

reduced if we could tell the velocity of the colliding planet. If we suppose this planet to be moving at the same rate of speed as the earth, then we should reduce the time by three minutes.

The first or initial impact of the two planets occurred in the south, and moved northward. This is abundantly proved by the peculiar formation of the Cordilleries of Chili and Peru. The collision may be illustrated somewhat as follows:

Crush in the thin ice of a frozen lake; then shove the broken ice-crust aside so that its pieces are shoved under and over each other. These pieces will represent the pieces of the earth-crust that formed the Rocky Mountains. Now, if any ice-floes are shoved under the unbroken part of the lake-ice, they will, just because ice is lighter than water, lift the unbroken lake-ice above them. This unbroken ice, lifted as just indicated, will represent the continent of America. If we but recall the tremendous air-pressure created at the time of the collision, we can readily understand why immense masses of the crushed-in earth-crust were shoved beneath the unbroken crust of the earth. That part of the ocean which is now the Pacific was, of course, greatly deepened by the collision. The great masses of mineral matter that raised America above the ocean, were taken from the bottom of the Pacific. The depression created in the earth's surface was immediately filled with water and this lowered considerably the ocean level all over the earth, causing land to appear in many parts of our planet.