

no bees on the red clover, but found the common burdock in bloom, crowded, roaring with bees.

I fixed my bees for winter November 3rd, and wore my overcoat while doing so. I believe they have had only one day's good fly since then.

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From the Queen-Breeders' Journal.

### EARLY QUEEN REARING.

THE first step necessary toward queen-rearing is to get some young drones at least a week before the queens will hatch, for it would be in vain to get queens without some provision for their being fertilized. The rearing of early drones is not always an easy thing in this latitude, for in spite of all the coaxing I can do, it is often May 20th before any drones are seen about my apiary in late seasons. The best plan I know of to secure drones is to place a frame of drone comb in the centre of a few of my best drone-rearing colonies, in the fall, when preparing them for winter. If this drone comb is heavy with honey so much the better, for queens are more liable to use them if immediately below sealed honey than they are where no honey is in the comb. If none of the colonies having drone comb, are strong enough to use them early in the spring, some frames of hatching brood from other colonies should be given one of them as soon as it can be spared, then by a little feeding of warm syrup every night, the queen is generally coaxed to lay in them, and the bees to feed and take care of the larvæ. After the drone brood has been sealed for about a week we are ready to commence to rear our queens if pollen is plenty. It would almost seem needless to say that no one should attempt to rear queens till pollen has become abundant, even if we do have sealed drone brood before this. I never could rear queens which I would be willing to use in my apiary earlier than when pollen was plenty. The first pollen has a wonderful effect along the line of causing the bees to prepare chyme for the bees in abundance, while before they were only feeding the larvæ just enough to supply their daily wants. Good queens can not be reared unless the queen larvæ are liberally fed, and such liberal feeding is only done when pollen is being obtained from the fields. Having the capped drone brood and the pollen, remove the queen from one of the most populous colonies in the yard, and send her off to some customer who wants a queen that has been wintered over, or use her otherwise. A feeder is to be placed next the outside comb, and the colony left for

three days. During the forenoon of the third day, I prepare an old comb by fastening some ten or twelve embryo queen cells along the under side of a large hole which has been cut in it. The cells are fastened to the comb by dipping their bases into melted wax and at once setting them against the comb. These cells have been clipped from the combs as I have come across them while working with the bees, so that at all times I have a supply on hand. Just after dinner or at about one o'clock, I go to the queenless colony and take all their brood away from them, giving it to other colonies that can care for it, when two combs which are in the hive having the most honey in them, together with the most pollen, are placed up close to the feeder at one side, leaving space between the two combs for a third comb to be placed. The division board is now brought up so as to make all as snug as possible, when the hive is closed. I now go to the colony containing the best queen I have and get a little piece of comb containing 15 to 20 little larvæ which should not be over 36 hours old. This piece of comb is taken to a room in my shop which is kept a temperature of from 85 to 90 degrees unless the weather is that warm outside, for if we would have good queens they should not be chilled in any of our manipulations in getting them. Arriving at the room, the little larvæ are lifted out of the cells where they are, together with as much of the food which is in the cell as possible, by means of a goose-quill toothpick, having a curved point. Then they are carefully deposited in the embryo queen-cells which we fastened to the comb in the forenoon.

If the day is at all cool, this prepared frame is wrapped in a warmed cloth and carried to the now hopelessly queenless hive and lowered into the space left for it when taking the brood away. The bees will now be found in the greatest agitation imaginable, and will tell you by their joyful hum, upon receiving the prepared frame, how glad they are that they have something upon which to bestow their caresses.

The prepared queen food, which has been accumulating since you took the brood away, is at once liberally fed to the prepared queen larvæ. The colonies should now be fed liberally with warm syrup for the next five days.

If all of this has been done as it should be, you may expect to find as many nice sealed queen-cells, when looking for them on the fifth day from the time you gave the prepared frame, as you gave cells, lacking one or two; sometimes all; but usually one or two of the larvæ will get injured so that they will be destroyed. When ready to hatch the cells are to be given to