to be. To avoid that much work I put quite a lot of my colonies into winter quarters last season full of frames—from 9 to 14—left all the combs with them and all was well in the spring with most of them. But, remember, if you are wintering outside or in a poor place inside where the temperature is likely to get below 40° crowd each colony up onto as few frames as will contain sufficient stores and make them as snug there as possible. Right here I may say that my idea of sufficient stores for inside wintering in a repository of right temperature is that 20 to 30 pounds of honey per colony is quite safe, while for out-door wintering from 25 to 40 pounds would be about right. Of course they might not consume more than half the smaller figures both inside and out, but then again they "mought," and in the case of those wintered outside they would, as the western Yankee said, be more apt to "mought" than to "mought not." Occasionally a colony wintered inside in a proper temperature will consume 30 pounds of honey while in winter quarters, and frequently one will not consume more than five pounds. Considering, then, these variations, and also one or two other facts viz: that brooding is stimulated in the spring by the mere presence of a full larder while it is retarded by a scant one, and the inconvenience and injurious effects of introducing food to bees while in winter quarters, the only safe and proper method is to give to every colony, no matter where wintered in this climate, from 30 to 40 pounds of good wholesome stores for winter.

Early in September, after you are satisfied that all have good queens and from 30 to 40 lbs. of food, fix them up as comfortably as possible, contract the entrance and leave them alone till setting-in time arrives. Here is a point too much neglected by even our best bee-keepers. I mean neglect to protect the bees from the cold winds and weather of fall before they are put into winter quarters. It pays to protect them. If you have not "skeletons" to pack them around with chaff or sawdust, you can at least put your winter quilts in on top of the frames—five or six inches thick on each hive—to keep the heat. As to which or what quilt is best for winter protection on top, my experience with wool and woollen is leading me more and more in their favor. I take carded woollen "bats" (which can be got at any carding machine or mill for about 30 cts. per lb.) and make them into quilts large enough to completely cover the top of the hive and hang down somewhat on every side. For cloth to make the quilts on each side of the bats, almost any old cloths or blankets will do, or cheap factory cotton. I make the quilts different thicknesses from one layer of batting up to several layers and use them accordingly wherever they are needed. For outside use spring and fall these quilts in different sizes come in very handy. While sawdust and chaff are excellent for "packing," they are too cumbrous for quilts.

WINTER QUARTERS.

Having supplied every colony with a good queen and plenty of stores and fixed up warm and contracted the entrance, leave the bees alone through the fall till setting-in time comes. They ought to be put in before the cold, freezing weather sets in, and in dry, fine, cool weather, put them as high up from the cellar floor as the number of your colonies and the size of your repository will admit. Leave entrances fully open and if you have a bottom-hole for ventilation behind in hive open it too. Give plenty of ventilation *below* but none at all *above*, that is no direct ventilation. I have come to the conclusion that for upward ventilation in winter that of permeation and absorption is quite sufficient, and is the only safe kind. After removing the summer quilt place "Hill's Device," some strips of wood, or something else over the centres of the frames to afford the bees a free passage-way above the frames, and then spread on your quilts, 2, 4, 6, or 8 inches in thickness, as the circumstances may require. Of course the lower the temperature of your cellar the greater thickness of quilts will you require. Also the lower the hive is situated in the cellar the more will it require, and the weaker colonies need more than the stronger. If room is scarce the hives may be tiered up on top of each other with very little space between the bottom of the upper hive and the top quilt of the under hive. In the case of loose or movable bottom-boards it is an excellent plan, especially with strong colonies, to raise the hive an inch or so from the bottom-board. This secures better lower ventilation, but there must also then be increased quilt protection on top to correspond. In the cases of cold cellars, however, and weak colonies, I would not advise raising the hive from the bottom-board.

THE REPOSITORY

Ought to be well ventilated, dark, and dry if practicable though this dryness is not a very essential condition if the temperature is right. For an average, mean temperature for winter quarters about 45° Fah. is good and safe up to about March 1st, after which it ought to be a little higher. The increase about that time is apt to come about naturally through the awakening activity of the bees and their increased consumption of food. There is some divergence of opinion yet amongst the authorities as to the