Fissures of the crust, or faults, producing displacements in the strata. 4. Escape of heat and eruptions of melted matter from the igneous nucleus through these fissures. 5. Earthquakes. 6. Configuration of the earth's surface, or the courses of mountains and coast lines, and the general forms of the continents.

1. *Solidification of the Surface.*—This process must have been extremely gradual at the first, and still slower after the formation of a crust. These conditions would be favorable to crystallization; and there may have been a general uniformity in the crystalline structure, so that there should be two directions of easiest fracture in the crust, a north-east and a north-west course. It is probable that large circular or elliptical areas continued open as centers of volcanic action, which have been growing smaller to the present time, or may have become extinct.

2. *Contraction.*—As the globe continued to cool, its size would diminish. After a crust had been formed, the interior portion would gradually lose its heat and contract, perhaps leaving a vacant space between itself and the crust. Where the tension was too great to be sustained, *the consolidated crust would collapse upon the contracted interior nucleus*, and thus gradually produce the present ridged and furrowed condition of the surface.

Fig. 125.

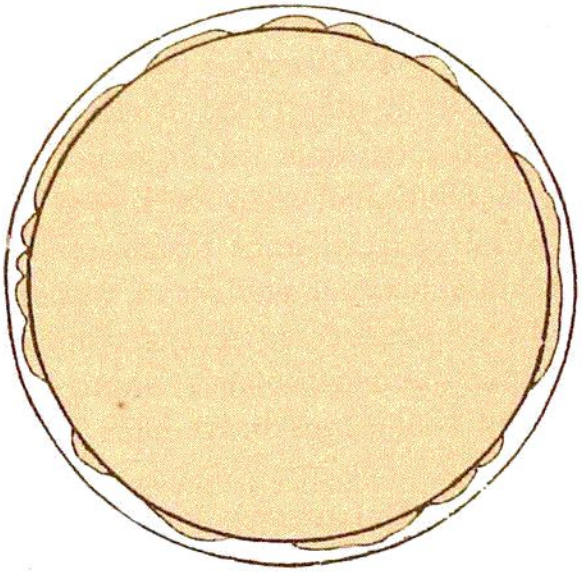

Fig. 125 will illustrate this point. The outer circle represents the crust of the earth, after it had become consolidated above the liquid mass within. This heated nucleus would go on contracting as it cooled, while the crust would remain nearly of the same size. At length, when it became necessary for the crust to accommodate itself to the nucleus, contracted say to the inner