times, in columns 5 and 7 , are indices to the table on pages $84-5$ whereby the times of sunrise and sunset at Boston are converted into those for other key cities, to wit:BOSTON

PITTSBURGH, PA.

Sunrise
Key Letter
$\begin{array}{ll}\text { Sunset } \\ \text { Key Letter } & \text { 6.20 P.M., E.S.T. } \\ \mathbf{K}\end{array}$
5.10 A.M., E.S.T.

Sunrise (Boston)
Correction (Column
G, page 84-5)
+:38
Sunrise (Pittsburgh)
5.48 A.M., E.S.T.

Sunset (Boston) $\quad 6.20$ P.M., E.S.T.
Correction (Column K, page 84-5)
$+: 34$
Sunset (Pittshurgh) 6.54 P.M., E.S.T.

Sun Fast. The column headed "Sun Fast" is of primary use to sundial onthusiasts. The figures therein tell how fast on each day the time indicated hy a properly adjusted and graduated sundial will he of the time indicated hy a clock. On April 10 sun time in Boston will he 14 minutes Fast of Eastern Standard Time. Tho 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 city (using that city's two code symbols) - page 85 - under capitalized key lettor I , page 84.

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. Tho longth of day in other localities is found hy suhtracting the time of sunrise from that of sunset for each locality. (See Sunrise and Sunset ahove.)

## BOSTON

Length of day 13 h 09 m
(From calendar
page 16, April10.)

PITTSBURGH, PA.
Sunset (Pittsburgh) 6.54 P.M. Sunrise (Pittshurgh) 5.50 A.M.

Length of Day $\quad 13 \mathrm{~h} 04 \mathrm{~m}$

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

Full
Moonrise
Key Letter April 10
Page 16 Moonset Key Letter
BOSTON
12.14 P.M., E.S.T.
2.41 A.M., E.S.T.

PITTSBURGIF, PA.

| Oonrise (Boston) | 12.14 P.M. |
| :---: | :---: |
| Corrsation (Column D) |  |
| Correction below | +:01 |

Moonrise (Pittsburgh)
12.57 P.M., E.S.T.

Moonset (Pittsburgh) 3.10 A.M., E.S.T.
Longitude:
1)

$|$| $\frac{58^{\circ}-77^{\circ}}{m^{\circ}}$ | $\frac{77^{\circ}-90^{\circ}}{m}$ | $\frac{00^{\circ}-103^{\circ}}{m}$ |
| :---: | :---: | :---: | :---: |
| 0 | +1 | +2 |


$|$| $103^{\circ}-116^{\circ}$ | $116^{\circ}-128^{\circ}$ | $128^{\circ}-142^{\circ}$ | $142^{\circ}-155^{\circ}$ |
| :---: | :---: | :---: | :---: |
| $m$ | $m$ | $m$ | $m$ |
| +3 | +4 | +5 | +6 |

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

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

Risings and Settings of the Planets. The times of the rising and setting of the naked eye Planets with the exception of Mercury are given for Boston in the table on page 34. The procedure for converting these times to those of other localities follows that for converting the times of sunrise and sunset given on page 81 .

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


## LENGTH OF TWILIGHT

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

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

## TIDE CORRECTIONS

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

| Time | Height | Time | Height |
| :---: | :---: | :---: | :---: |
| Differ- | Differ- | Differ- | Differ- |
| enceh.m. | ence Ft. | enceh.m. ence Ft. |  |

MAINE
Augusta . . .
Bangor
Bar Harbor
Boothbay Harbor
Eastport
Oid Orchard . .
Portland
Stonington.
NEV HAMPSHIRE
Hampton . . . MASSACHUSETTX

| Fall River . . . . -3 16 | *0.5 |
| :---: | :---: |
| Falmouth . . . -0 40 | *1.1 |
| Hyannisport . . . +0 45 | *0.3 |
| Lynn . . . . + 005 | -0.2 |
| Marbleliead . . . -0 05 | $-0.3$ |
| Mariolı . . . . . -3 16 | *0.4 |
| Monument Beach . -3 06 | *0.4 |
| Nantasket . . . +0 10 | +0.1 |
| Nantucket . . . . +0 50 | *0.3 |
| New Bedford . . . -3 21 | *0.4 |
| Oak Bluffs . . . . +0 05 | *0.2 |
| Onsct . . . . -306 | *0.5 |
| Plymouth . . . . 000 | +0.1 |
| Provincetown . . +0 15 | -0.3 |
| Scituate . . . . - 005 | -0.5 |
| Wellfleet . . . +0 20 | +0.6 |
| Woods Hole . . . -301 | *0.2 |

