Subject Index - F

Faculae, comparison of, with barometric gradient, 46:269-77
Fahrenheit, conversion of, to centigrade, Ferguson on, 35:438
        , conversion of, to centigrade, formula for, 35:62-63
'Fair', meaning of, in meteorology, Buynitzky on, 43:613-14
Fair, state, local, relation between, and meteorology, 23:463
Famine, India, 28:246-48
        , Japan, northern, effect of Bering Sea ice on, Kincer on, 50:582-83
Farming, dry, 37:53-54
        , dry, in East, 38:1310-11
        , relation between, and climate, Reed and Tolley on, 44:354-55
Fata morgana, June 1922, on Nagyhortobágy, Réthly on , [il], 51:312-13
Fault, atmospheric, West Coast, Bowie on, 57:332-34
Fences, wire, construction of, to prevent effects of lightning, 26:466
Fire, March 22, 1897, Huron, S. Dak., 25:98
        , cause of, by lightning, Iowa, 1919-22, Covert on, 51:404
        , cause of rain by, 24:461
        , cumulus clouds above, See: Clouds, cumulus, over fire
        , forest, See: Forest fires
        , oil, start of tornado by, Brunt on, 55:25
Fireballs, See: Meteors
Fish, rain of, June 27, 1901, Tillers Ferry, S. Car., 29:263
        , showers of, 33:322
Flagpole, use of, in calibrating kite anemometers and observing kites, Sherry on, [il], 44:327-28
Flags, weather, explanation of, 29:14-15
Flames, red hydrogen, typical forms of, 33: July 1905, pl.3
Flight, See also: Flying
        , airplane, 1917-19, notable, weather during, 47:233
        , airplane, May 16-27, 1919, trans-Atlantic, first, Gregg on, [il], 47:279-82
        , airplane, May 18, 1919, non-stop to Ireland, Hawker and Grieve’s, 47:283
        , airplane, 1919-20, of N C - 4, meteorological aspects of, Anderson on, 48:529-32
        , airplane, Feb. 25, 1920, above Hawaiian Islands, aerological observations during, 48:87
        , airplane, Aug. 31-Sept. 1, 1925, from San Francisco to Hawaii, meteorological aspects of,
        , 53:384-87
        , airplane, Sept. 8, 1931, Moyle-Allen, over northwestern Pacific, 59:364
        , airplane, Oct. 3, 1931, non-stop, across Pacific, Pangborn and Herndon’s, 59:398
        , airplane, May 1932, across Atlantic, 60:122
        , R.S.-1, San Antonio, Tex., to Scott Field, Ill., Kepner on, 59:386-88
        , trans-Atlantic, British dirigible R-34, Gregg on, [il], 47:541-43
        , trans-Atlantic, from meteorologists. Point of view, Gregg on, 47:65-75
        , trans-Atlantic, non-stop, first successful, Alcock and Brown’s, 47:416
Flood, See also: Freshets

Wheaton’s, against head winds, Warren on, 58:118

Jan. 1880, Basseterre, W.I., 27:196

June 1885, Mexico, 13:157

April 1886, Cumberland River, 12:146

May 30-June 1, 1889, Johnstown, Pa., Russell on, 17:117-19

May 31-June 3, 1889, in Middle Atlantic states, 17:148-50

May and June 1894, Columbia river, 22:510

Jan. 1898, Ohio and central Mississippi valleys, 26-4

March 1898, Ohio and central Mississippi rivers 26:92

April 1898, Mississippi, 26:140-42

June 27-July 15, 1899, Brazos river valley, Tex., with notes on previous overflows, 27:295-98

April 7-17, 1900, Colorado valley, Tex., 28:146-150

April 27-May 17, 1900. Brazos river valley, 28:198-200

Nov.-Dec. 1902, Red river, 30:604

May 20, 1904, Crow Creek, Cheyenne, Wyo., 32:226-27

June 1904, Jamaica, Hall on, 32:273

Sept. 1904, Southwest, 32:465-68

Oct. 1-4, 1904, south Carolina river, in Oklahoma and Indian Territory, 32:522-23

