

It may be you are right in placing your bees within six inches of the cellar bottom, I shall try that next winter and hope it will come out all right for as you say it will save a lot of room.

I am very sure that you are making a grievous mistake in providing but one opening for the ingress and egress of air, for the air in going in and out at the same opening, the size you specify, would be more or less retarded by friction but a worse feature than that is always present viz.: the air through diffusion while going into the hive would become a good deal mixed with the foul air going out of the hive and so of course a portion of foul air would be carried back into the hive and the bees in order to drive it out will probably keep up a brisk hum.

Now friend Miller all this wears out your bees and weakens their power of endurance in spring.

The fact is all clear to you that warm air seeks an exit at the highest opening and cold air pushes in at the lowest, now by taking advantage of these wise provisions in nature we may have good air gently moving in at one end of the hive and foul air moving out at the other end continuously and that too without an effort from the bees.

I have experimented a good deal in wintering without floors, but I am now pretty well satisfied that floors are an advantage if properly managed.

I, for the first time during several winters, am wintering with floors to all my hives, my experience and reason go together in this.

I hold the temperature at about 40° by regulating the ventilators and by making more fire in the shop over the cellar in very cold weather.

You say you "find bees will keep quieter at 45° than at 38°"; Well I am persuaded that if your bees were fixed up as I have described both with regard to ventilation and packing your report would be in favor of the lower temperature: but mind you I don't want the temperature ever to drop below 38°, in fact I rather have it at 40°, but in spite of you it will range a little you know, but 38° is the lowest.

So far this winter mine stands at 40° to 42° and the stillness is marvelous; with the ear to the entrance not a vibration can be heard from most of the hives.

RE DAMPNES:—I do not claim that the air should be saturated, but I claim that when bees are properly fixed up, and the temperature ranging from 38° to 42° that dampness does not injure them.

I find that the timber used in supporting

the floor over my bee cellar is badly decayed (built in 1886) so this winter I have taken steps to have the cellar just not quite so damp.

This I accomplished by closing one of the sub-earth ventilators and letting in more air through other openings.

If my cellar were so dry that the bees were restless I should take steps to add to the moisture. This could be accomplished by putting in a six-inch tile, sub-earth ventilator, lay of the land permitting.

Yes, it is a good plan, as you suggest, to "let well enough alone," but may I ask you what is well enough? Let us understand each other. I am pleased to know that previous to the last two winters you usually wintered well. My impressions to the contrary were formed from your reports of the last two winters.

It seems to me, the fact that the temperature in your cellar sometimes touched near the freezing point, proves that the construction is a good deal at fault.

When your bees hum in October, as you say in that straw, don't be deceived; there are conditions present, which, if taken into the cellar, will militate against perfect wintering. At the risk of being called officious, I have replied at great length, for you said you would take it kindly.

Now, I sincerely hope you will not feel obligated to make any change unless you clearly see it to your advantage to do so.

S. T. PETTIT.

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P. S.—A young bee may be likened to a clock just wound up, which will go just about so many ticks and be run down, with this difference: the clock can be wound up and go again, but not so with the bee. When it runs down, "it stops short never to go again," so if we would have it do a lot of going in the spring, we must not let it run down in winter.

The temperature at which bees are most quiet is the right temperature under Existing Conditions.

S. T. PETTIT.

God hides some ideal in every human soul. At some time in our life we feel a trembling, fearful longing to do some good thing. Life finds its noblest spring of excellence in this hidden impulse to do our best.—Robert Collyer.

Liberty, friends, is just that condition of things that doesn't permit us to take liberties with others.—Puck.