RHODE ISL,AND
Block Island . .
Narragansett Pier
Newport
Providence
Watch Hill
CONNECTICUT
Long Island Sound -0 $02 \quad * 0.7$
New London . . . -1 47 *0.3
NEW YORK

| Coney Island | 00 | *0.5 |
| :---: | :---: | :---: |
| Long Beach | -3 57 | *0.5 |
| Long Island Sound | +008 | *0.7 |
| New York City | -250 | *0.5 |
| Ocean Beach. | -3 57 | *0.4 |
| Southampton | -3 22 | *0.3 |

NEW JIRSEY
NEW JERSEY

| Atlantic City | -3 57 | *0.5 |
| :---: | :---: | :---: |
| Bayside | -0 24 | *0.6 |
| Cape May | -37 | *0.5 |
| Ocean City | 317 | *0.4 |
| Seabright |  |  |

Seaside Park
$+350$
*0. 4
$+3.6$
+3.6
+1.1
-0.8
+1.9
$-0.7$
$-0.6$
$+0.2$
$-1.2$
*0.5
*1. 1
$-0.2$
*0. 4
$* 0.4$
+0.1
0.3
*0.2
*0.5

PENNSYLVANLA
Philadelphia . . . +229 *0.5
DELAWARE
Rehoboth . . . . -3 37 *0.4
MARYLAND
Baltimore . . . . -425 *0.1
Ocean City . . . -3 57 *0.4
DISTRICT OF COLUMBIA
Washington..-308 $*^{0.3}$
VIRGINIA
Norfolk . . . - 154 *0.3
Virginia Beach . . -3 14 *0.3
NORTH CAROLINA
Beaufort . . . -2 59 *0.3
Carolina Beach . . -3 30 *0.4
SOUTH CAROLINA
Myrtle Beach. . . $-345 \quad * 0.5$
Charleston . . . . -315 *0.5
GEORGIA
St. Simon's Island -2 $51 \quad * 0.7$
Savannah
Tybee Beach . . . -2
40
26 ${ }^{*} 0.8$
FLORIDA
Daytona
Fort Lauderdale * $_{-3} 20.4$

Fort Lauderdale • -2 15 *0.3
$\begin{array}{lll}\text { Jacksonville . . . -0 } & 40 & { }^{*} 0.1 \\ \text { Miami } & \\ 00 & \text { * } 0.3\end{array}$
Palm Beach . . - 320 *0.3
Port Everglades : -2 15 *0.3
$\begin{array}{lll}\text { St. Augustine } \\ \text { St. Petersburg }\end{array} \cdot-220 \quad * 0.5$
WASHINGTON
Ilwaco . . $144-3.5$

| Ilwaco |  |  |
| :--- | :--- | :--- |
| Port Townsend $\cdot$ | +1 | 44 |
| +5 | 04 | -3.5 |
| +5 | 37 | -2.0 |

Seattle . . . . +537 - 2.0
OREGON
Astoria $. . .+137-3.3$
Cape Arago : $+119 \quad-4.8$
Yaquina Head . +112 -3.7
CALIFORNIA


Example: The figures for Full Sea in Columns 10 and 11 of the left hand Almanac pages 10-32 are the times of high tide at Commonwealth Pier in Boston Harbor. The heights of these tides are given on the right hand pages 11-33. The heights are rcckoned from Mcan Low Water: each day has a fer of ares upper for the morning of Mami is for the evening. The conversion of the times or the tides at Boston to thene of Mami is
given by way of dilustration given by way of tilustration.

