

the bellows worked. The flame of the match will shoot into this draft-hole, and ignite. The bellows should be worked vigorously for some little time until the fuel is well on fire. After that the smoke will last for some two or three hours and never go out. At the end of this time we simply replenish by cramming in more excelsior sawdust, omitting, however, to make a draft-hole, which is unnecessary, on account of the remnant still burning from the first filling.

For the CANADIAN BEE JOURNAL.

Clamp Wintering.

I PUT nine colonies of bees into winter quarters on the 22nd of October and took them out on the 18th of April. Seven were in good condition and two were weak. The queen of one of the weak colonies died sometime after setting out so I united it with the other weak colony and made one good one out of them. Then my number was brought down to eight, but a neighbor was chopping trees in the spring and one of them happened to be a bee tree. He came and told me I could have the bees, so I went, put them in a hive, and raised my colonies again to nine; have increased to twenty.

I have extracted 640 pounds from eight colonies. I have one colony in a two story Jones S. W. hive from which I have extracted 104 pounds and they are sealing the frames in the top story again.

I have prevented after swarming to a certain extent by cutting out all queen cells but one, on the ninth day after the first swarm issued.

I want to build a clamp that will hold about 50 Combination hives, and as I do not know on what plan to build one I would be very much obliged to you if you would describe the style of a clamp which has been most successful with you. You had quite a number of colonies packed in the Bray clamp in the winter of 1886-7 but I do not remember seeing your report of how they wintered in it.

I understand this clamp was described in the C.B.J. some years ago, but as I have only been a subscriber for three years I have never seen the description. If your bees winter well in it please describe it.

How do bees winter on the tiering up system as described by Mr. Neff in vol. III, page 52 CANADIAN BEE JOURNAL.

When bees are wintered in clamps which would be the best plan—to leave the entrance open so that they could fly out at any time, or to have a spout to correspond with each row of entrances to supply them with air, but still

keep the entrances perfectly dark. The bees of course could come out into the spout but could not get out for a fly.

JOHN MURRAY.

Arnott, Aug. 20th, 1889.

Now don't anybody tell us that the single-walled 12 frame Jones hive isn't just the hive. Think of it! 104 pounds from one colony. Mr. John McArthur uses nothing else but this size of hive—with a second story full size.

We do not know of any clamp which surpasses the one made by Mr. Bray and which was described on page 531 vol. I. For the benefit of our friend Murray and others who may wish to practice clamp wintering we subjoin the description given at that time. We have never packed any colonies in clamps since the winter of 86-7 and our report concerning these clamps appeared on pages 129-30 of vol. III. We have not refrained from clamp wintering because of any feeling of insecurity but because we have had sufficient house room, which was not the case during the winter mentioned. Mr. Bray selects a high piece of ground usually dry, and sandy if possible; digs a trench, throwing the earth all to the north or west of the same as the case may be, about two feet deep, sometimes three, and about four feet wide. Along the front or back of the trench he places posts at suitable distances, and on top of these are placed cross timbers to support the roof, leaving a space between the roof and bottom of trench of from three to four feet. Then he packs about one foot of straw at back of trench and six inches on bottom. Places the hives on stringers keeping them about six inches above the ground; the space from top of hives up to roof of earth clamp is tightly filled with straw and about one foot of straw is placed in front. Boards slabs, planks, or timbers as the case may be are laid over top of posts, and down back and front of posts to earth. We nearly forgot to mention that there is a board put up in front of hive above the entrance leaving an air chamber in front of hive about one foot wide by ten inches deep, or say a foot square. This air chamber runs the entire length of clamp which in his case is about 100 feet long, and holds about 50 colonies. The air chamber is connected at both ends with an air ventilating pipe which