

dependence, Ia., 17th, 6 to 8 a. m., severe hail storm. Cresco, Ia., 4th, 17th. Guttenburg, Ia., 4th, 25th. Nora Springs, Ia., 4th, 25th. Cedar Rapids, Ia., 4th, 12th, 25th. Holton, Kan., 26th. Yates Centre, Kan., 8th. Gardiner, Me., 10th, 30th. Falston, Md., 21st. Deer Park, Md., 15th. Fall River, Mass., 3d. Kalamazoo, Mich., 4th. Niles, Mich., 5th. Northport, Mich., 2d, 5.30, p. m., hail storm lasting five minutes, nearly covering the ground with stones as large as buck-shot. New Ulm, Minn., 16th. Corning, Mo., 26th, an excessive rain and hail storm visited the section of country about 20 miles north of this place. It is reported by the Atchison county papers that hail in some places drifted to depths of three and one half feet. Only the edge of the storm passed over this place. Protem, Mo., 31st, 3 a. m., heavy hail seven miles southeast of station, doing much injury to fruit trees and gardens. Lincoln, Neb., 26th. Freehold, N. J., 28th. Princeton, N. J., 9th. Fayetteville, N. C., 1st. Bellefontaine, O., 26th. Bethel, College Hill, Westerville and Wooster, Ohio, 27th. Jacksonburg, Ohio, 14th, 18th, 27th. New Athens, Ohio, 27th, 2.30 p. m., hail storm passed over station in an easterly direction. Twenty miles east of Wheeling, W. Va., considerable damage was done to windows. Dybury, Pa., 8th, 21st. Wellsboro, Pa., 9th, 18th. Meadville, Pa., 27th. Stateburg, S. C., 1st. Austin, Tenn., 17th, 28th. Murfreesboro, Tenn., 17th, 26th. Clarksville, Texas, 5th, 8th. Wytheville, Va., 15th. Franklin, Wis., 4th, 17th. Ft. Myer, Va., 8th. Castroville, Texas, 22d. Louisville, 27th. Logansport, Ind., 17th. Indianapolis, 15th. Milwaukee, 25th. Alpena, Mich., 15th. Burlington, Iowa, 7th, 8.15 p. m., hail as large as peas, lasting one minute. Des Moines, 14th, 17th. St. Paul, 4th, 20th. Madison, Wis., 4th. Davenport, Iowa, 17th. Fort Missoula, Mont., 16th, 17th. Deadwood, Dak., 26th. Fort Assinaboine, Mont., 1st. Griffin, Tex., 6th, 8th. Ft. Cummings, N. M., 25th, 26th. San Carlos, Ariz., 26th. Tucson, Ariz., 25th, 26th. Silver City, N. M., 7th. Winnemucca, Nev., 15th. Dayton, Wash. Ty., 17th. Umatilla, Or., 18th. Colfax, Wash. Ty., 3d, 17th, 19th. San Francisco, 15th, 16th, 19th. Des Moines, Ia., 14th, hail lasting fourteen minutes. Murfreesboro, Tenn., 17th, a severe hail storm passed over Rutherford and Cannon counties about 7 a. m. The course of the storm was a little south of east. In some places in Rutherford county, hail fell to a depth of eight inches and the stones were unusually large.

SLEET.

The dates on which sleet fell in the various districts are as follows: New England, 1st, 4th, 5th, 6th, 10th, 11th, 18th, 19th, 21st, 26th, 27th; Middle Atlantic states, 8th, 9th, 15th, 17th, 18th, 19th, 21st, 22d, 27th; Ohio valley, 4th, 10th; upper lake region, 2d, 4th to 9th, 14th, 17th, 18th, 20th, 21st, 26th; Upper Mississippi valley, 8th, 9th, 10th, 13th, 14th, 20th, 23d, 25th; Missouri valley, 8th, 9th, 12th; southern slope, 5th to 9th; northern slope, 25th, 26th; middle plateau, 6th, 15th, 21st. Sleet was also reported from the following stations not included in the districts named above: Ft. Porter, N. Y., 21st; Ft. Stevenson, Dak., 14th; Ft. Supply, Ind. Ty., 7th; Umatilla, 18th. Unusually severe storms have been reported as follows: Coleman City, Tex., during sleet storm on 7th, 8th, ice on telegraph lines accumulated to the thickness of two inches; several iron poles were bent over by the weight and many trees broken. Graham, Tex., 5th to 8th, prostrating telegraph wire. Henrietta, Tex., 7th, ice on telegraph line one and a quarter inches thick; much damage done.

RELATIVE HUMIDITY.

The mean relative humidity for the month ranges as follows in the several districts:

New England, from 64 to 79; Middle Atlantic states, 58 to 79; South Atlantic states, 61 to 79; Florida peninsula, 69 to 72; East Gulf states, 66 to 78; West Gulf states, 57 to 83; Rio Grande valley, 71 to 84; Ohio valley and Tennessee, 60 to 71; lower lake region, 69 to 78; upper lake region, 73 to 80; extreme northwest, 69 to 90; Upper Mississippi valley, 62 to 75; Mis-

souri valley, 60 to 72; northern slope, 54 to 69; middle slope, 40 to 56; southern slope, 41 to 74; southern plateau, 36 to 51; middle plateau, 50 to 65; northern plateau, 60 to 79; North Pacific coast region, 74 to 78; Middle Pacific coast region, 62 to 79; South Pacific coast region, 37 to 72. High stations report the following percentages not corrected for altitude: Cheyenne, Wyo., 41.9; Pike's Peak, 81.0; Santa Fe, 37.3; Mt. Washington, 84.6.

