

The
PACIFIC COAST
DIARY



Harry D. French
Pleasant Bay
Washington

BANCROFT'S

PACIFIC COAST

D E A R S

FOR

1879,

CONTAINING

Useful Memoranda,

AND

TABLES FOR REFERENCE.

Published Annually.

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Entered, according to Act of Congress, A. D. 1878,

BY A. L. BANCROFT & COMPANY,

In the office of the Librarian of Congress, at Washington.

Calendar.

1879.

| | S | M | T | W | T | F | S | | S | M | T | W | T | F | S | | |
|-------------|-----|-----|-----|----|----|----|----|--|-------------|-----|-----|----|----|----|-----|----|---|
| JAN. | ... | ... | ... | 1 | 2 | 3 | 4 | | JULY | ... | ... | 1 | 2 | 3 | 4 | 5 | |
| | 5 | 6 | 7 | 8 | 9 | 10 | 11 | | | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| | 12 | 13 | 14 | 15 | 16 | 17 | 18 | | | 13 | 14 | 15 | 16 | 17 | 18 | 19 | |
| | 19 | 20 | 21 | 22 | 23 | 24 | 25 | | AUG. | 20 | 21 | 22 | 23 | 24 | 25 | 26 | |
| FEB. | 26 | 27 | 28 | 29 | 30 | 31 | .. | | | 27 | 28 | 29 | 30 | 31 | ... | .. | |
| | .. | .. | .. | .. | .. | .. | 1 | | | .. | .. | .. | .. | .. | .. | 1 | 2 |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | | | 17 | 18 | 19 | 20 | 21 | 22 | 23 | |
| MAR. | 23 | 24 | 25 | 26 | 27 | 28 | .. | | | 24 | 25 | 26 | 27 | 28 | 29 | 30 | |
| | .. | .. | .. | .. | .. | .. | 1 | | SEP. | 31 | .. | .. | .. | .. | .. | .. | |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | .. | 1 | 2 | 3 | 4 | 5 | 6 | |
| | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | | 7 | 8 | 9 | 10 | 11 | 12 | 13 | |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | | | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| | 23 | 24 | 25 | 26 | 27 | 28 | 29 | | | 21 | 22 | 23 | 24 | 25 | 26 | 27 | |
| APR. | 30 | 31 | .. | .. | .. | .. | .. | | | 28 | 29 | 30 | .. | .. | .. | .. | |
| | .. | .. | 1 | 2 | 3 | 4 | 5 | | OCT. | .. | .. | .. | 1 | 2 | 3 | 4 | |
| | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | | 5 | 6 | 7 | 8 | 9 | 10 | 11 | |
| | 13 | 14 | 15 | 16 | 17 | 18 | 19 | | | 12 | 13 | 14 | 15 | 16 | 17 | 18 | |
| | 20 | 21 | 22 | 23 | 24 | 25 | 26 | | | 19 | 20 | 21 | 22 | 23 | 24 | 25 | |
| MAY. | 27 | 28 | 29 | 30 | .. | .. | .. | | | 26 | 27 | 28 | 29 | 30 | 31 | .. | |
| | .. | .. | .. | .. | 1 | 2 | 3 | | NOV. | .. | .. | .. | .. | .. | .. | 1 | |
| | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| | 11 | 12 | 13 | 14 | 15 | 16 | 17 | | | 9 | 10 | 11 | 12 | 13 | 14 | 15 | |
| | 18 | 19 | 20 | 21 | 22 | 23 | 24 | | | 16 | 17 | 18 | 19 | 20 | 21 | 22 | |
| | 25 | 26 | 27 | 28 | 29 | 30 | 31 | | | 23 | 24 | 25 | 26 | 27 | 28 | 29 | |
| JUNE | .. | .. | .. | .. | .. | .. | .. | | | 30 | .. | .. | .. | .. | .. | .. | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | DEC. | .. | 1 | 2 | 3 | 4 | 5 | 6 | |
| | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | | 7 | 8 | 9 | 10 | 11 | 12 | 13 | |
| | 15 | 16 | 17 | 18 | 19 | 20 | 21 | | | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| | 22 | 23 | 24 | 25 | 26 | 27 | 28 | | | 21 | 22 | 23 | 24 | 25 | 26 | 27 | |
| | 29 | 30 | .. | .. | .. | .. | .. | | | 28 | 29 | 30 | 31 | .. | .. | .. | |

FESTIVALS AND FASTS OF THE CHURCH.

Dates italicized apply only to 1879.

EPIPHANY is twelve days after Christmas, *January 6th.*
SHROVE SUNDAY, the first Sunday before Shrove Tuesday.

— *Feb. 23d.*

SHROVE TUESDAY is the first Tuesday after the first change of the moon in February. — *Feb. 25th.*

ASH WEDNESDAY, the day after Shrove Tuesday. — *Feb. 26th.*

The Fast of LENT is from Ash Wednesday to the feast of Easter, forty days.

The FIRST SUNDAY IN LENT is *March 2d.*

ST. PATRICK. — *March 17th.*

MIDLENT is the fourth Sunday from Shrove Tuesday. — *March 23d.*

CARLE SUNDAY, the fifth Sunday from Shrove Tuesday. — *March 30th.*

PALM SUNDAY, the sixth Sunday from Shrove Tuesday. — *April 6th.*

PASSION WEEK, the week after Palm Sunday. — *April 6th to 13th.*

GOOD FRIDAY, the Friday in Passion Week. — *April 11th.*

EASTER DAY, the festival appointed in commemoration of Christ's Resurrection, is the seventh Sunday after Shrove Tuesday, or the first after the full moon, which happens on or after the 21st of March. — *April 13th.*

LOW SUNDAY is the first after Easter. — *April 20th.*

ROGATION SUNDAY is the fifth after Easter. — *May 18th.*

ASCENSION DAY, or HOLY THURSDAY, is the Thursday in Rogation Week the fortieth day from Easter. — *May 22d.*

PENTECOST, or WHITSUNTIDE, is the forty-ninth day, or seventh Sunday after Easter. — *June 1st.*

TRINITY SUNDAY is the next after Pentecost. — *June 8th.*

ST. JOHN BAPTIST'S DAY. — *June 24th.*

ST. PETER. — *June 29th.*

ST. MICHAEL. — *September 29th.*

ALL SAINTS' DAY. — *November 1st.*

ST. ANDREW. — *November 30th.*

ADVENT SUNDAY, the nearest Sunday to the feast of St. Andrew. — *November 30th.*

ST. THOMAS. — *December 21st.*

CHRISTMAS. — *December 25th.*

ST. STEPHEN. — *December 26th.*

ST. JOHN, EVANGELIST. — *December 27th.*

HEBREW CALENDAR, 5639-5640.

[Prepared by the Rev. H. A. Henry, D.D., of San Francisco, Cal.]

COMMENCEMENT { 5639, SEPTEMBER 28-29, 1878.
OF THE YEAR { 5640, " 18-19, 1879.

| NEW MOONS. | FASTS AND FEASTS. | DATES. |
|---------------------------------|---------------------------------|--------------------------------|
| 5639: <i>Tivise</i> , 10..... | Fast..... | Sun. Jan. 5, 1879. |
| " <i>Shevat</i> | | Sat. Jan. 25, " |
| " <i>Adar</i> | Sun & Mon., | Feb. 23-24, " |
| " <i>Adar 13</i> | Fast of Esther, | Thurs., March 6, " |
| " <i>Adar 14-15</i> .. | Feast of Purim, | Sun. & Mon., |
| | | March 9-10, " |
| " <i>Nissan</i> | | Tues., Mar. 25, " |
| " <i>Nissan, 15-22</i> .. | Feast of Passover... Pesach, | |
| | Tues. to Tues., | Apr. 8 to 15, " |
| " <i>Iyar</i> | Wednes. & Thurs., | April 23-24, " |
| " <i>Iyar, 18</i> | Lag Laomer.... | Sun., May 11, " |
| " <i>Sivan</i> | | Fri., May 23, " |
| " <i>Sivan, 6-7</i> | Feast of Pentecost, Shevuoth, | |
| | Wednes. & Thurs., | May 28-29, " |
| " <i>Tammooz</i> | Sat. & Sun., | June 21-22, " |
| " <i>Tammooz, 17</i> | Fast..... | Tues., July 8, " |
| " <i>Av</i> | | Mon., July 21, " |
| " <i>Av 9</i> | Fast of Tishaboav.... | Tues., July 29, " |
| " <i>Ellool</i> | | Tues. & Wednes., Aug. 19-20, " |
| 5640: <i>Tishree, 1-2</i> | Feast of New Year, | |
| | Thurs. & Fri., | Sept. 18-19, " |
| " <i>Tishree, 4</i> .. | Fast of Gedaliah.. | Sun., Sept. 21, " |
| " <i>Tishree, 10</i> .. | Fast of Yom-Kippur (Atonement), | |
| | | Sat., Sept. 27, " |
| " <i>Tishree, 15-16</i> .. | Feast of Tabernacles, Succoth, | |
| | Thurs. & Fri., | Oct. 2-3, " |
| " <i>Tishree, 21</i> | Feast of Hoshaanah Rabbah, | |
| | | Wed., Oct. 8, " |
| " <i>Tishree, 22</i> | Feast of Sheminee Atzareth, | |
| | | Thurs., Oct. 9, " |
| " <i>Tishree, 23</i> | Feast of Simchas Torah, | |
| | | Fri., Oct. 10, " |
| " <i>Chesvan</i> | Fri. & Sat., | Oct. 17-18, " |
| " <i>Kislive</i> | | Sun., Nov. 16, " |
| " <i>Kislive, 25</i> | Feast of Chanukah (1st day), | |
| | | Wed. Dec. 10, " |
| " <i>Tivise</i> | | Mon. & Tues., Dec. 15-16, " |
| " <i>Tivise, 10</i> | Fast..... | Thurs. Dec. 25, " |

CHINESE FESTIVALS, 1879-80.

1st Moon, 1st day, Jan. 21st.—Principal Holiday. Festival continued for a week or more.

1st Moon, 14th day, Feb. 4th.—Beginning of Spring.

1st Moon, 29th day, Feb. 19th.—Rain and Water Festival.

2d Moon, 14th day, March 5th.—King Chat Festival. Excited Insects.

2d Moon, 29th day, March 20th.—Middle of Spring.

3d Moon, 3d day, March 24th.—Birthday of Pak Tai, God of the Northern Regions. Ceremonies for three days, commencing on the evening of March 22d, at the Temple on Dupont st., between Washington & Jackson sts., S. F.

3d Moon., 14th day, April 4th.—Tsing Ming, worship at the Tombs.

3d Moon, 23d day, April 13th.—Birthday of the goddess Queen of Heaven. Ceremonies continue for three days and nights, at the Temple on Jackson street, N. S., between Dupont and Stockton streets, S. F.

Intercalary Third Month, repeats the Festivals of the third month as follows:—

Intercalary 3d Moon, 3d day, April 22d.—Pak Tai's birthday.

" 3d Moon, 14th day, May 3d.—Tsing Ming, worship at the Tombs.

" 3d Moon, 16th day, May 5th.—Beginning of Summer.

" 3d Moon, 23d day, May 12th.—Queen of Heaven Festival.

4th Moon, 1st day, May 20th.—Bearding of the Grain.

4th Moon, 8th day, May 27th.—Sam Kai (Idol) Festival, also, Fruit and Vegetable Festival. General Feasting.

4th Moon, 17th day, June 5th.—Birthday of Kam Fa, the goddess of the Golden Flower, Guardian of Children.

4th Moon, 20th day, June 8th.—Birthday of the goddess Shing Moo. Ceremonies at the Clay street Temple, between Kearney and Dupont streets, S. F.

5th Moon, 3d day, June 21st.—Summer Solstice.

5th Moon, 5th day, June 23d.—Dragon Festival. Great time.

5th Moon, 13th day, July 1st.—Birthday of Kwan Tai, God of War and Commerce. Celebration at the Pine street Temple, above Kearney street, S. F.

5th Moon, 18th day, July 5th.—Little Heat.

CHINESE FESTIVALS.

6th Moon, 5th day, July 21st.—Great Heat.

6th Moon, 21st day, Aug. 6th.—Beginning of Autumn.

7th Moon, 6th day, Aug. 15th.—Decrease of Heat.

7th Moon, 14th day, Aug. 23d.—All Soul's Festival.

7th Moon, 22d day, Aug. 31st.—Birthday of the God of Wealth. Ceremonies at the Temple on Dupont st., between Washington and Jackson streets, S. F. Also, the White Dew Festival.

8th Moon, 7th day, Sept. 14th.—Birthday of How Wong. Religious ceremonies for three days and nights. Commencing on the evening of Sept. 12th, at the Temple in Brooklyn place, Sacramento st., near Stockton st., S. F.

8th Moon, 8th day, Sept. 15th.—Autumnal Equinox.

8th Moon, 15th day, Sept. 22d.—Middle of Autumn Festival. Worship of the Full Moon. General Feasting. "Moon Cakes" are made and eaten.

8th Moon, 24th day, Oct. 1st.—Cold Dew.

8th Moon, 27th day, Oct. 4th.—Birthday of Confucius.

9th Moon, 9th day, Oct. 15th.—Worship at the Tombs.

9th Moon, 10th day, Oct. 16th.—Fall of Frost.

9th Moon, 25th day, Oct. 31st.—Birthday of Wa Kwong, God of Fire.

10th Moon, 10th day, Nov. 15th.—Little Snow.

10th Moon, 24th day, Nov. 29th.—Great Snow.

11th Moon, 10th day, Dec. 14th.—Winter Solstice.

11th Moon, 25th day, Dec. 29th.—Little cold.

12th Moon, 10th day, Jan. 13th, 1880.—Great cold.

12th Moon, 25th day, Jan. 28th, 1880.—Beginning of Spring.

THE LENGTH OF DAYS.

At San Francisco the longest day has $14\frac{3}{4}$ hours; at Boston, $15\frac{1}{4}$; at Berlin and London, $16\frac{1}{2}$; at Stockholm and Upsal, $16\frac{1}{2}$; at Hamburg, Dantzic, and Stettin, 17, and the shortest 7. At St. Petersburg and Tobolsk the longest day has 19, and the shortest 5 hours. At Bornea in Finland, the longest day has $21\frac{1}{2}$, and the shortest $2\frac{1}{2}$ hours. At Wanderbus, in Norway, the day lasts from the 21st of May to the 22d of July, without interruption; and at Spitzbergen, the longest day is $3\frac{1}{2}$ months.

LOCATIONS
 OF
Public Offices and Buildings
 IN
SAN FRANCISCO.

ACADEMY OF NATURAL SCIENCES, S. W. cor. California and Dupont streets.

ARMY HEADQUARTERS, N. W. cor. Stockton & O'Farrell sts.

ASSAYER (STATE), 328 Montgomery street.

ASYLUMS :

Hebrew, near Golden Gate Park.

Protestant Orphan, Laguna and Haight streets, near Market st. R. R.

Roman Catholic Orphan, South San Francisco.

Magdalen, Potrero Avenue, near Twenty-first street.

BANCROFT'S BOOK, STATIONERY AND MUSIC MERCANTILE & MANUFACTURING ESTABLISHMENT, 721 Market st.

BANKERS :

Belloc & Cie, 524 Montgomery street.

Berton, F. & Co., 527 Clay street.

Borel, Alfred & Co., N. W. c. Clay & Montgomery sts.

Davidson, B. & Co., N. W. cor. Montgomery and Commercial streets.

Donohoe, Kelly & Co., S. E. cor. Montgomery and Sacramento sts.

Lazard Freres, 205 Sansome street.

McKee, S. & Co., 314 Montgomery street.

Meyer, Daniel, 212 Pine street.

Philip, Speyer & Co., 13 Merchant's Exchange.

Plume, John V. & Co., 319 California street.

Sather & Co., N. E. c. Montgomery & Commercial sts.

Sutro & Co., 408 Montgomery street.

Tallant & Co., N. E. cor. California and Battery sts.

Wells, Fargo & Co., N. E. c. California & Sansome sts.

BANKS :

Anglo-Californian Bank, (lim.) 422 California street.

Bank of British Columbia, S. E. cor. California and Sansome sts.

PUBLIC OFFICES AND BUILDINGS.

BANKS: Continued.

Bank of British North America, 219 Sansome street.

Bank of California, N. W. corner California and Sansome sts.

Bank of Commerce, 421 California street.

Bank of San Francisco, 436 California street.

First National Gold Bank, S. W. cor. Montgomery and Summer sts.

Grangers' Bank of California, N. E. cor. California and Davis streets.

Hong Kong and Shanghai Banking Corporation, 405 California street.

London and San Francisco Bank, (lim.) 424 California street.

Merchant's Exchange Bank, 423 California street.

National Gold Bank and Trust Co., N. W. cor. California and Montgomery streets.

Nevada Bank, of San Francisco, N. W. cor. Montgomery and Pine sts.

Pacific Bank, N. W. cor. Sansome and Pine sts.

BANKS—SAVINGS AND LOAN :

California Savings & Loan Society, N. W. cor. Eddy and Powell sts.

Farmers' & Mechanics' Bank of Savings, 225 Sansome street.

Franco-American Savings Bank, 214 Bush street.

French Mutual Provident Savings and Loan Society, 411 Bush street.

German Savings and Loan Society, 526 California st.

Hibernian Savings & Loan Society, cor. Montgomery and Market sts.

Humboldt Savings & Loan Society, 16 Geary street.

Land Mortgage Union of California, 534 California st.

Masonic Savings & Loan Bank, 6 Post street.

Metropolitan Loan Association, 320 Sansome street.

Odd Fellows' Savings Bank, 325 Montgomery street.

Real Estate Associates Savings Bank, 230 Montgomery street.

San Francisco Savings Union, 532 California street.

Savings and Loan Society, 619 Clay street.

Security Savings Bank, 215 Sansome street.

BIBLE DEPOSITORY, 757 Market street.

BOARD OF EDUCATION, 22 City Hall, 2d floor, op. the Plaza.

BOARD OF SUPERVISORS, Room 3 City Hall, op. the Plaza.

PUBLIC OFFICES AND BUILDINGS.

CHAMBER OF COMMERCE, New Merchants' Exchange, cor. California and Leidesdorff streets.

CHURCHES :

Advent, Second, Eddy street, bet. Taylor and Jones.
Advent, Seventh Day, Laguna street, between Tyler and McAlister.

Baptist, First, north side Eddy st., between Jones and Leavenworth.

Baptist, Second, Columbia Square, west side Russ st., bet. Howard and Folsom.

Baptist, Metropolitan, cor. Fifth and Jesse streets.

Baptist Third (colored), east side Powell st., bet. Bush and Sutter.

Baptist, Tabernacle, Post street, near Larkin.

Baptist, Union Square, Post street, near Powell.

Baptist, Fifth, Twenty-second st., near Howard.

Baptist Mission Chapel, Eleventh Avenue, South San Francisco.

Chinese Mission House, N. E. cor. Sacramento and Stockton streets.

Chinese Mission House of the M. E. Church, Washington street, bet. Stockton and Powell.

Congregationalist, First, S. E. cor. Mason and Post sts.

Congregationalist, Second, (Plymouth,) Taylor street, near Geary.

Congregationalist, Third, Fifteenth st., near Mission.

Congregationalist, Fourth, S. side Green street, near Stockton.

Congregational, Bethany, Bartlett st., near Twenty-fifth.

Disciples Church of Christ, Druid's Hall, 413 Sutter st.

Episcopal, Grace, S. E. cor. California and Stockton sts.

Episcopal, Trinity, N. E. cor. Post and Powell streets.

Episcopal, St. John's, cor. Fifteenth and Valencia sts.

Episcopal, Advent, Howard st., op. New Montgomery.

Episcopal, St. James', Post street, near Mason.

Episcopal, St. Luke's, Pacific st., near Polk.

Episcopal, St. Peters, cor. Stockton and Filbert sts.

Episcopal, St. Albans, Corinthan Hall, Mechanics' Institute Building.

Hebrew, Emanu El, Sutter st., bet. Stockton & Powell

Hebrew, Sherith Israel, N. E. cor. Post and Taylor sts.

Hebrew, Ohabai Shalome, Mason street, bet. Geary and Post.

PUBLIC OFFICES AND BUILDINGS.