1908, Mississippi river, 36:198-208

July, 1908, Kansas City, Mo., 36:296

Aug. 1908, in rivers of Georgia, North and South Carolina, 36:233-35

Nov. 1908, Neosho and Arkansas rivers, 36:396-97

June-July 1909, Missouri river, 37:399-400

July 10-20, 1909, lower Missouri valley, Smith on, 38:572-75

Sept. 1909, San Juan river, 37:648-49

Autumn 1909, Utah, 37:657-58


Jan. 1, 1910, Great Basin, 38:117-19

Feb. 1910, southern Idaho, 38:295

Feb. and March 1910, Willamette Valley, Andree on, 38:474-75

Feb. 26 to March 1, 1910, Humboldt river, 38:444-45

Aug. 28-29, 1910, Lincoln, Neb., Garrett on, 38:1209

Sept. 1910, lower Rio Grande, 38:1399-1400

Jan. 24 to Feb. 4, 1911, southeastern Idaho, 39:130-31

Feb. 1911, in Grand and Saginaw river valleys, 39:197

July 1911, in Rio Grande and Rio Pecos, Brandenburg on, 39:1066

Oct. 1911, Wisconsin river, Spencer on, 39:1517-19

Oct. 4-5, 1911, Rio Grande, Brandenburg on, 39:1562

Oct. 5-6, 1911 southwestern Colorado and northwestern New Mexico, 39:1570-72

Spring 1912, Michigan, Schneider on, 40:530-31

Spring 1912, Mississippi Valley, 40:554

March 1912, South Atlantic and East Gulf states, Herrmann on, 40:336-38

April 1912, Gulf states, 40:501-02


____, May 1912, Michigan, Coleman on, 40:699
____, June 1912, Colorado river, Brandenburg on, 40:917-18
____, July 1912, Wisconsin river, Spencer on, 40:1031-32
____, July 14, 1912, Cherry Creek Basin, Colo., McDonough on, 40:1043-44
____, Aug. 1912, in Wisconsin river, Spencer on, 40:1191
____, Sept. 1912, in Wisconsin river, Spencer on, 30:1344
____, Jan. 1913, in Ohio Valley, 41:27-29
____, Jan.-Feb. 1913, in Pascagoula and Pearl rivers, 41:185-86
____, Jan.-March 1913, in Tombigbee and Black Warrior rivers, Alabama, Ashenberger on, 41:516
____, March 1913, recurrence of, possibility of, Smith on, 42:176-78
____, March-April 1913, in Ohio Valley, 41:529-30
____, April 1913, Cairo, Ill., district, Lindley on, 41:553-54
____, July 24, 1913, Boise, Ida., Wells on, 41:1104-05
____, Sept. 26- Oct. 4, 1913, in southwestern Louisiana, Cline on, 41:1546
____, May 1914, in Denver district, Brandenburg on, 42:293-94
____, April-May 1915, Texas, Bunnemeyer on, 43:186-89
____, May-June 1915, Missouri Valley, Henry on, 43:286-87
____, June 1915, in Kansas river and tributaries, Connor on, 43:287-88
____, Sept. 1915, in Neosho river, Holcomb on, 43:474-45
____, Spring 1916, in lower Mississippi, Vicksburg district, Barron on, 44:295-97
____, April 1916, in Mississippi river, St. Paul, Minn., to Hannibal, Mo., 44:214
____, July 1916, in East Gulf and south Atlantic states, Henry on, 44:466-76
____, Aug. 9, 1916, in West Virginia, 44:465
____, Aug. 15, 1916, Hannibal, Mo., 44:465
____, Sept. 26, 1918, Juneau, Alaska, Summers on, 46:471
____, Oct. 1919, eastern Spain, 47:750
____, Nov. 1919, in Memphis district, Emery on, 47:824
____, Dec. 1919, in east Gulf states, 47:894-46
____, Dec. 1919, Meridian, Miss., river district, Jaqua on, 47:896-98
____, March-April 1920, Iowa, 48:235-36
____, May 1920, in Black Hills, S. Dak., Johnson on, 48:236
____, June 1920, in Mississippi river and tributaries, below Vicksburg, Miss., Cline on, 48:365
____, 1921, in Amazon river, Hagmann on, 51.25
____, June 1921, in Denver district, Sherier on, 49:366-69
____, Aug. 1921, in Luzon, Philippines, Coronas on, 49:509
____, Sept. 1921, in Texas, Bunnemeyer on, 49:491-94
____, Sept. 9-10, 1921, Taylor, Tex., McAuliffe on, 49:496-97
____, Sept. 10, 1921, San Antonio, Tex., Jarboe on, 49:494-96
____, Spring 1922, Frankenfield on, [il], Suppl. 22
____, Spring 1922, Frankenfield on, Henry's abstract of, 51:20-24
____, Spring 1922, Mississippi drainage basin, 50:326-28
____, April 24-25, 1922, Fort Worth, Tex., Landis on, 50:188-89
____, June 1922, in lower Rio Grande, Jarboe on, 50:328-29
____, July 1922, in Grand river, 50:381-82
<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Authors</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 28-30, 1923</td>
<td>Maine</td>
<td>Jones on</td>
<td>51:224</td>
</tr>
<tr>
<td>Aug. 13, 1923</td>
<td>Farmington and Willard, Utah</td>
<td>51:420-422</td>
<td></td>
</tr>
<tr>
<td>Oct. 1923</td>
<td>Oklahoma, Slaughter on</td>
<td>51:47-48</td>
<td></td>
</tr>
<tr>
<td>Oct. 20-23, 1923</td>
<td>Canal Zone, Henry on</td>
<td>51:530</td>
<td></td>
</tr>
<tr>
<td>Oct. 22-25, 1923</td>
<td>Canal Zone, Kirkpatrick on</td>
<td>51:641-43</td>
<td></td>
</tr>
<tr>
<td>March 29, 1924</td>
<td>Cumberland, Md., Weiss on</td>
<td>52:180</td>
<td></td>
</tr>
<tr>
<td>April 1924</td>
<td>Belle Fourche river, western South Dakota, Johnson on</td>
<td>52:236</td>
<td></td>
</tr>
<tr>
<td>June 13, 1924</td>
<td>Carter county, Tenn., King on</td>
<td>52:311-13</td>
<td></td>
</tr>
<tr>
<td>June 1925</td>
<td>Mexico</td>
<td>53:313-14</td>
<td></td>
</tr>
<tr>
<td>May-June 1926</td>
<td>various regions</td>
<td>54:262</td>
<td></td>
</tr>
<tr>
<td>1927</td>
<td>Mississippi Basin, Frankenfield and others on</td>
<td>[il], Suppl. 29</td>
<td></td>
</tr>
<tr>
<td>1927</td>
<td>Mississippi Valley, Frankenfield’s paper on, Henry’s review of</td>
<td>55:437-52</td>
<td></td>
</tr>
<tr>
<td>March 1928</td>