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

BOSTON
High Tide (from page 16) 1.00 P.M.E.S.T. High tide (Boston) April 18

Height (from page 17) 9.6 feet
Correction above
1.00 P.M.
$-3.00$

High tide (Mlami) Height (Mlami) $\quad 2.9$ feet
0.00 A.M.E.S.T.
(9.6 $\times 0.3$ )


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

| City | Time used | Code symbols |  | $\begin{aligned} & \text { Con- } \\ & \text { stant } \end{aligned}$ | City | Time used |  | $\begin{aligned} & \text { le } \\ & \text { ols } \end{aligned}$ | Constan |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Akron, 0 | EST | (5) | ¢ | +42 | Macon, Ga. | EST | (4) | , | + 50 |
| Albany, N. | EST | (6) | 1 | +11 | Manchester, $\mathrm{N} . \mathrm{H}$ | EST | (6) | , |  |
| Albuquerque, N | MST | (4) | e | +22 | McKeesport, Pa. | EsT | (5) | - | +35 |
| Allentown, Pa. | EST | (5) | e | +18 | Medford, Mass. |  |  |  |  |
| Amarillo, Texas. | CST | (4) | e | +63 | Memphis, T | CST |  | e | +16 |
| Anchorage, Alas | $150^{\circ}$ | (13) | c | +14 | Mlami, Fla. | ES'T | (3) | 1 | -37 |
| Arlingto |  |  | lng |  | Mllwaukee, Wis | CST | (6) | 1 | + 7 |
| Ashoville, N Atlanta, Ga | EST | (4) | e | +46 +53 | Minneapolis, M Mobile, Ala | CST | (6) | d | +29 |
| Augusta, Ga | EST | (4) | h | +44 | Montgomery, Ala | CST | (4) | ${ }^{\text {j }}$ |  |
| Austin, Texa | CST | (3) | c | +47 | Montreal, Que... | EST | (6) | b | +10 |
| Baltimore, | EST | (5) | $g$ | +22 | Muncle, Ind | CST | (5) | e |  |
| Bangor, Me. | EST | (6) | d | -9 | Nashville, Tcnn. | CST | (4) | d | + |
| Beaumont, Texa | CST | (3) | $\stackrel{\text { c }}{\text { c }}$ | +32 | New Bedford, Mass. | EST | (5) | b | - |
| Bethlehem, Pa. | EST | (5) | $\stackrel{\ominus}{\text { a }}$ | +17 +19 | New Haven, Conn. . | $\begin{aligned} & \text { EST } \\ & \text { CST } \end{aligned}$ | (5) | ${ }_{\text {c }}^{\text {d }}$ | +7 +16 |
| Blrmingham, Al | CST | (4) | 1 | + +3 | New York, | EST | (5) | ${ }_{\text {d }}$ | +16 +12 |
| Blsmarek, N. D | CST | (7) | 1 | +59 | Newark, N. | EST | (5) | d | +12 |
| Bolse, Idaho | MST | (6) | g | $+61$ | Norfolk, Va | EST | (4) | b | +21 |
| Bridgeport, Co | EST | (5) | c | + 8 | Oakland, Ca | PST | (5) | j |  |
| Buffalo, N. Y | EST | (6) | 1 | +31 | Oak Park, Ill | CST | (5) | a |  |
| Burlington. | EST | (6) | e |  | Olriahoma City | CST | (4) | e |  |
| Butte, Mon | MST | (6) | a | $+46$ | Omaha, Neb. | CST | (5) | c |  |
| Camden, N. | EST | (5) | $\stackrel{e}{e}$ | +16 | Ottawa, On | $\underset{\text { PST }}{ }$ | (6) | b |  |
| Canton, Ohi Cedar Rapic | CST | (5) | d | +41 +22 | Pasadena, <br> Paterson | $\begin{aligned} & \text { PST } \\ & \text { EST } \end{aligned}$ | (4) | $\stackrel{\mathrm{g}}{\mathrm{c}}$ | +8 +12 |
| Charleston, | EST | (4) | 1 | +35 | Peorla, Ill | CST | (5) | d | +14 |
| Charleston, W | EST | (5) | 1 | + 42 | Philadelphia, | EST | (5) |  | +17 |
| Chattanooga, | EST | (4) | e | $+57$ | Phoenlx, Ari. | MST | (4) | 1 |  |
| Chester, Pa. | EST | (5) | e | +17 | Pittsburgh, P | EST | (5) | e |  |
| Cneyenue | MST | (5) | c | $+15$ | Pittsfield, Ma | EST | (5) |  |  |
| Cbicago, | CST | (5) | a | + 6 | Pontlac, Mich | EST | (6) |  | +49 |
| Cinclnnati, Oh | EST | (5) | b | +54 | Portland, Me. | EST | (6) | g | - 3 |
| Cleveland, Ohlo | EST | (5) | b | +43 | Portland, Ore | PST | (6) | b | $+26$ |