CHURCHES : *Continued.*

Hebrew, Beth Israel, Sutter street, near Stockton.

Hebrew, Shaarey Tzedek, Stockton st., between Pacific and Broadway.

Lutheran, First, German, Mission street, bet. Second and Third.

Lutheran, St. Paul's, German, Mission street, bet. Fifth and Sixth.

Lutheran, St. Mark's, German, south side of Geary street, bet. Stockton and Powell.

Lutheran, Emanuel, German, N. side Jessie street, bet. Sixth and Seventh.

Mariner's Church, cor. Sacramento and Drumm sts.

Methodist Episcopal, Powell Street, west side Powell st., bet. Washington and Jackson.

Methodist, Howard Street, Howard st., bet. Second and Third.

Methodist, Central, Mission st., bet. Sixth & Seventh.

Methodist, Bush Street, Bush street, near Divisadero.

Methodist, Minna St., Minna st., bet. Fourth & Fifth.

Methodist, Kentucky St., on the Potrero, n. L. Bridge.

Methodist, Grace, Mission st., bet. Eighteenth and Nineteenth.

Methodist, Seaman's Bethel, Mission street, bet. First and Second.

Methodist, St. Paul's, South, west side Russ street, bet. Howard and Folsom.

Methodist, Bernal Wesleyan, Prospect Avenue, Bernal Heights.

Methodist, South San Francisco, on Fifteenth avenue, S. S. F.

Methodist, German, north side Broadway, b. Stockton and Powell sts.

Methodist, German, Folsom st., bet. Fourth and Fifth.

Methodist, African (colored), west side Powell st., between Jackson and Pacific.

Methodist, Chinese Mission, north side Washington st., bet. Stockton and Powell.

Methodist, Zion Wesleyan (colored), Stockton st., near Sacramento.

Presbyterian, First, Stockton street, near Clay.

Presbyterian, Calvary, cor. Geary and Powell sts.

Presbyterian, Chinese Mission, N. E. cor. Stockton and Sacramento sts.

PUBLIC OFFICES AND BUILDINGS.

CHURCHES: *Continued.*

- Presbyterian, Larkin Street, e. Larkin and Pacific sts.
Presbyterian, Central, Tyler st., near Taylor.
Presbyterian, Howard St., Howard st., bet. Twenty-first and Twenty-second.
Presbyterian, St. Johns, Post street, bet. Mason and Taylor.
Presbyterian, Olivet, Tennessee st, near Sierra, South San Francisco.
Presbyterian, Memorial, Eighteenth Avenue, near Railroad, South San Francisco.
Presbyterian, First German Mission, 524 Greenwich st., near Stockton.
Presbyterian, Emanuel, Harrison st., bet. Fifth and Sixth.
Presbyterian, Woodbridge, Twentieth and Capp sts.
Presbyterian, Westminster, Fell street, bet. Octavia and Laguna.
Presbyterian, United, Mason st., bet. Ellis and Eddy.
Roman Catholic, St. Francis, Vallejo st., bet. Dupont and Stockton.
Roman Catholic, Guadalupe, Broadway, bet. Mason and Taylor sts.
Roman Catholic, St. Mary's Cathedral, N. E. corner California and Dupont streets.
Roman Catholic, St. Patrick's, Mission st., bet. Third and Fourth.
Roman Catholic, St. Rose's, Brannan st., near Fourth.
Roman Catholic, St. Boniface, (German,) Tyler st., bet. Jones and Leavenworth.
Roman Catholic, St. Ignatius, Market, bet. Fourth and Fifth streets.
Roman Catholic, St. John the Baptist, Eddy street, between Octavia and Laguna.
Roman Catholic, St. Peter's, west side Columbia st., bet. 24th & 25th.
Roman Catholic, Notre Dame, (French), Bush street, bet. Dupont and Stockton.
Roman Catholic, Mission Dolores, S. W. cor. Sixteenth and Dolores sts.
Roman Catholic, St. Joseph's, Tenth street, between Folsom and Howard.
Roman Catholic, St. Bridget's, S.W. cor. Van Ness Av. and Broadway.

PUBLIC OFFICES AND BUILDINGS.

CHURCHES: *Continued.*

- Russian Church, Greenwich street, between Stockton and Dupont.
Swedenborgian, New Jerusalem, O'Farrell st., between Mason and Taylor.
Unitarian, First, Geary street, near Stockton.
Universalist, First, 320 Post street, Redmen's Hall.
CITY HALL (old), Kearney street, opposite the Plaza.
(new), Market street, op. 8th.
COAST SURVEY, 214 Stockton street.
COMMISSIONER OF IMMIGRATION, N. E. cor. Jackson and Front streets.
COURTS :
City Criminal, 729 Montgomery street.
District, County, and Probate, City Hall, op. the Plaza.
Federal, U. S. Court Building, N. E. cor. Washington and Battery sts.
Justices of the Peace, N.E.c. Jackson and Montgomery sts., 2d floor.
Municipal Criminal Court, 729 Montgomery street.
Police Court, City Hall, op. Plaza.
Supreme, N. E. corner Kearney and Clay streets.
CUSTOM HOUSE, N.W. cor. Battery and Washington streets.
DASHAWAY HALL, Post street, near Dupont.
EXPRESSES :
Bamber's (Oakland), 1 Commercial street.
Barnard's (San Rafael), 1 Commercial street.
California Express and Transfer Co., 524 Davis street.
City Cab and Transfer Co., 16 Post street.
Dime Parcel Del. and Tr. Co., 137 Post street.
Pacific Transfer Co., 110 Sutter st.
Wells, Fargo & Co., N. E. cor. Sansome and Halleck streets.
Whitney's, 5 Commercial street.
Wingate's, 6 Sacramento street.
GAS COMPANY :
San Francisco Gaslight, office S. E. cor. First and Natoma sts.
HARBOR COMMISSIONERS, 10 California street.
HOSPITALS :
Alms House, near Lake Honda.
California State Woman's, N. W. cor. Howard and 12th streets.
City and County, Potrero Ave., bet. 22d and 23d sts.

PUBLIC OFFICES AND BUILDINGS.

HOSPITALS: *Continued.*

French, S. S. Bryant street, between 5th and 6th.
German, cor. Fourteenth and Noe streets.
Italian, Twenty-eighth street, near Noe.
San Francisco Female, 917 Clay street.
San Francisco Lying-in Asylum, 762 Mission street.
St. Luke's, San Jose Ave., between 26th and 27th sts.
Take Market and Valencia street cars to 26th street.
St. Mary's, S. W. cor. First and Bryant streets.
Twenty-sixth Street (small pox), cor. San Bruno Road and Serpentine Avenue.

United States Marine, Mountain Lake, near Presidio.

INDUSTRIAL SCHOOL, Office, City Hall, No. 9, third floor.

INTERNAL REVENUE: Office, 321 Battery street.

LADIES' PROTECTION AND RELIEF SOCIETY, Franklin street, between Post and Geary.

LAND OFFICE, 506 Jackson street.

LIBRARIES:

B'Nai B'Rith Library Association, 105 Post st.

Mechanics' Institute, 27 Post st.

Mercantile, 216 Bush street.

Military Library Room, 328 Montgomery street.

Odd Fellows, 325 Montgomery street.

San Francisco Law Library, S. E. c. Montgomery and Washington sts.

Young Men's Christian Association Library, 232 Sutter street.

MARSHAL, U. S., 4 and 5 U. S. Court Building, N. E. cor. Washington and Battery streets.

MASONIC HALL, cor. Montgomery and Post streets.

MECHANICS' INSTITUTE, 27 Post street.

MECHANICS' PAVILLION, cor. Mission and Eighth sts.

MERCHANTS' EXCHANGE, south side California street, near Montgomery.

MINT, U. S. Branch, N. W. cor. Fifth and Mission streets.

NEWSPAPER AND PERIODICAL OFFICES:

Abend Post, (German, daily,) 535 California street.

Alta California, (daily,) 529 California street.

California Christian Advocate, (weekly,) 1041 Market street.

California Chronic, (German, weekly,) 524 California street.

California Demokrat, (German, daily,) 524 California st.

California Farmer, (weekly,) 320 Clay street.

PUBLIC OFFICES AND BUILDINGS.

NEWSPAPER AND PERIODICAL OFFICES: *Continued.*

California Horticulturist, (monthly,) 409 Washington street.

California Journal and Sountag's Gast, (weekly,) 603 Washington st.

California Mail Bag, 609 Merchant street.

California Staats Zeitung, (weekly,) 524 California st.

Commercial Herald, 409 Washington street.

Courrier de San Francisco, (French,) 536 Clay st.

Elevator, (colored, weekly,) 610 Battery street.

Evening Bulletin, (daily,) 622 Montgomery street.

Evening Post, (daily,) N. E. cor. Montgomery and Sacramento streets.

Examiner, (daily,) 533 Washington street.

Figaro, (daily,) 532 Merchant street.

Golden Era, (weekly,) 615 Commercial street.

Guide, (tri-weekly,) 521 Clay street.

Hebrew, (weekly,) 612 Commercial street.

Hebrew Observer, (weekly,) 502 Montgomery street.

Hotel Gazette, (daily,) 518 Sacramento street.

Jolly Giant, 620 Merchant street.

La Voce del Popolo, (Italian,) 603 Washington street.

La Voz Nuevo Mondo, 625 Merchant street.

Mining & Scientific Press, Sansome, near California st.

Mission Mirror, 538 Sixteenth street.

Monitor, (Catholic, weekly,) 622 Clay street.

Morning Call, (daily,) 523 Montgomery street.

Musical Review, (monthly,) 139 Kearney street.

New Age, (I.O.O.F., weekly,) 420 Kearney street.

Occident, (Presbyterian, weekly,) 757 Market street.

Open Letter, (daily,) 819 Market street.

Pacific, (Congregationalist, weekly,) 508 Clay street.

Pacific Appeal, (colored, weekly,) 511 Sansome st.

Pacific Medical and Surgical Journal, (monthly,) 26 Montgomery st.

Pacific Coast Directory, 14 Montgomery Avenue.

Pacific Churchman, (Episcopal, weekly,) 508 Clay st.

Pacific Law Reporter, (daily & weekly,) 532 Merchant street.

Pacific Methodist, (weekly,) 409 Washington street

Pacific Rural Press, (weekly,) Sansome, near California street.

Resources of California, (monthly,) 320 Sansome st.

San Francisco Directory, 14 Montgomery Avenue.

PUBLIC OFFICES AND BUILDINGS.

NEWSPAPER AND PERIODICAL OFFICES: *Continued.*

San Francisco Chronicle, 506 Montgomery street.
 San Francisco Journal of Commerce, (weekly,) 414 Clay street.
 San Francisco News Letter, 609 to 615 Merchant street.
 School and Home Journal, 508 Clay street.
 Spirit of the Times, (weekly,) 621 Sansome st.
 Statistician, (monthly,) 604 Commercial street.
 Stock Report, (daily,) 16 Leidesdorff street.
 Wasp, The (illustrated weekly,) N. W. cor. Kearney & California sts.

Western Lancet, (monthly,) 414 Market street.

ODD FELLOWS HALL, S. W. c. Montgomery & California sts.

OLYMPIC CLUB, cor. New Montgomery and Howard streets.

PACIFIC HALL, 428 Bush street.

PLATT'S HALL, 216 Montgomery street.

PIONEER HALL, 808 Montgomery street, cor. Gold.

POLICE OFFICE, City Hall, opposite the Plaza.

POST OFFICE, Custom House, c. Battery & Washington sts.

RAILROAD COMPANIES:

Central Pacific, foot of Market st.; Office cor. Fourth and Townsend streets. (Includes: Central Pacific, Southern Pacific, Western Pacific, California Central, San Joaquin Valley, California and Oregon, Oakland and Alameda Roads.)

North Pacific Coast Railroad Co., 426 California st.

San Francisco and North Pacific Railroad Co., 426 Montgomery st.

RECORDER'S OFFICE, New City Hall, Market street.

REGISTRAR IN BANKRUPTCY, 10 Court Block, 636 Clay street.

STEAMBOAT LANDINGS, Market Street Wharf.

STEAMER (Ocean) LANDINGS, cor. First and Brannan streets.

STEAMSHIP Co. OFFICES: (*Complete List.*)

American and Red Star S. S. Co., 518 Clay street.

Anchor Line (New York to Glasgow), 603 Washington street.

Colorado Steam Navigation Co., 10 Market street.

Coos Bay, Crescent City, and Port Orford Steamers, 10 Market st.

Cunard, (New York and Liverpool, via Queenstown,) 218 California st.

Eureka and Crescent City, 22 California st.

Goodall, Nelson, & Perkins S. S. Co. (Coast Line), 10 Market st. Ticket Office, 214 Montgomery st.

PUBLIC OFFICES AND BUILDINGS.

STEAMSHIP Co. OFFICES: *Continued.*

General Trans-Atlantic, 524 Montgomery st.

Hamburg American Packet Co. (West India Line), 213 Sansome st.

Humboldt Bay, 22 California st.

North German Lloyds, 614 Washington street.

Oregon Steamship Co., 210 Battery st.

Pacific Coast Steamship Co., 10 Market street

Pacific Mail Steamship Co., First and Brannan sts.

Red Star Line, (Philadelphia, Antwerp, Liverpool,) 238 Montgomery st.

Royal Mail, 319 California st.

STOCK BOARDS:

California Stock Exchange Board, 423 California st.

Pacific Stock Exchange, 320 Montgomery st.

San Francisco Stock and Exchange Board, south side Pine st., bet. Montgomery and Sansome.

STREET RAILWAYS:

California Street, 1435 California street.

Central (Davis, Bush, Turk, and Sixth), Office, 32 Turk street.

City, S. W. cor. Mission and Fourteenth streets.

Clay Street Hill, S. W. cor. Clay and Leavenworth sts.

Golden Gate Park and Seal Rock, 615 Montgomery st.

Market Street, cor. Fourth and Townsend streets.

North Beach and Mission, Fourth street, near Bryant, cor. Louisa.

Omnibus, 721 Howard street, bet. Third and Fourth.

Potrero and Bay View, Fourth and Townsend sts.

Sutter Street, 1201 Larkin st.

SURVEYOR GENERAL'S OFFICE, U. S., 610 Commercial st.

TELEGRAPH OFFICES:

American District Telegraph Co., 222 Sansome street.

Fire Alarm and Police Telegraph, Brenham place.

San Francisco Telegraph, 634 Market street.

Western Union, N. E. cor. Montgomery and Pine sts.

Branches, Grand Hotel, Cosmopolitan Hotel, Palace Hotel, S. W. cor. Sacramento and Front sts., and

417 Washington street.

UNION HALL, Howard street, near Third.

UNITED STATES SUB-TREASURY, 428 Montgomery street.

WATER WORKS, Spring Valley, 516 California street.

YOUNG MEN'S CHRISTIAN ASSOCIATION, North side Sutter st. bet. Kearney and Dupont.

SAN FRANCISCO FIRE ALARM STATIONS.

Box.

- 2. S. W. cor. Mason and Lombard.
- 3. S. E. c. Stockton and Greenwich.
- 4. N. W. c. Sansome and Greenwich.
- 5. N. E. c. Battery and Union.
- 6. S. E. c. Montgomery and Green.
- 7. S. E. corner Kearney and Union.
- 8. S. W. cor. Powell and Union.
- 9. N. E. cor. Dupont and Vallejo.
- *12. N. W. c. California and Kearney.
- *13. S. W. cor. Front and Broadway.
- 14. S. W. c. Stockton and Broadway.
- *15. S. W. cor. Clay and East.
- 16. N. W. cor. Mason and Pacific.
- *17. N. E. cor. Pacific and Kearney.
- *18. S. W. c. Sansome and Jackson.
- *19. N. E. cor. Davis and Washington.
- 21. City Hall.
- 23. S. E. corner Clay and Taylor
- 24. S. E. corner Clay and Powell.
- 25. N. W. c. Washington and Dupont.
- *26. N. E. corner Clay and Battery.

Box.

- *27. N. W. c. Montgomery and Commercial.
- *28. S. W. corner Pine and Dupont.
- *29. N. W. c. Stockton and California.
- *31. S. W. corner Sansome and Halleck.
- *32. S. W. cor. California and Drumm.
- *34. S. W. corner Mission and Steuart.
- *35. S. E. cor. Montgomery and Pine.
- *36. N. W. corner Folsom and Steuart.
- *37. N. W. corner Battery and Bush.
- *38. S. W. cor. Market and Second.
- *39. N. W. corner Howard and Spear.
- *41. N. W. cor. Sutter and Jones.
- 42. S. E. cor. Geary and Mason.
- *43. O'Farrell, n. Dupont.
- *45. N. W. cor. O'Farrell and Jones.
- *46. N. W. cor. Sutter and Kearney.
- *47. S. W. corner Market and Powell.
- *48. N. E. cor. Market and Kearney.
- *49. N. W. cor. Stockton and Sutter.
- *51. N. W. corner Folsom and Beale.
- *52. S. W. corner Mission and Fremont.

FIRE ALARM STATIONS.

- *53. King, east of Third.
- *54. Engine No. 4, second, near Howard.
- *56. No. side Bryant, west of First.
- *57. N. W. cor. Brannan and Second.
- *58. N. W. corner Folsom and First.
- *59. P. M. S. S. Co.'s wharf, foot of First.
- 61. S. W. corner Howard and Third.
- 62. S. W. corner Mission and Fourth.
- *63. N. E. cor. Harrison and Fourth.
- 64. S. W. corner Howard and Fifth.
- 65. S. W. corner Mission and Sixth.
- *67. N. E. c. Harrison and Hawthorne.
- *68. N. E. corner Brannan and Fourth.
- *69. S. W. c. Bryant & 3d.
- 71. S. W. c. Mission and Eleventh.
- 72. S. E. cor. Mission and Thirteenth.
- 73. S. E. cor. Howard and Eighth.
- 74. Engine No. 7, Sixteenth St.
- 75. S. W. cor. Jones and McAllister.
- 76. S. W. cor. Market and Hayes.
- 78. N. E. cor. Folsom and Ninth.
- 79. N. W. cor. Folsom and Twelfth.
- 81. S. E. corner Franklin and Hayes.
- 82. N. E. cor. Fulton and Gough.
- 83. N. E. cor. Octavia and Oak.
- 84. Valencia and Market.
- 85. N. E. cor. Laguna and Hayes.
- 86. N. W. cor. Broadway and Montgomery.
- *91. N. E. cor. Hyde and Turk.
- 92. N. E. cor. Franklin and Turk.
- *93. N. E. cor. Jones and Turk.
- 94. S. E. c. Polk & Ellis.
- *95. N. E. cor. Market and Taylor.
- 123. S. E. cor. Hyde and Union.
- 124. Pioneer Woolen Mills, Black Pt.
- 125. N. W. cor. Filbert and Jones.
- 126. S. E. cor. Hyde and Washington.
- 127. S. E. cor. Broadway and Polk.
- 128. S. E. corner Clay and Leavenworth.
- 129. N. W. cor. Pacific and Leavenworth.
- *132. S. W. cor. Pine and Mason.
- 134. S. E. cor. Bush and Hyde.
- 135. S. E. cor. Bush and Polk.
- 136. N. E. cor. Post and Van Ness av.
- 137. N. W. cor. Post and Larkin.
- 138. N. W. cor. California and Larkin.

FIRE ALARM STATIONS.

