done. He also should receive much credit for the disinterestedness which prompts the generous offer he is making.

OUR OWN APIARY.

PERFORATED METAL DIVISION BOARDS.—THEIR USE IN SAVING HONEY AND STORES.

PROVEN to be a perfect success, there is no better investment for the apiarist than the perforated metal division board. In our apiaries we use principally the Jones hive, with twelve frames, each with one foot of comb. Large hives, as these, are frequently found after the honey season to contain more brood than is desirable, when, as we have stated heretofore, we close the queen from a portion of the hive. She is confined on a few combs—just sufficient to keep her from becoming dissatisfied—thus allowing the workers to store in the balance of the frames and preventing Her Highness from raising a quantity of brood not then desired. At any time when it is thought expedient to limit her in this respect this plan may be adopted. Ever since we first introduced perforated metal to American apiarists we have practised it more or less. True, it was uphill work inducing many to adopt it, but its growth in popularity has made it one of the leading requisites in apiculture.

This season we find it of more importance than in any previous year. Hives in which the queen has been allowed only enough frames to carry on brood-rearing sufficient to maintain the strength of the colony at the standard, have stored from twenty to sixty pounds of honey, whilst those in which she was allowed full swing have brooded so freely that they consumed their stores almost as quickly as gathered. Though our Combination hive contains but eight frames, or seven and a division board, we find the metal of equal importance in its manipulations. This hive has one-third less space for brood-rearing, but the same loss of winter stores occurs from the bees consuming an unnecessary amount of honey in fall brooding, unless the queen be confined. Although late in the season we are putting fifty colonies into this hive, giving the queen two and in some cases three frames.

The advantages of this plan are many. Instead of having the combs all partially filled with brood with a little honey at the top of each, the brood is solid in a few combs, the others with honey, and either can be removed as wished. At the bottom of the full store combs the bees clear a small space on which they cluster for winter; their stores are in a compact form and they do not have to spread or move around unnecessarily. The more compact the cluster the quieter they remain, less stores are consumed, and the bees winter better.

The next step in apiculture will perhaps be a saving of, say, 25 lbs. of honey now consumed per colony each year. If we are not to have such large flows as we have had, we must devise means to save more of the gathered nectar. This can be effected by proper management; we must calculate on the probable season, or by managing the bees according to our average seasons we are not liable to go far astray, particularly if we watch the flora carefully. The apiarist must manage as his observations direct. At a time when honey is abundant and the bees storing rapidly this care seems of minor importance for the reason that we appear satisfied with a good yield. Yet why should we not try to secure all that is possible. This question deserves more attention than it has received, and the proper use of the perforated metal queen-excluding board is destined to play an important part in the answer.

FRIEND STALHAMMAR'S LETTER.

IN the last number of this journal Friend Stalhammar gives his system of clamp wintering as practised by him with good results in Sweden. Similar plans have been tried in Canada and where the ground is suitable and a dry covering of sufficient thickness employed the outcome has been satisfactory. Mr. S.'s clamp is on the same principle as Mr. Bray's which has been illustrated and described. The clamps are arranged somewhat differently, but each would apparently secure about the same temperature, and we can see no reason why such a system of wintering,