

The Observatory.—Possibly in the popular mind no branch of the government service fills so adequately the idea of scientific work as does that of the Observatory, with a lingering feeling that it is not very closely connected with this mundane sphere. This latter idea is not quite correct, and you are more frequently making use of the astronomer's midnight vigils than you may be aware.

The Dominion Observatory was the outgrowth of the terms upon which British Columbia entered the Dominion of Canada. She gave lands 20 miles on each side of a railway to be built by Canada to and through the province. That railway belt, in order to be correlated to the Dominion Lands system of the Northwest, required to be astronomically fixed upon the earth.

Thereby began the practical astronomic work of the Government in the accurate determination of latitude and longitude. That was in 1885. The work has been extended across the continent. Ottawa has been made the chief reference point for Canada, and the Observatory has been built, which now engages in other work too, work of research, besides the practical work that called the Observatory into being.

The work of the Observatory may be divided broadly into: Astrophysics, Time and Meridian work, and Geophysics.

With the ancient Greeks, Hermes, or, as later known by the Romans, Mercury, was the messenger from heaven; to-day, that messenger is Light, more fleet-footed than Hermes or Atalanta, for in the twinkling of an eye he could skip from the moon to us. This messenger, this ray of light, this motion of the immaterial, comes to us laden with a story, with a wonderful story from the home he left some time ago, perhaps ten or a hundred or five hundred years ago, travelling all the time at 186,000 miles a second. Only a rigorous cross-examination, however, can elicit any information, and with much difficulty are answers obtained. The principal questioners are the prism and photographic plate on which his handwriting is impressed, which tell us the constituent parts of his home, what gases and elements surround it, and whether the home—the star—is approaching or receding from us. To such analyses the ray of light is put at our observatory. It may be mentioned too that the photographic plate can obtain the record of stars so faint that no human eye will ever see them, be the telescope ever so large, for the telescope is but a large eye. All researches reveal more and more that all bodies in the universe are of one great family, ultimately with the same finger-print.

In another branch stars are put to a different use. It is well said that "order is the first law of heaven"—would it were so on this earth. You