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| <p>*139. S. E. cor. O'Farrell and Hyde.</p> <p>142. N. E. c. Valencia and Twentieth.</p> <p>143. N. E. cor. Mission and Twenty-second.</p> <p>145. N. W. cor. Folsom and Twenty-second.</p> <p>146. S. W. c. Folsom and Sixteenth.</p> <p>147. N. E. c. Howard and Twentieth.</p> <p>148. N. E. c. Mission and Sixteenth.</p> <p>149. S. W. cor. Folsom and Eighteenth.</p> <p>152. N. W. cor. Brannan and Eighth.</p> <p>153. N. W. c. Harrison and Seventh.</p> <p>154. N. W. corner Bryant and Sixth.</p> <p>*156. N. E. corner Fourth and Berry.</p> <p>*157. South side Folsom, east of 4th.</p> <p>158. South side Folsom, east of Fifth.</p> <p>159. Engine No. 6, Sixth, near Folsom.</p> <p>162. S. E. cor. Pacific and Franklin.</p> <p>163. N. E. c. Sacramento and Franklin.</p> <p>164. S. E. corner Clay and Polk.</p> <p>172. N. E. cor. McAllister and Buchanan.</p> <p>173. S. W. cor. Ellis and Buchanan.</p> <p>174. N. E. cor. Turk and Fillmore.</p> <p>175. S. W. corner Webster and Grove.</p> | <p>*182. S. E. c. Fourth and Townsend.</p> <p>183. S. E. cor. Mission and Eighth.</p> <p>*192. N. W. cor. California and Front.</p> <p>193. S. W. cor. Hyde and Chestnut.</p> <p>194. N. W. cor. Stockton and Francisco.</p> <p>213. S. W. cor. Bush and Buchanan.</p> <p>214. N. E. cor. Bush and Steiner.</p> <p>215. S. E. cor. Washington Webster.</p> <p>216. S. E. cor. Sacramento and Fillmore.</p> <p>217. S. E. cor. Bush and Devisadero.</p> <p>218. N. E. cor. Post and Fillmore.</p> <p>219. S. E. cor. Filbert and Fillmore.</p> <p>231. S. E. cor. Howard and Twenty-fourth.</p> <p>234. N. W. cor. Harrison and Twenty-fourth.</p> <p>235. City & County Hospital.</p> <p>236. N. E. cor. Mission and Twenty-sixth.</p> <p>237. S. E. cor. Dolores and Twenty-second.</p> <p>238. N. E. cor. Santa Clara and Potrero av.</p> <p>241. S. E. cor. Gough and Bush.</p> <p>243. S. E. cor. Clay and Pierce.</p> <p>245. S. W. cor. Geary and Steiner.</p> <p>246. S. E. cor. Geary and Devisadero.</p> |
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THE SOLAR SYSTEM.

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| <p>247. N. W. cor. Turk and Scott.</p> <p>248. N. E. cor. Devisadero and Fulton.</p> <p>254. N. E. cor. Union and Pierce.</p> | <p>261. S. W. cor. Stevenson and Ecker.</p> <p>271. S. W. cor. Seventeenth and Church.</p> <p>273. Eighteenth, east of Castro.</p> |
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Boxes with numbers marked * are automatic.

THE SOLAR SYSTEM.

The Sun, the centre of the Solar System, has a diameter of 885,680 miles; its bulk is 1,400,000 times greater than that of the Earth, and 700 times greater than that of all the bodies revolving around it.

THE PLANETS.

| Name. | Diameter in Miles. | Volume. | Distance from Sun. | Period of Revolution. |
|------------|-----------------------|---------|-----------------------|--------------------------|
| Mercury, | 2,950 | 1-19 | 36,000,000 | 3 mos. |
| Venus, | 7,800 | 9-10 | 67,000,000 | 7½ mos. |
| Earth, | 7,912 | 1 | 92,000,000 | 1 yr. |
| Mars, | 4,500 | 1-6 | 140,000,000 | 2 yrs. |
| Asteroids, | (approximate) | | 250,000,000 | 4½ yrs. |
| Jupiter, | 89,000 | 1,400 | 480,000,000 | 12 yrs. |
| Saturn, | 79,000 | 1,000 | 876,000,000 | 29 yrs. |
| Uranus, | 35,000 | 86 | 1,762,000,000 | 84 yrs. |
| Neptune, | 31,000 | 60 | 2,760,000,000 | 164 yrs. |

The Moon's diameter is 2,160 miles, and her volume one forty-ninth of that of the Earth. She revolves in her orbit once in 29½ days, at a distance of 240,000 miles from the Earth.

The Asteroids exceed one hundred in number. Leverrier estimates that their aggregate mass does not exceed one-third of that of the Earth.

VELOCITY OF THE EARTH'S MOTION.—The Earth moves forward in its orbit, 1,640,000 miles per day, 68,000 miles per hour, 1,100 miles per minute, and nearly 19 miles every second.

GENERAL ROUTES FROM SAN FRANCISCO

Showing the most commonly traveled Routes to the Principal Towns and Places of Interest on the Pacific Coast.

SAN FRANCISCO TO

- ALAMEDA.—8 miles east.—Ferry and Railroad.
 ALBANY, Oregon.—700 miles.—Railroad to Reading, stage to Roseburg, railroad to Albany; or steamer to Portland, and rail to Albany.
 ALVARADO, Cal.—29 miles.—Ferry and rail to Hayward's, stage to Alvarado.
 ARCATA, Cal.—231 miles.—Ocean steamer via Eureka, Humboldt Bay.
 ASTORIA, Oregon.—566 miles.—Steamer once a week, (generally.)
 AUBURN, Cal.—174 miles.—C. P. R. R.
 AURORA, Nev.—411 miles.—C. P. R. R. to Reno, branch railroad to Carson, stage to Aurora.
 AUSTIN, Nev.—612 miles.—C. P. R. R. to Battle Mountain, stage to Austin.
 BELMONT, Nev.—697 miles.—(Same route as to Austin), stage to Belmont.
 BIG TREES, Cal.—160 miles.—Railroad to Galt, stage to Big Trees.
 BOISE CITY, I. T.—738 miles.—C. P. R. R. to Winnemucca, stage to Boise City.
 CALISTOGA, Cal.—66 miles.—Steamer to Vallejo, railroad to Calistoga.
 CARSON, Nev.—324 miles.—C. P. R. R. to Reno, branch railroad to Carson.
 CORVALLIS, Oregon.—712 miles.—Railroad to Reading, stage to Roseburg, rail to Albany, stage to Corvallis; or strmr. to Portland, rail to Albany, stage to Corvallis.
 COLUMBIA, Cal.—159 miles.—C. P. R. R. to Stockton, Copperopolis R. R. to Milton, stage to Columbia.
 COLUSA, Cal.—220 miles.—Rail to Marysville, stage to Colusa; or rail to Williams and stage to Colusa.
 CONGRESS SPRINGS, OR SARATOGA.—58 miles.—Rail to Santa Clara, stage to Saratoga.
 CORINNE, U. T.—858 miles.—C. P. R. R.
 CRYSTAL SPRINGS.—23 miles.—3 miles west of San Mateo, by stage.

GENERAL ROUTES FROM SAN FRANCISCO.

- DALLAS, Oregon.—739 miles.—Steamer to Portland, rail to Salem, stage to Dallas.
 DALLES, Oregon.—800 miles.—Steamer to Portland, steamer to Dalles.
 DOWNIEVILLE, Cal.—236 miles.—Railroad to Marysville, stage to Downieville.
 DUTCH FLAT, Cal.—197 miles.—C. P. R. R.
 EUREKA, Cal.—223 miles.—Steamer to Humboldt Bay.
 EUGENE CITY, Oregon.—637 miles.—Railroad to Reading, stage to Roseburg, rail to Eugene City; or steamer to Portland, rail to Eugene.
 GEYSERS, Cal.—Steamer to Donahue, rail to Cloverdale, stage to Geysers; or steamer to Vallejo, rail to Calistoga, stage to Geysers.
 GILROY, Cal.—80 miles.—Southern Pacific Railroad.
 GRASS VALLEY, Cal.—205 miles.—C. P. R. R. to Colfax, branch narrow guage railroad to Grass Valley.
 HAVILAH, Cal.—359 miles.—Rail to Bakersfield, stage to Havilah.
 HAYWARD'S, Cal.—22½ miles.—Ferry and rail.
 HEALDSBURG, Cal.—74 miles.—Steamer to Donahue, rail to Healdsburg.
 IDAHO CITY, I. T.—774 miles.—C. P. R. R. to Winnemucca, stage to Idaho City, via Boise.
 JACKSON, Cal.—181 miles.—C. P. R. R. to Stockton, rail to Ione, stage to Jackson.
 JACKSONVILLE, Oregon.—480 miles.—Rail to Reading, stage to Jacksonville.
 LAFAYETTE, Oregon.—714 miles.—Steamer to Portland, rail to St. Joseph, stage to Lafayette.
 LA GRANDE, Oregon.—975 miles.—Steamer to Portland, steamer to Umatilla, stage to La Grande.
 LAKEPORT, Cal.—Str. to Donahue, rail to Cloverdale, stage to Lakeport.
 LAKE TAHOE.—272 miles.—C. P. R. R. to Truckee, Cal., stage to Tahoe.
 LA PAZ, A. T.—676 miles.—Steamer or rail to Los Angeles, rail to San Bernardino, stage to La Paz.
 LEWISTON, I. T.—1070 miles.—Steamer to Portland, steamer to Lewiston, via Dalles.
 LOS ANGELES, Cal.—389 miles.—Str. to Santa Monica, rail to Los Angeles; or C. P. R. R. to Lathrop, and S. P. R. R. to Los Angeles.
 MARIPOSA, Cal.—190 miles.—Rail to Merced, stage to Mariposa.

GENERAL ROUTES FROM SAN FRANCISCO.

- MARTINEZ, Cal.—21 miles.—C. P. R. R., via Oakland, twice a day.
- MARYSVILLE, Cal.—190 miles.—C.P. R. R. via Sacramento.
- MERCED, Cal.—138 miles.—C.P.R.R. to Lathrop, S. J. V. R. R. to Merced.
- MONTE DIABLO.—About 50 miles.—Ferry and rail to Hayward's, stage to summit; or C. P. R. R. to Martinez, stage to summit.
- MONTEREY, Cal.—100 miles, by steamer; or via S. P. R. R. to Salinas, 117 miles, thence branch railroad to Monterey.
- NANAIMO, V. I.—830 miles.—Steamer, via Victoria.
- NAPA CITY, Cal.—46 miles.—Steamer to Vallejo, rail to Napa.
- NEVADA, Cal.—209 miles.—C. P. R. R. to Colfax, rail to Nevada.
- NEW WESTMINSTER, B.C.—830 miles.—Steamer via Victoria.
- OLYMPIA, W. T.—900 miles.—Steamer to Victoria, steamer to Olympia.
- OREGON CITY, Oregon.—683 miles.—Steamer to Portland, rail or steamer to Oregon City.
- OROVILLE, Cal.—216 miles.—Rail via Sacramento and Marysville.
- PANAMINT, INYO Co., Cal.—559 miles.—Str. and rail to Los Angeles, stage to Panamint; or via railroad to Caliente; stage to Panamint.
- PETALUMA, Cal.—42 miles.—Steamer, daily.
- PIOCHE, Nev.—815 miles.—C. P. R. R. to Palisade, E. & P. R. R. to Eureka, stage to Pioche.
- PLACERVILLE, Cal.—180 miles.—C. P. R. R. to Sacramento, S. V. R. R. to Shingle Springs, stage to Placerville.
- PORTLAND, Or.—782 miles.—Railroad to Reading, stage to Roseburg, rail to Portland; or 675 miles, steamer, weekly.
- PRESCOTT, A. T.—933 miles.—Steamer to Santa Monica, rail to San Bernardino, stage to Prescott.
- PROVO, Utah.—790 miles.—C. P. R. R. to Ogden, branch railroad to Salt Lake City, stage to Provo.
- QUINCY, Cal.—276 miles.—Rail to Oroville, stage to Quincy via La Porte.
- RED BLUFF.—275 miles.—R.R. via Sacramento and Marysville to Red Bluff.
- REDWOOD CITY, Cal.—28 miles.—S. P. R. R. three times a day.

GENERAL ROUTES FROM SAN FRANCISCO.

- ROSEBURG, Oregon.—582 miles.—Rail to Reading, stage to Roseburg; or steamer to Portland, rail to Roseburg.
- SACRAMENTO, Cal.—Via C. P. R. R., 138 miles; via River, 117 miles; via steamer to Vallejo and rail to Sacramento, 90 miles.
- SALEM, Oregon.—725 miles.—Steamer to Portland, rail or steamer to Salem.
- SALT LAKE CITY, U. T.—918 miles.—C. P. R. R. to Ogden, rail to Salt Lake City.
- SAN ANDREAS, Cal.—152 miles.—Rail to Milton, stage to San Andreas.
- SAN BERNARDINO.—454 miles.—Steamer to Santa Monica rail to San Bernardino; or S. P. R. R. to San Bernardino.
- SAN DIEGO, Cal.—480 miles.—Steamer, weekly.
- SAN JOSE, Cal.—50 miles.—C. P. R. R. and S. P. R. R. three times a day.
- SAN LEANDRO, Cal.—18 miles.—Ferry & rail, via Alameda, five times a day.
- SAN LUIS OBISPO, Cal.—210 miles.—Steamer; or rail to Salinas, stage to San Luis Obispo.
- SAN MATEO, Cal.—20 miles.—S. P. R. R. three times a day.
- SAN PABLO, Cal.—20 miles.—Ferry to Oakland, C. P. R. R. to San Pablo twice a day.
- SAN RAFAEL, Cal.—14 miles.—Ferry to San Quentin, rail to San Rafael.
- SANTA BARBARA, Cal.—280 miles.—Steamer; or rail to Salinas, and stage to Santa Barbara, daily.
- SANTA CLARA, Cal.—47 miles.—S. P. R. R. three times a day.
- SANTA CRUZ, Cal.—100 miles.—Rail to Watsonville, branch R. R. to Santa Cruz.
- SITKA, Alaska.—1663 miles.—Steamer.
- SNELLING, Cal.—174 miles.—Rail to Merced, stage to Snelling.
- SONOMA, Cal.—56 miles.—Steamer to Vallejo, rail to Napa, stage to Sonoma; or steamer to Donahue, stage to Sonoma.
- SONORA, Cal.—173 miles.—Rail via Stockton to Milton, stage to Sonora.
- STOCKTON, Cal.—90 miles via C. P. R. R., or 117 miles via River.
- SUISUN AND FAIRFIELD, Cal.—43 miles.—Steamer to Vallejo, rail to Suisun.

METEOROLOGICAL TABLE.

SUSANVILLE, Cal.—296 miles.—C. P. R. R. to Reno, stage to Susanville.

VALLEJO, Cal.—28 miles.—Steamer twice a day.

VICTORIA, B. C.—750 miles.—Steamer every ten days.

VIRGINIA CITY, Nev.—346 miles.—C. P. R. R. to Reno, branch railroad to Virginia.

VISALIA, Cal.—242 miles.—C. P. R. R. to Lathrop, S. J. V. R. R. to Visalia.

YOSEMITE VALLEY, Cal.—199 miles.—Rail to Merced, stage to the Valley.

YREKA, Cal.—420 miles.—Rail to Reading, stage to Yreka.

METEOROLOGICAL TABLE.

The following table shows the mean Fahrenheit temperature of January and July, the semi-annual range between them, and the average annual rainfall in inches of various towns in California as compared with other places.

| LOCALITY. | Jan'y | July. | Range. | Rain-fall in inches. |
|---------------------|-------|-------|--------|----------------------|
| Sonoma, Cal... | 45° | 66° | 21° | 25in. |
| Vallejo, " .. | 48 | 63 | 15 | 25 |
| San Francisco, " .. | 49 | 57 | 8 | 23 |
| Monterey, " .. | 52 | 58 | 6 | 20 |
| Santa Barbara, " .. | 54 | 71 | 17 | 15 |
| Los Angeles, " .. | 52 | 75 | 23 | 12 |
| San Diego, " .. | 51 | 72 | 21 | 10 |
| Humboldt Bay, " .. | 40 | 58 | 18 | 30 |
| Sacramento, " .. | 45 | 73 | 28 | 20 |
| St. Augustine..... | 57 | 80 | 23 | 55 |
| St. Paul | 13 | 73 | 60 | 30 |
| Mentone..... | 40 | 73 | 33 | 23 |
| Funchal..... | 60 | 70 | 10 | — |
| New York..... | 31 | 73 | 42 | 43 |
| London..... | 37 | 62 | 25 | 34 |

WEIGHTS AND MEASURES.

WEIGHT OF UNITED STATES COINS.

| | Grains. | Ounces. | | Grains. | Ounces. |
|-----------------|---------|-----------|------------------|---------|----------|
| Double Eagle = | 516 | = 1.075 | 3-Dollar piece = | 77.4 | = .16125 |
| Eagle..... = | 258 | = 0.5375 | Quarter Eagle = | 64.5 | = .14375 |
| Half-Eagle... = | 129 | = 0.26875 | Dollar piece.. = | 25.8 | = .05375 |

The ounce of Gold is valued at \$ 18.6046.

The ounce of Silver is valued at \$ 1.25.

TROY WEIGHT.

| Pound. | Ounces. | Pennyweights. | Grains. | Pounds Avoir. |
|--------|---------|---------------|---------|---------------|
| 1 = | 12 = | 240 = | 5,760 = | .822861 |
| .. | 1 = | 20 = | 480 = | .068571 |
| .. | .. | 1 = | 24 = | .0034285 |

AVOIRDUPOIS WEIGHT.

| Ton. | Cwt. | Pounds. | Ounces. | Drams. |
|------|------|---------|----------|---------|
| 1 = | 20 = | 2,240 = | 35,840 = | 573,440 |
| .. | 1 = | 112 = | 1,792 = | 28,672 |
| .. | .. = | 1 = | 16 = | 256 |
| .. | .. = | .. = | 1 = | 16 |

APOTHECARIES' WEIGHT.

| Pound. | Ounces. | Drams. | Scruples. | Grains. |
|--------|---------|--------|-----------|---------|
| 1 = | 12 = | 96 = | 288 = | 5,760 |
| .. | 1 = | 8 = | 24 = | 480 |
| .. | .. | 1 = | 3 = | 60 |
| .. | .. | .. | 1 = | 20 |

LIQUID CAPACITY.

| Gallon. | Quarts. | Pints. | Gills. | Cubic Inches. |
|---------|---------|--------|--------|---------------|
| 1 = | 4 = | 8 = | 32 = | 231. |
| .. | 1 = | 2 = | 8 = | 57.75 |
| .. | .. | 1 = | 4 = | 28.875 |
| .. | .. | .. | 1 = | 7.2175 |

A cylinder 7 inches in diameter and 6 inches high, holds a gallon.

A cubic foot contains 6.232 gallons.

WEIGHTS AND MEASURES.

DRY CAPACITY.

1 Bushel = 4 Pecks = 8 Gallons = 32 Quarts = 2150.42
Cubic Inches.

A cylinder 18.5 inches in diameter and 8 inches deep, holds
a bushel.

MEASURES OF LENGTH.

| Mile. | Furlongs. | Chains. | Rods. | Yards. | Feet. | Inches. |
|-------|-----------|---------|-------|---------|---------|----------|
| 1 | = 8 | = 80 | = 320 | = 1,760 | = 5,280 | = 63,360 |
| .. | 1 | = 10 | = 40 | = 220 | = 660 | = 7,920 |
| .. | .. | 1 | = 4 | = 22 | = 66 | = 792 |
| .. | .. | .. | 1 | = 5.5 | = 16.5 | = 198 |
| .. | .. | .. | .. | 1 | = 3 | = 36 |
| .. | .. | .. | .. | .. | 1 | = 12 |

1 Statute Mile = 5,280 feet = .86275 Nautical Miles.

1 Nautical Mile = 6,120 feet = 1.15908 Statute Miles.

60 Nautical Miles = 69.545 Statute Miles.

1 Cable Length = 120 Fathoms = 240 Yards = 720 Feet.

MEASURES OF SURFACE.

| Sq. Mile. | Acres. | Sq. Chains. | Sq. Rods. | Sq. Yards. | Sq. Feet. |
|-----------|--------|-------------|-----------|-------------|--------------|
| 1 | = 640 | = 6,400 | = 102,400 | = 3,097,600 | = 27,878,400 |
| .. | 1 | = 10 | = 160 | = 4,840 | = 43,560 |
| .. | .. | 1 | = 16 | = 484 | = 4,356 |
| .. | .. | .. | 1 | = 30.25 | = 272.25 |
| .. | .. | .. | .. | 1 | = 9 |

A lot 220 by 198 feet = 1 Acre.

A 50-vara lot, San Francisco measurement, is 137½ feet square.

A 100-vara lot is 275 feet square. The San Francisco Vara is 2
feet 9 inches. The true Vara is 2.781 feet. A San Francisco
100-vara lot = 1.7367 acres.

