

for you to have combs half filled with pollen. If this is the case I would suspect that the colonies had been queenless in the fall of the year, the combs had become clogged with pollen and as a result of their queenless condition the colony perished. If this is the case I would put the combs of pollen in some brood chamber not overstocked with honey in the spring.—Ed.

Will you be so kind as to answer the following questions in the Canadian Bee Journal. I am a subscriber and a beginner in Bee Culture.

1. Will a queen, when once fertilized, stay fertilized as long as she lives, or does she need to meet the drones every summer?

2. Is it necessary to give a colony of Bees, that has a queen with clipped wings, another queen in the fall of every year?

3. Explain the best method of wintering bees in this northern climate (Muskoka). WM. BRUNNE.

1. A queen once fertilized never meets the drone again.

2. The fact that the queen has her wing clipped or not clipped has no influence upon the length of time she should be kept. I do not believe in the practice of changing queens every year and this advice applies particularly to beginners who should avoid everything which increases the risk of having a queenless colony.

3 This is a big question. I should give the preference to a cave in a side hill, failing this a good cellar under a dwelling house. The more of the compartment there is under ground the more even the temperature. If you are in a portion of Muskoka where the above conditions cannot be secured, I would winter outside in outer cases, packing between with leaves, a small entrance say one-half inch wide breaking the sealed quilt loose sufficiently at the top to allow moisture to escape upward. Pack 10 or 12 inches of leaves at the top, lean a board over the entrance and let the snow cover the entire outer case until the thaw sets in when it should be removed.—Ed

Bee Keeping and the Production of Honey.

FROM THE AUSTRALIAN AGRICULTURIST.

Notes of an Address delivered by Mr. W. S. PENDER, West Maitland, before the Hunter River Horticultural Association:

I propose to describe the method of producing honey with the "Langstroth hive," and will afterwards continue the subject, and describe what I consider a more economical and profitable method. Before we commence beekeeping as a commercial pursuit, it will be necessary for us to know something about the general characteristics of the bees and the manners and customs of the bee nation. It would be useless for us to attempt any interference with their habits if we are desirous of getting them to store their sweet for our use; and the more a person has to do with bees the more he finds that it is in assisting the bees to work in accordance with their own instincts the profit from them is obtained, rather than in trying to coax them in any other way to do what is against their nature. The box provided for the habitation of bees is called a hive. When the bees have settled themselves in the hive they are known as a colony; hence, when a beekeeper speaks of having so many colonies, he means hives in which bees are at work. We will now look into the inside of a hive in which has been occupied by a colony of bees for some time. We first notice that there are a number of combs built more or less irregularly across the hive, about half an inch apart, and suspended from the top. These combs are made up of hexagonal cells, in which the bees raise their young and place their stores. The cells vary in size. The smaller cells are those in which the worker bees are nursed during their development from the egg, and measure five cells to the inch. The larger cells are the cradles of the drones, and measure about four cells to the inch. Different colonies and strains of the honey bee may build cells slightly different in size, but the sizes I have given may be taken as the average. If we were to look through the colony we should find one bee very much longer than the others. This is the queen, or mother of the colony. She is the only perfect female in the hive, and lays all the eggs for the colony, which are in-