another, slightly different model; for instance, he reckoned the depth of compensation D from the earth's surface instead from sea level.

Although this model is highly idealized, there is a modern interpretation in which the "level of compensation" might possibly be identified with the boundary between *lithosphere* (above) and *asthenosphere* (below), so that compensation takes place throughout the lithosphere. In fact the lithosphere is believed to have a thickness of about 100 km, although with a higher average density, but what counts for compensation are the density differences.

8.1.2 The Model of Airy–Heiskanen

Airy proposed this model, and Heiskanen gave it a precise formulation for geodetic purposes and applied it extensively.

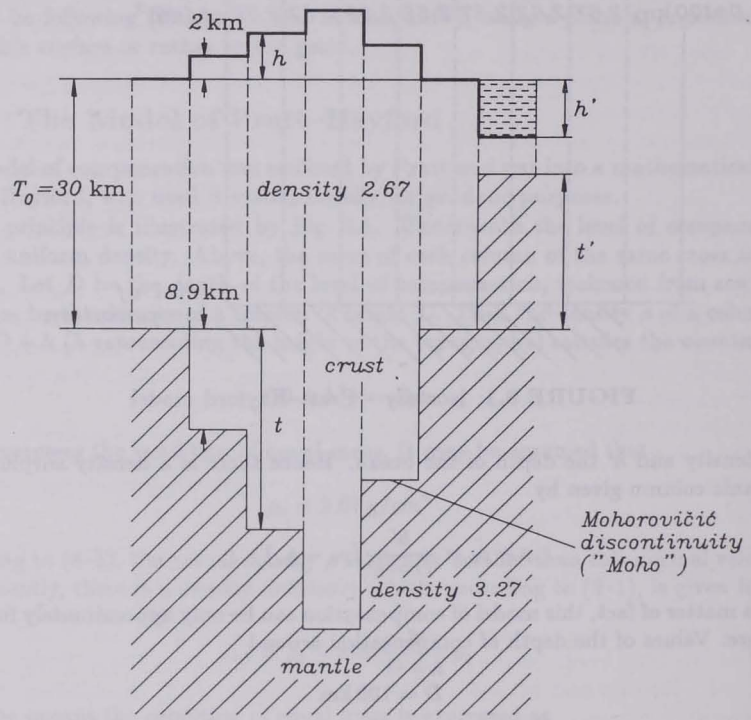

FIGURE 8.2: Isostasy – Airy–Heiskanen model

Figure 8.2 illustrates the principle. The mountains, of constant density (say)

$$\rho_0 = 2.67\,\mathrm{g/cm^3} \quad , \tag{8-8}$$