SIZES OF DRAWING PAPER.

| | | | |
|-------------------|--------------|-------------------|---------------|
| Cap | 13½ × 17 in. | Columbier | 23½ × 34½ in. |
| Demy | 15½ × 20 " | Atlas | 26 × 34 " |
| Medium | 17½ × 22 " | Theorem | 28 × 34 " |
| Royal | 19 × 24 " | Double Eleph'nt. | 26½ × 40 " |
| Super-royal | 19 × 27 " | Antiquarian | 31 × 53 " |
| Imperial | 22 × 30 " | Emperor | 48 × 72 " |
| Elephant | 23 × 28 " | Uncle Sam | 48 × 120 " |

VALUE OF FOREIGN COINS.

| Country. | Monetary unit. | Standard. | Value in U. S. money. |
|----------------------------------|----------------------|---------------|-----------------------------|
| Austria | Florin | Silver | .45.3 |
| Belgium | Franc | Gold & Silver | .19.3 |
| Bolivia | Dollar | Gold & Silver | .96.5 |
| Brazil | Milreis of 1000 reis | Gold | .54.5 |
| British Posses- sions in N.A. | Dollar | Gold | \$1 00 |
| Bogota | Peso | Gold | .96.5 |
| Cent. America | Dollar | Silver | .91.8 |
| Chili | Peso | Gold | .91.2 |
| Denmark | Crown | Gold | .26.8 |
| Ecuador | Dollar | Silver | .91.8 |
| Egypt | Pound of 100 pias | Gold | 4.97.4 |
| France | Franc | Gold & Silver | .19.3 |
| Great Britain. | Pound sterling... | Gold | 4.86.6½ |
| Greece | Drachma | Gold & Silver | .19.3 |
| German Emp. | Mark | Gold | .23.8 |
| Japan | Yen | Gold | .99.7 |
| India | Rupee of 16 annas | Silver | .43.6 |
| Italy | Lira | Gold & Silver | .19.3 |
| Liberia | Dollar | Gold | 1.00 |
| Mexico | Dollar | Silver | .99.8 |
| Netherlands.. | Florin | Gold & Silver | .38.5 |
| Norway | Crown | Gold | .26.8 |
| Peru | Dollar | Silver | .91.8 |
| Portugal | Milreis of 1000 reis | Gold | 1.08 |
| Russia | R'ble of 100 copks | Silver | .73.4 |
| Sandwich Isl. | Dollar | Gold | 1.00 |
| Spain | Pseta of 100 c'ntm | Gold & Silver | .19.3 |
| Sweden | Crown | Gold | .26.8 |
| Switzerland .. | Franc | Gold & Silver | .19.3 |
| Tripoli | Mahb'b of 20 piast | Silver | .82.9 |
| Tunis | Piast'r of 16 car'bs | Silver | .11.8 |
| Turkey | Piaster | Gold | .04.3 |
| U.S. of Colom | Peso | Silver | .91.8 |

The above rates will be taken in estimating the values
of all foreign merchandise made out in any of said cur-
rencies, imported on or after January 1, 1878.

JOHN SHERMAN, *Sec'y of the Treasury.*

Table showing the Annual Rainfall, in inches, at the places named.

| Place. | San Francisco, Cal. | Sacramento, Cal. | Stockton, Cal. | Nevada City, Cal. | Los Angeles, Cal. | Visalia, Cal. | Red Bluff, Cal. | Napa, Cal. | Eureka, Cal. | Yreka, Cal. | Portland, Oregon. | San Diego. |
|------------|---------------------|------------------|----------------|-----------------------------|-------------------|---------------|-----------------|----------------|--------------|-------------|-------------------|------------|
| Authority. | Thos. Tennent. | Dr. T. M. Logan. | W. M. Baggs. | So. Yuba Canal Co. | C. Ducommun. | Delta. | | W. A. Trubody. | | | | |
| 1849-50 | 33.10 | 36.00 | 36.00 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1850-51 | 7.40 | 4.71 | 4.71 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1851-52 | 18.44 | 17.98 | 17.98 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1852-53 | 35.26 | 36.36 | 27.40 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1853-54 | 23.87 | 20.06 | 21.04 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1854-55 | 23.68 | 18.62 | 11.68 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1855-56 | 21.66 | 13.77 | 8.37 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1856-57 | 19.81 | 10.43 | 11.38 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1857-58 | 21.88 | 18.99 | 18.99 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1858-59 | 22.22 | 16.05 | 16.04 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1859-60 | 22.27 | 22.62 | 22.72 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1860-61 | 19.72 | 15.54 | 15.55 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1861-62 | 49.27 | 35.54 | 35.55 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1862-63 | 13.62 | 11.57 | 11.58 | From Jan. 12, '63. 27.87 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |

| | | | | | | | | | | | | |
|----------|-------------------|-----------------------------|----------------------------|----------------------------|----------------------------|---------------------------|-----------------------------|-----------------------------|-----------------------------|---------------------------|-------|----------------------------|
| 1863-64 | 10.08 | 7.36 | 7.86 | 45.05 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1864-65 | 27.73 | 22.51 | 22.51 | 54.49 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1865-66 | 22.93 | 17.92 | 17.92 | 59.26 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| 1866-67 | 34.92 | 25.30 | 25.31 | 70.55 | ..... | ..... | ..... | 34.70 | ..... | ..... | ..... | ..... |
| 1867-68 | 38.84 | 32.76 | 20.71 | 99.70 | ..... | ..... | ..... | 46.00 | ..... | ..... | ..... | ..... |
| 1868-69 | 21.35 | 16.64 | 16.35 | 49.04 | ..... | ..... | ..... | 26.97 | ..... | ..... | ..... | ..... |
| 1869-70 | 19.31 | 13.57 | 7.63 | 45.98 | ..... | ..... | ..... | 21.33 | ..... | ..... | ..... | ..... |
| 1870-71 | 14.10 | 8.47 | 6.73 | 39.23 | ..... | ..... | ..... | 14.82 | ..... | ..... | ..... | ..... |
| 1871-72 | 34.71 | 24.05 | 20.80 | 78.22 | ..... | ..... | ..... | 45.55 | ..... | ..... | ..... | 6.04 |
| 1872-73 | 18.02 | 14.20 | 13.30 | 38.70 | 12.76 | ..... | 12.56 | 16.70 | ..... | ..... | ..... | 6.43 |
| 1873-74 | 23.98 | 22.89 | 15.20 | 62.91 | 24.83 | ..... | 15.00 | 28.68 | ..... | ..... | ..... | 16.89 |
| 1874-75 | 18.40 | 23.64 | 11.14 | 45.95 | 21.84 | ..... | 13.04 | 24.94 | ..... | ..... | ..... | 5.66 |
| 1875-76 | 26.01 | 25.67 | 18.33 | 66.67 | 29.71 | ..... | 23.50 | 36.37 | ..... | ..... | ..... | 10.11 |
| 1876-77 | 10.00 | 9.32 | 7.03 | 33.02 | 5.28 | 5.65 | 13.26 | 18.72 | ..... | ..... | ..... | 3.75 |
| 1877-78* | April 1. 30.03 | March 10, 1878. 18.85 | March 7, 1878. 15.53 | March 7, 1878. 46.89 | March 7, 1878. 13.19 | March 6, 1878. 8.78 | March 13, 1878. 47.75 | March 18, 1878. 37.41 | March 14, 1878. 36.35 | Mar. 7, 1878. 18.27 | ..... | Up to March 1. 11.04 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

* The record for 1877-78 closes at the dates named last above

TIME TABLE.

Time of day at various places on the globe when it is 12 o'clock (noon) at San Francisco:

| A. M. | H | M | S | P. M. | H | M | S |
|-----------------------|----|----|----|-----------------------|----|----|----|
| Astoria, Oregon .. | 11 | 54 | 12 | Halifax, N. S..... | 3 | 55 | 36 |
| Calcutta, India.... | 1 | 35 | 56 | Havana, Cuba..... | 2 | 41 | 00 |
| Canton, China.... | 3 | 43 | 00 | Jerusalem, Pal.... | 10 | 31 | 24 |
| Honolulu, S. I.... | 9 | 39 | 8 | Lima, Peru..... | 3 | 1 | 36 |
| Melbourne, Aust.. | 5 | 48 | 00 | London, Eng..... | 8 | 9 | 31 |
| Pekin, China..... | 3 | 56 | 00 | Los Angeles, Cal... | 12 | 16 | 30 |
| Sydney, Australia . | 6 | 14 | 00 | Louisville, Ky.... | 2 | 27 | 4 |
| Singapore, E. I.... | 3 | 8 | 00 | Mexico, Mex..... | 1 | 33 | 44 |
| Shanghai, China... | 4 | 12 | 40 | Mecca, Ara..... | 10 | 50 | 00 |
| Tobolsk, Siberia... | 12 | 43 | 00 | Montreal, Canada.. | 3 | 15 | 44 |
| Yeddo, Japan..... | 5 | 30 | 00 | New Orleans, La... 2 | 9 | 40 | |
| Yreka, Cal..... | 11 | 59 | 30 | New York City.... | 3 | 14 | 00 |
| P. M. | | | | Nevada, Cal..... | 12 | 5 | 15 |
| Acapulco, Mex.... | 1 | 26 | 28 | Oregon City, Ore. 12 | 0 | 40 | |
| Archangel, Russia. | 10 | 50 | 00 | Panama, Isthmus. 2 | 52 | 40 | |
| Aspinwall, Isthm's. | 2 | 50 | 40 | Paris, France..... | 8 | 19 | 24 |
| Berlin, Prus..... | 9 | 3 | 35 | Philadelphia, Pa .. | 3 | 9 | 22 |
| Boston, Mass..... | 3 | 25 | 48 | Placerville, Cal.... | 12 | 6 | 18 |
| Cape Good Hope.. | 9 | 32 | 50 | Portland, Me | 3 | 29 | 8 |
| Charleston, S. C... 2 | 50 | 40 | | Rio Janeiro, Brazil. | 5 | 17 | 8 |
| Chicago, Ill..... | 2 | 19 | 44 | Rome, Italy..... | 9 | 0 | 3 |
| Cincinnati, O..... | 2 | 32 | 16 | Sacramento, Cal... 12 | 3 | 58 | |
| Constantinople.... | 10 | 9 | 44 | Santa Fe, N. Mex.. 12 | 55 | 44 | |
| Detroit, Mich..... | 2 | 38 | 12 | Salt Lake City | 12 | 41 | 40 |
| Eastport, Maine... 3 | 42 | 00 | | St. Louis, Mo..... | 2 | 9 | 4 |
| Fort Yuma, Cal... 12 | 31 | 18 | | St. Petersburg.... | 10 | 11 | 20 |
| Frankfort, Ger.... | 8 | 43 | 24 | Stockholm, Swd'n. | 9 | 22 | 20 |
| Galveston, Tex.... | 1 | 50 | 32 | Toronto, Canada... 2 | 52 | 00 | |
| Geneva, Switz.... | 8 | 34 | 42 | Vienna, Austria... 9 | 15 | 35 | |
| Gibraltar, Spain... 7 | 48 | 44 | | Washington, D. C.. 3 | 2 | 00 | |

TEMPERATURE OF VARIOUS LOCALITIES.

| PLACE. | LATITUDE | MEAN TEMPERATURE. | | |
|------------------|----------|-------------------|-----------|----------|
| | | OF YEAR | OF WINT'R | OF SUM'R |
| Algiers | 36° 48' | 69.98° | 61.52° | 80.24° |
| Amsterdam | 52.22 | 51.62 | 33.86 | 65.84 |
| Berne..... | 46.05 | 49.28 | 32.00 | 66.56 |
| Bourdeaux | 44.50 | 56.48 | 42.08 | 70.88 |
| Brussels | 50.50 | 51.80 | 36.68 | 66.20 |
| Cairo..... | 30.02 | 72.32 | 58.46 | 85.10 |
| Cambridge, U.S. | 42.25 | 50.36 | 33.98 | 70.70 |
| Cincinnati | 39.06 | 53.78 | 32.90 | 72.86 |
| Copenhagen.... | 55.41 | 45.68 | 30.74 | 62.60 |
| Dublin | 53.21 | 49.10 | 39.20 | 59.54 |
| Edinburgh..... | 55.57 | 47.84 | 33.66 | 58.28 |
| Geneva | 46.12 | 49.28 | 34.70 | 64.94 |
| Havana..... | 23.10 | 78.08 | 71.24 | 83.30 |
| London..... | 51.30 | 50.33 | 39.56 | 63.14 |
| Marsailles..... | 43.17 | 59.00 | 45.50 | 72.50 |
| Moscow..... | 55.45 | 40.10 | 10.78 | 67.10 |
| Nagasaki | 32.45 | 60.80 | 39.38 | 82.94 |
| Natchez | 31.28 | 64.76 | 48.56 | 79.16 |
| New York..... | 40.40 | 53.78 | 29.84 | 79.16 |
| Paris | 48.50 | 51.08 | 38.66 | 64.58 |
| Pekin | 39.54 | 54.86 | 26.42 | 82.58 |
| Philadelphia ... | 39.56 | 53.42 | 32.18 | 73.94 |
| Quebec | 46.47 | 41.74 | 14.18 | 68.00 |
| Rome..... | 41.53 | 60.44 | 45.86 | 75.20 |
| Sacramento | 38.32 | 59.90 | 48.46 | 70.77 |
| San Francisco.. | 37.47 | 55.85 | 50.59 | 58.97 |
| Stockholm | 59.20 | 42.26 | 25.52 | 61.88 |
| St. Petersburg . | 59.56 | 38.84 | 17.06 | 62.06 |
| Vera Cruz..... | 19.11 | 77.72 | 71.96 | 81.50 |
| Vienna | 48.12 | 50.54 | 32.72 | 69.26 |
| Warsaw | 52.14 | 48.56 | 28.76 | 69.08 |

THE SEASONS.

Vernal Equinox.....March 20th, 3h. 24m. P.M.
 Summer Solstice.....June 21st, 11h. 33m. A.M.
 Autumnal Equinox....Sept. 23d, 2h. 7m. A.M.
 Winter Solstice.....Dec. 21st, 8h. 16m. P.M.
 (Given in San Francisco time.)

EFFECTS OF TEMPERATURE.

ABOVE ZERO (FAHRENHEIT.)

| | |
|---|------|
| Strong wine freezes..... | 20° |
| Milk freezes..... | 30 |
| Ice melts..... | 32 |
| Mean temperature at Edinburgh..... | 41 |
| Mean temperature at London..... | 50.7 |
| Mean temperature at Sacramento..... | 59.5 |
| Mean temperature at Rome..... | 60 |
| Mean temperature at the Equator..... | 81.5 |
| Heat of the human blood..... | 98 |
| Ether boils..... | 98 |
| Phosphorous melts..... | 100 |
| Alcohol boils..... | 173 |
| Water boils..... | 212 |
| Sulphur melts..... | 226 |
| Nitric acid boils..... | 242 |
| Tin melts..... | 442 |
| Polished steel acquires a pale straw color..... | 460 |
| Bismuth melts..... | 476 |
| Phosphorus boils..... | 554 |
| Polished steel acquires a deep blue color..... | 580 |
| Sulphuric acid boils..... | 590 |
| Lead melts..... | 594 |
| Linseed oil boils..... | 600 |
| Lowest ignition of iron in the dark..... | 635 |
| Mercury boils..... | 662 |
| Zinc melts..... | 700 |
| Iron bright red in the dark..... | 752 |
| Antimony melts..... | 810 |
| Iron red hot in the twilight..... | 884 |
| Red heat fully visible in the daylight..... | 1077 |
| Heat of a common fire..... | 1141 |
| Brass melts..... | 1869 |
| Silver melts..... | 1873 |
| Copper melts..... | 1996 |
| Gold melts..... | 2016 |
| Steel melts..... | 2500 |
| Cast iron melts..... | 2786 |
| Platinum melts..... | 3080 |

HACK FARES IN SAN FRANCISCO.

ORDER No. 1,212.

RATES OF FARE.

| | |
|---|---------|
| For a Hack for one person, not exceeding one mile | \$ 1 50 |
| For a Hack for two or more persons, not exceeding one mile..... | 2 50 |
| For each additional mile, for each passenger..... | 50 |
| For a Cab for one person, not exceeding one mile.. | 1 00 |
| For a Cab for two or more persons, not exceeding one mile..... | 1 50 |
| For each passenger for each additional mile..... | 25 |
| For a Cab for two persons, when engaged by the hour, to be computed for the time occupied in going and returning, including detention, for the first hour..... | 1 50 |
| For each subsequent hour so used..... | 1 00 |
| For a Hack or Cab for four or less persons, when engaged by the hour, to be computed for the time occupied in going and returning, including detention, for the first hour..... | 3 00 |
| For each subsequent hour so used..... | 2 00 |

No extra charge to any passenger shall be made for the ordinary amount of baggage.

SEC. 8 OF ORDER 1,212. — "From the landing of any steamboat to any point east of the west line of Larkin street, and north of the south line of Brannan street, east of Third street, shall in all cases be estimated not to exceed one mile."

List of Sundays in 1879.

| | |
|----------------|-------------------------------|
| JANUARY..... | 5.....12.....19.....26 |
| FEBRUARY..... | 2.....9.....16.....23 |
| MARCH..... | 2.....9.....16.....23.....30 |
| APRIL..... | 6.....13.....20.....27 |
| MAY..... | 4.....11.....18.....25 |
| JUNE..... | 1.....8.....15.....22.....29 |
| JULY..... | 6.....13.....20.....27 |
| AUGUST..... | 3.....10.....17.....24.....31 |
| SEPTEMBER..... | 7.....14.....21.....28 |
| OCTOBER..... | 5.....12.....19.....26 |
| NOVEMBER..... | 2.....9.....16.....23.....30 |
| DECEMBER..... | 7.....14.....21.....28 |

INTEREST TABLE.

