In the foregoing I have avoided as much as possible entering into any discussion of management only as it came in contact with the new uses of perforated zinc.

For The Canadian Bee Journal.

An Australian Experiments with Thick Foundation.

DEAR SIR:—In the July 1st number of the C. B. J., I notice a letter from Mr. R. F. Holterman of the differences in thickness of comb foundation used in sections. As I conducted some experiments in this line last season I thought a report of them would be of use to you, as it comes right in line with the matter under discussion. I will remark that the season was very good, the flow of nectar from Eucalyptus Meliodora being very fine. From thirty hives I extracted three and a half tons of amber colored honey. From ten others I took one-half ton of one-pound sections.

It was one of these latter hives that I experimented in foundation with. The usual maker of foundation I buy from had unfortunately ran out of the kind I wanted just at the time, and as I had heard a good deal about "flat bottom" foundation I wrote to a house in Sydney for samples. In the course of a week up came samples of three thicknesses, all flat-bottomed, and what struck me as somewhat peculiar, all intensely yellow in color. One was heavy, I should say about four or five Langstroth frame size to the pound avoir., the next medium, about six or seven to the pound, perhaps eight, and the last very thin. I should certainly think twelve to fourteen sheets L size would have to go to the pound. As these pieces were about three and a half inches square I thought I would try these in sections and see how the bees would like them, and compare results. As I use the T super on a "simplicity" body, when I had my sections with these pieces of foundation fixed and was placing them in the T super, I thought what a pity this firm did not send me four samples, for then the sections would go right across the centre of the super, so to make the experiment more conclusive to my mind I filled another empty section with a piece of ordinary foundation the same size as in the other sections (this foundation goes six to the pound, and I use it in the brood chamber). Please remember that the T. super I put these four empty sections in was already on the hive. The bees had filled nearly all the sections in it and had the centre ones capped. I withdrew four capped ones from the centre to make room for the four empty ones I was experimenting with.

I go to my notebook for results.

Sections all put in on Dec. 15th. On 16th, (next day), I looked at 4 p.m., and found bees had pulled out the ordinary foundation section and there were signs of honey in the top centre cells. The heavy flat bottomed foundation was nearly pulled out; no honey. The medium flat was half pulled out.

The flat thin foundation was not long started on by the bees.

Now, as this hive literally boomed with bees and I had put all these sections in the same part of the hive I could not understand why so much difference should exist in the way the bees took to the foundation.

Continuing to watch daily, my notebook gives the following remarks:

On the 18th, at 4 p.m., took off the section that had the ordinary foundatin in. Completed; capping very regular; weight, 15¾ oz.

On the 20th, at 3 p.m., took off the sections that had the heavy flat and medium flat foundation in. Completed; capping like drone comb in sections; weight, 15½ oz. and 15¾ oz.

On the 24th, at noon, took off the section that had the very thin flat-bottomed foundation in. Completed; capping fine and regular; weight, 15¼ oz.

Well, I thought at the time the flat-bottomed foundation is not in the race with the ordinary bottomer, especially the thin flat, so no more of that for me. I then thought perhaps, on testing these sections for flavor, and especially "fishbone," I shall find something that compensates the thin flat for the terrible long time the bees were finishing it.

Several of my friends were with me when we cut the section carefully, but although we looked and tested and looked again, we could see no difference in the mid-rib of either sections with this exception that the sections that had the flat-bottomed foundations in them showed some signs of their mid-rib being nearer the ordinary bottom than flat in shape.

It is quite possible that the bees not being satisfied with the flat shape, "fussed with it and thus caused the sections to be longer in completion. However, the conclusion I came to and what I intend acting upon in future is simply this, that only one class of foundation enters my yard, viz: the ordinary bottom at six sheets L size to the pound, and that the same foundation goes in the section as in the brood-nest.

Faithfully yours,

Robert Patten.

Binni Apiary, Cowra, N.S.W., Aug. 28th.