

to be maintained from the beginning of settled, cold weather, in the fall, till the beginning of settled warm weather in the spring or early summer. With such conditions existing there would be no occasion for any one saying, as did Mr. Miller, at the recent N. A. B. K's Convention at Keokuk. "I don't know whether the greater loss in wintering out doors may not be made up by greater vigor as compared with those wintered in the cellar." Some recommend raising the temperature of the cellar as spring approaches. I would not do so unless it could be maintained when the summer colonies are placed on their summer stands. I have tried all kinds of cellars for wintering bees, and unless I can have it dry and be able to control the temperature, I believe I should prefer to leave them on the summer stands, and give them suitable protection. I believe a damp cellar at any temperature is a poor place in which to attempt to winter bees. If the generally accepted statement is true that it requires 25 to 30 pounds of honey to winter a colony out-doors and it takes from 10 to 15 pounds to winter in a cellar, there is a pretty fair profit on the side of cellar wintering, in the saving of honey alone. The saving of ten pounds of honey per colony, by cellar wintering, where the apiarist has 100 colonies, means a saving of 1000 pounds, which, at ten cents per pound, amounts to \$100, a \$ per colony. To this amount is to be added the saving of colonies which, if left on their summer stands, would have died of starvation, caused by the cold preventing the bees from reaching their stores. Strange as it may seem, there are those who are opposed to cellar wintering, but are in favor of what they call winter protection, and I was amused last winter, when this same subject was under discussion, at the Brantford convention, to hear several denounce cellar wintering, and speak so highly of winter protection on the summer stands; and I presume that I should have laughed outright had not the "dignity that doth hedge about" a presiding officer prevented me, when that wily Englishman, known as J. B. Hall, of Woodstock, Canada, said "where is the man who winters his bees out-of-doors? You all talk about out-door wintering, but when it comes right down to it, if you do not put your bees in a cellar you build a little cellar around each colony. Why not put them all into one big cellar and be done with it?" and more in the same style till he stirred up a full sized hornets nest.

I have had colonies consume less than five pounds of stores while in the cellar, from Nov. to April, but last year one colony consumed 81

pounds of stores in the cellar and then starved, a fair amount of pollen being left, but not a drop of honey. It seems hardly worth while to even mention the matter of expense for putting the bees into the cellar in the fall and taking them out in the spring, but this objection has been made by but comparatively few. Few intelligent beekeepers now winter their bees on their summer stands without some kind of protection, but no kind of protection that is worthy the name can be furnished as cheaply as the bees can be put in and taken out of a cellar or special repository, and those who winter without any kind of protection do so at greater expense than comes from any other method of wintering.

A. B. MASON.

A lengthy and interesting discussion followed, after which the question drawer was opened, upon the disposal of which an adjournment was made, quite a few members remaining for some time to discuss apicultural questions.

There was a marked absence of beekeepers' supplies; no hives were exhibited, and only a few sections and section foundation. Quite a quantity of honey was shown, amongst it fireweed honey, the quality of which was excellent.

Spraying Fruit Trees.

To clear up a misunderstanding which we felt existed, regarding the statement made by Mr. Shantz, at the Ontario Convention at St. Catharines, with reference to the time when spraying should be done, we publish the following note received from Mr. Beadle. It will be remembered that Mr. Shantz said that Mr. Beadle had stated "that the proper time to spray was *just before fruit bloom*." Mr. Beadles' remarks apparently did not refer to spraying with Paris green to destroy insects, but to prevent apple scab. The letter explains itself:—

F. H. MACPHERSON, Esq.

Dear Sir,—Just returned home. I find yours of the 15th inst. I did say that in spraying with Eau Celeste for the apple scab fungus it is important to spray *before* the flowers open, and again as soon as the flowers have *fallen*, and to repeat once in three weeks in rainy weather, or once in four weeks in dry weather, until some five or six sprayings have been made.

D. W. BEADLE.
St. Catharines, Jan'y 28, 1891.