

925. No attention seems to have been given to earthquakes in the periods of classical antiquity and the middle ages, except when they proved very destructive or were supposed to be connected with some historical event. The great and otherwise alarming increase of earthquakes in modern times is in truth to be attributed principally to the revival of learning, to the invention of printing, and to the progress of the natural and physical sciences. Hence between the 15th and 17th centuries the recorded earthquakes in Europe and its vicinity rise suddenly from 41 to 180, and the increase seems only to have been arrested in the 18th century, when these causes were in full activity. The progress of navigation in the Pacific, and the discovery of America, have, when we regard the whole world, also enormously increased the number of instances, so that the earthquakes for the whole world were in the 17th and 18th century 35.3 per annum and in the first half of the 18th century alone 3240 in all, while the total number from the 10th to the 15th centuries inclusive was only 532.

The earliest earthquake in Eastern North America, in the catalogue prepared by Mr. Mallet for the British Association, is that felt in New England in 1638. The earliest in Canada is that of 1663. The following list taken from the Report above referred to and other sources, includes all the subsequent earthquakes recorded as having affected Canada, or the neighbouring parts of America.

- 1639, June 2, *New England*.—Violent, two shocks, direction N. W. & S. E., houses thrown down.
- 1658, April 4, " Violent.
- 1660, January 31, " " "
- 1662, January 26, " Violent, three shocks, chimneys thrown down.
- " Nov. 6, " " "
- 1663, February 5, *CANADA*.—Very violent, succeeded by minor shocks until July following, ice broken up, rivers discoloured, cliffs and banks thrown down, buildings injured: extended to Nova Scotia and New England.
- 1665, February, 24, " At Tadoussac and Malbaie, violent.
- " Oct. 15, " Violent, accompanied by loud noise.
- 1668, not dated, *New England*.
- 1669, " " " "
- 1727, Nov. 9, " Violent, followed by slight shocks, direction N. E. to S. W., loud explosions, earth opened at Newbury, and ejected sand, &c.
- 1728, January 30, *New England*.
- " Aug. 2, " Slight shocks continued from November 1727 to this date.
- 1729, March 25, " Repeated slight shocks from this date till 1741.
- 1732, September 5, *CANADA*, *New England* and as far as Maryland buildings injured.
- 1737, February 6, *New England*.—At Boston, one shock.
- " December 7, " and New York, three shocks, buildings injured.
- 1738, Oct. or Nov., " At Boston.
- 1741, December 6, " Boston, &c., slight.
- 1744, May 16, *CANADA*.—At Quebec a considerable vibration.
- " June 3, *New England*.—At Cambridge, slight.
- 1746, Feb. 2, " At Boston.
- 1755, Oct., *CANADA*.—No shocks, but unusual rise and fall of water in Lake Ontario. On Nov. 1st of this year occurred the great Lisbon earthquake which was felt over the Atlantic and in the West Indies, but I find no record of its being felt in Canada.
- " Nov., *New England* and Eastern U. States to Maryland. Also Nova Scotia. Three or four shocks, two of them violent. Houses were damaged.
- " Nov. 21, " At Boston.
- " Dec 19, " Same region as on the 18th, but slightly.
- 1756, January 1, *New England*.—At Boston.
- " November 16, " " "
- " December 4, " " "
- 1757, July 8, " " "
- 1758, February 2, " " "
- 1760, " 3, " " "
- " November 9, " At Boston slight.
- 1861, February, " " "
- " March 12, *North America*.—Violent shocks.
- " 16, *New England*.—Boston.
- 1763, October 30, *Philadelphia*.—Violent.

