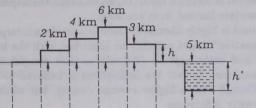
8.1 CLASSICAL ISOSTATIC MODELS



 $D = 100 \text{ km} [2.67] 2.62 [2.57] 2.52 [2.59] 2.67 [2.76] \text{ g/cm}^3$



FIGURE 8.1: Isostasy - Pratt-Hayford model

is the density and h' the depth of the ocean. Hence there is a density surplus in a suboceanic column given by

$$\rho - \rho_0 = \frac{h'}{D - h'} \left(\rho_0 - \rho_w \right) \quad . \tag{8-6}$$

As a matter of fact, this model of compensation can be only approximately fulfilled in nature. Values of the depth of compensation around

$$D = 100 \,\mathrm{km}$$
 (8–7)

are assumed.

For a spherical earth, the columns will converge slightly towards its center, and other refinements may be introduced. We may postulate either equality of mass or equality of pressure; each postulate leads to somewhat different spherical refinements. It may be mentioned that for computational reasons Hayford used still