

instrument) are then observed and recorded on the chronograph. The inclination of the axis is measured before and after the observations of the stars in each position. The observations being completed, the clocks are again compared. The chronograph sheet is then read and the observations recorded, the instrumental errors deduced, and finally the clock errors are obtained. The error of the sidereal clock is allowed to accumulate, whereas the marking of the mean-time clock is made to correspond to the local meantime of the 75th meridian—known as Eastern standard time. All the signals issuing from the observatory correspond with the marking of this clock.

The noon time-ball, for the use of shipping, has been dropped on week days during the season of navigation, excepting three days when failures occurred. Special signals have been transmitted daily to the fire alarm office for the noon stroke on the alarm bells.

By means of the automatic system of clock signals, which we have used for several years, a knowledge of standard time has been widely distributed. The Corporations and Institutions named below receive these time signals.

The Canadian Pacific Railway Co. transmitting it daily to all stations along their lines to the Pacific Coast.

The Grand Trunk Railway Co., through the G. N. W. Telegraph Co., for all their lines east of Kingston.

The G. N. W. Telegraph Co., transmitting it daily to all the telegraph stations in Eastern Ontario and the Province of Quebec.

The Government of Canada, at Ottawa, through the G.N.W. Telegraph Co., for the noon gun and the regulation of the public clock.

The Harbour Commissioners at Montreal.

The Post Office at Montreal.

A number of jewellers and manufacturing establishments requiring an accurate time standard are also in receipt of these signals, for which they pay annually a small sum, about sufficient to cover the rental of the telegraph line used for the purpose.