The Australian bee bulletin. Vol. 5, no. 2 May 24, 1896

West Maitland, N.S.W.: E. Tipper, May 24, 1896

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THE AUSTRALIAN BEE BULLETIN.

A MONTHLY JOURNAL, DEVOTED TO BEE-KEEPING.

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(Continued from Back Cover.)

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See Discount for large orders Back Cover.

The Goulbourn Convention.

BEEKEEPERS intending to be present at above, and wishing to secure Railway and other concessions will please forward their names and addresses, AT ONCE to the Secretary N.B.K.A.,

H. R. WHITTEL,
70 Hunter Street, Sydney.

The Australian Bee Bulletin

A JOURNAL DEVOTED TO BEEKEEPING.

MAITLAND, N.S.W.—MAY 24, 1896.

THE matter of Honey Adulteration is one that ought to command the warm attention of every beekeeper in the colonies, together with the laws of the different colonies bearing on the same. Unfortunately there is too much apathy and too much want of public-spiritness on the part of bee-keepers to effect the good we would wish. We shall be only too glad, however, to find we have been mistaken in this opinion. It seems that the beekeepers living near large centres of population, not having had a honey flow for the past year or two, feel their interest gone. Beekeepers in the interior are not aware how much their market is curtailed and the prices lowered by the systematic adulteration carried on. We do not know how the laws stand re food adulteration in the other colonies, but in New South Wales not only the proverbial coach and four but a good bullock team could go through them, it only being necessary the vendor "shall show to the satisfac-"tion of the Justices that he did not "know the drug or article in question "to have been mixed so that thereby its "weight or bulk or measure was increas-"ed or its inferior quality concealed and "that he could not with reasonable dili-"gence have obtained that knowledge." In the Canadian Adulteration Act, published in our last issue, or the Californian one, published in this, there is no such kind provision behind which a culprit can conceal himself. If the man who retails the adulterated stuff has to stand himself the risk of punishment for selling, whether he is the adulterator or not, he will take very good care from whom he purchases and what he buys. At present it is very easy to put it on to "the other fellow" who has the chance of "putting it on to some other fellow again." Mr. Reid has promised to bring in a bill to amend this state of things. It is the duty of the N.B.K A., to watch the proposed bill, and it is also the duty of every beekeeper to aid and support the committee of the N.B.K.A., in every possible way. If the body of beekeepers are lukewarm to their own interests, how can they expect a committee to have heart and spirit to look after them. Country beekeepers, especially those in the back country, little know what they are losing, both in price and in quantity of honey, by the adulteration carried on in large towns.

Another way of looking at it. Recently in Sydney a man was fined £5 and heavy costs for selling what he called vinegar, but was not such. If the police secured a conviction there, why can they not do so with some o our honey adulterers? In one town we know of they are perfectly aware adulterated honey is sold. When their attention was directed to it they simply went to a supposed wrong doer, and on his telling them he was selling *just what he bought*, they quietly let the matter drop—innocently believed his statement. The question comes to us,—Was the man selling bogus vinegar interfering with the trade of some more influential fellow, and are there influential people at the back of those selling and manufacturing adulterated honey?

We are sorry to hear that Mr J. D. Ward has been dangerously ill with diptheria, but is now getting better. He is one of those few unselfish individuals that work for the good of others, not themselves alone. May he be speedily restored to vigorous health again.

We would draw attention to advertisement of apiary for sale in our advertising pages. The vendor is an "advanced" and careful beekeeper, and to those who wish to buy a complete apiary this is an excellent opportunity.

To those beekeepers who will be going via Sydney to the Goulbourn Convention we have a little secret to tell. A beekeeper's wedding will take place on the 30th of June in Sydney, and the Rev. J. Ayling has been asked to officiate. We will be able to tell you more next time.

If bees have not been properly provided for, it may be well of a warm sunshiny day to take a short peep at them, just for the purpose of seeing they have sufficient stores. Let the inspection be very brief, and only such colonies as you have any doubt as to there being sufficiency of food, disturbing the propolis the least bit, and replacing the frames and covering as near as possible as you found them. Beekeepers generally know the doubtful ones. Whatever system of feeding you adopt let it be in the hive and in the evening. There are many kinds of feeders advertised. We cannot speak as to their several advantages from our own personal experiences, which has been confined to the inverted pickle bottle, the syrup poured into an empty comb from several feet above it, or a frame of honey from a hive that could spare it. A few experiences on this matter will be welcome.