<td>Sacramento Valley, Taylor on</td>
<td>56:100-2</td>
<td></td>
</tr>
<tr>
<td>July 1928</td>
<td>Mississippi and Atchafalaya rivers,</td>
<td>56:334</td>
<td></td>
</tr>
<tr>
<td>1929</td>
<td>lower Mississippi valley, Spencer on</td>
<td>57:317-19</td>
<td></td>
</tr>
<tr>
<td>Feb. 1929</td>
<td>Miami river</td>
<td>57:116</td>
<td></td>
</tr>
<tr>
<td>March 1929</td>
<td>southeast Alabama, Henry on</td>
<td>57:319-23</td>
<td></td>
</tr>
<tr>
<td>March 15, 1929</td>
<td>Elba, Ala., [il]</td>
<td>57:111</td>
<td></td>
</tr>
<tr>
<td>Aug. 1930</td>
<td>Utah, Alter on</td>
<td>58:319-21</td>
<td></td>
</tr>
<tr>
<td>1933</td>
<td>losses from, statement of</td>
<td>62:24-27</td>
<td></td>
</tr>
<tr>
<td>March-June 1933</td>
<td>United States, Zoch on</td>
<td>61:159-65</td>
<td></td>
</tr>
<tr>
<td>Aug. 2-3, 1933</td>
<td>Cherry Creek, Colo., Sherier on</td>
<td>61:280</td>
<td></td>
</tr>
<tr>
<td>Dec. 30, 1933 to Jan. 1, 1934</td>
<td>Los Angeles area, Daingerfield on</td>
<td>62:91-94</td>
<td></td>
</tr>
<tr>
<td>1934</td>
<td>United States, losses by</td>
<td>62:465-67</td>
<td></td>
</tr>
<tr>
<td>1935</td>
<td>United States, losses by</td>
<td>63:361-65</td>
<td></td>
</tr>
<tr>
<td>Jan. 1935</td>
<td>near Memphis, Tenn.,</td>
<td>63:31</td>
<td></td>
</tr>
<tr>
<td>April 1935</td>
<td>Sacramento Valley, Fletcher on</td>
<td>63:135-37</td>
<td></td>
</tr>
<tr>
<td>May-June 1935</td>
<td>Kansas river valley, Grand, Osage and lower Missouri rivers,</td>
<td>63:198-99</td>
<td></td>
</tr>
<tr>
<td>May 31:1935</td>
<td>near D’Hanis, Tex.,</td>
<td>63:256-57</td>
<td></td>
</tr>
<tr>
<td>July 1935</td>
<td>New York and northeastern Pennsylvania,</td>
<td>63:231</td>
<td></td>
</tr>
<tr>
<td>Dec. 8-9, 1935</td>
<td>Houston, Tex.,</td>
<td>63:361</td>
<td></td>
</tr>
<tr>
<td>ancient</td>
<td>Pennsylvania and Ohio, Pennywitt on</td>
<td>50:15-16</td>
<td></td>
</tr>
<tr>
<td>crests of, Colorado river, effect of mountain snowfall on, Sherier on</td>
<td>51:639-41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>crests of, on Ohio and Mississippi, movement of, Henry on</td>
<td>48:651-55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>crests of, Vicksburg, Miss., forecasting, based on stages at Cairo,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>discharge of streams during</td>
<td>22:255</td>
<td></td>
<td></td>
</tr>
<tr>
<td>flashy, Utah causes of</td>
<td>59:122</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frankenfield on</td>
<td>27:405-09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genessee river, McClintock on</td>
<td>23:341</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iowa, phenomena of, Nagler on</td>
<td>61:5-7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>James River Valley,</td>
<td>27:250-51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Los Angeles, studies of, carpenter on, [il]</td>
<td>42:385-89</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
maximum, distribution of, discussion about, 48:215-6
maximum, distribution of, Henry on, 47:861-67
Mississippi river, protection against, system of, Jadwin’s report on, 55:532-33
Missouri river, upper, reed on, 39:877-79
mud, Utah, Alter on, [il], 58:319-21
New England, Henry on, 42:682-86
New Zealand, warnings of, 47:743
Nile, relation between, and India monsoons, 28:252,324-25
Nile, studies of, Groissmayr on, 55:413
prediction of, Stewart and Schuleen on, 57:186-92
protection from, in Minnesota Valley, 48:656-57
protection from, Woodward and Nagler’s paper on, 56:372-73
relation between, and forests, Smith on, 39:516
Rio Grande, lower, Henry on, 47:742-43
river, advance of, 23:341
river, effect of melting snow on, 31:173-75
Swain’s article on, Roberts’ comments on, 38:496-98
Tennessee river, 24:420-21
United States, months of, Henry on, 47:741
Willamette river, Wells on, 53:355
relation between, and climate, 28:448
Fluids, elastic, resistance of, Cottier's, 35:352-56
motion of, researches on, Bateman on, 43:163-70
resistance of small plates in, Rayleigh on, 43:512
revolving, in atmosphere, Shaw on, 45:454
revolving, dynamics of, Raleigh on, 45:413-14
Flying, above-cloud, advantages of, Jones on, 48:528-29
Atlantic coast, bumpy, Parkes on, 50:250-51
cloud, Lohr on, 59:430-31
effect of bumpy air on, Andrus on, 55:494-95
effect of weather on, Miller on, 58:25-26
relation between, and meteorology, 31:594-95
relation between, and meteorology, Reed on, 48:216-17
weather for, Arizona, southern, Walton on, 59:270-72
weather for, Corpus Christi area, McAuliffe on, 59:188-89
weather for, southern plains states, Reihle on, 48:627-32
wind factor in, Gregg and Van Zandt on, 51:111-25
wind factor in, Humphreys on, 52:223
wind factor in, between New York and Chicago Gregg and Van Zandt on, 52:153-57
Flying fields, selection of, influence of climatology on, Meisinger on, 48:525-28
Foehn, May 6, 1913, near Boston, Mass., 47:567
California, southern, 35:508
Greenland, meteorology of, Quervain on, 45:601
Greenland, west coast of, Jan. 1929, Schneider on, 58:135-38
hilltop, 47:567
influence of, on temperature in Alps, Peppler on, 54:506
Fog, 1885-1915, annual hours of, 44:21-22