Example: \$35.00 at 6 per cent. \$30.00 = \$1.80;
 \$5.00 = \$0.30. Total, \$2.10.

| | 1/4% | 1/2% | 1% | 1 1/4% | 1 1/2% | 6% | 7% | 8% | 9% | 10% |
|---------|---------|--------|-------|--------|--------|----------|----------|----------|----------|----------|
| \$0.25 | 0.00625 | 0.0125 | 0.025 | 0.0375 | 0.05 | 0.015625 | 0.021875 | 0.028125 | 0.034375 | 0.040625 |
| 0.50 | 0.0125 | 0.025 | 0.05 | 0.075 | 0.10 | 0.03125 | 0.04375 | 0.05625 | 0.06875 | 0.08125 |
| 0.75 | 0.01875 | 0.0375 | 0.075 | 0.1125 | 0.15 | 0.046875 | 0.064375 | 0.081875 | 0.099375 | 0.116875 |
| 1.00 | 0.025 | 0.05 | 0.10 | 0.15 | 0.20 | 0.0625 | 0.085 | 0.11 | 0.1325 | 0.155 |
| 2.00 | 0.05 | 0.10 | 0.20 | 0.30 | 0.40 | 0.125 | 0.17 | 0.22 | 0.265 | 0.31 |
| 3.00 | 0.075 | 0.15 | 0.30 | 0.45 | 0.60 | 0.1875 | 0.2625 | 0.34 | 0.4175 | 0.495 |
| 4.00 | 0.10 | 0.20 | 0.40 | 0.60 | 0.80 | 0.25 | 0.35 | 0.46 | 0.55 | 0.64 |
| 5.00 | 0.125 | 0.25 | 0.50 | 0.75 | 1.00 | 0.3125 | 0.4375 | 0.5625 | 0.6875 | 0.8125 |
| 6.00 | 0.15 | 0.30 | 0.60 | 0.90 | 1.20 | 0.375 | 0.525 | 0.66 | 0.81 | 0.96 |
| 7.00 | 0.175 | 0.35 | 0.70 | 1.05 | 1.40 | 0.4375 | 0.6125 | 0.7525 | 0.9175 | 1.0825 |
| 8.00 | 0.20 | 0.40 | 0.80 | 1.20 | 1.60 | 0.5 | 0.7 | 0.88 | 1.08 | 1.28 |
| 9.00 | 0.225 | 0.45 | 0.90 | 1.35 | 1.80 | 0.5625 | 0.7875 | 0.9875 | 1.1975 | 1.4075 |
| 10.00 | 0.25 | 0.50 | 1.00 | 1.50 | 2.00 | 0.625 | 0.875 | 1.1 | 1.325 | 1.55 |
| 20.00 | 0.5 | 1.0 | 2.0 | 3.0 | 4.0 | 1.25 | 1.75 | 2.2 | 2.65 | 3.1 |
| 30.00 | 0.75 | 1.5 | 3.0 | 4.5 | 6.0 | 1.875 | 2.625 | 3.3 | 4.075 | 4.85 |
| 40.00 | 1.0 | 2.0 | 4.0 | 6.0 | 8.0 | 2.5 | 3.5 | 4.4 | 5.3 | 6.2 |
| 50.00 | 1.25 | 2.5 | 5.0 | 7.5 | 10.0 | 3.125 | 4.375 | 5.5 | 6.625 | 7.75 |
| 60.00 | 1.5 | 3.0 | 6.0 | 9.0 | 12.0 | 3.75 | 5.25 | 6.6 | 8.025 | 9.45 |
| 70.00 | 1.75 | 3.5 | 7.0 | 10.5 | 14.0 | 4.375 | 6.125 | 7.7 | 9.275 | 10.85 |
| 80.00 | 2.0 | 4.0 | 8.0 | 12.0 | 16.0 | 5.0 | 7.0 | 8.8 | 10.8 | 12.8 |
| 90.00 | 2.25 | 4.5 | 9.0 | 13.5 | 18.0 | 5.625 | 7.875 | 9.9 | 12.075 | 14.15 |
| 100.00 | 2.5 | 5.0 | 10.0 | 15.0 | 20.0 | 6.25 | 8.75 | 11.0 | 13.5 | 16.0 |
| 500.00 | 12.5 | 25.0 | 50.0 | 75.0 | 100.0 | 31.25 | 43.75 | 55.0 | 66.25 | 77.5 |
| 1000.00 | 25.0 | 50.0 | 100.0 | 150.0 | 200.0 | 62.5 | 87.5 | 110.0 | 132.5 | 155.0 |

IMPORTANT EPOCHS AND ERAS,

WITH THE PERIODS OF THEIR COMMENCEMENT.

| | |
|--|---------------------------------------|
| Grecian Year of the World..... | September 1, B. C. 5598. |
| Julian Period..... | January 1, B. C. 4713. |
| Jewish Mundane Era..... | Vernal Equinox, B. C. 3761. |
| Destruction of Troy..... | June, B. C. 1184. |
| Building of Solomon's Temple..... | May, B. C. 1015. |
| Era of Olympiads..... | New Moon, Summer Solstice, B. C. 776. |
| Roman Era..... | April 24, B. C. 753. |
| Era of Nabonasser..... | February 26, B. C. 747. |
| Metonic Cycle..... | July 15, B. C. 432. |
| Julian Year..... | January 1, B. C. 45. |
| Augustan Era..... | February 14, B. C. 27. |
| Indiction of Constantinople..... | September 1, B. C. 3. |
| Christian Era..... | January 1, A. D. 1; A. M. 4004. |
| Destruction of Jerusalem..... | September 21, A. D. 69. |
| Era of Diocletian..... | September 17, A. D. 284. |
| Era of Hegira..... | July 16, A. D. 622. |
| Persian Era..... | June 16, A. D. 632. |
| Conquest of England..... | October 14, A. D. 1066. |
| Declaration American Independence..... | July 4, A. D. 1776. |

FASTS AND FEASTS FOR 1879.

| | |
|-----------------------------|----------|
| Septuagesima Sunday..... | Feb. 9 |
| Shrove Sunday..... | Feb. 23 |
| Ash Wednesday..... | " 26 |
| First Sunday in Lent..... | Mar. 2 |
| Palm Sunday..... | April 6 |
| Good Friday..... | " 11 |
| Easter Sunday..... | " 13 |
| Low Sunday..... | April 20 |
| Rogation Sunday..... | May 18 |
| Ascension Day..... | " 22 |
| Whit Sunday..... | June 1 |
| Trinity Sunday..... | " 8 |
| First Sunday in Advent..... | Nov. 30 |
| Christmas Day..... | Dec. 25 |

CHRONOLOGICAL CYCLES, 1879.

| | | | |
|-----------------------|----|----------------------|-------|
| Dominical Letter..... | E | Solar Cycle..... | 12 |
| Golden No..... | 18 | Roman Indiction..... | 7 |
| Epact..... | 7 | Julian Period..... | 6,592 |

STAMP DUTIES.

| | |
|---|-------|
| PROPRIETARY MEDICINES, Perfumery, Cosmetics, Preparations, &c., each package retailed at not over 25 cents..... | \$0 1 |
| Over 25 cents and not over 50 cents..... | 0 2 |
| Over 50 cents and not over 75 cents..... | 0 3 |
| Over 75 cents and not over \$1..... | 0 4 |
| Every additional 50 cts. or part thereof, 2 cts. more. | |
| FRICITION MATCHES, or lucifer matches, or other articles made in part of wood, and used for like purposes, each package of 100 matches, or part thereof | 0 1 |
| Packages of more than 100 matches, for each 100 or part thereof..... | 0 1 |
| CIGAR LIGHTS, made in part of wood, wax, glass, paper, or other materials, in packages containing 25 lights or less, each package..... | 0 1 |
| Every additional twenty-five lights, or part thereof, 1 cent more. | |
| PLAYING CARDS, for and upon every pack, not exceeding fifty-two cards in number, irrespective of price or value..... | 0 5 |

No stamps are required upon any papers or documents except the two-cent stamps upon bank checks, all others, except as above specified, having been repealed by act of Congress. Took effect October 1, 1872.

DIVISIONS OF TIME.

A SOLAR DAY is measured by the rotation of the earth upon its axis, and is of different lengths, owing to the ellipticity of the earth's orbit and other causes; but a mean solar day, recorded by the time-piece, is twenty-four hours long. An ASTRONOMICAL DAY commences at noon, and is counted from the first to the twenty-fourth hour. A CIVIL DAY commences at midnight, and is counted from the first to the twelfth hour, when it is recounted again from the first to the twelfth hour. A NAUTICAL DAY is counted as a civil day, but commences like an Astronomical Day, from noon.

A CALENDAR MONTH varies in length from 28 to 31 days. A MEAN LUNAR MONTH is 29 days, 12 hours, 44 minutes, 2 seconds, and 5.24 thirds.

A YEAR is divided into 365 days. A SOLAR YEAR, which is the time occupied by the Sun in passing from one Vernal Equinox to another, consists of 365.24244 solar days, or 365 days, 5 hours, 48 minutes, and 49.536 seconds. A JULIAN YEAR is 365 days. A GREGORIAN YEAR is 365.2425 days. Every fourth year is BISSEXTILE, or LEAP YEAR, and has 366 days.

RATES OF POSTAGE.

MAILABLE MATTER is divided into three classes, viz.

FIRST CLASS.

LETTERS and anything of which the Postmaster cannot ascertain the contents without destroying the wrapper, or anything unsealed which may be wholly, or partly in writing — except, *book-manuscript*, corrected proofs passing between authors and publishers, and postal cards, three cents for each half ounce or fraction thereof.

REGISTERED LETTERS, 10 cents, in addition to the proper postage.

DROP LETTERS at letter carrier offices, 2 cents for each half ounce; at other than letter-carrier offices, one cent or each half ounce.

POSTAL CARDS with stamp impressed upon them, 1 cent each.

MANUSCRIPTS for publication in newspapers and periodicals are subject to letter postage.

LETTERS PREPAID shall be forwarded from one post office to another at the request of the party addressed, without additional postage.

LETTERS containing the address of the writer on the envelope will be returned to the writer if not called for, instead of being sent to the dead letter office.

SECOND CLASS.

PUBLICATIONS regularly issued at stated periods from a known office of publication or news agency to regular subscribers or news agents, when issued weekly or oftener, two cents for each pound or fraction thereof; when

RATES OF POSTAGE.

issued less frequently than once a week, three cents for each pound or fraction thereof.

THIRD CLASS.

This class includes different rates of postage:

I. Pamphlets, magazines, books, posters, prospectuses, maps, occasional publications, transient newspapers, periodicals, handbills, sheet music, (printed,) proof sheets, regular publications designed primarily for advertising purposes, or for free circulation, or for circulation at nominal rates, and corrected proof sheets, one cent for every two ounces or fraction thereof.

2. Lithographs, prints, engravings, seeds, cuttings, bulbs, flexible patterns, printed cards or blanks, chromo lithographs, photographs and stereoscopic views, book manuscript, unsealed circulars, roots and scions, sample cards, samples of ores, metals, minerals and merchandise, photographic paper, unprinted cards, letter envelopes, postal envelopes and wrappers, plain and ornamental paper, card board or other flexible material, and all other mailable matter of the third class, not herein enumerated, one cent for each ounce, or fraction thereof.

ALL MAILABLE MATTER, for delivery within the United States, must be *prepaid*, except duly certified letters of soldiers and sailors.

ALL PACKAGES of Mail Matter not charged with letter postage must be so arranged that the same can be *conveniently* examined by Postmasters; if not, letter postage will be charged.

No PACKAGE will be forwarded by mail which weighs over 4 pounds.

FOREIGN POSTAGE.

LETTERS TO MEXICO, CHINA, AND MANILLA, 10 cents for each 1-2 ounce. To PANAMA, ASPINWALL, AND FIJI ISLANDS, 5 cents for each 1-2 ounce. Postage on newspapers 2 cents each.

LETTERS TO JAPAN, 5 cents for each 1-2 ounce. Newspapers 2 cents each.

LETTERS TO BRITISH COLUMBIA, 3 cents. To the HAWAIIAN ISLANDS, 6 cents, for each 1-2 ounce.

LETTERS TO PERU, CHILI, and other Pacific South American Ports, 17 cents for each 1-2 ounce.

LETTERS TO THE DOMINION OF CANADA, 3 cents for each 1-2 ounce; prepayment necessary. Mailable matter of the 3d class to the Dominion of Canada, 10 cents for every 8 ounces or fraction thereof.

LETTERS TO GREAT BRITAIN OR IRELAND, 5 cents for each 1-2 ounce.

LETTERS TO GERMANY, 5 cents for each 1-2 ounce.

AUSTRALIA, &c.—Letters to TASMANIA, the Colonies of SOUTH AUSTRALIA, VICTORIA, and WEST AUSTRALIA, in AUSTRALIA, 5 cents for each 1-2 ounce. Newspapers, 2 cents each.

LETTERS TO NEW ZEALAND, NEW SOUTH WALES, and QUEENSLAND, 12 cents for each 1-2 ounce.

LETTERS TO OTHER FOREIGN COUNTRIES vary in rate according to the route by which they are sent, and the proper information can be obtained of any Postmaster in the United States.

MEAN AND APPARENT TIME.

APPARENT TIME is reckoned by the revolutions of the Sun from the meridian to the meridian again. These intervals being unequal, of course the apparent solar days are unequal to each other.

MEAN TIME is time reckoned by the *average* length of all the solar days throughout the year. This is the period which constitutes the civil day of 24 hours.

TIDES AT SAN FRANCISCO.

HIGH TIDES::JANUARY.

| D | Morn'g | Even'g | D | Morn'g | Even'g |
|----|--------|---------|----|--------|---------|
| 1 | 6 28L | 7 18s | 17 | 6 39L | 9 26s |
| 2 | 7 4L | 8 30s | 18 | 7 32L | 10 35s |
| 3 | 7 38L | 9 38s | 19 | 8 35L | 11 29s |
| 4 | 8 15L | 10 41s | 20 | 9 31L | |
| 5 | 8 52L | 11 46s | 21 | 0 12s | 10 38L* |
| 6 | 10 24L | | 22 | 0 48s | 11 34L* |
| 7 | 1 24s | 10 6L* | 23 | 1 21s | 0 31L |
| 8 | 1 4s | 10 56L* | 24 | 1 48s | 1 24L |
| 9 | 1 44s | 11 46L* | 25 | 2 9s | 2 13L |
| 10 | 2 20s | 0 38L | 26 | 2 31s | 3 3L |
| 11 | 2 52s | 1 31L | 27 | 3 19L | 3 37s |
| 12 | 3 21s | 2 31L | 28 | 3 49L | 4 39s |
| 13 | 3 55L | 4 4s | 29 | 4 25L | 5 51s |
| 14 | 4 14L | 5 25s | 30 | 5 4L | 7 4s |
| 15 | 4 59L | 6 47s | 31 | 5 43L | 8 9s |
| 16 | 5 47L | 8 5s | | | |

HIGH TIDES::FEBRUARY.

| D | Morn'g | Even'g | D | Morn'g | Even'g |
|----|--------|---------|----|--------|---------|
| 1 | 6 30L | 9 24s | 16 | 7 21L | 10 26s |
| 2 | 7 17L | 10 17s | 17 | 8 28L | 11 14s |
| 3 | 8 11L | 11 9s | 18 | 9 26L | 11 50s |
| 4 | 9 3L | 11 51s | 19 | 10 16L | |
| 5 | 9 54L | | 20 | 0 18s | 11 28L* |
| 6 | 0 28s | 10 42L* | 21 | 0 41s | 0 17L |
| 7 | 0 56s | 11 47L* | 22 | 1 3s | 1 7L |
| 8 | 1 37s | 0 40L | 23 | 1 31L | 1 49s |
| 9 | 2 4L | 1 41s | 24 | 1 47L | 2 37s |
| 10 | 2 23L | 2 40s | 25 | 2 6L | 3 32s |
| 11 | 2 59L | 3 53s | 26 | 2 28L | 4 28s |
| 12 | 3 27L | 5 18s | 27 | 3 3L | 5 29s |
| 13 | 4 18L | 6 42s | 28 | 3 51L | 7 45s |
| 14 | 5 16L | 8 6s | | | |
| 15 | 6 12L | 9 21s | | | |

*For explanatory remarks, see note on page 44.

HIGH TIDES::MARCH.

| D | Morn'g | Even'g | D | Morn'g | Even'g |
|----|--------|---------|----|--------|--------|
| 1 | 4 41L | 7 41s | 17 | 7 17L | 9 58s |
| 2 | 5 40L | 8 38s | 18 | 8 24L | 10 37s |
| 3 | 6 46L | 9 34s | 19 | 9 23L | 11 5s |
| 4 | 7 54L | 10 28s | 20 | 10 15L | 11 27s |
| 5 | 8 52L | 11 6s | 21 | 11 3L | 11 44s |
| 6 | 9 48L | 11 38s | 22 | 11 48s | |
| 7 | 10 41L | | 23 | 0 25L | 0 43s |
| 8 | 0 5s | 11 33L* | 24 | 0 42L | 1 32s |
| 9 | 0 29L | 0 52s | 25 | 1 0L | 2 26s |
| 10 | 1 2L | 1 52s | 26 | 1 17L | 3 17s |
| 11 | 1 26L | 2 54s | 27 | 1 40L | 4 6s |
| 12 | 1 54L | 4 1s | 28 | 2 15L | 5 9s |
| 13 | 2 35L | 5 29s | 29 | 3 4L | 6 4s |
| 14 | 3 35L | 6 49s | 30 | 4 8L | 7 6s |
| 15 | 4 49L | 8 0s | 31 | 5 15L | 8 3s |
| 16 | 6 2L | 9 5s | | | |

HIGH TIDES::APRIL.

| D | Morn'g | Even'g | D | Morn'g | Even'g |
|----|--------|--------|----|--------|--------|
| 1 | 6 22L | 8 56s | 17 | 9 16L | 10 6s |
| 2 | 7 30L | 9 44s | 18 | 10 10s | 10 50L |
| 3 | 8 33L | 10 23s | 19 | 10 36s | 11 6L |
| 4 | 9 33L | 10 57s | 20 | 11 24s | 11 20L |
| 5 | 10 27L | 11 23s | 21 | 0 10s† | 11 39L |
| 6 | 11 43s | 11 17L | 22 | 1 5s† | 11 59L |
| 7 | | 1 4s | 23 | | 1 59s |
| 8 | 0 4L | 2 3s | 24 | 0 23L | 3 17s |
| 9 | 0 37L | 3 6s | 25 | 0 50L | 3 50s |
| 10 | 1 12L | 4 7s | 26 | 1 34L | 4 32s |
| 11 | 2 7L | 5 19s | 27 | 2 34L | 5 22s |
| 12 | 3 21L | 6 30s | 28 | 3 46L | 6 20s |
| 13 | 4 42L | 7 31s | 29 | 4 58L | 7 12s |
| 14 | 5 57L | 8 22s | 30 | 6 6L | 7 56s |
| 15 | 7 8L | 9 6s | | | |
| 16 | 8 16L | 9 40s | | | |

HIGH TIDES::MAY.

| D | Morn'g | Even'g | D | Morn'g | Even'g |
|----|--------|--------|----|--------|--------|
| 1 | 7 18L | 8 42s | 17 | 9 38s | 9 43L |
| 2 | 8 25L | 9 21s | 18 | 10 33s | 10 3L |
| 3 | 9 38s | 9 48L | 19 | 11 29s | 10 21L |
| 4 | 10 40s | 10 14L | 20 | 0 21s† | 10 43L |
| 5 | 11 41s | 10 47L | 21 | 1 9s† | 11 11L |
| 6 | 0 45s† | 11 19L | 22 | 2 5s† | 11 48L |
| 7 | | 2 3s | 23 | | 2 48s |
| 8 | 0 9L | 2 59s | 24 | 0 31L | 3 19s |
| 9 | 0 59L | 3 53s | 25 | 1 21L | 3 55s |
| 10 | 1 55L | 4 53s | 26 | 2 21L | 4 35s |
| 11 | 3 7L | 5 56s | 27 | 3 33L | 5 23s |
| 12 | 4 23L | 6 49s | 28 | 4 45L | 6 9s |
| 13 | 5 35L | 7 31s | 29 | 5 57L | 6 53s |
| 14 | 6 41L | 8 9s | 30 | 7 16s | 7 26L |
| 15 | 7 45L | 8 44s | 31 | 8 30s | 8 4L |
| 16 | 8 48s | 9 30L | | | |

HIGH TIDES::JUNE.

| D | Morn'g | Even'g | D | Morn'g | Even'g |
|----|--------|--------|----|--------|--------|
| 1 | 9 45s | 8 45L | 17 | 11 30s | 9 32L |
| 2 | 10 54s | 9 28L | 18 | 0 26s† | 10 9L |
| 3 | 11 58s | 10 4L | 19 | 1 9s† | 10 56L |
| 4 | 1 0s† | 11 0L | 20 | 1 54s† | 11 38L |
| 5 | 1 56s† | 11 58L | 21 | | 2 26s |
| 6 | | 2 40s | 22 | 0 26L | 2 40s |
| 7 | 0 52L | 3 23s | 23 | 1 18L | 3 8s |
| 8 | 1 49L | 4 5s | 24 | 2 16L | 3 40s |
| 9 | 2 51L | 4 54s | 25 | 3 24L | 4 20s |
| 10 | 4 4L | 5 36s | 26 | 4 37L | 5 5s |
| 11 | 5 12L | 6 16s | 27 | 5 43s | 5 53L |
| 12 | 6 20s | 6 58L | 28 | 7 0s | 6 34L |
| 13 | 7 16s | 7 32L | 29 | 8 22s | 7 22L |
| 14 | 8 22s | 8 4L | 30 | 9 44s | 8 18L |
| 15 | 9 30s | 8 34L | | | |
| 16 | 10 34s | 9 4L | | | |

TIDES AT SAN FRANCISCO.

