

Accepting this view, we should expect the matter composing the various members of the solar system to be everywhere nearly the same. The fact of condensation round centres, however, indicates probable differences of density throughout the nebula. That the materials composing the nebula may have arranged themselves according to their respective densities, the lightest occupying the exterior, and the heaviest the interior of the mass, is suggested by a comparison of the densities of the various planets. These densities are usually estimated as in the following table, that of the earth being taken as the unit:

Density of the Sun.....	0·25
“ Mercury.....	1·12
“ Venus.....	1·03
“ Earth.....	1·00
“ Mars.....	0·70
“ Jupiter.....	0·24
“ Saturn.....	0·13
“ Uranus.....	0·17
“ Neptune.....	0·16

It is to be observed, however, that “the densities here given are mean densities, assuming that the *apparent* size of the planet or sun is the *true* size, *i.e.* making no allowance for thousands of miles deep of cloudy atmosphere. Hence the numbers for Jupiter, Saturn and Uranus are certainly too small, that for the sun much too small.”¹ Taking the figures as they stand, while they do not indicate a strict progression in the diminution of density, they state that the planets near the sun possess a density about twice as great as that of granite, but that those lying toward the outer limits of the system are composed of matter as light as cork. Again, in some cases, a similar relation has been observed between the densities of the satellites and

¹ Prof. Tait, MS. note.