REPORT ON THE McGILL COLLEGE OBSERVATORY FOR THE YEAR ENDING DEC. 31st, 1888.

To the Corporation of McGill University.

GENTLEMEN,—I have the honour to present the report on this Observatory for the year now closed, being my fifteenth annual report.

Meteorological Observations. — The "chief station" observations of the pressure, temperature and hygrometric conditions of the air; the velocity and direction of the wind ; the percentage of bright sunshine and of cloudiness : the character and amount of precipitation; and the general weather conditions, have been made at every fourth hour (begining at 3^h) throughout the year. The series of bi-hourly temperatures, commenced in 1884, and being supplementary to the above has also been carried forward without interruption. While the primary object of these observations is to obtain a knowledge of the laws of the diurnal and annual variations of the meteorological elements for this district, they are also of great commercial importance as a record of climate to which authentic reference may be made, as for instance, in connection with loss or damage to property, or as to the varying seasonal effects of climate as regards agriculture. The telegraphic observations forming a part of the Canadian series of observations, upon which the weather predictions are based, have been regularly dispatched at the hours 8, 15 and 22, up to July 1st, and at the hours 8, 15 and 20 since that date, to the Meteorological Office, Toronto. Appended hereto is a summary of the Meteorological Observations of the year. The daily as well as monthly and yearly summaries have been published in the Montreal Gazette.

Time Service.—Determinations of clock errors have been made by the observation of 812 star transits on 139 nights, and by solar transits on six days. A determination of the clock errors is made in the following manner :—A comparison of the sidereal clock, and the mean time clock is obtained on the chronograph. The transits of six stars (one polar star and two equatorial stars, in each of the reverse positions of the