- 1766, February 2, *New England*.—Especially Massachusetts and Rhode Island.
- " August 25, *New England*.—Newport, R. I.
- " Dec. 17, " Portsmouth, N. H., a violent shock.
- 1776, February 2, " In Rhode Island.
- 1783, July 29, *New York*.—Rather violent.
- 1785, January 2, *New England*.—At Cambridge, shocks at same time at Baltimore.
- 1786, November 29, *New England*.—At Cambridge.
- 1787, February 25, " " "
- 1791, May 16, " At Rast Haddam, Conn., which was visited by a series of slight shocks, continuing through several years.
- " April 18, *New England*.—To Pennsylvania, a severe shock followed by lighter ones.
- " December, *CANADA*.—Severe shocks at St. Paul's Bay, walls cracked, &c.
- 1756, February, *CANADA*.—A violent shock, rocks fell from cliffs at Niagara.
- 1799, March 17, *Philadelphia*.—one shock.
- 1800, November 29, " A severe shock.
- " December 25, *New England*.—Various places.
- 1801, November 12, *Philadelphia*.
- 1804, May 18, *New York*.
- 1810, Nov. *New England*.—Several places a severe shock.
- 1811, December 16. At this date commenced the terrible earthquakes which were felt extensively in the valley of the Mississippi and in various parts of the Eastern and Western States until 1813. The great earthquake of Caracas occurred in March 1812.
- 1816, September 9, *CANADA*.—A severe shock felt at Montreal.
- " 16, " A second shock less violent.
- 1818, Oct. 11, " Felt near Quebec.
- 1819, August 15, " At St. Andrews.
- " November 10, " At Montreal, slight. Followed by an awful storm with rain impregnated with matter like soot.
- 1821, February, " At Quebec, a slight shock.
- 1823, May 30, " On shore of Lake Erie, slight but water lake rose to height of 9 feet.
- 1824, July 9, *New Brunswick*.—A severe shock.
- 1822, August 23, *New England*.—At New London, Conn.
- 1828, August 20, *CANADA*.
- 1829, January, *New York*.—At Portsmouth.
- 1831, July 14, *CANADA*.—At Murray Bay, Beauport, &c., walls and chimneys were thrown down at the former place.
- 1832, *Nova Scotia*.—Slight.
- 1833, March and April, *CANADA*.—Several shocks at Murray Bay, &c.
- 1837, April 18, *Hartford Conn*.—Very slight.
- 1840, August 9, *New England*.—Especially in Connecticut, several slight shocks.
- " September 10, *CANADA*.—At Hamilton, a violent shock apparently from W. to E.
- " November 11, *Philadelphia*.—A severe shock.
- " 14, *New Haven*.—In Connecticut.
- 1841, January 25, *New York*.—Several shocks W. to E.
- " Spring, *CANADA*.—Said to have been felt at Quebec, but regarded as uncertain.
- 1842, November 8 and 9, *CANADA*.—Montreal, Three Rivers, &c., severe shocks and agitation of the River.
- 1844, " " At Montreal.
- 1847, " " Felt at Montreal.
- 1855, February 8, *Nova Scotia*, *New Brunswick* and *New England* slight.
- " 19, *New England*.—In Maine.
- 1856, May 1, *CANADA*.—At Ottawa and its vicinity, (See Canadian Nat. Vol. 1).
- 1857, " In the Upper Province.
- 1858, January 15, *CANADA*.—At Niagara, slight.
- " May 10, " At Richmond, slight.
- " June 27, *New England*.—At New Haven, slight.
- 1859, *CANADA*.—At Metis.
- On comparing the above table with the deductions of Mallet and Perry for the entire globe, we perceive the applicability to Canada of the law ascertained by them, that the greatest and most frequent shocks occur a little after the middle and toward the close of each century. Thus in Canada and New England the years from 1659 to 1663, from 1756 to 1766, and from 1791 to 1796, were periods of special seismic activity, and in the present century our most severe shock has been in 1860, and judging from the previous centuries will no doubt be followed by others.
- With respect to seasons of the year, the published catalogues show that January presents the maximum, and May and June the minimum activity for the northern hemisphere, and that the autumn and winter months are those in which earthquakes occur