

lay to commence with. One handy with tools can make the hives and nearly all their attachments. True, no matter how full instructions are received, or how many bee books are read, many points will have to be picked up by experience and observation, so that to succeed in getting the most from the colonies, observation, perception and invention play an important part. These and many other necessary qualifications have assisted the very successful apiarist and proprietor of "Evergreen Farm" and bee yard, Mr. S. T. Pettit, of Elgin County, who now at the end of twenty-five years of studious experience is looked upon by the more advanced bee-keepers of Canada and the United States as one of the first authorities on apiculture. On July 20th we spent most of the day with Mr. Pettit, who, with his son, was busy taking off the last of this season's extracting. This will be finished in a few days, when the fine harvest of fat comb sections will be removed. By observation and conversation we gathered many important features of Mr. Pettit's system, which we will endeavor to give to our readers.

#### COMB HONEY THE SPECIALTY.

Mr. Pettit, like most advanced beekeepers, makes a specialty of comb honey production. The proportion taken is largely governed by the extent of the swarming, as new swarms are better suited to comb-honey production than those that have come out from winter quarters. This year swarming has been under the average, and, as a result, Mr. Pettit has only about one-third of his hives supplied with comb-section supers. The spring is usually commenced with 75 to 80 colonies, which come out in vigorous condition from the cellar. The hives used are Mr. Pettit's own invention, having brood frames 9 inches deep and 14 $\frac{1}{2}$  inches long, and extracting combs 14 inches deep and of the same length as the brood frames. The hives are built to hold 12 frames. When the bees are first brought out in spring they are confined to the brood-chamber until maple blossom commences. Shallow supers are then put on, and the brood is spread in the brood-chamber by placing the centre frames, which contain most brood, on the outside, and exchanging for them the outside frames, which contain more or less honey. This is uncapped, so that the bees can readily remove it to the super, leaving room for the queen to lay in these combs when emptied. This exchanged position of frames is only safe when the bees are

sufficiently numerous and strong to keep the outside frames of brood warm. When clover honey-flow commences, the strongest colonies are given comb-supers in place of the shallow supers first put on, but the others are given extracting supers 14 inches deep. Usually two comb-honey supers, each holding 36 sections, are put on, but when the strength of the colonies and copiousness of honey-flow will warrant it, three supers, or 108 sections, are out on. Sometimes the third super is added after the others have become filled or nearly so. At the time of our visit nearly half of the comb-honey-producing colonies had three supers, which in most cases contained about 14 ounces of beautiful, well-capped honey per section.

#### EXTRACTING HONEY.

Mr. Pettit has his own method of taking off extracting honey. As soon as the frames become filled the first time in the season, the six fullest frames are selected out of each hive, and the remaining six are shoved to one side, and empty frames placed in the half of the super. The date and side removed are written on the back of the hive, and as soon as full and capped the other side is extracted. By this means the bees are not delayed for a moment and the work of extracting is facilitated. This is the means adopted till the last extraction (which was in operation at the time of our visit), when all the combs are exchanged for empties. It is remarkable the amount of honey these bees are made to produce, viz.: from 150 to 160 pounds per colony of extracted honey. Mr. Pettit has an ingenious and simple method of removing the full combs. When it is desired to remove six frames, as is the custom early in the season, the hive cloth is stripped off just the width of the six frames, a few puffs of smoke sends the bees down, when the frames are quickly lifted out and the empty ones placed in before the bees have commenced to return. The cloth and cushion are replaced with very little disturbance to the bees. As the full combs are lifted out they are each given a shake before the hive and then stood up at the back of the hive till the cover is put on and they are ready to be taken to the extracting room. The few remaining bees, which by this time feel lost and lonesome, are swept off with a feather, and all is over in very little more than a minute, with no commotion, no stinging, and no chance for robbing. The extracting is done by a large extractor which handles four frames at once.

The empty frames last put on continue