

the famous earthquake of 1663 in Quebec. The earth shook for months, and the Indians very graphically described it as being caused by the trees having drunk too much fire-water.

An interesting feature of earthquake shocks calculated by the seismometer is the rate at which the vibration travels. A few months ago an earthquake occurred in Japan which was recorded in Victoria, B. C., and in Toronto. The difference in time of registration at Victoria and Toronto was twelve minutes. The distance between the two stations being about twenty-four hundred miles, gives a speed to the vibration of some two hundred miles per minute. Not nearly so rapid as light, but much more rapid than sound waves.

If the limits of the paper forbid our examination of the seismograph and the wondrous results obtained from its use, much more are we forbidden to enter into a discussion of the modern theories regarding the causes operating to produce earthquakes. We will content ourselves with a glance at the views held by the ancients or the people of mediæval times, which, while perhaps not so instructive, are much simpler, and from an unscientific standpoint much more interesting. Aristotle and Pliny attributed volcanic and earthquake phenomena to the presence of wind or imprisoned vapor in the bowels of the earth, which becoming agitated to a terrific hurricane caused the frail crust to shake in the manner of an earthquake, or burst its prison doors and issue out as a volcanic eruption. Shakespeare, in Henry IV, says :

“Diseased nature oftentimes breaks forth
In strange eruptions : Oft the teeming earth
Is with a kind of colic pinched and vex’d
By the imprisoning of unruly wind
Within her womb ; which, for enlargement striving,
Shakes the old bedlam earth and topples down
Steeple and moss-grown towers.”

The general impressions which prevailed in the middle ages, and which are said to be common yet amongst the uneducated portion of the world, are the superstitions that the earth-shakings are due to the movement of some subterranean deity or mythical monster. In Japan it was supposed that there existed beneath the ground a huge spider, or *‘jishin mushi.’* A rock rests on its head at Kashima, and the rest of the empire is shaken by the wriggling of its body and tail. The Mussulman pictures the subterranean animal as an elephant, while the North American Indians pictured it as a tortoise. “In Scandinavia, which is perhaps the land of mythology, there was an evil