_, New south Wales, 35:270
_, San Francisco Bay, Varney on, 45:539-40

Fog, 1885-1915, annual hours of, 44:21-22

_, Nov. 3, 1922, in Tri-Cities, Unger on, 51:81-82
_, Nov. 1929, in Gulf of Tehuantepec, Hurd on, 57:485
_, annual hours of, 1885-1915, 44:21-22
_, beach, and fracto-cumulus, 43:402
_, Buzzards Bay, summer, 31:467-72
_, California, Great Valley of, winter, Counts on, 62:407-10
_, California, source of water supply, Reed on, 44:288
_, California coast, Palmer on, 45:496-99
_, California coast, southern, observations of, from airplanes, Anderson on [il], 59:264-70
_, causes, distribution, and forecasting of, Willett on, 56:435-68
_, coast, forecasting, by radiobeacon, Hurd on, 57:96-97
_, diffusion of light by, Mallock on, 48:220
_, dispellers of, Tugrin, 27:17
_, dispelling of, attempts for, Talman on, 55:500
_, formation of, Cuthbertson on, 30:125-26
_, formation of, theory of, Proctor on, 32:406-11
_, formation and persistence of, study of, apparatus for, 48:161
_, Great Valley of California, winter, Counts on, 62:407-10
_, Greensboro, N. Car., airport, analysis of, statistical, Scholl on, 62:159-62
_, growth of, in unsaturated air, 35:22-27
_, Lincoln, Neb., dense, Carter on, 56:275-77
_, Luminous, 36:371
_, Manchester, Eng., Jenkins on, 43:510
_, measurement of, 32:169-70
_, Mt. Tamalpais, relation between, and wind direction, Wright on, 44:342-44
_, Mt. Tamalpais, studies of, [il], 28:283-86,492-93;29:24-25,61-63,104-06
_, New York Harbor, 23:463; 29:175
_, Newfoundland, Brodrick on, 35:76-78
_, Newfoundland, Garriott on, 15:91,122,150
_, ocean, prediction of, Garriott on, 15:176-77,336-37
_, Ohio, central, relation between, and subsequent weather changes, Martin on, 47:471-72
_, Ohio Valley, Devereaux on, 58:107
_, Oklahoma city area, formation and dissipation of, 1920-1931, Epperly on, 61:267-69
_, Pacific northwest, November, preceding winter of 1933-34, Carpenter on, 62:404-07
_, prevention of, 42:104-05
_, production of, by sun, McAdie on, 41:778-79
_, record of, proposal for, 25:249
_, Sahara, eastern, frequency of, Tilho on, 49:349-50
_, San Francisco, phenomenon of, Carney on, 48:337-38
_, San Gabriel Valley, McAdie on, [il], 38:1895-96
_, sea, extinguishing forest fire by, 52:499
signals for machinery for acoustic efficiency of King on 45:442-43
signals for Point Reyes light Cal reflection of Jones on 39:1256
smoke London Owens on 49:405
summer Buzzards Bay 31:467-72
tule 27:547-48
United states forecasting Frankenfield on 43:607-08
United States lighthouses relative frequency of 45:499
utilization of 26:466; 27:113; 32:169-70
utilization of Carpenter on 27:195-96
utilization of Hawks on 27:101-02
Force magnetic horizontal comparison of with temperature 22:415-16, 460, 504
Forecasting cutworms pale western in Montana and nearby states Cook on 56:103-06
glaze Meisinger on 48:73-80
precipitation see: Precipitation forecasting
rain by trees 30:315; 31:592
temperature See: Thunderstorms forecasting
tornado See: Tornadoes forecasting of
weather See also: Forecasts
weather accuracy of Mascart on 50:592
weather aid of in forest fire prevention and control Calvert on 53:187-90
weather by analysis of atmospheric conditions Clayton on 35:161-67
weather by animals 48:98-99
weather application of cirrus to Guilbert on 48:285
weather application of theory of probabilities to Ban Orstrand on 37:175-76
weather application of upper-air observations to 40:150, 308, 473, 645-46, 803, 964
weather for aviators 46:448
weather barogram analysis in Bonacina on 52:451
weather Bartlett on 34:523-26
weather Bjerknes on 47:90-95
weather Boise Idaho from previous seasons Carter on 63:59,101
weather Brazil from barometric characteristics Serra on 63:222-23
weather Clayton on 48:83-84
weather by clouds Fuller on 47:473-74
weather by clouds Ley Jan 1879:14-15
weather by clouds Palmer on 46:407-13