| Columbla, S. | EST | (4) | g | +40 | Providence, R | EST | (5) | a |  |
| Columbus, Ga | EST | (4) | J | +56 | Pueblo, Col | MST | (5) |  | +14 |
| Columbus, Ohio | EST | (5) | e | +48 | Quincy, Ma |  |  |  |  |
| Corpus Christi, | CST | (3) |  | 45 | Racine, Wis | CST | (6) |  |  |
| Covington, K | See | Cinc |  |  | Ralelgh, | EST | (4) | d |  |
| Dallas, Tex. | CST | (4) | 1 | +43 | Reading, P | EST | (5) |  |  |
| Dearborn, M | EST | (5) |  | +49 | Reno. NcV | PST | (5) | 1 | +15 |
| Decatur, Ill. | CST | (5) | 1 | +12 | Richmond, | EST | (4) | a |  |
| Denver, Colo | MST | (5) | 1 | +16 | Roanoke, Va | EST | (4) | a |  |
| DesMolnes, I | CST | (5) | b | 30 | Rochester, N . | EST | (6) | b |  |
| Detrolt, Mich | CST | (5) |  | 48 | Rockford, Ill. | CST | (5) | a | +12 |
| Duluth, Min | CST | (7) | 1 | -24 | Sacramento, Ca | PST | (5) | 1 | +22 |
| Durham, N. | EST | (4) | d | +31 | Saginaw, Mich | EST | (6) |  |  |
| E. Orange | EST | (5) | d | -13 | Salnt Joseph, M | CST | (5) | 1 | 5 |
| E. St. Lou |  | St. | uls |  | Saint Louls, Mo | CST | (5) | 1 |  |
| El Paso, | MST | (3) | a | $+22$ | St. Petersburg, Fla | EST | (3) | g |  |
| Erle, Ps | EST | (5) | a | $+36$ | Salt Lake City, Utah | MST | (5) | d |  |
| Evansvile, In | CST | (5) | j |  | San Antonlo, Texa | CST | (3) | $\mathrm{e}$ |  |
| Fairbanks, Alas | 150 ${ }^{\circ}$ | (17) |  |  | San Diego, Cal | PST | $34$ | $1$ |  |
| Fall River, | EST | (5) | b |  | San Francisco, | PST |  |  |  |
| Fresno, Cal. | PST | (4) | b | +14 | San Jose, Cal.. | PST | $1(4)$ | a |  |
| Galveston, Tex | $\begin{aligned} & \text { CST } \\ & \text { CST } \end{aligned}$ | (3) | e | +35 | Santa Monica, | PST | (4) | g | +8 +40 |
| Gary, Ind. <br> Grand Ranio. | $\begin{aligned} & \text { CST } \\ & \text { EST } \end{aligned}$ | ${ }^{(5)}$ | $\stackrel{b}{b}$ | + 5 +58 | Savannah, G Scranton, Pa | EST | $\begin{gathered} (3) \\ (5) \end{gathered}$ |  | 8 |
| Greensboro, N. C | EST | (4) | c | +35 | Seattle, Wash | PST | (7) | d | +25 |
| Hamllon, Ohio | EST | (5) | 1 | +54 | Shreveport, La | CST | (4) | j |  |
| Hammond, Ind | CST | (5) | b | 5 | Stoux Clty, Iowa | CST | (6) | j |  |
| Hamtramc |  | Detr | It |  | Stoux Falls, S. | CST | (6) |  |  |
| Harrisburg, Pa. | EST | (5) | e | $+23$ | So. Bend, Ind. | CST | (5) | b |  |
| Hartiord, Conn | EST | (5) | a | +6 | Spozane, Wash | PST | (7) | , |  |
| Holyoke, Mass | ${ }^{\text {EST }}$ | (5) | a |  | Springfield, Ill. | CST | (5) |  |  |
| Honolulu, Hawa | $\begin{aligned} & 150^{\circ} \\ & \text { CST } \end{aligned}$ | (2) | 1 | +47 +37 | Springfield, Ma Springfield, Mo |  | (5) | a | +6 +29 |
| Houston, Texas. Huntlington, W. | CST | (3) | $\xrightarrow{\text { d }}$ | +37 +46 | Springfleld, Mo Springfield, Oh | CST | $\begin{aligned} & (4) \\ & (5) \end{aligned}$ | $\stackrel{\mathrm{a}}{\mathrm{e}}$ | +29 +51 |
| Indianapolis, Ind | CST | (5) | 1 |  | Stamford, Conn | EST | (5) | e | +10 |
| Irvington, N.J. | EST | (5) | e | +13 | Stockton, Cal. | PST | (5) | j | $+21$ |
| Jackron, Mich. | EST | (5) | - | +53 | Syracuse, | EST | (6) | 1 |  |
| Jackson, Miss. | CST | (4) | j | +16 | Tacoma, Wa | PST | $(7)$ | h |  |
| Jacksonville, Fig | EST | (3) | $\stackrel{+}{c}$ | +42 | Tampa, Fla. |  | (3) | + |  |
| Johnstown, Pa. | EST | (5) | e | +31 +14 | Terre Haute, | CST | (5) | b |  |
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## THE ADVENTURES OF BARON MUNCHAUSEN