HIGH TIDES::JULY.

| D | Morn'g | Even'g | D | Morn'g | Even'g |
|----|--------|--------|----|--------|--------|
| 1 | 10 56s | 9 2L | 17 | 0 9s† | 9 52L |
| 2 | 0 3s† | 10 3L | 18 | 0 50s† | 10 37L |
| 3 | 0 54s† | 10 56L | 19 | 1 25s† | 11 26L |
| 4 | 1 38s† | 11 50L | 20 | | 2 0s |
| 5 | | 2 16s | 21 | 0 16L | 2 6s |
| 6 | 0 42L | 2 47s | 22 | 1 7L | 2 31s |
| 7 | 1 33L | 3 18s | 23 | 2 1L | 2 57s |
| 8 | 2 28L | 3 51s | 24 | 3 11s | 3 21L |
| 9 | 3 27L | 4 29s | 25 | 4 26s | 4 0L |
| 10 | 4 33s | 5 16L | 26 | 5 51s | 4 51L |
| 11 | 5 34s | 5 53L | 27 | 7 15s | 5 49L |
| 12 | 6 43s | 6 27L | 28 | 8 38s | 6 44L |
| 13 | 7 53s | 7 4L | 29 | 10 2s | 8 2L |
| 14 | 9 4s | 7 47L | 30 | 11 7s | 9 9L |
| 15 | 10 13s | 8 24L | 31 | 11 57s | 10 9L |
| 16 | 11 18s | 9 9L | | | |

HIGH TIDES::AUGUST.

| D | Morn'g | Even'g | D | Morn'g | Even'g |
|----|--------|--------|----|--------|--------|
| 1 | 0 36s† | 11 2L | 17 | 0 47s† | 11 25L |
| 2 | 1 2s† | 11 48L | 18 | | 1 15s |
| 3 | | 1 29s | 19 | 0 17L | 1 13s |
| 4 | 0 39L | 1 53s | 20 | 1 17s | 1 27L |
| 5 | 1 29L | 2 14s | 21 | 2 13s | 1 47L |
| 6 | 2 18s | 2 45L | 22 | 3 19s | 2 19L |
| 7 | 3 3s | 3 14L | 23 | 4 38s | 3 12L |
| 8 | 4 4s | 3 49L | 24 | 6 5s | 4 11L |
| 9 | 5 15s | 4 30L | 25 | 7 34s | 5 34L |
| 10 | 6 30s | 5 17L | 26 | 8 49s | 6 51L |
| 11 | 7 43s | 6 0L | 27 | 9 57s | 8 9L |
| 12 | 8 54s | 6 59L | 28 | 10 51s | 9 17L |
| 13 | 9 59s | 7 59L | 29 | 11 31s | 10 17L |
| 14 | 10 57s | 8 53L | 30 | 11 59s | 11 9L |
| 15 | 11 41s | 9 44L | 31 | 0 23s† | 11 59L |
| 16 | 0 18s† | 10 33L | | | |

*For explanatory remarks, see Note on page 44.

HIGH TIDES::SEPTEMBER.

| D | Morn'g | Even'g | D | Morn'g | Even'g |
|----|--------|--------|----|--------|--------|
| 1 | | 0 33s | 17 | 0 29s | 0 3L |
| 2 | 0 37s | 1 0L | 18 | 1 29s | 0 29L |
| 3 | 1 18s | 1 17L | 19 | 2 30s | 1 4L |
| 4 | 2 7s | 1 34L | 20 | 3 32s | 1 38L |
| 5 | 3 0s | 1 59L | 21 | 4 52s | 2 52L |
| 6 | 3 59s | 2 36L | 22 | 6 14s | 4 16L |
| 7 | 5 2s | 3 22L | 23 | 7 28s | 5 40L |
| 8 | 6 16s | 4 22L | 24 | 8 33s | 6 59L |
| 9 | 7 22s | 5 26L | 25 | 9 30s | 8 16L |
| 10 | 8 24s | 6 35L | 26 | 10 14s | 9 24L |
| 11 | 9 23s | 7 41L | 27 | 10 46s | 10 22L |
| 12 | 10 15s | 8 43L | 28 | 11 9s | 11 13L |
| 13 | 10 57s | 9 40L | 29 | 11 28s | |
| 14 | 11 39s | 10 33L | 30 | 0 0s | 0 10L |
| 15 | 11 57L | 11 31s | | | |
| 16 | | 0 13L | | | |

HIGH TIDES::OCTOBER.

| D | Morn'g | Even'g | D | Morn'g | Even'g |
|----|--------|---------|----|--------|---------|
| 1 | 0 28s | 0 13L | 17 | 1 30s | 0 4L |
| 2 | 1 3s | 0 30L | 18 | 2 30s | 0 36L |
| 3 | 1 56s | 0 59L | 19 | 3 38s | 1 38L |
| 4 | 2 50s | 1 15L | 20 | 4 47s | 2 49L |
| 5 | 3 41s | 1 48L | 21 | 6 3s | 4 15L |
| 6 | 4 42s | 2 44L | 22 | 7 9s | 5 35L |
| 7 | 5 44s | 3 51L | 23 | 8 3s | 6 49L |
| 8 | 6 49s | 5 0L | 24 | 8 51s | 8 1L |
| 9 | 7 48s | 6 6L | 25 | 9 29s | 9 5L |
| 10 | 8 40s | 7 15L | 26 | 10 0s | 10 4L |
| 11 | 9 29s | 8 21L | 27 | 10 24s | 10 56L |
| 12 | 10 13s | 9 22L | 28 | 10 52L | 11 42s |
| 13 | 10 46L | 10 26s | 29 | 11 9L | |
| 14 | 11 8L | 11 23s | 30 | 0 35s | 11 27L* |
| 15 | 11 33L | | 31 | 1 27s | 11 34L* |
| 16 | 0 24s | 11 24L* | | | |

HIGH TIDES::NOVEMBER.

| D | Morn'g | Even'g | D | Morn'g | Even'g |
|----|--------|---------|----|--------|---------|
| 1 | 2 0s | 11 58L* | 17 | 3 30s | 1 42L |
| 2 | 2 52s | 0 36L | 18 | 4 25s | 2 51L |
| 3 | 3 36s | 1 21L | 19 | 5 26s | 4 12L |
| 4 | 4 19s | 2 20L | 20 | 6 20s | 5 30L |
| 5 | 5 8s | 3 30L | 21 | 7 5s | 6 41L |
| 6 | 6 4s | 4 41L | 22 | 7 44s | 7 48L |
| 7 | 6 55s | 5 51L | 23 | 8 20s | 8 52L |
| 8 | 7 41s | 7 1L | 24 | 9 1L | 9 51s |
| 9 | 8 25L | 8 18s | 25 | 9 27L | 10 53s |
| 10 | 9 0L | 9 26s | 26 | 9 50L | 11 50s |
| 11 | 9 36L | 10 33s | 27 | 10 10L | |
| 12 | 10 7L | 11 37s | 28 | 0 36s | 10 33L* |
| 13 | 10 37L | | 29 | 1 27s | 10 56L* |
| 14 | 0 35s | 10 41L* | 30 | 1 56s | 11 38L* |
| 15 | 1 42s | 11 42L* | | | |
| 16 | 2 37s | 0 39L | | | |

HIGH TIDES::DECEMBER.

| D | Morn'g | Even'g | D | Morn'g | Even'g |
|---|--------|--------|----|--------|--------|
| 1 | 2 36s | 0 23L | 17 | 3 50s | 2 36L |
| 2 | 3 11s | 1 12L | 18 | 4 36s | 3 46L |
| 3 | 3 46s | 2 8L | 19 | 5 22s | 4 58L |
| 4 | 4 22s | 3 14L | 20 | 6 5s | 6 9L |
| 5 | 5 4s | 4 27L | 21 | 6 37L | 7 27s |
| 6 | 5 51s | | | | |

ECLIPSES IN THE YEAR 1879.

In the year 1879 there will be three Eclipses, two of the SUN, and one of the MOON.

I. AN ANNULAR ECLIPSE OF THE SUN, January 22d. Invisible. Visible to portions of South America and Africa.

II. AN ANNULAR ECLIPSE OF THE SUN, July 19th. Invisible. Visible to Africa and to small portions of Europe and Asia.

III. A PARTIAL ECLIPSE OF THE MOON, December 28th. Visible more or less to the world generally, except to South America and a portion of North America. To places in California the MOON will set in the morning slightly tinged with the advancing penumbral shade.

MORNING AND EVENING STARS.

MERCURY will be Morning Star about Jan. 16. May 15, Sept 9, and Dec. 28; and Evening Star about March 29, July 27, and Nov. 20.

VENUS will be Evening Star till Sept. 23; then Morning Star for the rest of the year.

JUPITER will be Evening Star until Feb. 8; then Morning Star till Aug. 31; and Evening Star again the rest of the year.

TIDES AT SAN FRANCISCO.

NOTE.—The tables of Tides for San Francisco are obtained from the latest data of the United States Coast Survey. These Tides are extremely irregular, both as regards interval and height. The two daily tides may occur either during the same morning, or during the same afternoon. In the tide columns of these pages the asterisk (*) denotes the second morning tide, and the obelisk (†) the first afternoon tide of the day when so occurring. Finally, the larger tide of the day is distinguished by the letter (l), and the smaller by (s.)

ALMANAC FOR 1879.

January.

MOON'S PHASES.

Full Moon, 8d. 3h. 38m. M.
Last Quarter, 15d. 2h. 52m. M.
New Moon, 22d. 3h. 41m. M.
First Quarter, 30d. 3h. 34m. M.

February.

MOON'S PHASES.

Full Moon, 6d. 5h. 32m. A.
Last Quarter, 13d. 10h. 44m. M.
New Moon, 20d. 7h. 53m. A.
First Quarter, 28d. 11h. 48m. A.

| D of M | D of W | Sun Rises h m | Sun Sets h m | Days' Length h m | Moon R & S h m | D of M | D of W | Sun Rises h m | Sun Sets h m | Days' Length h m | Moon R & S h m |
|--------|--------|---------------|--------------|------------------|----------------|--------|--------|---------------|--------------|------------------|----------------|
| 1 | We | 7 16 | 4 51 | 9 35 | 1 0 | 1 | Sa | 7 5 | 5 23 | 10 18 | 2 46 |
| 2 | Th | 7 16 | 4 52 | 9 36 | 2 0 | 2 | S | 7 4 | 5 24 | 10 20 | 3 44 |
| 3 | Fr | 7 17 | 4 53 | 9 36 | 3 0 | 3 | Mo | 7 3 | 5 25 | 10 22 | 4 38 |
| 4 | Sa | 7 17 | 4 54 | 9 37 | 4 0 | 4 | Tu | 7 2 | 5 26 | 10 24 | 5 26 |
| 5 | S | 7 17 | 4 55 | 9 38 | 5 1 | 5 | We | 7 1 | 5 27 | 10 26 | 6 8 |
| 6 | Mo | 7 17 | 4 56 | 9 39 | 5 59 | 6 | Th | 7 0 | 5 29 | 10 29 | rises |
| 7 | Tu | 7 16 | 4 56 | 9 40 | 6 50 | 7 | Fr | 6 59 | 5 30 | 10 31 | 6 39 |
| 8 | We | 7 16 | 4 57 | 9 41 | rises | 8 | Sa | 6 58 | 5 31 | 10 33 | 7 51 |
| 9 | Th | 7 16 | 4 58 | 9 42 | 6 36 | 9 | S | 6 57 | 5 32 | 10 35 | 9 3 |
| 10 | Fr | 7 16 | 4 59 | 9 43 | 7 46 | 10 | Mo | 6 56 | 5 33 | 10 37 | 10 17 |
| 11 | Sa | 7 16 | 5 0 | 9 44 | 8 56 | 11 | Tu | 6 54 | 5 35 | 10 41 | 11 30 |
| 12 | S | 7 15 | 5 1 | 9 46 | 10 6 | 12 | We | 6 53 | 5 36 | 10 43 | morn |
| 13 | Mo | 7 15 | 5 2 | 9 47 | 11 14 | 13 | Th | 6 52 | 5 37 | 10 45 | 0 42 |
| 14 | Tu | 7 15 | 5 3 | 9 48 | morn | 14 | Fr | 6 51 | 5 38 | 10 47 | 1 53 |
| 15 | We | 7 15 | 5 4 | 9 49 | 0 26 | 15 | Sa | 6 50 | 5 39 | 10 49 | 2 57 |
| 16 | Th | 7 14 | 5 5 | 9 51 | 1 40 | 16 | S | 6 48 | 5 40 | 10 52 | 3 54 |
| 17 | Fr | 7 14 | 5 7 | 9 53 | 2 52 | 17 | Mo | 6 47 | 5 41 | 10 54 | 4 43 |
| 18 | Sa | 7 13 | 5 8 | 9 55 | 4 0 | 18 | Tu | 6 46 | 5 42 | 10 56 | 5 22 |
| 19 | S | 7 13 | 5 9 | 9 56 | 5 5 | 19 | We | 6 45 | 5 43 | 10 58 | 5 54 |
| 20 | Mo | 7 13 | 5 10 | 9 57 | 6 0 | 20 | Th | 6 44 | 5 44 | 11 0 | sets |
| 21 | Tu | 7 12 | 5 11 | 9 59 | 6 44 | 21 | Fr | 6 42 | 5 45 | 11 3 | 6 40 |
| 22 | We | 7 12 | 5 12 | 10 0 | sets | 22 | Sa | 6 41 | 5 46 | 11 5 | 7 38 |
| 23 | Th | 7 11 | 5 13 | 10 2 | 6 50 | 23 | S | 6 40 | 5 47 | 11 7 | 8 37 |
| 24 | Fr | 7 11 | 5 14 | 10 3 | 7 51 | 24 | Mo | 6 39 | 5 48 | 11 9 | 9 36 |
| 25 | Sa | 7 10 | 5 15 | 10 5 | 8 52 | 25 | Tu | 6 37 | 5 49 | 11 12 | 10 35 |
| 26 | S | 7 9 | 5 16 | 10 7 | 9 51 | 26 | We | 6 36 | 5 50 | 11 14 | 11 35 |
| 27 | Mo | 7 9 | 5 18 | 10 9 | 10 49 | 27 | Th | 6 34 | 5 51 | 11 17 | morn |
| 28 | Tu | 7 8 | 5 19 | 10 11 | 11 48 | 28 | Fr | 6 33 | 5 52 | 11 19 | 0 34 |
| 29 | We | 7 7 | 5 20 | 10 13 | morn | ... | ... | ... | ... | ... | ... |
| 30 | Th | 7 6 | 5 21 | 10 15 | 0 47 | ... | ... | ... | ... | ... | ... |
| 31 | Fr | 7 5 | 5 22 | 10 17 | 1 46 | ... | ... | ... | ... | ... | ... |

ALMANAC FOR 1879.

March.

MOON'S PHASES.

Full Moon, 8d. 4h. 59m. M
 Last Quarter, 14d. 7h. 31m. A.
 New Moon, 22d. 0h. 54m. A.
 First Quarter, 30d. 4h. 55m. A.

| D of M | D of W | Sun Rises h m | Sun Sets h m | Days' Length h m | Moon R & S h m |
|--------|--------|---------------|--------------|------------------|----------------|
| 1 | Sa | 6 32 | 5 53 | 11 21 | 1 31 |
| 2 | Su | 6 30 | 5 54 | 11 24 | 2 26 |
| 3 | Mo | 6 29 | 5 55 | 11 26 | 3 15 |
| 4 | Tu | 6 27 | 5 56 | 11 29 | 3 59 |
| 5 | We | 6 26 | 5 57 | 11 31 | 4 37 |
| 6 | Th | 6 25 | 5 58 | 11 33 | 5 11 |
| 7 | Fr | 6 23 | 5 59 | 11 36 | 5 43 |
| 8 | Sa | 6 22 | 6 0 | 11 38 | rises |
| 9 | Su | 6 20 | 6 1 | 11 41 | 7 56 |
| 10 | Mo | 6 19 | 6 2 | 11 43 | 9 12 |
| 11 | Tu | 6 17 | 6 3 | 11 46 | 10 28 |
| 12 | We | 6 16 | 6 4 | 11 48 | 11 43 |
| 13 | Th | 6 14 | 6 5 | 11 51 | morn |
| 14 | Fr | 6 13 | 6 6 | 11 53 | 0 50 |
| 15 | Sa | 6 11 | 6 7 | 11 56 | 1 50 |
| 16 | Su | 6 10 | 6 8 | 11 58 | 2 40 |
| 17 | Mo | 6 8 | 6 9 | 12 1 | 3 21 |
| 18 | Tu | 6 7 | 6 10 | 12 3 | 3 56 |
| 19 | We | 6 5 | 6 11 | 12 6 | 4 24 |
| 20 | Th | 6 4 | 6 12 | 12 8 | 4 50 |
| 21 | Fr | 6 2 | 6 13 | 12 11 | 5 15 |
| 22 | Sa | 6 1 | 6 14 | 12 13 | sets |
| 23 | Su | 5 59 | 6 14 | 12 15 | 7 27 |
| 24 | Mo | 5 58 | 6 15 | 12 17 | 8 25 |
| 25 | Tu | 5 56 | 6 16 | 12 20 | 9 25 |
| 26 | We | 5 54 | 6 17 | 12 23 | 10 25 |
| 27 | Th | 5 53 | 6 18 | 12 25 | 11 22 |
| 28 | Fr | 5 51 | 6 19 | 12 28 | morn |
| 29 | Sa | 5 50 | 6 20 | 12 30 | 0 17 |
| 30 | Su | 5 48 | 6 21 | 12 33 | 1 8 |
| 31 | Mo | 5 47 | 6 22 | 12 35 | 1 53 |

April.

MOON'S PHASES.

Full Moon, 6d. 2h. 14m. A.
 Last Quarter, 13d. 5h. 59m. M.
 New Moon, 21d. 5h. 45m. M.
 First Quarter, 29d. 6h. 6m. M.

| D of M | D of W | Sun Rises h m | Sun Sets h m | Days' Length h m | Moon R & S h m |
|--------|--------|---------------|--------------|------------------|----------------|
| 1 | Tu | 5 45 | 6 23 | 12 38 | 2 30 |
| 2 | We | 5 44 | 6 23 | 12 39 | 3 6 |
| 3 | Th | 5 42 | 6 24 | 12 42 | 3 38 |
| 4 | Fr | 5 41 | 6 25 | 12 44 | 4 7 |
| 5 | Sa | 5 39 | 6 26 | 12 47 | 4 36 |
| 6 | Su | 5 38 | 6 27 | 12 49 | 5 7 |
| 7 | Mo | 5 36 | 6 28 | 12 52 | rises |
| 8 | Tu | 5 35 | 6 29 | 12 54 | 9 19 |
| 9 | We | 5 33 | 6 30 | 12 57 | 10 34 |
| 10 | Th | 5 32 | 6 31 | 12 59 | 11 39 |
| 11 | Fr | 5 30 | 6 32 | 13 2 | morn |
| 12 | Sa | 5 29 | 6 32 | 13 3 | 0 35 |
| 13 | Su | 5 27 | 6 33 | 13 6 | 1 22 |
| 14 | Mo | 5 26 | 6 34 | 13 8 | 1 58 |
| 15 | Tu | 5 25 | 6 35 | 13 10 | 2 28 |
| 16 | We | 5 23 | 6 36 | 13 13 | 2 55 |
| 17 | Th | 5 22 | 6 37 | 13 15 | 3 19 |
| 18 | Fr | 5 20 | 6 38 | 13 18 | 3 42 |
| 19 | Sa | 5 19 | 6 39 | 13 20 | 4 6 |
| 20 | Su | 5 18 | 6 40 | 13 22 | 4 30 |
| 21 | Mo | 5 17 | 6 41 | 13 24 | sets |
| 22 | Tu | 5 15 | 6 41 | 13 26 | 8 17 |
| 23 | We | 5 14 | 6 42 | 13 28 | 9 15 |
| 24 | Th | 5 13 | 6 43 | 13 30 | 10 11 |
| 25 | Fr | 5 12 | 6 44 | 13 32 | 11 2 |
| 26 | Sa | 5 11 | 6 45 | 13 34 | 11 47 |
| 27 | Su | 5 9 | 6 46 | 13 37 | morn |
| 28 | Mo | 5 8 | 6 47 | 13 39 | 0 28 |
| 29 | Tu | 5 7 | 6 48 | 13 41 | 1 3 |
| 30 | We | 5 6 | 6 49 | 13 43 | 1 36 |
| 31 | ... | ... | ... | ... | ... |

ALMANAC FOR 1879.

May.

MOON'S PHASES.

