

tic and Gulf States; from 10th to 12th in the Upper Mississippi valley; on the 12th in the Ohio valley. In California, at Fort Yuma, on the 5th; at Calistoga on the 12th and at Princeton on the 7th and 12th. On the 15th, at Cheyenne, a heavy snow-storm, accompanied by thunder and lightning, wind NW. 44 miles.

Auroras.—But one auroral display has been extensively observed during the month. It occurred on the 7th from 7 to 10 p. m. and extended from Maine to Nebraska, being observed in the latter State at Clear Creek. Its detailed description is as follows: Cresco, Ia., 7 to 7:10 p. m., low arch in the northeast, with patches of light beneath; Monticello, Ia., at 9 p. m.; Cornish, Me., all the evening; Gardiner, Me., at 9:30 p. m., quite faint; Orono, Me., faint; Somerset, Mass., early evening, dark cloud below arch; Cambridge, Mass., 8 to 8:45 p. m.; Waltham, Mass., 7:20 to 8 p. m., faint nebulous haze; Newburyport, 7 to 10 p. m., faint above a dark segment; Clear Creek, Neb., faint; Contoocookville, N. H., 7:30 p. m., diffuse light; Grafton, N. H., 8:30 to 9:30 p. m., not very bright; Argyle, N. Y., slight diffuse light in the early part of the evening; Woodstock, Vt., 8 p. m., slight nebulous light; Newport, Vt., faint; St. Paul, 7:40 p. m., faint light and arch. Eastport, Me., 7:30 p. m., arch extended from NE. to NW. and consisting of two brilliant unbroken bands reaching 30° towards the zenith. Streamers were observed to play between the bands several times extending from one to the other. General cloudiness prevailed throughout the Lake region during that evening, which prevented observations of the display. The following isolated cases of aurora are reported. 6th, Starkey, N. Y. 9th, Arlington, Ind., 9 p. m.; New Corydon, Ind. 10th, Oregon, Mo., at 9 p. m.; Port Huron, 11th, Oregon, Mo., at 9 p. m. 17th, Vevay, Ind. 18th, Arlington, Ind., 10 p. m. 19th, Detroit, 8 p. m., quite feeble; Wellsborough, Pa. 22nd, Ft. Wayne, Ind. 24th, Wellsborough, Pa. 25th, Woodstock, Vt. 26th, Woodstock, Vt. 27th, Starkey, N. Y. 28th, New Corydon, Ind., corona appeared at 8 p. m., disappearing shortly after. Arlington, Ind. 31st, Starkey, N. Y.

Telegraphic Communication Interfered with by Atmospheric Electricity.—Santa Fé, 12th, 13th; Jacksboro, Texas, 2nd, 3rd, 5th, 10th; Fort Davis, Texas, 5th; Castroville, Texas, 3rd, 8th, 12th, 16th; Eagle Pass, Texas, 1st, 10th, Edinburg, Texas, 1st; Pembina, 1st, 11th.

OPTICAL PHENOMENA.

Solar Halos were seen in greatest numbers from the 25th to 27th, twelve on the latter date, extending from Maine westward, to Minnesota, and as far south as Virginia; but few were reported from the Gulf States.

Lunar Halos were frequently observed east of the Rocky Mountains from the 22nd to the 31st; there being no state from which one or more has not been reported.

MISCELLANEOUS PHENOMENA.

Prairie and Forest Fires.—Ft. Gibson, 14th, 17th, 19th to 23rd, 28th to 31st; Ft. Sill, 7th, 8th, 13th to 20th, 26th to 29th; Springfield, Mass., 14th 15th; Creswell, Kan., 17th to 19th, 24th to 29th; Enfield, N. H., 15th to 17th; Ft. Dodge, Iowa, 2nd 3rd, 6th, 8th, 10th, 13th, 14th, 15th; Litchfield, Mich., 1st to 18th; Mt. Solon, Va., 29th to 31st; Walnut Grove, Va., 16th; Camp Sheridan, Neb., 3rd, 4th, 5th; Ft. Randall, Dak., 5th, 8th, 9th; Ft. Hale, Dak., 5th; Mt. Vernon, Iowa, 2nd, 3d; Red Bluff, Cal., 25th to 31st, in mountains; Los Angeles, Cal., 25th; Virginia City, 5th, very extensive in Ruby Valley; Yankton, 1st, 8th, 9th, 10th, 20th; Ft. Stevenson, Dak., 5th; Deadwood, 5th, 6th, 7th 13th; North Platte, 9th, 18th, 20; Henrietta, Tex., 29th, 30th; Coleman, Texas, 19th, 20th; Pembina, 1st to 5th, 6th, 16th, to 24th; Burlington, Vt., 3rd, 4th, 13th, to 25th; In Vermont, between Camel's Hump and Mansfield Mountains on 16th, forest fires destroyed large tracts of valuable timber; also near Plymouth, Windsor, county, large areas burned over and much lumber destroyed. Port Jervis, N. Y., 16th, in mountains. Waterbury, Vt., 14th, immense damage inflicted. Brentwood, Long Island, 16th to 18th. Weymouth, Norfolk county, Mass., 28th, over 100 acres of woodland burned. Wellsborough, Pa., during portions of the month severe forest fires have raged through the county, doing much damage; Brockville, Ont., 15th, severe bush fires raging near Westport; over 400 acres burned; other fires were reported in various parts of that and adjacent counties. Lebanon, N. H., 15th, on Grant-ham Mountain, doing great damage to valuable timber; hundreds of acres burned over. Northampton, Mass., 15th, "a severe fire has been raging in the woods north of that place during the past two days. The whole western part of the State is enveloped in dense smoke from forest fires." Concord, N. H., 15th, a large territory of woodland burned over; over two thousand cords of wood destroyed for one firm. Pembina, 1st to 7th, very extensive prairie fires doing much damage. Norfolk, N. Y., 3d forest fires raged fear fully, "destroying farm houses, barns and farm property. Some of the roads are impassable" whitestone, Long Island, 16th, "during past twenty-four hours dense clouds of smoke, from forest fires, rendered it necessary to keep the fog bells tolling from Ft. Schuyler to Executive Lights." Sparta, N. Y., 17th, large forest fires raging, destroying valuable timber, fences and orchards. Montreal, Can., 17th, "dense smoke on the river still continues and navigation is entirely suspended." Sweetwater Valley, San Diego Co., Cal., 28th, one of the greatest conflagrations "ever known to the oldest inhabitant, from 40 to 50 square miles of territory burned over."

Meteors have been seen in considerable numbers throughout the country east of the Mississippi valley, the largest number of stations reporting them as visible on the 12th and 13th. None of particular import-