

fluence on the atmosphere and on the condensation of aqueous vapor. The fleecy clouds seen in Iceland by Thienemann, and which he considered to be the northern light, have been seen in recent times by Franklin and Richardson near the American north pole, and by Admiral Wrangel on the Siberian coast of the Polar Sea. All remarked "that the Aurora flashed forth in the most vivid beams when masses of cirrous strata were hovering in the upper regions of the air, and when these were so thin that their presence could only be recognized by the formation of a halo round the moon." These clouds sometimes range themselves, even by day, in a similar manner to the beams of the Aurora, and then disturb the course of the magnetic needle in the same manner as the latter. On the morning after every distinct nocturnal Aurora, the same superimposed strata of clouds have still been observed that had previously been luminous.* The apparently converging polar zones (streaks of clouds in the direction of the magnetic meridian), which constantly occupied my attention during my journeys on the elevated plateaux of Mexico and in Northern Asia, belong probably to the same group of diurnal phenomena.†

* John Franklin, *Narrative of a Journey to the Shores of the Polar Sea, in the Years 1819-1822*, p. 552 and 597; Thienemann, in the *Edinburgh Philosophical Journal*, vol. xx., p. 336; Farquharson, in vol. vi., p. 392, of the same journal; Wrangel, *Phys. Beob.*, s. 59. Parry even saw the great arch of the northern light continue throughout the day. (*Journal of a Second Voyage, performed in 1821-1823*, p. 156.) Something of the same nature was seen in England on the 9th of September, 1827. A luminous arch, 20° high, with columns proceeding from it, was seen at noon in a part of the sky that had been clear after rain. (*Journal of the Royal Institution of Great Britain*, 1828, Jan., p. 429.)

† On my return from my American travels, I described the delicate cirro-cumulus cloud, which appears uniformly divided, as if by the action of repulsive forces, under the name of polar bands (*bandes polaires*), because their perspective point of convergence is mostly at first in the magnetic pole, so that the parallel rows of fleecy clouds follow the magnetic meridian. One peculiarity of this mysterious phenomenon is the oscillation, or occasionally the gradually progressive motion, of the point of convergence. It is usually observed that the bands are only fully developed in one region of the heavens, and they are seen to move first from south to north, and then gradually from east to west. I could not trace any connection between the advancing motion of the bands and alterations of the currents of air in the higher regions of the atmosphere. They occur when the air is extremely calm and the heavens are quite serene, and are much more common under the tropics than in the temperate and frigid zones. I have seen this phenomenon on the Andes, almost under the equator, at an elevation of 15,920 feet, and in Northern Asia, in the plains of Krasnojarski, south