## Illustrated by GUSTAVE DORE

These Adventures, really a collection of "ridiculous stories" which go back through Lange, 1665 and Rabelais, 1532, to Lucian, B.C. 125, were first published in English by the renegade, Herr Raspè, in England in 1786. It is thought that Raspè had heard these adventures related by some old German baron-perhaps named Munchausen-and in writing them down gave them to the public as the adventures of this mau. The original contained only five chapters (II through VI), all of which are condensed here under those numbers. By 1819, the "complete" edition contained some twenty episodes. Those herewith are taken from the T. Teignmouth Shore (London, England) edition, circa 1850. Gustave Doré (1823-83) was a famous French illustrator, engraver, painter, and sculptor.


## FROM CHAPTER ONE

Setting off for a journey to Russia on horseback, I was but lightly clothed. In Poland, being sorry for an helpless, shivering man, I gave him my cloak. With this, a voice from the heavens declared:
"You will be rewarded for this charity in time." I went on. Night came. Tired, I alighted and fastened my horse to what looked like the stump of a tree. I laid down and slept on the snow-soundly-until daylight.

Imagine my astonishment, when I awoke, to find myself in the midst of a village in a church yard. My horse was not with me but I could hear him neighing. Looking up, I saw him hanging by his bridle to the weathercock of a steéple.

Matters were now plain. The village where I had stopped had been buried in snow. During the night, a thaw had taken place. What I had taken to be a stump for tethering my horse had been the top of the steeple. I took my pistol, shot the bridle in two, brought down the horse, and proceeded on my journey.


FROM CHAPTER TWO
One day I saw dozens of wild ducks on a lake. As my last charge in my gun had been used, I fastened a morsel of fat to my bag string and cast it into the lake. The first duck swallowed it. It quickly passed through its entire length, and a second duck swallowed it. Soon, about a dozen were strung like pearls on my line.

Joyfully, I hauled them in and proceeded home, but the prize was almost too heavy to carry. On my way, I was amazed to note these ducks had, recovering from their first shock, come alive again. Flapping their wings, they raised me into the air. Using the tails of my coat as a rudder, I directed them to my house and, by twisting the necks of the ducks, one by one, descended slowly down the flue of my own chimney-much to the surprise of my cook.


