

now mounted on a brick pier and enclosed in a uniform temperature compartment in the basement of the Observatory.

The chronograph which was obtained from Messrs. Cooke & Sons, York, England, in 1883, proved so unsatisfactory as to be practically useless. It has been converted to the cylinder form, under my direction, and is now a serviceable instrument.

The determination of the difference of longitude between the Harvard College Observatory and this Observatory has been completed, with the result that the pier of our transit instrument is  $0^h. 9^m. 47^s. 556 \pm 0^s. 014$  west of the dome of the Harvard College Observatory, and therefore  $5^h. 54^m. 18^s. 549 \pm 0^s. 043$  west of the Greenwich meridian. The determination of our longitude was made by reference to Cambridge, because its position in longitude is the most accurately known in America, resting as it does on three independent determinations by the Atlantic cables. Our station is the only one in Canada, the longitude of which has been determined with that accuracy which meets the requirements of modern geodetic work. For a short statement of the methods employed in this work, reference is made to my report for the year 1883. A more detailed account, together with a full discussion of the observations, will appear in the forthcoming volume of the Proceedings of the Royal Society of Canada. The thanks of the University are due to Prof. E. C. Pickering, Director of the Harvard College observatory, for his courteous co-operation in this work, and also to Prof. A. W. Rogers, who has given so much of his valuable time in prosecution thereof.

I have pleasure in stating that the petition to the Honorable the Minister of Marine, presented in January last, praying for an increase of the annual government grant towards the support of the Observatory, was favourably received and the prayer in part granted.

Respectfully submitted,

C. H. McLEOD, MA. E.,

*Superintendent of the Observatory.*

MCGILL COLLEGE,

Montreal, January 27th, 1886.