TELEGRAPH in 1840’s

W. H. Barlow, “On spontaneous electrical currents observed in the wires of the electric telegraph”, Phil. Trans. R. Soc., 61, 1849

“THE OBSERVATIONS DESCRIBED ... WERE UNDERTAKEN IN CONSEQUENCE OF CERTAIN SPONTANEOUS DEFLECTIONS HAVING BEEN NOTICED IN THE NEEDLES OF THE ELECTRIC TELEGRAPH ON THE MIDLAND RAILWAY, THE ERECTION OF WHICH WAS CARRIED OUT UNDER MY SUPERINTENDENCE AS THE COMPANY’S ENGINEER.”

“... in every case which has come under my observation, the telegraph needles have been deflected whenever aurora has been visible”