weather competition in proposal for 32:523; 33:11
weather crops by 49:299
weather empirical factors in Dines on 57:474
weather Escanaba Mich Stewart on 35:356-57
weather experiments in 27:96-97
weather Georgil on 52:498-99
weather history of 27:64
weather Hong Kong 27:98-99
weather improvements in possible Bjerknes on 47:99-100
weather India 28:246-48
weather India seasonal 26:266
____, weather, by laymen, 43:507
____, weather, local, project for, Weightman on, 48:154-55
____, weather, by local observers, 32:130
____, weather, long-range, 27:156-57
____, weather, long-range, Brooks on, 56:146-47
____, weather, long-range, Canada, Gun on, 27:149-50
____, weather, long-range, correlation's for, Groissmayr on, 56:370-71
____, weather, long-range, Elmer's letter on, 32:517
____, weather, long-range, England, 49:666
____, weather, long-range, Java, Braak on, 48:414-15
____, weather, long-range, Mascart on, 49:575
____, weather, long-range, Oregon, Pague on, 23:423;24:166,368;25:161;26:253
____, weather, long-range, Pacific coast states, Ashley on, 29:16-19
____, weather, long-range, performance in, Brooks on, 55:390-95
____, weather, long-range, physical basis of, Abbe on, 29:551-61
____, weather, long-range, Porto Rico, Ray on, 62:235-40
____, weather, long-range, possibility on, 22:330-31
____, weather, long-range, possibility of, Pettersson on, 57:256-57
____, weather, long-range, possibility of, Sutton on, 48:221
____, weather, long-range, relation between, and ocean temperatures, Brooks on, 46:510-12
____, weather, long-range, south Africa, 35:72-73
____, weather, long-range, Wren on, 32:469-70
____, weather, method of, heuristic, 32:375
____, weather, method of, Pernter on, 31:576-82
____, weather, method of, statistical, Kaltenbrunner's, 47:734-35
____, weather, methodical, Besson on, 32:311-14
____, weather, Mexico, 28:541
____, weather, Missouri, Frankenfield on, 23:292-93
____, weather, monthly, by correlation, Reed on, 53:249-51
____, weather, National Electric Light Association discussion on, Beals on, 49:210-13
____, weather, by numerical process, Richardson's method of, Woolard on, 50:72-74
____, weather, Observatorio del Salto, Santiago, While, 54:428-29
____, weather, Pacific coast, McAdie on, 36:98-101
____, weather, period of, extension of, Garriott on, 34:22-23
____, weather, from pilot-balloon observations, Lacoste on, 50:200
____, weather, principles of, Guilbert's, 35:211-12
____, weather, problems in Dunoyer and Reboul on, 49:352
____, weather, progressive phase in, Odenback on, 31:573-76
____, weather, relation between, and citrus fruit marketing, Young on, 57:425
____, weather, relation between, and forest fire control, Flint on, 51:567-69
____, weather, relation between, and prediction of forest fire conditions, Weidman on, 51:563-64
____, weather, relation between, and scientific ballooning, 36:283-84
____, weather, relation between, and sun spots, Russell's article on, 56:189
____, weather, relation between, and visibility, Gockel on, 49:352
____, weather, rules for, Guilbert's, 25:210-11
weather, by scintillation of stars, Moye on, 47:740
weather, seasonal, relation between, and pressure, Hessling on, 55:184-86
weather, seasonal, relation between, and pressure variations in Northern Hemisphere, Henry on, 53:528-34
weather, seasonal, Walker on, 59:202
weather, from ships at sea, Henry on, 51:188-90
weather, on short-period solar variations, Marvin on, 48:149-50
weather, by signs, 28:249; 29:508
weather, Smithsonian Institution, 26:263-64
weather, from synoptic charts, Henry on, 58:159
weather, United States, 44:393
weather, United States, inception of, Abbe on, 44:206-07
weather, use of cirrus in, 48:156
weather, use of free-air soundings in, Byers on, 62:376-78
weather, use of tephigram in, Alvord and Smith on, 57:361-69
wind, for aerial navigation, 50:26