Full Moon, 5d. 10h. 2m. A.
 Last Quarter, 12d. 6h. 26m. A.
 New Moon, 20d. 9h. 40m. A.
 First Quarter, 28d. 3h. 26m. A.

| D of M | D of W | Sun Rises h m | Sun Sets h m | Days' Length h m | Moon R & S h m |
|--------|--------|---------------|--------------|------------------|----------------|
| 1 | Th | 5 5 | 6 50 | 13 45 | 2 6 |
| 2 | Fr | 5 3 | 6 50 | 13 47 | 2 35 |
| 3 | Sa | 5 2 | 6 51 | 13 49 | 3 3 |
| 4 | Su | 5 1 | 6 52 | 13 51 | 3 35 |
| 5 | Mo | 5 0 | 6 53 | 13 53 | 4 12 |
| 6 | Tu | 4 59 | 6 54 | 13 55 | rises |
| 7 | We | 4 58 | 6 55 | 13 57 | 9 19 |
| 8 | Th | 4 57 | 6 56 | 13 59 | 10 22 |
| 9 | Fr | 4 56 | 6 57 | 14 1 | 11 14 |
| 10 | Sa | 4 55 | 6 58 | 14 3 | 11 54 |
| 11 | Su | 4 54 | 6 59 | 14 5 | morn |
| 12 | Mo | 4 53 | 6 59 | 14 6 | 0 29 |
| 13 | Tu | 4 52 | 7 0 | 14 8 | 0 57 |
| 14 | We | 4 51 | 7 1 | 14 10 | 1 24 |
| 15 | Th | 4 50 | 7 2 | 14 12 | 1 48 |
| 16 | Fr | 4 49 | 7 3 | 14 14 | 2 10 |
| 17 | Sa | 4 49 | 7 4 | 14 15 | 2 34 |
| 18 | Su | 4 48 | 7 5 | 14 17 | 2 59 |
| 19 | Mo | 4 47 | 7 6 | 14 19 | 3 29 |
| 20 | Tu | 4 46 | 7 7 | 14 21 | 4 2 |
| 21 | We | 4 46 | 7 8 | 14 22 | sets |
| 22 | Th | 4 45 | 7 8 | 14 23 | 8 58 |
| 23 | Fr | 4 45 | 7 9 | 14 24 | 9 46 |
| 24 | Sa | 4 44 | 7 10 | 14 26 | 10 29 |
| 25 | Su | 4 43 | 7 11 | 14 28 | 11 5 |
| 26 | Mo | 4 43 | 7 11 | 14 28 | 11 37 |
| 27 | Tu | 4 42 | 7 12 | 14 30 | morn |
| 28 | We | 4 42 | 7 12 | 14 30 | 0 6 |
| 29 | Th | 4 41 | 7 13 | 14 32 | 0 35 |
| 30 | Fr | 4 41 | 7 14 | 14 33 | 1 2 |
| 31 | Sa | 4 40 | 7 15 | 14 35 | 1 32 |

June.

MOON'S PHASES.

Full Moon, 4d. 5h. 26m. M.
 Last Quarter, 11d. 8h. 46m. M.
 New Moon, 19d. 0h. 9m. A.
 First Quarter, 26d. 9h. 46m. A.

| D of M | D of W | Sun Rises h m | Sun Sets h m | Days' Length h m | Moon R & S h m |
|--------|--------|---------------|--------------|------------------|----------------|
| 1 | Su | 4 40 | 7 15 | 14 35 | 2 4 |
| 2 | Mo | 4 39 | 7 16 | 14 37 | 2 42 |
| 3 | Tu | 4 39 | 7 17 | 14 38 | 3 28 |
| 4 | We | 4 39 | 7 18 | 14 39 | rises |
| 5 | Th | 4 39 | 7 18 | 14 39 | 9 1 |
| 6 | Fr | 4 38 | 7 19 | 14 41 | 9 47 |
| 7 | Sa | 4 38 | 7 19 | 14 41 | 10 25 |
| 8 | Su | 4 38 | 7 20 | 14 42 | 10 58 |
| 9 | Mo | 4 38 | 7 20 | 14 42 | 11 25 |
| 10 | Tu | 4 38 | 7 21 | 14 43 | 11 51 |
| 11 | We | 4 38 | 7 21 | 14 43 | morn |
| 12 | Th | 4 38 | 7 22 | 14 44 | 0 14 |
| 13 | Fr | 4 38 | 7 22 | 14 44 | 0 37 |
| 14 | Sa | 4 38 | 7 22 | 14 44 | 1 2 |
| 15 | Su | 4 38 | 7 23 | 14 45 | 1 31 |
| 16 | Mo | 4 38 | 7 23 | 14 45 | 2 3 |
| 17 | Tu | 4 38 | 7 24 | 14 46 | 2 40 |
| 18 | We | 4 38 | 7 24 | 14 46 | 3 25 |
| 19 | Th | 4 38 | 7 24 | 14 46 | sets |
| 20 | Fr | 4 38 | 7 24 | 14 46 | 8 28 |
| 21 | Sa | 4 39 | 7 25 | 14 46 | 9 5 |
| 22 | Su | 4 39 | 7 25 | 14 46 | 9 39 |
| 23 | Mo | 4 39 | 7 25 | 14 46 | 10 9 |
| 24 | Tu | 4 39 | 7 25 | 14 46 | 10 37 |
| 25 | We | 4 39 | 7 25 | 14 46 | 11 4 |
| 26 | Th | 4 40 | 7 25 | 14 45 | 11 32 |
| 27 | Fr | 4 40 | 7 25 | 14 45 | morn |
| 28 | Sa | 4 40 | 7 25 | 14 45 | 0 4 |
| 29 | Su | 4 41 | 7 25 | 14 44 | 0 37 |
| 30 | Mo | 4 41 | 7 25 | 14 44 | 1 19 |
| ... | ... | ... | ... | ... | ... |

ALMANAC FOR 1879.

July.

MOON'S PHASES.

Full Moon, 3d. 1h. 28m. A.
 Last Quarter, 11d. 0h. 44m. M.
 New Moon, 19d. 0h. 56m. M.
 First Quarter, 26d. 2h. 26m. M.

| D of M | D of W | Sun Rises h m | Sun Sets h m | Days' Length h m | Moon R & S h m |
|--------|--------|---------------|--------------|------------------|----------------|
| 1 | Tu | 4 42 | 7 25 | 14 43 | 2 10 |
| 2 | We | 4 42 | 7 25 | 14 43 | 3 9 |
| 3 | Th | 4 43 | 7 25 | 14 42 | rises |
| 4 | Fr | 4 43 | 7 25 | 14 42 | 8 20 |
| 5 | Sa | 4 44 | 7 25 | 14 41 | 8 55 |
| 6 | Su | 4 44 | 7 24 | 14 40 | 9 24 |
| 7 | Mo | 4 45 | 7 24 | 14 39 | 9 50 |
| 8 | Tu | 4 45 | 7 24 | 14 39 | 10 14 |
| 9 | We | 4 46 | 7 24 | 14 38 | 10 39 |
| 10 | Th | 4 46 | 7 23 | 14 37 | 11 4 |
| 11 | Fr | 4 47 | 7 23 | 14 36 | 11 31 |
| 12 | Sa | 4 47 | 7 22 | 14 35 | morn |
| 13 | Su | 4 48 | 7 22 | 14 34 | 0 2 |
| 14 | Mo | 4 49 | 7 22 | 14 33 | 0 37 |
| 15 | Tu | 4 50 | 7 21 | 14 31 | 1 18 |
| 16 | We | 4 50 | 7 21 | 14 31 | 2 7 |
| 17 | Th | 4 51 | 7 20 | 14 29 | 3 2 |
| 18 | Fr | 4 52 | 7 20 | 14 28 | 4 5 |
| 19 | Sa | 4 53 | 7 19 | 14 26 | sets |
| 20 | Su | 4 54 | 7 19 | 14 25 | 8 12 |
| 21 | Mo | 4 54 | 7 18 | 14 24 | 8 42 |
| 22 | Tu | 4 55 | 7 18 | 14 23 | 9 10 |
| 23 | We | 4 56 | 7 17 | 14 21 | 9 37 |
| 24 | Th | 4 57 | 7 16 | 14 19 | 10 6 |
| 25 | Fr | 4 58 | 7 15 | 14 17 | 10 38 |
| 26 | Sa | 4 58 | 7 15 | 14 17 | 11 16 |
| 27 | Su | 4 59 | 7 14 | 14 15 | morn |
| 28 | Mo | 5 0 | 7 13 | 14 13 | 0 3 |
| 29 | Tu | 5 1 | 7 12 | 14 11 | 0 58 |
| 30 | We | 5 2 | 7 11 | 14 9 | 2 0 |
| 31 | Th | 5 2 | 7 10 | 14 8 | 3 7 |

August.

MOON'S PHASES.

Full Moon, 1d. 11h. 2m. A.
 Last Quarter, 9d. 5h. 59m. A.
 New Moon, 17d. 0h. 0m. A.
 First Quarter, 24d. 7h. 2m. M.
 Full Moon, 31d. 10h. 48m. M.

| D of M | D of W | Sun Rises h m | Sun Sets h m | Days' Length h m | Moon R & S h m |
|--------|--------|---------------|--------------|------------------|----------------|
| 1 | Fr | 5 3 | 7 9 | 14 6 | 4 18 |
| 2 | Sa | 5 4 | 7 8 | 14 4 | rises |
| 3 | Su | 5 5 | 7 7 | 14 2 | 7 52 |
| 4 | Mo | 5 6 | 7 6 | 14 0 | 8 17 |
| 5 | Tu | 5 6 | 7 5 | 13 59 | 8 41 |
| 6 | We | 5 7 | 7 4 | 13 57 | 9 6 |
| 7 | Th | 5 8 | 7 3 | 13 55 | 9 32 |
| 8 | Fr | 5 9 | 7 2 | 13 53 | 10 3 |
| 9 | Sa | 5 10 | 7 1 | 13 51 | 10 35 |
| 10 | Su | 5 11 | 6 59 | 13 48 | 11 13 |
| 11 | Mo | 5 12 | 6 58 | 13 46 | 11 57 |
| 12 | Tu | 5 13 | 6 57 | 13 44 | morn |
| 13 | We | 5 14 | 6 56 | 13 42 | 0 50 |
| 14 | Th | 5 15 | 6 55 | 13 40 | 1 50 |
| 15 | Fr | 5 15 | 6 53 | 13 38 | 2 54 |
| 16 | Sa | 5 16 | 6 52 | 13 36 | 4 0 |
| 17 | Su | 5 17 | 6 51 | 13 34 | sets |
| 18 | Mo | 5 18 | 6 50 | 13 32 | 7 12 |
| 19 | Tu | 5 19 | 6 48 | 13 29 | 7 39 |
| 20 | We | 5 19 | 6 47 | 13 28 | 8 9 |
| 21 | Th | 5 20 | 6 45 | 13 25 | 8 41 |
| 22 | Fr | 5 21 | 6 44 | 13 23 | 9 18 |
| 23 | Sa | 5 22 | 6 43 | 13 21 | 10 1 |
| 24 | Su | 5 23 | 6 41 | 13 18 | 10 52 |
| 25 | Mo | 5 23 | 6 40 | 13 17 | 11 51 |
| 26 | Tu | 5 24 | 6 38 | 13 14 | morn |
| 27 | We | 5 25 | 6 37 | 13 12 | 0 57 |
| 28 | Th | 5 26 | 6 36 | 13 10 | 2 5 |
| 29 | Fr | 5 27 | 6 34 | 13 7 | 3 14 |
| 30 | Sa | 5 28 | 6 33 | 13 5 | 4 22 |
| 31 | Su | 5 29 | 6 31 | 13 2 | 5 25 |

ALMANAC FOR 1879.

September.

MOON'S PHASES.

Last Quarter, 8d. 11h. 54m. M.
 New Moon, 15d. 9h. 47m. A.
 First Quarter, 22d. 1h. 10m. A.
 Full Moon, 30d. 1h. 7m. M.

| D of M | D of W | Sun Rises h m | Sun Sets h m | Days' Length h m | Moon R & S h m |
|--------|--------|---------------|--------------|------------------|----------------|
| 1 | Mo | 5 30 | 6 30 | 13 0 | rises |
| 2 | Tu | 5 31 | 6 29 | 12 58 | 7 9 |
| 3 | We | 5 32 | 6 27 | 12 55 | 7 35 |
| 4 | Th | 5 32 | 6 26 | 12 54 | 8 2 |
| 5 | Fr | 5 33 | 6 24 | 12 51 | 8 33 |
| 6 | Sa | 5 34 | 6 23 | 12 49 | 9 9 |
| 7 | Su | 5 35 | 6 21 | 12 46 | 9 51 |
| 8 | Mo | 5 36 | 6 20 | 12 44 | 10 40 |
| 9 | Tu | 5 36 | 6 18 | 12 42 | 11 35 |
| 10 | We | 5 37 | 6 17 | 12 40 | morn |
| 11 | Th | 5 38 | 6 15 | 12 37 | 0 35 |
| 12 | Fr | 5 39 | 6 13 | 12 34 | 1 40 |
| 13 | Sa | 5 40 | 6 12 | 12 32 | 2 47 |
| 14 | Su | 5 40 | 6 10 | 12 30 | 3 56 |
| 15 | Mo | 5 41 | 6 9 | 12 28 | 5 4 |
| 16 | Tu | 5 42 | 6 7 | 12 25 | sets |
| 17 | We | 5 43 | 6 5 | 12 22 | 6 41 |
| 18 | Th | 5 44 | 6 4 | 12 20 | 7 16 |
| 19 | Fr | 5 45 | 6 2 | 12 17 | 7 59 |
| 20 | Sa | 5 46 | 6 1 | 12 15 | 8 49 |
| 21 | Su | 5 47 | 5 59 | 12 12 | 9 47 |
| 22 | Mo | 5 48 | 5 58 | 12 10 | 10 51 |
| 23 | Tu | 5 49 | 5 56 | 12 7 | 11 58 |
| 24 | We | 5 49 | 5 55 | 12 6 | morn |
| 25 | Th | 5 50 | 5 53 | 12 3 | 1 6 |
| 26 | Fr | 5 51 | 5 52 | 12 1 | 2 13 |
| 27 | Sa | 5 52 | 5 50 | 11 58 | 3 16 |
| 28 | Su | 5 53 | 5 49 | 11 56 | 4 17 |
| 29 | Mo | 5 53 | 5 47 | 11 54 | 5 18 |
| 30 | Tu | 5 54 | 5 46 | 11 52 | 6 18 |
| ... | ... | ... | ... | ... | ... |

October.

MOON'S PHASES.

Last Quarter, 8d. 5h. 33m. M.
 New Moon, 15d. 6h. 59m. M.
 First Quarter, 21d. 10h. 9m. A.
 Full Moon, 29d. 5h. 59m. A.

| D of M | D of W | Sun Rises h m | Sun Sets h m | Days' Length h m | Moon R & S h m |
|--------|--------|---------------|--------------|------------------|----------------|
| 1 | We | 5 55 | 5 44 | 11 49 | rises |
| 2 | Th | 5 56 | 5 42 | 11 46 | 6 34 |
| 3 | Fr | 5 57 | 5 41 | 11 44 | 7 9 |
| 4 | Sa | 5 58 | 5 39 | 11 41 | 7 48 |
| 5 | Su | 5 59 | 5 38 | 11 39 | 8 34 |
| 6 | Mo | 6 0 | 5 36 | 11 36 | 9 26 |
| 7 | Tu | 6 1 | 5 35 | 11 34 | 10 23 |
| 8 | We | 6 2 | 5 33 | 11 31 | 11 24 |
| 9 | Th | 6 3 | 5 32 | 11 29 | morn |
| 10 | Fr | 6 4 | 5 30 | 11 26 | 0 28 |
| 11 | Sa | 6 5 | 5 29 | 11 24 | 1 34 |
| 12 | Su | 6 6 | 5 28 | 11 22 | 2 42 |
| 13 | Mo | 6 7 | 5 26 | 11 19 | 3 51 |
| 14 | Tu | 6 7 | 5 25 | 11 18 | 5 4 |
| 15 | We | 6 8 | 5 23 | 11 15 | 6 18 |
| 16 | Th | 6 9 | 5 22 | 11 13 | sets |
| 17 | Fr | 6 10 | 5 21 | 11 11 | 6 42 |
| 18 | Sa | 6 11 | 5 19 | 11 8 | 7 37 |
| 19 | Su | 6 12 | 5 18 | 11 6 | 8 42 |
| 20 | Mo | 6 13 | 5 16 | 11 3 | 9 51 |
| 21 | Tu | 6 14 | 5 15 | 11 1 | 10 59 |
| 22 | We | 6 15 | 5 14 | 10 59 | morn |
| 23 | Th | 6 16 | 5 13 | 10 57 | 0 6 |
| 24 | Fr | 6 17 | 5 11 | 10 54 | 1 9 |
| 25 | Sa | 6 18 | 5 10 | 10 52 | 2 11 |
| 26 | Su | 6 19 | 5 9 | 10 50 | 3 12 |
| 27 | Mo | 6 20 | 5 8 | 10 48 | 4 11 |
| 28 | Tu | 6 21 | 5 7 | 10 46 | 5 10 |
| 29 | We | 6 22 | 5 5 | 10 43 | 6 8 |
| 30 | Th | 6 23 | 5 4 | 10 41 | rises |
| 31 | Fr | 6 24 | 5 3 | 10 39 | 5 48 |

ALMANAC FOR 1879.

November.

MOON'S PHASES.

Last Quarter, 6d. 9h. 45m. A.
 New Moon, 13d. 4h. 29m. A.
 First Quarter, 20d. 10h. 45m. M.
 Full Moon, 28d. 0h. 47m. A.

| D of M | D of W | Sun Rises h m | Sun Sets h m | Days' Length h m | Moon R & S h m |
|--------|----------|---------------|--------------|------------------|----------------|
| 1 | Sa | 6 25 | 5 2 | 10 37 | 6 31 |
| 2 | W | 6 26 | 5 1 | 10 35 | 7 21 |
| 3 | Mo | 6 28 | 5 0 | 10 32 | 8 15 |
| 4 | Tu | 6 29 | 4 59 | 10 30 | 9 15 |
| 5 | We | 6 30 | 4 58 | 10 28 | 10 16 |
| 6 | Th | 6 31 | 4 57 | 10 26 | 11 20 |
| 7 | Fr | 6 32 | 4 56 | 10 24 | morn |
| 8 | Sa | 6 33 | 4 55 | 10 22 | 0 24 |
| 9 | W | 6 34 | 4 54 | 10 20 | 1 30 |
| 10 | Mo | 6 35 | 4 53 | 10 18 | 2 39 |
| 11 | Tu | 6 36 | 4 52 | 10 16 | 3 50 |
| 12 | We | 6 37 | 4 51 | 10 14 | 5 4 |
| 13 | Th | 6 39 | 4 51 | 10 12 | 6 23 |
| 14 | Fr | 6 40 | 4 50 | 10 10 | sets |
| 15 | Sa | 6 41 | 4 49 | 10 8 | 6 23 |
| 16 | W | 6 42 | 4 48 | 10 6 | 7 32 |
| 17 | Mo | 6 43 | 4 48 | 10 5 | 8 45 |
| 18 | Tu | 6 44 | 4 47 | 10 3 | 9 55 |
| 19 | We | 6 45 | 4 47 | 10 2 | 11 1 |
| 20 | Th | 6 46 | 4 46 | 10 0 | morn |
| 21 | Fr | 6 47 | 4 45 | 9 58 | 0 5 |
| 22 | Sa | 6 48 | 4 45 | 9 57 | 1 6 |
| 23 | W | 6 49 | 4 44 | 9 55 | 2 5 |
| 24 | Mo | 6 50 | 4 44 | 9 54 | 3 4 |
| 25 | Tu | 6 51 | 4 43 | 9 52 | 4 3 |
| 26 | We | 6 52 | 4 43 | 9 51 | 5 1 |
| 27 | Th | 6 53 | 4 42 | 9 49 | 6 0 |
| 28 | Fr | 6 54 | 4 42 | 9 48 | 6 57 |
| 29 | Sa | 6 55 | 4 41 | 9 46 | rises |
| 30 | W | 6 56 | 4 41 | 9 45 | 6 10 |
| ... | | | | | |

December.

MOON'S PHASES.

