

The Beginner's Page

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the hive, or, we will say, the size of the cluster, until there is not room in the hive for it. Then comes swarming—but that's not yet.

Now, the larger the cluster is, the faster it will grow, because in a large cluster the bees can keep much more comb space warm enough for the raising of brood. The more comb space there is inside the cluster, the more eggs the queen can lay, and consequently the more young bees will be hatched in proportion to the number already in the hive. For instance, suppose there are only enough bees to keep warm a space large enough for the queen to lay eggs in fifty cells. It requires three weeks from the time the egg is laid until the bee hatches. Therefore, the queen lays her fifty eggs, and then has to wait three weeks until the young bees hatch before she can lay any more. In the meantime the chances are that half or more of the bees which were present when the queen laid the eggs have died before there are any young ones to take their places, so that there is no gain in population, or very little at best. Even with a much larger cluster than this, it frequently happens in the spring that the old bees die off faster than the young ones hatch, consequently as the cluster must necessarily become smaller and smaller, the fewer bees there are in the hive, it contracts until some of the comb which the queen laid eggs in, and which contains brood in various stages, must be left uncovered, and the brood, of course, dies. It even sometimes happens, when the weather is bad and kills many of the bees that

you ever open a bee-hive, or see the frames taken out, whether that was just a little too warm or not, you will find the bees called warm? If you did, you would have seen the bees as soon as the cool air came in contact with them, they would have fallen into "bunches" on the frames, whereas when first taken from the hive they were distributed evenly over the comb, or a part of it. If any of the bees, from three or four to many hundred, fell off the comb to the ground, they would immediately commence to bunch there in the same way, whereas in warm weather they would soon take wings and return to their hive. What does "bunching," or, as it is properly called, "clustering," mean? It means the bees' method of protection against the cold. A bee alone will soon perish in any kind of temperature—there must be a cluster of them so that they can form a cluster, for in this way the bees in the middle of the cluster are protected by the outside "layer" of bees, in turn, are kept alive by the heat given off by the inner bees in the hive are always warm, though the cluster is distributed over the combs, and it is the size of the cluster—the number of spaces occupied by the combs that it occupies—that determines the strength of the colony. It is the comb or combs in the centre of the cluster that the queen lays her eggs in, and the young bees are hatched in the place of the old ones which are gradually dying off, and when the cluster increases the population of

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may be gathered in life's stress, y be a winged spirit's flame, the alms of life, his own angel, may bloom, ws we have with meek heavenly

may jewel, own of low, e realm ab, ternally!

—Liza says: "My sugar with atoms follow that they honey with