WINDS.

The prevailing winds during the month of March at Signal Service stations are shown on chart ii. by arrows flying with the wind. On the New England and Middle Atlantic coasts and over lakes Ontario, Huron and Michigan the winds are northwesterly; in the South Atlantic states, southwesterly; in the Gulf states, Tennessee, Indian territory and northern Texas, southerly; in the Upper Mississippi and Lower Missouri valleys, northwesterly; in the plateau regions, variable, but mostly from south to west; in California, westerly to northwesterly; North Pacific coast region, southerly.

TOTAL MOVEMENTS OF THE AIR.

The following are the largest total movements at Signal Service stations: Mount Washington, 26,488 miles; Pike's Peak, 19,552; Delaware Breakwater, 14,345; New Shoreham, R. I., 13,887; Portsmouth, N. C., 13,686; Hatteras, N. C., 13,356; Kittyhawk, N. C., 12,840; Sandy Hook, 12,741; Champaign, Ill., 12,433; Sandusky, 12,314; Cape May, N. J., 11,807; Indianola, Tex., 11,616; Barnegat, N. J., 11,532; Huron, Dak., 11,300; Cape Henry, Va., 10,953; Milwaukee, 10,641; Macon, N. C., 10,447; Cheyenne, Wyo., 10,339; Moorhead, Minn., 10,215; Grand Haven, Mich., 10,182; Provincetown, Mass., 10,062; Dodge City, Kan., 10,031; St. Vincent, Minn., 10,009; Omaha, 10,002; Rochester, 9,938; Fort Shaw, Mont., 9,857; Fort Elliott, Tex., 9,839; Eastport, 9,794; North Platte, 9,495; Boston, 9,425; Fort Myer, Va., 9,258; Davenport, 8,960; Erie and St. Louis, 8,950; Alpena, Mich., 8,908; Bismarck, Dak., 8,887; Newport, R. I., 8,875; Buffalo, 8,811; Detroit, 8,800; Cleveland, 8,776; Fort Assinaboine, Mont., 8,768; Galveston, 8,668; Springfield, Mo., 8,618; Eagle Rock, Idaho, 8,609; Fort Benton, Mont., 8,429; Columbus, O., 8,250; Port Eads, La., 8,248; Atlantic City, N. J., 8,190; New York city, 8,176; Springfield, Ill., 8,157; Louisville, 8,128; Smithville, N. C., 8,093; Oswego, 8,052; Toledo, 8,019; Fort Buford, Dak., 8,008; Umatilla, Or., 8,002. The smallest are: Roseburg, Or., 2,279; Uvalde, Tex., 2,732; La Mesilla, N. M., 2,757; Phoenix, Ariz., 2,848.

HIGH WINDS.

On the summit of Mount Washington, the maximum velocity, 118 miles, n.w., occurred on the 24th. Velocities of 75 miles per hour, or over, occurred as follows: 114 miles, s., 1st; 91, n.w., 4th; 100, s.w., 9th; 108, n.w., 20th; 90, n.w., 21st; 118, n.w., 24th; 75 n.w., 25th; 93, s.w., 27th; 92, s.w., 28th; 90, n.w., 31st. On all other dates during the month, velocities reached or exceeded 50 miles per hour, with the exception of 5th, 12th, 15th, 16th, 17th, 22d. On the summit of Pike's Peak, Col., the maximum velocity 92 miles, n., occurred on 20th. Other high velocities occurred as follows: 60, n.w., 1st; 60, s.w., 3d; 58, s.w., 4th; 58, s.w., 10th; 56, s.w., 11th; 58, s.w., 16th; 60, s.w., 17th; 50, s.w., 19th; 78, n., 21st; 62, s.w., 25th; 62, n.w., 28th; 66, n.w., 29th. Other stations reporting velocities of 50 miles per hour, or over, are as follows: Umatilla, Or., 52, w., 28th; Ft. Assinaboine, Mont., 56, w., 28th; Ft. Benton, Mont., 50, w., 1st; Ft. Shaw, Mont., 51, s.w., 27th and 57, s.w., 28th; Helena, Mont., 56, s.w., 28th; Ft. Custer, Mont., 64, w., 28th; Ft. Keogh, Mont., 50, w., 28th; Cheyenne, Wyo., 52, nw., 28th; Ft. Washakie, Wyo., 60, w., 28th; Huron, Dak., 50, n.w., 5th and 66, n.w., 20th; Palestine, Tex., 60, s., 18th; Indianola, Tex., 53, n., 21st; Rochester, N. Y., 50, n., 21st; Columbus, Ohio, 54, w., 21st; Champaign, Ill., 50, s.w., 9th; Del. Breakwater, Del., 52, s.e., 1st; Cape Henry, Va., 52, n.w., 13th; Kittyhawk, N. C., 50, n., 24th.