

#### THE GREAT COMET OF 1881.

The Government Astronomer, Mr. C. Todd. C.M.G., writes to us as follows with reference to the comet which is now visible: — "Your readers have already been advised by the telegraph that a fine comet has made its appearance within the last week in the south-western sky. So far as I am at present aware it appears to have been first seen in Australia by that active and zealous astronomer, Mr. Tebbutt, of Windsor, in New South Wales, and it has since been observed by Mr. Ellery, in Melbourne, and, no doubt, by Mr. Russell. Owing to clouds I had no opportunity of seeing it till Friday evening. This evening (Sunday) the sky being beautifully clear, I had a splendid view of it with our equatorial, and a few words descriptive of its appearance may not be without interest. The comet has a bright condensed nucleus of irregular form, and a tail of several degrees in length, which could be best seen and traced in the small finder of the telescope, and is brightly visible to the naked eye. Those of your readers who have not already seen it will have no difficulty, therefore, in recognising it, as it occupies a comparatively blank space in the sky about nine degrees below the four stars Alpha, Epsilon, Beta, and Gamma Columbo. The nucleus, as seen through a telescope, is as bright as a star of the fifth magnitude, bearing a full illumination of the field, and seems to have a large irregular disc, surrounded by a bright nebulous coma which extends for a considerable space in front of the head, the tail streaming off in two hairy slightly divergent streams to the rear, or to the south-east, leaving a comparatively dark intermediate space behind the nucleus, somewhat resembling in this respect the large comet of 1861, Donati's comet of 1858, and Caggia's comet of 1874. It is moving slowly to the eastward in right ascension at about the rate of twenty-seven seconds (in time) a day, and northwards in declination about forty-three minutes a day. I obtained a fine set of comparisons this evening with a star of the sixth magnitude in Oela Sculptoria, British Association Catalogue, 1,564. The comet followed that star 3 59' in right ascension, and was 17' 10' to the north. Its approximate position at 7 h 20 m. p.m. was therefore — R. A., 5h. 1 m. 63 s.; declination, 31° 3d' 43' S. On Saturday evening its position was as proximately, R. A., 5 h. 1 m. 26 s. ; declination, 32° 22. As the comet does not set till after 8, and is, as I have already said, easily seen by the naked eye, persons will have an opportunity of watching its progress amongst the stars for some time. — I am. &c, "CHARLES TODD, Government Astronomer. "The Observatory, Adelaide, Sunday evening. May 29, 1881."