and the effects or strains produced by these stresses. We know that the meteorological conditions, by that I mean those due to rain, snow, sunshine, &c., have an effect in changing the stresses upon the earth.

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Daily, these meteorological conditions alter and influence and play a great part in changing the stresses upon the earth. There are other meteorological influences that are contributory to setting off an earthquake, when the strain reaches the limit in the crust and interior of the earth, and that is, for instance, a very rapid change in the barometric pressure, which is ordinarily supposed to be nothing. However, we may have a rapid change of two inches in the barometer. It means that you get an increased pressure at the sea level of about 144 pounds to the square foot. Put that additional strain on the earth's surface and it may be just sufficient to fire-to set off-our earthquake. Not that it will directly cause the earthquake, but it may be the one cause that fires the earthquake when it is nearly "ripe." Another cause is that of the physical tides of the earth We all know of the tides of the oceans of the earth, but we have also physical tides of the earth itself. The moon produces stresses upon the earth, and that, under certain circumstances, may fire our earthquake. Now to get down to my subject. I have made a few notes to prevent me talking too long, and I want to show you a number of records of earthquakes. I will just say in passing, a word about volcanoes. It is the general belief that volcanoes and earthquakes are associated. They are quite distinct phenomena. Volcanoes are confined to the skin of the earth, while earthquakes are generally much deeper. But there are effects that follow both volcanic activity and earthquakes that we are concerned with. Earthquakes, of course, affect the very life of our earth. These great volcanic eruptions, the greatest in historic times being that of Krakatoa, in Sumatra, in 1883, poured immense quantities of fine dust into the upper regions of the atmosphere. In the case of Krakatoa, this dust remained there for several years and was noticeable by the many beautiful sunsets which were prevalent soon after that eruption. These particles in the high regions, however, interfere with the radiation from the sun and prevent us from getting all the heat and solar energy we should receive. Another recent eruption was the one at Katmai, in Alaska, only two years ago. Here again, immense quantities of dust were thrown into the atmosphere and interfered with the radiation to a very great extent. One of the constants which scientists have been trying to determine is called the solar constant, that is the amount of heat that is poured out by the sun falling vertically upon a square centimetre of the earth's surface during one minute. In this last volcanic eruption at Katmai,

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