and, to do this, nothing answers the purpose better than half-gallon glass fruit jars, filled with water and inverted upon grooved boards. Strips of wood are nailed around the edges of the boards, to prevent the water from running off. After they are full of water, the water leaves the jars only as fast as the bees sip it up from the grooves. Old bee hunters say that bee trees are seldom found far from streams or bodies of water.

When bees are wintered in warm cellars they often commence breeding quite extensively late in the winter, before it is warm enough to place them upon their summer stands. Some pretty good authorities have asserted that, at such times, not being able to obtain water, they suffer and frequently die of thirst. It is well known that, as spring approaches, bees wintering in a cellar often become uneasy and "worry themselves to death," so to speak; but, until the last two or three years, the cause has not often been attributed to a want of water. Since this theory has been advanced, quite a number of experiments have been made that seem to prove it correct. E. A. Thomas, of Massachusets, in writing to the American Bee Journal, says:

"Several years ago I had three or four colonies get very uneasy in the cellar during the latter part of the winter. I tried to quiet them by giving them more ventilation, but it was of no use, they continued to grow more and more uneasy toward spring. The weather was too unsettled and cold to put them out, and I have about given them up for lost, when I concluded to try an experiment. I made holes through my chaff mats, and inserted bottles of water with cotton cloth tied over the noses, letting the bottle come close down to the cluster of bees. The effect was almost magical; they became perfectly quiet, and remained so until taken out of the cellar. These colonies had a large amount of brood, and were hatching bees quite rapidly when taken out in the spring. The next winter, about Feb. 1st, I commenced giving water to half my bees. Soon after, as an experiment, I took the water bottle away from the strongest colony. They soon manifested their disapproval by making an uproar and boiling out of the hive. I put the bottle back, and they quieted down and remained so. When taken out in the spring. I found that the colonies I had given water had plenty of hatching bees, and from two to four frames of brood, while the others had little sealed brood and some of them none at all. Last winter I gave water to all my bees, which enabled me to keep them in the cellar perfectly quiet until all danger from spring dwindling was past. I never saw a lot of bees in as good condition the first of May—strong in numbers, and with plenty of hatching brood."

Mr. J. A. Simpson, of Illinois, purposed building a honey house with a cellar underneath it. After the cellar was finished he was taken sick, and the house was not built. Early in the winter he decided to try wintering part of his bees in that cellar. He first covered it with poles, and, during a snow storm, began drawing straw with which to cover the poles. He had to draw the straw quite a distance, and the result was a layer of straw and then a layer of snow, until the cellar was covered to a depth of about four feet. Eighty colonies of bees were placed in the cellar, and the heat arising from them caused the snow that was in the straw, and all that fell upon it during the winter, to melt and run down upon the hives, keeping them dripping with water nearly all the time. Whenever Mr. Simpson visited the cellar, at the entrance of each hive that he examined, the bees were out in regular circles, drinking the water that dripped down upon the alighting board. The bees came through in splendid condition, not a comb was mouldy, and there were plenty of old and young bees—no dysentry and no spring dwindling. That part of his apiary which was put up in what was considered good shape, and kept dry according to the books, suffered so badly from dysentery and spring dwindling that he obtained little profit from them the next season.

If space would permit, instances like the above could be given by the dozen. My own experience in wintering bees in the cellar has been very limited; but, if I should ever have bees commence worrying while in the cellar, I should certainly give them water. A very simple way of giving bees water while in the cellar would be to keep a wet cloth at the entrance of each hive. As long as bees remained quiet I should not give them water. I should never give them water for the express purpose of inducing them to commence breeding. as, unless one is engaged in rearing bees or queens for sale, or is working for increase of stocks, I do not consider extra strong colonies, early in the spring, an advantage. The time to have strong colonies is when there is honey to gather, not when the bees are simply consumers. I should prefer to have bees remain perfectly quiet, not breeding to any great extent until the weather is warm and settled. I must say that I never tried any method of wintering that accomplished this so easily and so completely as that so well described by C. J. Robinson.

W. Z. HUTCHINSON.

Genessee County, Mich.

Care during Late Moulting.

EDS. COUNTRY GENTLEMAN—Fowls that do not moult until late in the season are more or less liable to contract diseases, especially roup. As fowls grow older each year. the period is more prolonged, and occurs later in the season. It is not often that a pullet of a non-sitting breed gives her largest percentage of eggs in the first season. With the sitters, the tendency to broodiness occurs more frequently in the second than in the first year. With this latter class of fowls there is little difficulty in moulting. Their strength has not been spent beforehand with egg-production. This is the great drain on the powers of the system. The Leghorns are the great egg-producers. The Hamburgs and Minoreas are nearly as good, and in some instances may eclipse the Leghorns.

Leghorn hens seldom produce the greatest amount of eggs in the first year. It is in the second season, when the eggs are of the largest size, that they give the greatest numbers. Disappointment sometimes occurs with these fowls, arising from the lack of preparatory feeding. The food must be expended in advance, and with no grudging hand. Their bodies are small, it is true, but they will devour a considerable quantity of food before the returns come in. When the period of moulting arrives the bodies are greatly reduced, the feathers drop and the bird loses appetite and runs down. Just before this occurs is the time to build up by giving stimulants and appetizers.

As cold weather and damp, chilly nights come on, the fowls really suffer more in their spent condition than during the severity of winter, when the air is dry and the birds are full feathered. At this season fowls should have warm and strengthening food. Warm mashes, flavored with pepper, salt, and considerable grease, give tone to the failing appetite, and encourage a steady growth. A plentiful supply af animal food is also good. Iron in the drink is of service, but do not dose too much; only sufficient to renew the failing appetite. Frequently a change of food will bring about these results. This late fall moult frequently ruins many fine fowls otherwise well kept. They contract disease and are a total loss. It is not only the loss of the feathers but the production of new ones that reduces the fowls. They must