

Lakes as shown on tide guages. In passing, it may be mentioned that both solar and lunar tides are observable too on the lakes. A high barometer at one end of the lake would tend to press the water towards the other end and consequently raise it there. Besides the readings of the barometer at stated intervals there is a continuous record made too by means of photograph at the chief meteorological observatories. The instrument is then called a barograph.

Let me tell you of an interesting record of the barograph at Toronto on August 27th, 1883. You all recollect the frightful cataclysm of Krakatoa, a small island in the strait of Sunda between Sumatra and Java. In this catastrophe over 30,000 lives were lost, and the eruption was followed by extraordinary atmospheric phenomena—notably the peculiar red sunsets of the following year—visible over the whole globe and attributed to the presence of volcanic dust. As soon as the news reached England—science ever on the alert—the Director at Kew immediately sent to the various head meteorological stations in the numerous colonies for the barograph record of that and succeeding days. That terrific and awful explosion launched an atmospheric wave on its journey around the world, which not only recorded its passage at Toronto, but after its concussion, presumably at the antipodal point of Krakatoa, left its record on its return, on the mercurial column, and a second rebound too was recorded. I had the pleasure of examining the original record at Toronto. From an examination of this record I infer that the atmospheric wave must have travelled at the enormous rate of about 800 miles an hour, being about the velocity of sound.

The thermometers ordinary used for exact observation are the dry, wet, maximum and minimum. The wet thermometer is only a dry bulb covered with soft muslin well wet with rain or clear water drawn from an attached cup by a wick, and is used