Forecasts, See also: Forecasting, weather
Australia, western, verifications of, Cooke on, 34:23-24,274-75
daily, dissemination of, by telephone, 32:311
distribution of, method of, Berry on, 29:14-15
distribution of, by post, 27:61,361; 28:162
distribution of, Smith on, [il], 42:541-45
fake, 29:467; 32:322-23
fake, penalty for, 35:276
probability of, degree of, 49:410
use of, for predicting forest fire danger, Gisborne on, 53:58-60
value of, Cline on, 23:293
value of, commercial, 28:550-51
Forecasts, value of, to farmer, Reed on, 28:287-88
value of, to natural gas companies, 35:228
value of, in problem of protecting forests from fire, Beals on, 42:111-19
value of, to raisin maker, Bonnett on, 38:1593
weighting of, Cooke on, 34:274-75
western Australia, Cooke on, 34:23-24,274-75
Forest, diseases of, cause of, by meteorological conditions, Hubert on, 58:455-59
effect of, on evaporation, soil moisture, and ground water, Bode on, 48:557-58
effect of, on rainfall, Fautrat on, May 1880:15-16
effect of, on rainfall, Hazen on, 25:395-97
effect of, on snow melting in Cascade Range, Griffin on, [il], 46:324-27
effect of, on temperature of air current, Lalin on, 43:448-49
fuels of, moisture content of, humidity and fluctuations in, Simpson on, 58:373-74
North Carolina, damage to, by hail, Holmes on, 49:333
petrified, Arizona, Bigelow on, [il], 38:488-91
protection from fire, value of weather forecasts in, Beals on, 42:111-19
relation between, and flood, Smith on, 39:516
relation between, and rainfall, 30:205-43; 45:453
relation between, and rainfall, Hubbard on, [il], 34:24-26
relation between, and stream-flow, experimental determination of, 38:770
Swain's article on, Roberts' comments on, 38:496-98
types of, distribution of, factors controlling, Pearson on, 49:94-95
yellow-pine, western, Arizona, meteorological study of, Pearson on, [il], 41:1615-29
yellow-pine, western, influence of, on accumulation and melting of snow, [il], 43:115-26
Forest fires, Nov. 1819, 32:23-24
1910, causes of, Jesunofsky on, 38:1576
May 1911, in Arizona, 39:750
Oct. 13-17, 1918, Minnesota, smoke from, Lyman on, 46:506-09
Sept. 16-17, 1923, Berkeley, relation between, and weather, Alexander on, 51:464-65
1924, California, end of, by rains, 52:499
July 13-Aug. 9, 1926, Quartz Creek, meteorological factors in, Gisborne on, 55:56-60
Aug. 1933, Tillamook, Ore., weather of, Dague on, 62:227-31
California, relation between, and weather fluctuations, Gray on, 62:231-35
Catalina Mountains, Ariz., fighting, 38:1250
cause of, by lightning, Palmer on, 48:452-53
control of, relation between, and weather forecasting, Flint on, 51:567-69
control of, weather forecasting as aid in, Calvert on, 53:187-90
effect of lightning on, California, Palmer on, [il], 45:99-102
effect of lightning on, California, Show on, 51:566-67
effect of lightning on, California, Show and Kotok on , 51:175-80
effect of lightning on, Humphreys on, 59:481
effect of lightning on, Oregon and Washington forests, Morris on, 62:370-75
effect of lightning on, record of, five-year, Gisborne on, 59:139-50
effect of lightning on, Rocky Mountain region, Gisborne on, 54:281-86
effect of lightning on, Washington, Alexander on, 55:122-29
effect of lightning on, Washington forests, Morris on, 62:370-75
effect of temperature and relative humidity on, Lloyd on, 60:56-59
extinguishing of, by sea fog, 52:499
formation of cloud during, carpenter on, 40:1258
formation of conventional clouds by, Carpenter on, [il], 47:143-44
Idaho, season of, Larsen on, 53:60-63
Lake states, weather service for, Lloyd on, 59:31-33
prediction of, relation between, and weather forecasts, Weidman on, 51:563-64
prediction of, use of weather forecasts in, Gisborne on, 53:58-60
prevention of, weather Bureau help in, Beals on, 44:138-39
prevention of, weather forecasting as aid in, Calvert on, 53:187-90
relation between, and climate, Montana and northern Idaho, 1909-19, Larsen on, [il], 50:55-68
relation between, and evaporation, Munns on, 49:149-52
relation between, and lightning, California, Show and Kotok on, 51:175-80
relation between, and lightning, Washington Alexander on, 55:122-29
relation between, and meteorology, Hofmann on, 51:569
relation between, and meteorology, Show on, 59:432-33
relation between, and solar radiation and relative humidity, Gast and Stickel on, 57:466-68
relation between, and storm movement, McCarthy on, 52:257-59
relation between, and thunderstorms, California, Beals on, 51:180-82
relation between, and weather, Suzuki on, 56:323
relation between, and weather, southern Appalachians, McCarthy on, 55:119-22
Russia, smoke-travel from, 48:600
smoke from, 22:32-30
weather favorable to, 1929, comparisons of, Keyser on, 58:365-68
weather favorable to, 1929, disastrous, Dague on, 58:368-70
weather favorable to, Adirondacks, western, measurement and interpretation of, Stickel on, 60:25
weather favorable to, Alexander on, 51:561-63; 58:370-72
weather favorable to, Appalachians, southern, McCarthy on, 51:182-85
weather favorable to, forecasting, Beals on, 44:135-38
weather favorable to, forecasting, unit for, mobile, Gray on, 57:377-78
weather favorable to, indication of, by water-level movements, Thompson on, 55:326
weather favorable to, Lake states, Lloyd on, 59:31-33
weather favorable to, Massachusetts, central, Stickel on, 56:134-36