## FROM CHAPTER THREE

I was at Count Przobossky's country seat in Lithuania. While at tea with the ladies, the other men left me there to see a newly arrived young horse of blood. But they found him so unruly, none of them dared approach or mount him.

Going down, I, in one leap, was on his back and worked him into gentleness and obedience. I then forced him in one leap through the open windows of the tea room. I walked him around the tea table to show off to the ladies. Finally, I made him mount the table and perform his lessons in a pretty style of miniature. He did these well and did not break any cup or saucer.

This placed me so high in the opinion of the ladies and the Count, that he gave me this horse to ride in the campaign aggainst the: Turks, undear ficunt Munich.


## FROM CHAPTER FOUR

While riding my Lithuanian horse, we drove the Turks into Oczakow and then besieged a town whose name I have forgotten. As no one else would volunteer to penetrate its walls, I went close by one of our great guns. When it was fired, I jumped onto the ball. Half way there, I decided the venture too risky as, once there, I would be hanged as a spy-an unworthy end. In the midst of this reflection, I perceived a ball, fired from the enemy camp, coming close by. I jumped on it and returned, mission not accomplished, but at least safe and sound.

On another occasion, I wished to jump across a lake. When I reached its middle I found it larger than I thought so turned my horse back to the bank for a stronger spring. The second time, however, he took off badly and we fell in. We would have both drowned had I not lifted myself up by my pig-tail, together with the horse whom I gripped tightly with my knees.


## FROM CHAPTER FIVE

Being a captive of the Turks, I was made a slave and beekeeper for the Sultan's bees. When one escaped and the silver hatchet I threw at it landed on the moon, I planted a Turkey bean and the vine of it, fastening itself to the horns of the moon, allowed me to climb up and rescue my hatchet.

After the war, I was sent back to Russia and from there was returning by post chaise when we came to a pass too narrow for us and an approaching chaise to proceed. The postilion blew with all his might on his horn so the other chaise would stop. But no sound came from it. There was no proceeding, so I got out of our carriage and lifted it, on my shoulders, over the other one. I then went back for the horses and carried one under each arm to my coach. One of them made such a fuss I had to put his back legs in my coat pocket.

Later, at an inn, the postilion's horn suddenly made, of itself, a great "Tereng! tereng! teng! teng! Investigating, we found his tunes had become frozen in the horn at the time of our adventure at the pass. In thawing, the sounds were a credit to the driver.


## FROM CHAPTER SIX

After my safe return from Russia, I set sail, with a relative, from Amsterdam to Ceylon. While there, the Governor's son invited me on an hunting expedition. As he was stronger than I, he soon left me far behind where, while I rested, I was attacked by a huge lion. My gun failing me, I turned and ran. But alas, there before me was an huge crocodile already to swallow me.

Behind me was the lion, before me the crocodile, to my left a rapid stream, on my right a precipice infested by poisonous snakes. I fell to the ground, expecting fully to be devoured. After a few seconds, hearing a loud report, I looked up and saw that the lion, in springing at me, had overlept its mark and fallen head first into the crocodile's jaws.

Arising, I cut off the lion's body, forced the head into the crocodile's throat, and so choked it. The skin of the crocodile measured forty-seven inches and is now in the Amsterdam Museum. From the lion's skin I had made a number of tobacco pouches which I distributed among my friends.


## FROM CHAPTER THIRTEEN

During a business visit to England, I went down to Wapping to see about the shipment of some goods to Hamburg. While there, I found the noon sun so powerful and myself so tired that I crawled into one of the cannon on the Tower of London and fell asleep. It so happened that this was the 4th of June and these cannons were all fired at one o'clock in honor of the birthday of George III.

I was shot across London, without awakening, into an haystack in a farmer's yard near Deptford. Three months later, hay being dear, the farmer decided to send the stack I was on to market. I was awakened by people ascending ladders and taking hay from the top. Still half asleep, I did my best to escape. In so doing, I fell plump on the head of the farmer and broke his neck. For this I was greatly praised as this man was a shocking miser.

