

during rapid rotation, are always in the same direction as those derived from the slowest rotation, and which continue to act after the rotation has ceased, but are greater in intensity; and that the former effects are such as might have been looked for from a knowledge of the latter.

*Some Account of the Transit Instrument made by Mr. Dollond, and lately put up at the Cambridge Observatory. Communicated April 13, 1825. By Robert Woodhouse, A.M. F.R.S. Read May 19, 1825. [Phil. Trans. 1825, p. 418.]*

The author in this paper first describes the operations by which the new transit instrument at the Observatory of Cambridge was approximatively placed, so as to allow of a meridian mark being erected on the distant steeple of Granchester church. He then enters into a more full consideration of the different methods proposed and employed by astronomers for executing the more delicate adjustments of the transit in general; he shows how the errors of collimation, level, azimuth, and the clock, may all be detected, and their values determined, by the resolution of certain equations of the first degree, constructed from observations of any three or more stars; but this method, though exact in theory, he reprobates in practice, and prefers making each adjustment separately and by the ordinary mechanical trials, as shorter, more effectual, and less troublesome. Mr. Woodhouse then describes a remarkable phenomenon presented to him by the transit in the course of his observations. He found that the line of collimation of the instrument deviated occasionally to the east or west of the centre of the meridian mark, without any apparent reason. At length, however, it was found that this was caused by the approach of the assistant's body to the lateral braces, placed for the purpose of steadying the instrument in an invariable position at right angles to its axis. The expansion of the brace nearest to him was found to thrust the axis of the telescope aside; and on the removal of the assistant, the equilibrium of temperature restoring itself, the deviation gradually disappeared. That this was the true cause, appeared by wrapping hot cloths round the alternate braces, by which the same effect was produced in an increased degree. Warned by these observations, Mr. Woodhouse ordered a proper apparatus to be provided, to defend the braces from the sun's rays, during the meridian passage of that luminary.

*On the fossil Elk of Ireland. By Thomas Weaver, Esq. Member of the Royal Irish Academy, of the Royal Dublin Society, and of the Wernerian and Geological Societies. Read May 19, 1825. [Phil. Trans. 1825, p. 429.]*

Mr. Weaver's principal object in this paper is to prove that the remains of the gigantic elk, which have been found in various parts of Ireland, are not of antediluvian origin, but that the animal lived