Just before going to press we received a lengthy communication from Mr Gaggin, complaining of Mr Trahair's reply to his enquiries re the late Supply Co., that it was insolent and unbusinesslike. We know that Mr Trahair, as well as other Sydney gentlemen, have taken very great interest in matters relating to the industry—in fact we may almost say *they only* were in a position to do so; and as regards the Supply Co. as well as other matters they have not spared their time or means. But they have not been backed up by the country beekeepers in the way they ought to have been. On the contrary, either stollid indifference or hard criticism has been meted out to them. We ask Mr Gaggin if it would not be as well to let this matter drop, and when, at some future time, beekeepers will have learned that their true interests lie in mutual co-operation and support of their elected officers, we feel assured neither Mr Gaggin or Mr Trahair will be backward in working hand in hand on behalf of the industry.

If you forward your last year's numbers, April 95-6, and 3s 6d, we will send you in return a bound volume.

N. B. K. A. COMMITTEE.

We apologise to Mr. Bloxham for publishing a portion of a private communication to us. If beekeepers themselves are apathetic to their own interest, at least some of the committee are not. Mr. Bloxham says he will not be on the committee next year. We don't wonder at his making such a resolution, knowing, as we do, how he and a few others besides have worked. It will, however, be the basest of ingratitude, if he is allowed to retire from office and if his services were not acknowledged in some way. If any industry has something worth working and fighting for it is beekeeping. Because it is not a reliable industry in one part, or the past season has not been good, are no reasons there should not be parts where it is reliable, and good seasons come again, and even in the worst places and worst seasons good management will always meet its reward. In unity is strength, and those who work for the benefit of the whole should be backed up by those they are striving to benefit and not be discouraged by what we may really call criminal lukewarmness.

16 Bond St.,
Sydney, 16/5/96.

Dear Tipper,—Your post card to hand safely. I suppose you know that after repeated applications and constant worrying at the Lands Department we succeeded in getting them to

wire to the Chairman of the Land Board at Orange in the matter of ringbarking, and after waiting for two days and no reply coming to hand, they wired a second time, then another wait of two days and no reply, then a third wire was despatched, which the Chairman answered saying he had wired Marsden to stop ringbarking, pending the result of appeal. That is what we wanted, and cannot do anything further until the appeal is heard. The date has not yet been fixed. This is the result of our united efforts in Sydney, and I can assure you it has taken considerably more time to attain this result than it is now taking me to write this. You must excuse me being brief as it would take sheets of paper and much time to give a detailed account of all we have done, and to show the amount of cold water which we received in regard to this matter by the Department. We are now waiting for the Minister to fix a date for the deputation to wait on him re the Convention, and I wish he would hurry up as the time is getting short. Mr Whittell has also seen him personally but he could not then fix a time.

I have decided not to go for re-election on the Committee next year as the beekeepers generally seem to think everything is controlled by the Sydney people, barring yourself and a few others. I would like to know whoever takes the slightest interest in the Association except to growl, and take any concessions which the united efforts of the Committee may get for them. Dont fail to get down to the next meeting, as the programme for Convention must be fixed up, also the deputation at the same time.

Glad to hear you have had nice rains up there it will do a lot of good and should give you early clover in the spring. We have not had much at Bathurst but may get more, everything promises well for next spring if we can only get reasonable rains untill then. My brother tells me he thinks some of the apiaries will come out heavy losers after the winter, and he hears from most of them their colonies are very weak. Ours are pretty fair at present, any weak ones he has doubled up. I hope he will be enabled to bring them out pretty strong in the spring.

TAMWORTH SHOW.

A. J. BROWN

At the above show, held April 28th & 29th, the following prizes were awarded:—

For granulated honey in jars, not exceeding 2 lbs.,—A. J. Brown, Parkville, 1st.

For Beeswax, 4lbs.,—A. J .Brown, Parkville, 1st. In the former there was 11 entries and in fhe latter 8—no second prizes awarded.

NARRABRI SHOW.

A. J. BROWN

At the above show, held on 13th and 14th inst., the following prizes were awarded:—

Best hive of bees, with glass front, and best collection of appliances for working same, W. J. Fox, Narrabri, 1; A. J. Brown, Parkville, 2

Best 6lbs extracted honey, in screw top jars A. J. Brown, 1 & 2.

Best 6 bottles extracted honey, A. J. Brown 1 & 2.

Best 6 jars granulated honey, A. J. Brown, 1 & 2.

Best 4lbs yellow wax, B. Mephan, Narrabri 1, A. J. Brown, 2.

Best novelties worked by bees, A. J. Brown, 1 & 2.

For collection of bottles of granulated honey, in various stages, A. J. Brown was recommended for a prize.

DUBBO SHOW.

