

But now, in settling down, its circumference must constantly become less. How can its circumference be made less? Only by squeezing together from all directions. There must be a lateral pressure experienced at every point. It arises from the weight of the crust, and is proportional to the weight of the crust. If the crust is thus subjected everywhere to an enormous lateral pressure, then, either the parts of the crust must be *mashed together*, producing a thickening in proportion to diminution of circumference; or else, if the crust is too solid to be crushed, it will *wrinkle*—just as the skin of an apple is wrinkled, when the pulp within shrinks through the evaporation of juice.

Now, suppose that stage of things has been reached. Some wrinkles have made their appearance on the surface of the earth. They are the beginnings of mountains. If ocean waters rest now on the earth's surface, they may, indeed, totally cover these wrinkles—but they are the germs of mountains, nevertheless. As long as the earth's interior continues to lose heat and contract, so long wrinkling tendencies will exist. But, after a set of wrinkles has been first developed, the wrinkling tendency afterward finds relief in the same wrinkles—in the enlargement of the first wrinkles. The power to enlarge and further elevate the old wrinkles will be attained before the power to initiate wrinkles in new places. In this way, the germinal mountains would grow. In this way, the first uplifted masses would afterward be uplifted higher, as new relief had to be sought. Did we not observe the successive stages of uplift in our study of the Adirondacks?

There is no volcanic uplifting here. It is true, however, we may get volcanic phenomena. The crust presses with enormous weight on the molten ocean. Compare it with a field of ice a mile square and three feet thick, floating on a lake. If you make a hole through the ice, the water rises in the hole, nearly to the surface of the ice. If the hole is suddenly made, the water may rise with such velocity that its momentum will carry it quite to the surface, or over the surface. This is like an outflow of volcanic matter through a fissured crust. Suppose a great number of piles of ice be