present systems demand it as perhaps it never did before, we want to manipulate the combs without angering the bees.

To correctly space combs without any more of a guide than the end of one's finger is slow and inaccurate work, and bees are likely to be crushed through having some combs too far apart and others too close. The original Hoffman frame had a side bar the full width and when the side bars were shoved together the side of the hive could not be reached from the comb by the bees, without going to either the top or bottom of the frame. In those days a good bee-keeper probably did not often move a comb in the brood chamber, but where clipping of queen's wings and looking for queen cells in crowded hives is carried on think of pressing these two sides of comb frames together, and doing this with perhaps a dozen combs and then think of the crushed and partially killed bees caught in these edges, and their anger, and the poison scent they would throw out and the cross apiary. To cut this side down one half as the Root Company did and still give it the feature of a self-spacing side bar was in my estimation a good move. I suppose I am responsible for the introduction of this frame to the bee-keepers of Canada. I consider the frame objectionable on account of the surfaces for pinching bees and the propolizing, and yet I think the frame is a distinct improvement on the non-spacing frame. But we are progressing in bee-keeping and hive appliances and the only way to do is by putting out ideas and testing them. The frame I use has all the advantages of a self-spacing frame and yet but very small surface of contact; the side bars taper, becoming smaller at the bottom half and the bottom bar is smaller than the top to prevent crushing combs as the comb is lifted between two other combs. The top bar has a staple one at each side about two inches from the end systematically driven at opposite sides so that when the full number of combs is placed in the hive there will at the sides next the hive be only one staple, and this at opposite ends. The staple is driven into the top bar by means of a gauge and the staple is put in with the two points parallel to the ends of the hive. A staple so put in has a circle to catch on the next frame or side of hive and will therefore, instead of as with a nail, not catch, but allow the frame to drop into place. How anyone can use a nail (which readily catches) I cannot understand. A gauge is used in driving the staples and the frames should even then be placed in the hive to see if the spacing is correct as the force of the last blow will make the spacing more or less. It requires only very moderate care and intelligence to do this work. This frame, in my estimation, is much to be preferred to the Hoffman. Mr. Jacob Alpaugh has a spacer referred to in a recent number of The Canadian Bee Journal upon which in that direction I have seen no improvement, which may be better. It is a permanent spacer having a fixed place or notch in the frame rest where each frame must go. These fixed frame spaces are in my estimation objectionable, yet this one can by slightly raising the frame be shifted and it has in this respect an advantage over all the fixed spaces. Mr. Alpaugh's spacing arrangement also gives a space between end of top bars and the end-piece of the hive, which should be an advantage to anyone who does not move his bees about much. We know how accurate and exact one must be to maintain an accurate bee space and this can practically only be done by self-spacing.

Brantford, Ont