and when the South Pole was presented,

 $q_2 = 000067$; giving q = 000086 nearly as the true tempera-

ture coefficient.

The remarkable accordance of q_1 , q_2 , with the results of the two earlier experiments, makes it very probable that the North Pole was presented in the experiments of 1843-44, and the South Pole in those of 1846. Should such be the case, the true value of $^{\circ}$ during that period would have been 00009 nearly. But it is shew. on the same page, that by the multiplication of the equivalent to a degree of temperature by k the scale coefficient, there is obtained

q = 0001105,

which agrees much better with q = 000112, the value derived from the experiments of 1843-44, than it does with q = 00009; from which it would appear that the error that would be committed by taking q = 000112, and which is caused by a change in the distribution of the magnetism, would be almost completely conpensated by the superposed effects of temperature on the instrument.

The discordance above referred to between the results of temperature experiments in which the two poles are successively presented, may be an exceptional property. Of eight magnets tested at my suggestion, by Mr. Stewart, of the Observatory at Kew, through the kind intervention of General Sabine, one only showed any material difference in the results derived from presenting both poles; and for other magnets that I have tried, results materially the same have been obtained, whichever pole was presented; nevertheless, the fact that it has been occasionally otherwise is a sufficient motive, I think, in conducting temperature experiments to present each pole of the deflector instead of one only.

NOTE ON POINSOT'S MEMOIR ON ROTATION.

BY J. B. CHERRIMAN, M.A. PROFESSOR OF NATURAL PHILOSOPHY, UNIVERSITY COLLEGE, TORONTO.

This celebrated memoir of Poinsot's, which, in connection with his invention of couples, has revolutionised our whole system of mechanics, treats the subject partly in an analytical, partly in a geome-