

A paper was also read, entitled "An Account of the Construction of a fluid refracting Telescope of eight inches aperture and eight feet nine inches in length, made for the Royal Society by George Dollond, Esq. F.R.S." By Peter Barlow, Esq. F.R.S.

The author has, in former papers read to this Society, pointed out the great variety of cases included under the general formulæ relating to the operation of fluid refracting telescopes, and stated the difficulty of selecting, independently of experiment, the particular case which was likely to produce the best result. This subject is pursued in the present paper; and the principles and calculations stated at length which the author has applied in the construction of the telescope which the Council of the Royal Society directed should be made by Mr. Dollond, under the superintendence of the author, in order to put these principles to the test of experiment, and to decide the question of the expediency of proceeding in the construction of a similar telescope of much larger dimensions. When the experimental telescope was completed, it was found that its performance agreed in every respect with the computed results, as well in focal distance as in chromatic and spherical aberration. The arrangement of the lenses was such, that the corrections are all of them made in the transmission of the light through the fluid, and by the fluid only. The author abstains from offering any remarks on the performance of this telescope, leaving it to those whom the Council of the Royal Society may appoint, to decide upon its merits. He concludes by expressing his obligations to Mr. Dollond, for the readiness with which he complied with all the suggestions of the author, and for the accuracy with which he has executed every part of the instrument.

Anniversary Meeting, Nov. 30th.

HIS ROYAL HIGHNESS THE DUKE OF SUSSEX, K.G.,
President, in the Chair.

The President delivered the following Address :

GENTLEMEN,

THIS is the Second Anniversary of my election to the Chair of the Royal Society, and I gladly avail myself of the opportunity which it affords me of renewing the expression of my gratitude to you for the distinguished honour conferred upon me in electing me to it, and still more for the continued kindness and support which I have received from you in the execution of the duties of my office. I can only assure you, Gentlemen, that if it be your pleasure that I should continue to fill this Chair, I shall feel an additional motive to induce me to devote my most earnest attention to the promotion of the interests of the Society, in the perfect reliance which I place upon your cooperation and assistance, and in the confident expectation which I entertain, that in case I should fail in the due and efficient discharge of any of my duties, I shall experience from you the most kind and liberal interpretation of my motives and conduct.

In making my acknowledgments to the Fellows of the Society at