W. S. PENDER.

In a district like Dubbo, where there are so many who keep bees, and honey in large quantities produced, it is a wonder so progressive an agricultural Society could not provide more than three classes for the honey producer. I have no doubt it is an oversight on the part of the A. Society, and want of representation by the beekeeper. In spite of the small encouragement given, a very nice collection of honey was exhibited, and quite sufficient, I think, to suggest to the committee of the Association what might be done if the subject is only hinted to them, and the assistance of a practical beekeeper sought. The Association is not so much to blame as the beekeepers. In Wellington and Muswellbrook, through the energy of beekeepers associations, splendid collections were brought together this season, and there are plenty of beekeepers in Dubbo to make a beekeepers association and look to their interests.

The following is the prize list:—

Honey in Comb.—A. Ayling prize, with some very nice 1lb sections.

Strained Honey.—W. Stuart, prize. The worst looking sample in the class took the prize. There were several entries of beautiful honey overlooked.

Product of an apiary.—J. H. Peterson prize, with a very nice collection indeed, including comb honey in sections and frames, extracted honey, comb foundation, wax moulded in various designs, beverages made with honey, honey vinegar, pickles in honey vinegar, observatory nucleus hives, &c. Mr. A. Ayling and Mr. Ferguson each had an attractive display of honey and wax.

WELLINGTON SHOW.

H. NANCARROW.

The exhibits this year were far superior to last in every instance with the exception of comb honey, and the cause of a falling off in this class is due to the terrible hard season we have had since December. There has been no rain of any consequence, therefore, the white-box, appletrees and other honey bearing flora, though out in bloom, has no secretions of honey. Generally from December to May is our best honey flow here. The exhibits in classes 289, 299 and 301 were really attractive, and Mr. Gale, our judge, considers it second to none in the colony. Mr. C. U. T. Burke exhibited some really beautiful wax, for which he took first, also several other prizes for other exhibits. The edibles were a great attraction, especially those shown by Mr. Bray. Mr. Bray is a new man amongst us, but he secured the principle prizes notwithstanding, except in the extracted light and dark honey, which fell to yours truly and A. J. Murray respectively. There were about 12 queens to judge and Mr. Gale says they were the most he ever had to judge at one time and they were really a good lot. Mr. Bray secured first in every class with queens.

Messrs Cureton Bros'. exhibit was a really good one and show that they have the industry at heart to produce such a splendid turn out. We were sorry the exhibits had to be scattered about the pavilion so much on account of limited space or we would have had a photo taken of them and I would have sent you one. Next year we intend if possible to have a marquee or shed to ourselves exclusively. It is our intention to show at Sydney and perhaps Bathurst and Orange next year if all is well.

The bee section throughout the show was the centre of attraction and thousands admired it both days, and never seemed tired of inspecting the various exhibits and appliances.

I am pleased to read that at last steps are being taken to prevent wholesale ringbarking and as an outcome of the recent Bathurst case. I think we ought to have a large petition signed and forwarded to the Minister for Lands asking him to protect us as much as possible and pass a law to prevent this wholesale destruction of useful timber. Not only is it depriving beekeepers of the only source of a livelihood and causing them to be continually shifting their apiaries, but in the course of a few years building material will become so scarce through indiscriminate ringbarking that we will have to import all we want, whereas we should have abundance for ourselves and to export. On the Bogan hundreds and thousands of acres of beautiful pine has been rung, and is still being rung, which I consider is a crying shame. The land which is leased for grass only in many instances belong to the banks and they seem to do just as they like. I hope some abler person will take the matter up and have justice done.

P.S.—I forgot to mention Mr. Pender of your town visited us with a collection of appliances, etc., but owing to our limited space had to take a back seat in the agricultural shed which I am sorry for. I hope next year we will have space for all friends.

PRIZE LIST.

W. S. PENDER

Open to all.

Class 286.—Best collection of beekeeping appliances, Henry Nancarrow, prize; 3 entries.

Class 287.—Best trophy of Apicultural produce, may include honey in jars, frames, sections, beeswax, A. S. Cureton, 1st prize; Henry Nancarrow, second; 2 entries. The first prize trophy was very attractively arranged and set off very nicely with designs in comb foundation, and beeswax cast in moulds of different shapes. The second prize exhibit was very

nice but was too crowded with exhibits and did not have sufficient light contrast to the dark honey as did the first prize exhibit.

Class 288.—Best six frames of honey, any size, A. S. Cureton, prize, with half depth L. combs, very fair samples, 3 entries.

Class 289.—Best Wax Extractor. In a class of this sort a judge has considerable difficulty in deciding, and it must rest with himself as to whether the solar or steam wax extractor has proved the best in his own hands. The prize was given to G. F. Bray who exhibited a "Jones steam wax extractor." 3 entries.