weather favorable to, Quebec, Nichols' paper on, Burrill on, 57:297-98
weather favorable to, relation between, and evaporation, Bates on, 57:297-98
weather favorable to, Washington, western, Joy on, 51:564-66
weather favorable to, Wisconsin, 57:386-87
Forest Service, cooperation between, and Weather Bureau, 37:949-50
Forestry, effect of precipitation cycles on, 55:461
meteorological observations in, Zon on, 42:217-23
place of, among natural sciences, Graves on, 42:671-72
Fort Hall irrigation project, Idaho, Granville on, 38:1434-35
Franklin Kite Club, 24:334; 25:162-65
Rhees on, 24:416
Swain and, 25:165
Frazil, dissipation of, 40:1756
formation of, Barnes on, 35:225-27
Freeze, See: Frost
"Freezing-point plane", dipping of, before thunderstorms, 14:360-61
Fremont Forest Experiment Station, work of, in climatology and forestry, [il], 38:97-101
French Association for Advancement of Science, meteorology of, 31:235
Frequency, curves of, See: Curves, frequency
Freshet, See also: Flood
Jan. 1912, in Willamette river, 40:133
James river, Evans on, 28:156,590-91
James river watershed, conditions contributing to, 32:67-71
New York, Holden on, 33:196-202
Savannah river, Emigh on, 42:46-62
Friction, relation between, pressure-gradient, and wind Akerblom on, 45:455
Friday, cold, date of, 27:545
Frigorimeter, Davos, illustration of, 54:42
Frontal theory, application of, to Sahara cyclones, Petitjean on, 52:496
Frost, See also: Temperature, minimum
Frost, Feb. 1895, British Isles, 58:67
   _____, Jan. 1898, southern California, 26:2
   _____, Jan. 2-4, 1898, Florida, 26:1-2
   _____, Feb. 1898, Texas, 26:46-47
   _____, March 1898, California, 26:93
   _____, April 6-9, 1898, North Carolina, 26:139-40
   _____, Nov. 13, and 29-30, 1911, in sugar, orange, and trucking region, Cline on, 39:1714-16
   _____, Dec. 1911, San diego, Cal., Carpenter on, 39:1912
   _____, Dec. 1912 and Jan. 1913, California, McAdie on, 41:120-22
   _____, 1917, southern Ohio, effect of, on fruit, Alexander on, 49:232-34
   _____, Feb. 2-4, 1917, Florida, 48:98
   _____, 1922, southern California, Young on, [il], 51:581-85
   _____, Alaska, recession of, from ground, 51:265
   _____, Arizona, protection from, Briggs on, 42:589-90
   _____, Boise Valley, fighting, Wells on, 38:1120-21
   _____, California, Hilgard on, 24:166-67
   _____, California, southern, 23:341,464-65;26:2
   _____, California vineyards, fighting, Bonnett on, 39:611-12
   _____, Colorado, western, damage by, Nichols on, 41:608
   _____, control and related factors on, Whitten on, 47:570-71
   _____, cranberry bogs, cape cod, Franklin on, Suppl. 16:20-30
   _____, cranberry bogs, New Jersey, Bliss on, 50:529-33;52:212-14
   _____, cranberry bogs, prevention of, by smudge pots, Wells and Parker on, 53:351-51
   _____, cranberry bogs, Wisconsin, protection from, by sanding, Smith on, 50:197
   _____, damage by, effect of soil on, 48:640
   _____, damage by, prevention of, by covers, McAdie on, 37:224-25
   _____, dates of, normal, calculation of, method of, from short temperature records, Van Arsdel on, 50:297-301
   _____, effect of, on growing season, Reed on, 46:516-17
   _____, effect of, on strawberry crop, 27:474
   _____, effect of moon on, 26:115-16
   _____, fighting, 38:1106-07
   _____, fighting, Adamson on, [il], 39:770;41:289-91
   _____, fighting, Boise Valley, Wells on, 38:1120-21
   _____, fighting, California vineyards, Bonnet on, 39:611-12
   _____, fighting, devices for, development of, Young on, [il], 53:349-51
   _____, fighting, McAdie on, [il. Pl. II-V]. 29:65-67
   _____, fighting, Pecos Valley, Hallenbeck on, 51:25-28
   _____, fighting, Pomona, Cal., 40:1107
   _____, fighting, Utah, Alter on, 40:606-08
   _____, Florida, effect of, on insects, 48-98
   _____, Florida, Fairbanks on, 23:336-37
   _____, Florida, protection from, Mitchell on, 42:588-89
____, forecasting, Keen on, 47:849
____, forecasting, Umpqua Valley, Ore., Fletcher on, 59:230-32
____, forecasting, value of, Linney on, 21:230-31
____, formation of, Cuthbertson on, 30:125-26
____, formation of, Hand on, 25:308
____, formation of, peculiarities of, 15:91,177
____, formation of, studies in, Seeley on, 36:259-61
____, formation of, Valerio on, 25:213
____, France, prevention of, Skinner on, 34:79-80
____, Georgia, protection from, Herrmann on, 42:585-86
____, glazed, formation of, Okada on, 42:284-86
____, Grand Valley of Colorado, protection from, Hamrick on, 49:549-53
____, hoar, effect of, on nocturnal cooling, 33:155
____, hoar, nitrogen in, 24:371
____, hoar, Nouel's theory of, May 1879:15-16
____, Idaho, protection from, Beals on, 42:587
____, Injury of, variability of, on fruit buds, Homer on, 39:599-601
____, Kentucky, relation between, and growing season, Walz on, 45:348-53
____, Knoxville, Tenn., protection from, Voorhees on, 42:587
____, Los Angeles citrus region, warnings of, Carpenter on, [il], 42:569-71
____, Mardela springs, Md., May, 23:176
____, New Jersey Cranberry bogs, Bliss on, 52:212:14
____, Ohio, warnings of, smith on, [il], 42:573-83
____, Oregon, protection from, Beals on, 42:587
____, Pecos Valley, fighting, Hallenbeck on, 51:25-28
____, period of, relation between, and vegetation, Kincer on, 47:106-10
____, Pomona, cal., fighting, 