by having only encouragement, ur most clever s here in Onwhen a boy to and to a great f the same side guh so handixtures will put who know no everything reary for one in e will do more he apiary than se who would tunate. As an elf-spacing and er than the orould happen to iger of it being to conclusions common thing it is not likely ns more often her bee-keeper. nce to is well ceepers, and is terature. This ak that I have meagre write-

> .J.) is not the the bee cellar an what is orx. Mr. J. F. ., is a believer s beyond conleast the lower ults. He aims s possible, and ar the freezing veteran in the sful in winterapiary in the Personally we the thermomequieter at the

we should get

latter figure than at the former. There is a furnace in the cellar, and the part where the bees are is separated from it by just an inch-board partition. The room is dark and yet windows open in the other part of the cellar give abundant ventilation. Naturally, under these conditions, we would expect a higher temperature to be better, but when the room gets up to 50 or over, as it did last winter, the bees get decidedly uneasy. Clearly there must be a great difference in some way in cellars, as some report quiet bees with a cellar registering well up in the fifties.

## DOOLITTLE'S BOOK-QUEENS

Bees here had a partial flight January 23rd and a full flight on the 24th. Some bees were to be seen on damp places, as though they were preparing to feed brood. I received the Docittle book of "A Year's Work in an Out-Apiary." I consider it an excellent book for any one running out-apiaries. There is one statement on which I would like to hear some opinions, or discussion. On page 16 Mr. Doolittle says:

"In order that the queen may fly and accompany the swarm on the wing when the first larvæ are about three days old, she begins gradually to cease laying, and almost or entirely stops three days later, or at the time the colony would naturally swarm."

In reading the book through one would naturally conclude that Mr. Doolittle had been using the eight-frame L. hive until a few years ago, and during the time he has been using the ten-frame L. hive he has been experimenting with the shook swarm system, with the idea of working out a plan of non-swarming at out-yards, while running for comb honey, which I am pleased to say he has undoubtedly accomplished.

Personally we a neighbor's the queen stop laying naturally, or is it the thermome a case of compulsion with a small hive? The latter is my firm belief. Three years ago I ran my bees on the one-swarm sys-

tem, then destroying all queen cells but one, and in every case I found abundance of eggs. On one occasion I was working close to the yard, so I could keep an eye on the swarming, when one issued. The queen's wings being clipped, and not having the queen cage with me, I picked her up in my hand and ran to the house and put her in the cage. During that time she had deposited six eggs in my hand and then about the same number in the cage before the swarm returned. the amount of eggs that were in the hive, and the queen being burdened with eggs when leaving the hive, is a proof to me beyond a doubt that a queen will not only keep up her egg-laying till swarming, but if the hive is big enough she will strain every point to leave every cell with an egg. If the queen mentioned above had been able to fly with the swarm she would likely have dropped those eggs on the wing without any one being the wiser. An eight-frame hive will compel a queen to slacken laying before she lays any eggs in queen cells. Most good queens can keep a ten-frame full. I have had a few that could keep twelve frames occupied with brood. I have not had a swarm in two years, neither at home nor at the out-yard.

Page 63, Gleanings: "As a general thing, bees are not familiar with territory more than a mile and a half distant at the most. Probably a mile will cover 95% of their range of flight.—Ed."

I have always argued that a mile and a quarter is about the limit of a bee's flight, so Mr. Root and I can shake hands on that point. A mile and a quarter each way would be in the neighborhood of 2,500 acres.

ISAAC BALMER.

## BOUND VOLUMES OF THE C.B.J.

If any of our readers wish their Bee Journals bound up, we will be very pleased to bind them. The charge will be 50c. We have some of each month of 1908 left over, and will supply these bound for \$1.25.