Upon my return to London, my friends were greatly relieved to find me safe and sound. They had been searching long and fruitlessly for me all these months.


## CHAPTER FIFTEEN IN FULL

On another occasion I sailed from England to the East Indies with Captain Hamilton. I took with me a pointer dog, who, in the strictest acceptation of the term, is worth his weight in gold, for he has never failed me yet. One day, when by the most exact reckoning, we were at least 300 miles from land, my dog began to point. I was surprised to see that he remained in this position upwards of an hour; so I told the cantain and the officers, and assured them that we must be close to land, for my dog scented game. All the thanks I got for my information was a loud burst of laughter. However, my belief in my dog was not in the least shaken thereby.

A long discussion ensued, in which my opinion was strenuously combated. At the end of it I told the captain plainly that I had more confidence in my dog Tray's nose than in the eyes of all the sailors on board his vessel put together, and I boldly wagered 100 guineasall I had with me for the expenses of my journey-that we should find some game bcfore half an hour was over.

The captain, who was a very good fellow, laughed louder than ever, and begged Mir. Crawford, our surgeon, to feel my pulse. He did so, and pronouneed me to be in perfect health. They then began to converse in whispers: I managed, howerer, to hear a few sentences.
"He's not in his right senses," the captain said. "I cannot honestly take his bet."
"I don't agrec with you at all," replied the surgeon; "the Baron is in perfect health. The only thing is that he has more confidence in his dog's sense of smeh than in our officers' knowledge of navigation. lle'll cortainly lose his bet, and serve him right."
"I've no ripht to take such a bet," the captain said again. "However, I can get out of the difficulty in an honourable way, by returning him his money if I win."

While this conversation lasted, Tray never moved, so I felt my oninion strengthencd. I offered my bet again, and it was taken.

We had scarcely pronounced the customary "Donc with you!" when some sailors fishing in the gig, which was being towed astern of us. caught a huge shark. No time was lost in hauling it on deck: and when they cut it oben, behold, there new out of its stomach six couple of partridges!

The poor birds lad been there so long that one of them had laid five eqra, which she was sitting on, and a ehick was just hatching when she was set at llberty.

We reared the young hirds with a litter of kittens that had come into the world a few minutes before. The eat took as much care of them as she did of her own offspring, and showed the utmost anxiety whenever one of the partridges flew away, and did not return immediately to her side. As there were four hen partridges in our capture, we managed to have one always sitting, so that our table was never without game for the rest of the voyage.

I rewarded my faithful Tray for winning the 100 guineas, by giving him every day the bones of the partridges we had caten, and now and then a whole bird.


## FROM CHAPTER SEVENTEEN

One afternoon while walking around the edge of Mt. Etna's crater, I slipped and fell in. When I came to, I was in the presence of Vulcan and his wife Venus, who seemed to like me. Soon scandal-mongers fired Vulcan with jealousy, and he hurled me into an even greater abyss than Etna's, which passed me through the entire earth to the South Seas-a course which will be found much more direct than to go round the world. I boarded a Dutch ship which happened to be there. In it, after some adventures, we were blown into a sea of milk in which was an island of cheese. Here grew grapes of milk, and corn whose ears held loaves of bread, baked and ready to eat. The nests of birds on the island held over 500 eggs in each-each one as large as an hogshead. One old bird seized our captain in its talons and dropped him in the sea.

Upon leaving the island, we saw three men hanging from the trees. We were told they were men who had travelled abroad and on their return had told their countrymen a lot of lies. I thought they deserved to be hanged, for the first duty of the traveler is never to stray from the paths of truth.