40:1107
____, prevention of, by cod air, Hamrick on, 49:234-35
____, prevention of, in cranberry bogs, by smudge pots, Wells and Parker on, 53:351-52
____, prevention of, in France, Skinner on, 34:79-80
____, prevention of, Garthwaite on, 42:571-72
____, prevention of, local cooperation in, 32:229
____, prevention of, for radiant heat, 27:156
____, prevention of, Rogue river valley, spring 1910, O'Gara on, 38:1437-40
____, prevention of, smudge pots for, Wichita, Kan., Sullivan on, 38:412-13
____, protection from, 22:463-64; 23:295; 27:475
____, protection from, Arizona, Briggs on, 42:589-90
____, protection from, Bennett on, 33:445
____, protection from, by covers, McAdie on, 37:224-25
____, protection from, experiments on, 27:62-63
____, protection from, experiments on, McAdie on, [il], 38:1894-95
____, protection from, Florida, Mitchell on, 42:588-89
____, protection from, Georgia, Herrmann on, 42:585-56
____, protection from, Gruss on, 39:581-82
____, protection from, heater and vaporizer for, McAdie on, 40:618-19
____, protection from, with hot water, 28:110
_____ protection from, Humphreys on, 42:562-69
_____ protection from, by irrigation, southern Texas, Cline on, 42:591-92
_____ protection from, Knoxville, Tenn., Voorhees on, 42:587
_____ protection from, McAdie's studies on, [il], 38:1894-95; 40:122-23,779
_____ protection from, by orchard heating, Rogue River Valley, Ore., Young and Cate on, 51:617-39
_____ protection from, Oregon, Washington, and Idaho, Beals on, 42:587
_____ protection from, by sanding, Smith on, 50:197
_____ protection from, by smoke screens, Kimball and MacIntire on, 51:396-99
_____ protection from, by smudging, 40:254
_____ protection from, by smudging, Kimball and Young on, 48:461-62
_____ protection from, straw for, McAdie on, [il], 39:276-78
_____ protection from, Texas, Sprague on, 42:590
_____ protection from, use of frost candles as, McAdie on, 39:769-70
_____ protection from, Utah, Thiessen on, 42:586-87
_____ protection from, weather Bureau work in, 39:275-76
_____ protection of almond trees against, McAdie on, [il], 40:282-83
_____ protection of California orange crop from, McAdie on, 39:1910-11
_____ protection of cape cod Cranberry bogs from, Franklin on, Suppl. 16:20-30
_____ protection of fruits from, Howard on, 38:738-39
_____ protection of fruits from, San Joaquin Valley, by Weather Bureau, Allen on, 57:424-25
_____ protection of Mamme caprifigs from, Rixford on, 40:936-37
_____ protection of melons from, Umpqua valley, Ore., Fletcher on, 59:230-32
_____ protection of strawberries from, by artificial heating, Cook on, [il], 55:354-57
_____ protection of truck from, Gruss on, 39:1231-32
_____ recession of, from ground, Alaska, 51:265
_____ Rogue River Valley, prevention of, Spring 1910, O'Gara on, 38:1437-40
_____ Saint Paul, formation of, 25:401
_____ San Gabriel Valley, McAdie on, [il], 38:1895-96
_____ San Joaquin valley, protection of fruit from, by weather Bureau, Allen on, 57:424-25
_____ South Africa, unusual, 28:14
_____ South Carolina coast, formation of, 30:479-81
_____ studies of, McAdie on, [il], 38:1894-95; 40:122-23,779,1574; 41:623-25
_____ supersaturation of, relation between, and cirrus, Wegener on, 49:349
_____ temperature of, Humphreys on, 58:61
_____ Texas, protection from, Sprague on, 42:590
_____ Texas, southern, protection from, by irrigation, Cline on, 42:591-92
_____ Umpqua Valley, Ore., protection of melons from, Fletcher on, 59:230-32
_____ United States, bibliography of, 43:512-17
_____ Utah, fighting, Alter on, 40:606-08
_____ Utah, protection from, Thiessen on, 42:586-87
_____ warnings of, Beals on, 42:587
_____ warnings of, Ohio, Smith on, [il], 42:573-83
_____ warnings of, utilization of, in citrus regions near Los Angeles, Carpenter on, [il], 42:569-71
_____ Washington, protection from, Beals on, 42:587
Frost candles, See: Frost cartridges
Frost cartridges, McAdie on, 39:612
____, use of, as protection against frost, McAdie on, 39:769-70
Frost crystals, 33:156-58
____, Bentley's studies of, [il. Pl. I-XXXI], 35:348-52, 397-403, 439-44, 512-16, 584-85
Frost rings, Smith on, [il], 39:1257
Frostless belts, 21:365
Fruit, buds of, freezing of, West and Edlefsen on, 49:21-22
____, buds of, frost injury to, variability of, Homer on, 39:599-601
____, citrus, See: Citrus fruit
____, damage to, by low temperature, Mitchell on, 38:16-17
____, damage to, by low temperature, Nichols on, Suppl. 16:37-45
____, effect of frost on, southern Ohio, 1917, Alexander on, 49:232-34
____, grower of, climatic safety for, value of mountains to, Alter on, 39:1248-49
____, growing, relation between, and thermal belts in North Carolina, Cox on, [il], Suppl. 19
____, growing, relation between, and thermal belts in North Carolina, Cox's, Henry's review of, 51:199-207
____, hardiness of, in cold weather, 47:240
____, protection of, Florida, 28:16-17
____, protection of, from frost, Grand Valley of Colorado, Hamrick on, 49:549-53
____, protection of, from frost, Howard on, 38:738-39
____, protection of, from frost, San Joaquin Valley, by Weather Bureau, Allen on, 57:424-25
____, protection of, from frost, Weather Bureau work in, 39:275-76
____, protection of, from frost, Wollaber on, 40:443-46
Fruit, spraying, New York, forecast service in, Calvert on, 53:70-71