Last Quarter, 6d. 11h. 33m. M.
 New Moon, 13d. 2h. 54m. M.
 First Quarter, 20d. 3h. 5m. M.
 Full Moon, 28d. 8h. 5m. M.

| D of M | D of W | Sun Rises h m | Sun Sets h m | Days' Length h m | Moon R & S h m |
|--------|----------|---------------|--------------|------------------|----------------|
| 1 | Mo | 6 57 | 4 41 | 9 44 | 7 8 |
| 2 | Tu | 6 58 | 4 41 | 9 43 | 8 9 |
| 3 | We | 6 59 | 4 41 | 9 42 | 9 10 |
| 4 | Th | 7 0 | 4 41 | 9 41 | 10 12 |
| 5 | Fr | 7 1 | 4 41 | 9 40 | 11 16 |
| 6 | Sa | 7 2 | 4 41 | 9 39 | morn |
| 7 | W | 7 3 | 4 41 | 9 38 | 0 23 |
| 8 | Mo | 7 3 | 4 41 | 9 38 | 1 30 |
| 9 | Tu | 7 4 | 4 41 | 9 37 | 2 41 |
| 10 | We | 7 5 | 4 41 | 9 36 | 3 55 |
| 11 | Th | 7 6 | 4 41 | 9 35 | 5 10 |
| 12 | Fr | 7 7 | 4 41 | 9 34 | 6 24 |
| 13 | Sa | 7 7 | 4 42 | 9 34 | sets |
| 14 | W | 7 8 | 4 42 | 9 34 | 6 18 |
| 15 | Mo | 7 9 | 4 42 | 9 33 | 7 32 |
| 16 | Tu | 7 10 | 4 42 | 9 33 | 8 43 |
| 17 | We | 7 10 | 4 43 | 9 33 | 9 51 |
| 18 | Th | 7 11 | 4 43 | 9 33 | 10 55 |
| 19 | Fr | 7 11 | 4 44 | 9 33 | 11 56 |
| 20 | Sa | 7 12 | 4 44 | 9 32 | morn |
| 21 | W | 7 12 | 4 44 | 9 32 | 0 57 |
| 22 | Mo | 7 13 | 4 45 | 9 32 | 1 55 |
| 23 | Tu | 7 13 | 4 45 | 9 32 | 2 53 |
| 24 | We | 7 14 | 4 46 | 9 32 | 3 51 |
| 25 | Th | 7 14 | 4 46 | 9 32 | 4 50 |
| 26 | Fr | 7 14 | 4 47 | 9 33 | 5 45 |
| 27 | Sa | 7 15 | 4 48 | 9 33 | 6 35 |
| 28 | W | 7 15 | 4 48 | 9 33 | rises |
| 29 | Mo | 7 16 | 4 49 | 9 33 | 6 3 |
| 30 | Tu | 7 16 | 4 50 | 9 34 | 7 4 |
| 31 | We | 7 16 | 4 50 | 9 34 | 8 7 |

Clear & Pleasant
have been
mannering
the Apple trees
Lucys 13 to day
 THURSDAY 2

Cloudy & Fair
have been man-
nering the Apple
trees.

2

FRIDAY 3

~~*have been*~~
~~*mannering*~~
~~*the Apple trees*~~
I went over to work on
the Alaskas, but did
not get any they took Noone.

SATURDAY, JANUARY 4, 1879.

have been
manuring
Apple trees.

SUNDAY 5

DeMott and myself
went over to Frank
Georges & Hartman's
the rain caught
us before we got
back.

MONDAY 6

I commenced
boring trees
North of the
log fence.
bored 8.

TUESDAY, JANUARY 7, 1879.

Rainy
I bored two
trees

WEDNESDAY 8

bored 13 trees.

THURSDAY 9

Rainy

FRIDAY, JANUARY 10, 1879.

Rainy.

SATURDAY 11

Finished boring
trees 4 to day
27 in all.
Father took Mother
to Seattle; she stays
a week. Helper rose drove.

SUNDAY 12

cloudy & rainy

MONDAY, JANUARY 13, 1879.

Rainy
Sawed wood.

TUESDAY 14

Fair.

I have been firing
trees Father helped.

WEDNESDAY 15

light snow.

I have been firing
trees; they are very
hard to burn.

THURSDAY, JANUARY 16, 1879.

Light Snow
I have been
firing trees

FRIDAY 17

I have been firing
trees.

SATURDAY 18

Windy.
I went to Seattle
& Mother came
home Al Smith
was married Wedgave
to Miss Hanson.

SUNDAY, JANUARY 19, 1879.

Cloudy.

MONDAY 20

Have been digging
drain for barn
yard.

TUESDAY 21

Have been
digging for
Barn yard.

WEDNESDAY, JANUARY 22, 1879.

Have been
digging on the
drain.

THURSDAY 23

Have worked
on the drain.

FRIDAY 24

Have worked
on the drain.

SATURDAY, JANUARY 25, 1879.

Have been sawing
wood with cross
cut saw.

SUNDAY 26

Pleasant.
went up to Nelson's
& Winchamper's.

MONDAY 27

Pleasant.
Sawed wood
with cross cut saw.

TUESDAY, JANUARY 28, 1879.

Got in wood
commenced a drain
for N.E. corner of
Barn. Father has
been cribbing up the bank
with cedar ~~boards~~ & Fir bark

WEDNESDAY 29

Worked on drain.

Wednesday Wincapaw
& Wife left for Seattle
in O'Connell's lighter.

THURSDAY 30

finished drain.

FRIDAY, JANUARY 31, 1879.

helped Father
on cribbing.

SATURDAY, FEBRUARY 1

Went to Seattle.

SUNDAY 2

MONDAY, FEBRUARY 3, 1879.

Have been grading
back of barn
for Ben coop etc.

TUESDAY 4

Have been
grading.

WEDNESDAY 5

Have been
grading.

THURSDAY, FEBRUARY 6, 1879.

Have been
grading for
peach trees near
line.

FRIDAY 7

Have been
grading
for peaches.

SATURDAY 8

Dug 16 peach
tree holes.

Has been cold
this week.

SUNDAY, FEBRUARY 9, 1879.

Went up to
John Wincapaw
he cooks by an
open fire.

MONDAY 10

Rainy
Sawed wood.

TUESDAY 11

3 inches of snow
fell.

WEDNESDAY, FEBRUARY 12, 1879.

Hard rain.

Helped Father
lay floor in
workshop.

THURSDAY 13

Pleasant
Removed one
Black Tartarian
front of barn yard
graded &c.
Set the Chestnut
top of hill.

FRIDAY 14

Cloudy.
Set out 16 Peaches
7 Nectarine & two
Black Walnuts.

SATURDAY, FEBRUARY 15, 1879.

*Went to
Seattle.*

SUNDAY 16

MONDAY 17

TUESDAY, FEBRUARY 18, 1879.

WEDNESDAY 19

THURSDAY 20

FRIDAY, FEBRUARY 21, 1879.

MONDAY, FEBRUARY 24, 1879.

SATURDAY 22

TUESDAY 25

SUNDAY 23

WEDNESDAY 26

THURSDAY, FEBRUARY 27, 1879.

SUNDAY, MARCH 2, 1879.

Rainy.

Went off on a
deer hunt with
Warren got none.

FRIDAY 28

MONDAY 3

The past two weeks
has been very stormy
windy &c.

Came home; too
stormy to go to
Mona's house as
first intended.

The lake is up to
high water mark.

SATURDAY, MARCH 1

TUESDAY 4

Father went to
Seattle I went
to Warren Perrigo
staid all night
Very stormy.

WEDNESDAY, MARCH 5, 1879.

SATURDAY, MARCH 8, 1879.

THURSDAY 6

SUNDAY 9

FRIDAY 7

MONDAY 10

TUESDAY, MARCH 11, 1879.

FRIDAY, MARCH 14, 1879.

WEDNESDAY 12

SATURDAY 15

I went to Seattle
called and got some
new magazines at
P's. went home with
Perrigo

THURSDAY 13

SUNDAY 16

Pleasant.
Perrigo & I went
to Monahome.

MONDAY, MARCH 17, 1879.

Have been preparing
ground to plough.

TUESDAY 18

Have been cutting
bricks &c

WEDNESDAY 19

THURSDAY, MARCH 20, 1879.

FRIDAY 21

SATURDAY 22

Finished grubbing
Have been picking
up. Set out one
Pecan one Beech-
nut.

SUNDAY, MARCH 23, 1879.

Have been up to
Welsons
Raining day.

MONDAY 24

TUESDAY 25

WEDNESDAY, MARCH 26, 1879.

THURSDAY 27

FRIDAY 28

SATURDAY, MARCH 29, 1879

SUNDAY 30

MONDAY 31

TUESDAY, APRIL 1 1879

WEDNESDAY 2

THURSDAY 3

FRIDAY, APRIL 4, 1879.

MONDAY, APRIL 7, 1879.

SATURDAY 5

TUESDAY 8

Went with a surveying party this P.M. was Chairman

SUNDAY 6

4
WEDNESDAY 9

On a surveying trip today

THURSDAY, APRIL 10, 1879.

Finished the
survey today $3\frac{1}{2}$
miles.

FRIDAY 11

planted potatoes

SATURDAY 12

went to Seattle,
Alfred & Roma
came back with
us.

SUNDAY, APRIL 13, 1879.

MONDAY 14

TUESDAY 15

WEDNESDAY, APRIL 16, 1879.

Alfred & Rena
went home.
via Mc Gilveras

THURSDAY 17

Snow & Rain
cold.

FRIDAY 18

Frost.

SATURDAY, APRIL 19, 1879.

Went home with
Ferrigo staid all
night.

SUNDAY 20

Came home Mt
P gave me a
pig.

MONDAY 21

TUESDAY, APRIL 22, 1879.

FRIDAY, APRIL 25, 1879.

WEDNESDAY 23

SATURDAY 26

THURSDAY 24

SUNDAY 27

April 22-May 9 no entries

FRIDAY, MAY 16, 1879.

MONDAY, MAY 19, 1879.

SATURDAY 17

TUESDAY 20

SUNDAY 18

WEDNESDAY 21

have cut half
a mile of road to
N. E. 1/4 of Section
5 it took 5 days
work.

THURSDAY, MAY 22, 1879.

FRIDAY 23

SATURDAY 24

SUNDAY, MAY 25, 1879.

MONDAY 26

TUESDAY 27

5

WEDNESDAY, MAY 28, 1879.

SATURDAY, MAY 31, 1879.

Mr Malloy has
filed on 1st of N. E.
147 See 4 a
Soldiers warrant

THURSDAY 29

SUNDAY, JUNE 1

FRIDAY 30

MONDAY 2

TUESDAY, JUNE 3, 1879.

FRIDAY, JUNE 6, 1879.

WEDNESDAY 4

SATURDAY 7

Mr Griswold
came home
with me. his
looking for
land.

THURSDAY 5

SUNDAY 8

Malloy and
have been
around with
Griswold.

MONDAY, JUNE 9, 1879.

I took a compass.
G. Griswold, a tape
line, we spent
a day looking
around.

TUESDAY 10

WEDNESDAY 11

THURSDAY, JUNE 12, 1879.

FRIDAY 13

SATURDAY 14

Uncle & Aunt
came over

SUNDAY, JUNE 15, 1879.

WEDNESDAY, JUNE 18, 1879.

MONDAY 16

THURSDAY 19

TUESDAY 17

FRIDAY 20

June 15 - July 2 no entries

THURSDAY, JULY 3, 1879.

SUNDAY, JULY 6, 1879.

Fair day.
Organized at
Sunday School
Rev. Mr. Green gave
us a sermon.

FRIDAY 4

Rainy

MONDAY 7

Hot

SATURDAY 5

Very Rainy
& Windy

TUESDAY 8

Hot

WEDNESDAY, JULY 9, 1879.

Cloudy
mowed all
the grass
Church helped
me.

THURSDAY 10

Rainy

FRIDAY 11

Rainy

SATURDAY, JULY 12, 1879.

Squally.

SUNDAY 13

Cloudy.

Had a Sand
School.

6
MONDAY 14

TUESDAY, JULY 15, 1879.

FRIDAY, JULY 18, 1879.

WEDNESDAY 16

SATURDAY 19

Pleasant.

*Mrs Penfield
came home with
me.*

(with me)

THURSDAY 17

SUNDAY 20

*Had a Sunday
School.*

(Sunday School)

TUESDAY, JULY 15, 1879.

WEDNESDAY 16

THURSDAY 17

FRIDAY, JULY 18, 1879.

SATURDAY 19

SUNDAY 20

Pleasant.

*Mrs Penfield
came home with
me.*

*Had a Sunday
School.*

SUNDAY, JULY 27, 1879.

*Had a Sunday
School.*

MONDAY 28

TUESDAY 29

WEDNESDAY, JULY 30, 1879.

THURSDAY 31

FRIDAY, AUGUST 1

SATURDAY, AUGUST 2, 1879.

TUESDAY, AUGUST 5, 1879.

SUNDAY 3

*Had a Sunday
School.*

MONDAY 4

WEDNESDAY 6

THURSDAY 7

FRIDAY, AUGUST 8, 1879.

MONDAY, AUGUST 11, 1879.

SATURDAY 9

The dry spell continues, went to Seattle. A Canal meeting was held for the purpose of draining Lake W.

SUNDAY 10

Had a Sunday School

TUESDAY 12

WEDNESDAY 13

THURSDAY, AUGUST 14, 1879.

SUNDAY, AUGUST 17, 1879.

FRIDAY 15

MONDAY 18

SATURDAY 16

TUESDAY 19

August 14 - Sept 5 no entries

MONDAY, SEPTEMBER 1, 1879.

THURSDAY, SEPTEMBER 4, 1879.

TUESDAY 2

FRIDAY 5

WEDNESDAY 3

SATURDAY 6

The Pleasant Bay
Sunday School hall
a picnic excursion
to Hunitu Bay.
Rev I Green Wife & Dau-
ghter & Miss Alvord
went too.

SUNDAY, SEPTEMBER 7, 1879

Took a collection
at the Sunday S.
Amount \$3.10

paid Mr Green
\$1.00 Mr Green's Fam
took din with us

MONDAY 8

TUESDAY 9

WEDNESDAY, SEPTEMBER 10, 1879.

THURSDAY 11

FRIDAY 12

WEDNESDAY, OCTOBER 1, 1879.

SATURDAY, OCTOBER 4, 1879.

THURSDAY 2

SUNDAY 5

FRIDAY 3

MONDAY 6

Oct 1 - Oct 12 no entries

MONDAY, OCTOBER 13, 1879.

TUESDAY 14

WEDNESDAY 15

THURSDAY, OCTOBER 16, 1879.

Finished helping
Nelson drive pile
this morn. Got the scow
down and drove
half a day.
30 years old to day

FRIDAY 17

Drove piles all
day 45 in No
Got through
and took it
to Easter.

8

SATURDAY 18

SUNDAY, OCTOBER 19, 1879.

WEDNESDAY, OCTOBER 22, 1879.

MONDAY 20

Helped Easton
drive piles Father
and I whick
squares us.

TUESDAY 21

THURSDAY 23

FRIDAY 24

SATURDAY, OCTOBER 25, 1879.

TUESDAY, OCTOBER 28, 1879.

SUNDAY 26

WEDNESDAY 29

MONDAY 27

THURSDAY 30

Oct 25 - Nov 23 no entries

MONDAY, NOVEMBER 24, 1879.

TUESDAY 25

WEDNESDAY 26

THURSDAY, NOVEMBER 27, 1879.

FRIDAY 28

SATURDAY 29

Mother went to
Seattle to stay a
week; Very
Raining.

SUNDAY, NOVEMBER 30, 1879.

Rainy.

Wrote a letter to
Thomas Popham
Loake City
California.

Last Letter from him Dec 10th 78

MONDAY, DECEMBER 1

TUESDAY 2

[Faint handwritten notes, possibly bleed-through from the reverse side]

WEDNESDAY, DECEMBER 3, 1879.

[Faint handwritten notes, possibly bleed-through from the reverse side]

THURSDAY 4

FRIDAY 5

SATURDAY, DECEMBER 6, 1879.

Mother came home
to day. She bought
a New Wilson Oscil-
lating sewing mach-
ine for \$45

SUNDAY 7

MONDAY 8

TUESDAY, DECEMBER 9, 1879.

WEDNESDAY 10

THURSDAY 11

THURSDAY, DECEMBER 18, 1879.

SUNDAY, DECEMBER 21, 1879.

Service by
Mr Green.

FRIDAY 19

MONDAY 22

SATURDAY 20

TUESDAY 23

Have straightened
the creek out
the past week.

WEDNESDAY, DECEMBER 24, 1879.

[Faint, illegible handwriting]

THURSDAY 25

FRIDAY 26

Commenced a stone
drain to take ^a excess
water from house

SATURDAY, DECEMBER 27, 1879.

Worked on
drain.

SUNDAY 28

All took an Oyster
dinner at
Connors

MONDAY 29

TUESDAY, DECEMBER 30, 1879.

MEMORANDA.

WEDNESDAY 31

MONDAY 30

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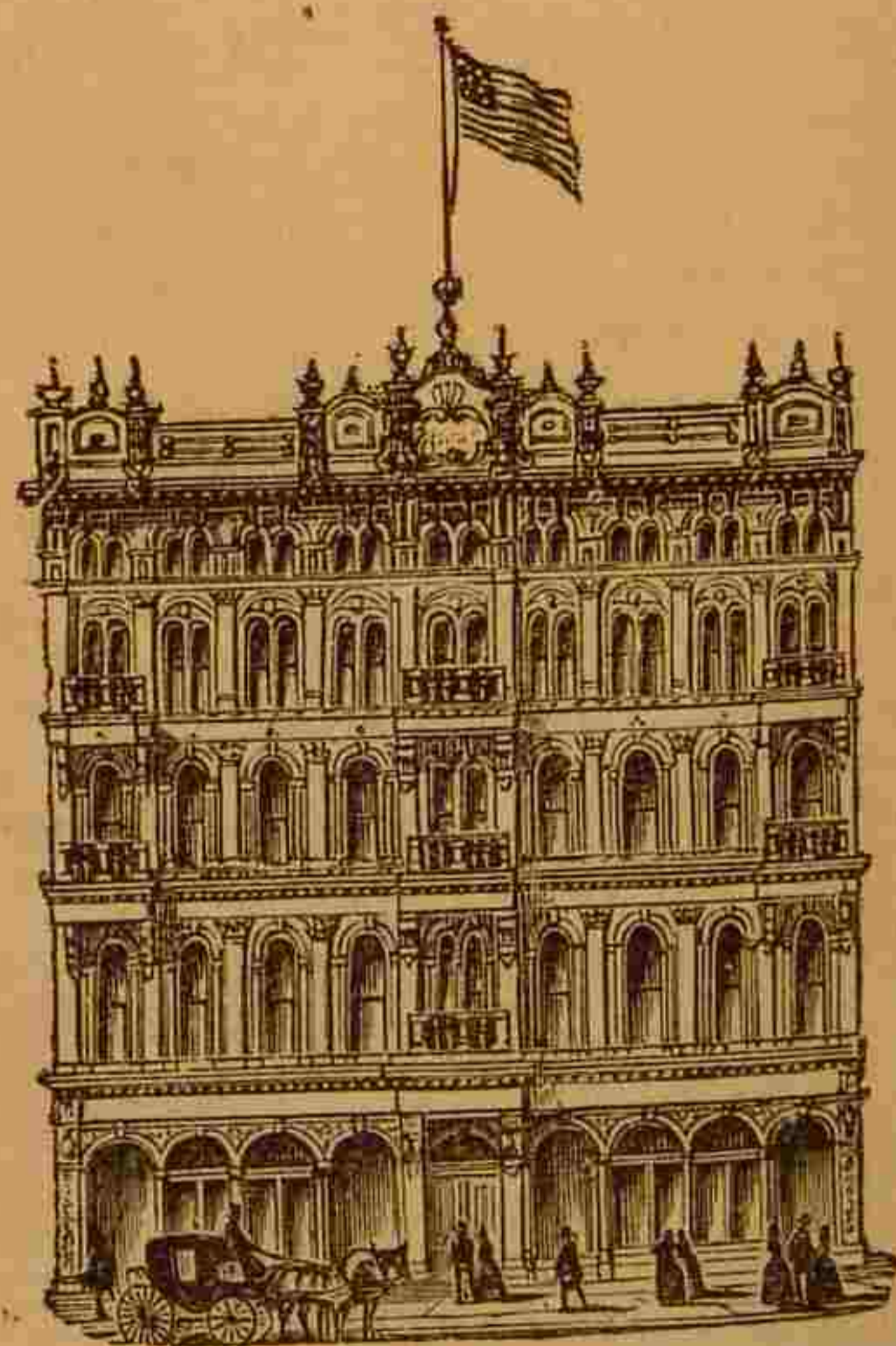
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