# EARLY AMERICAN HOUSEHOLD REMEDIES 

by John Josselyn, 1672

(who came here from England in 1638)
EAGLES: The Quill Feathers of the wings of the eagle make excellent Text Pens. The feathers of their tails are used by the Indians for thin arrows. The skin of an cagle dressed with the down on is good to wear on the stomach for the Pain and Coldness of it.
OSPREX: The beaks of the Osprey excel for the Tooth-ach, picking the gums therewith till they bleed.
BEAR: The Grease of the Black Rear is very good for Aches and Cold Swellings. The Indians anoint themselves with it from liead to toe, which hardens them against cold weather. Onc Edw. Andrews was cured of lameness and pain by sleeping on a Lear's Skin, newls flead off, with some upon him, so that he sweat every night.
wolf: A Black wolf's skin, worn as a coat helps old Acles in old people.
Wilncat: The Grease of the Wild Cat is soveraign for all manner of Aches and shrunk Sinews.
BLAVER: All Beavers have four Cods hanging outwardly between their hinder legs, two soft and oyly, two solid and hard. The solid Cods are made by English women into grated powder. For wind in the Belly, they use as much as will lye upon a shilling in a draught of Fiol Wine.

CODFISH: In the head of the Cod is a Bone which being pulveriz'd and drank will stop Women's overflowing Courses notably: Likewisc in their Belly is found a Stone in a Bladder against their Navel which pulveriz'd and drank in White-wine Posset or Ale is present Remedy for the Stone. About their Fins you may find a kind of Lowse which healeth a green Cut in short time.
SEA CALF: The Oyl of the Sea Culf is much used by the Indians, who anoint their limbs, their Wonnds and Sorcs thercwith. It is very good for Scalds and Burus; and the fume of it, being cast upon Coals will bring Women out of their Mother Fits; thelr Skins, with the Hair on, are good to make Winter Gloves.
muscefs: The Rarlet Muscle hath a purple Vein which when prickt yieldeth a perfect purple or scarlet juice, dying Linnen so that no washing will wear it out. We mark our Handerchiefs and Shirts with it.
RATTLESNAKE: The Leafs of Fat in the bellies of Rattle snakes is excellent to anoint frozen Limbs, and for Aches and Bruises wondrous soveraign. Their Hearts swallowed fresh, is a good Antidote against their Venome.
MAPLE: Of Maple Wood, the natives draw the rottenest and
make a strong Lye from the ashes wherein thes boyl the Acorns from white Oak trees until the Oyl swim on the top. This corrobarates their naked Limbs exceedingly.
ALDER: For a knce Bruise or Cut the Indian chews Alder Bark and places the bark on the wound which heals it. It is also excellent to take the Fire from a Burn. White Birch bark, boylcd, is uscd for the same purposes.

Continued on page 56




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    5, 11-33, $7^{5}$
    
    Weather, Last Winter's. .68
    Zodlac Signs.... . . . . . . . . .9, $10-32,38-41$

[^2]:    If Groundhog Day be dry and falr,
    Half of Winter's to come and malr:
    If the day with raln or snow abounds:
    Six weeks more will see Spring around.

[^3]:    LIBRA
    ABBR: "LIB" SIGN: SCALES
    Controls the loins
    Belongs to those born Sept. 23-Oct. 22 Ruling Planet, Venus; Birthstonc, Chrysolite; Color, Crimsou.

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

    These montls with "ember," beginning with September, Promise showers, the old word for which was "imber." The Saxons knew this month for Gerst, Barm, Ael, and Beere, Went hunting wild boars with spears, dogs, and good checr. Hut today all Librans, alas, win, lose, or are hexed In exact proportion to how over (or under) they're sexed.
    

    ## SCORPIO

    ## ABBR: "SCO" <br> SIGN: SCORPION

    Controls the generative organs
    Belongs to those born Oct. $23-$ Nov. 22 Liuling Planet, Mars; Bipthstone, Aruamarine or Opal (Blue (treen or Black) Best for M, G, I, A.
    Octoher's a gent clothed in bright-colored leaves.
    Bearing wines, yellow pumpkins, fields of corn sheaves. lint by him, dear Scorpions, please don't he misled; Get foing, work hard, cruel-cold winter's alhead.
    Lifes mysteries, secret or plain, you will never unravel, So forget 'em, or, when you can't, you should travel.

[^4]:    Observalions. -1. The nearcr the moon's changes, first quarter, full, and last

