## THE CELLS

structing them. In order to increase their capacity, you must increase as much as possible the number of their facets. I will not try to demonstrate to you this beautiful truth; it is beyond your intelligence. Geometry affirms it; let us consider it a fact.

"Starting from that, the choice is soon made. Among all the regular figures that can be placed side by side without leaving an unoccupied space, you must choose that which has the greatest number of sides, for that is the one that will hold the most honey for the same quantity of wax used.

"Geometry teaches that the only regular figures that can be arranged without waste of space are: the three-sided figure, or triangle; the four-sided, or square; and the six-sided, or hexagon. That is all: no other regular figures touch all around so as to leave no empty spaces between them.

"So it is, then, in the hexagonal form, or form with six sides, that the cells can occupy, collectively, the least space, use the least wax, and hold the most honey. Bees, knowing these things better than any one else, make hexagonal cells, never any other kind."

"Then bees have reason," remarked Claire, "like ours; even superior, if they can solve such problems?"

"If bees constructed their cells after a premeditated, considered, calculated plan, it would be something alarming, my dear child: animals would rival man. Bees are profound geometricians because they work, unconsciously, under the inspiration of