Class 290.—Best collection of edibles made with honey. There were four collections and all were good, but the first prize collection of G. F. Bray was so far ahead of the others that there could have been very little difficulty in coming at a decision. The exhibit was very tastefully got up and arranged, and Mr. Bray should be asked to give the readers of the *A.B.B.* a chance to compete with him at next show by telling some of the secrets of producing such attractive food, 4 entries.

[Come along Mr. Bray and help us, we will be pleased to give you space in our columns for so excellent a purpose.

Class 291.—Best Queen for an apiary, any breed. Queens to be shown in single glass nucleus hive with progeny. This class brought out ten observatory nucleus hives and an excellent exhibit they made, and the judge had a lively time of it, for most of the queens were not easily found on account of the large number of bees put in each for protection against cold weather, and some of the queens were so nearly equal in quality. The prizes were awarded to G. F. Bray 1st; H. S. Cureton 2nd, and the writer is of the opinion that a queen by C. U.T. Burke might have received a H. C. card.

Class 291A.—Best 4 bottles Mead, G. F. Bray prize, only entry.

Class 292.—Observation hive with colony of bees at work, G. F. Bray, 1st prize, H. Nancarrow, 2nd prize, 3 entries. Both hives were elaborately painted and looked very attractive.

Class 293.—Beehive, not painted, any design. This class brought out 8 entries, among which were the usual forms of hives, as the 10-frame, 8-frame, long idea, Heddon, &c. The prize was awarded to a redwood hive of G. F. Bray's having 10 R-Hoffman frames in brood chamber and two half depth supers with shallow extracting frames and a fillet around supers to form rabbet to prevent water getting in between supers and hive body.

Class 294.—Best honey extractor, H. Nancarrow, first prize with 2-frame Cowan reversible. 4 entries.

Class 295.—12 1lb. Sections of Honey. A. J. Murray, 1st; A. S. Cureton, 2nd. 4 entries. None of the sections were much above the average quality, owing no doubt to the extremely dry season.

Class 296.—Best 3 large Frames of Honey.—H. S. Cureton, prize; very good combs. 4 entries.

Open to Members of W.V.B.K.A. whose subscriptions are paid up.

Class 297.—Best 3 Shallow Frames of Honey. A. S. Cureton, 1st prize, with same combs that competed in Class 288. 4 entries.

Class 298.—Best 20lbs. Honey, in 2lb. glass jars. H. Nancarrow and G. F. Bray divided the prize. 4 entries.

Class 299.—Most attractive display of Bee Products. H. Nancarrow, 1st; A. S. Cureton, 2nd. 2 entries.

Class 300.—Best specimen of six sheets of Comb Foundation, made by exhibitor. A. S. Cureton, 1st. 2 entries.

Class 301.—Best 5lbs. Beeswax, to be produced by exhibitor and unadulterated. Chas. U. T. Burke, 1st; H. Nancarrow, 2nd. The first prize exhibit was as fine a sample as could be produced. The other exhibits were ordinary well-refined blocks of wax. 9 entries. Mr. Burke ought to be asked how he produced wax so much superior to the other exhibits.

(We will be glad to have any hints Mr. Burke can give us.

Class 302.—Best collection and trophy of Bee Appliances and Products, the property of exhibitor. H. S. Cureton, 1st; H. Nancarrow, 2nd. Both trophies made up of exhibits competing in other classes. 2 entries.

Class 303.—Best 10lb. of Dark Honey. H. Nancarrow, 1st; A. J. Murray, 2nd. 5 entries.

Class 304.—Best Wax Extractor. G. F. Bray, prize, with same exhibit as competed in Class 289.

Class 305.—Best locally-owned Queen, any breed, to be shown in single glass nucleus hive with progeny. G. F. Bray, prize, with same queen as competed in Class 291. 9 entries.

Class 306.—Best 2 large frames of Empty Combs. C. U. T. Burke, prize. 3 entries.

Mr. Tipper's (*A. Bee Bulletin*) extra exhibit of Photos of many Apiaries in the colonies proved very attractive.

On the whole the Honey exhibit was an excellent one, and the judge, Mr. Albert Gale, seemed to give satisfaction. In several instances where exhibitors were at first not quite satisfied he referred to his award book and showed the points allotted to each, and gave reasons which evidently satisfied all exhibitors. I obtained a catalogue of exhibits, wherein I found all the entries, but it was impossible to find out the exhibits, the classes not being arranged each separate and distinct; in some instances the trophies were even made up of exhibits in other classes. This is no doubt due to the fact that exhibitors are allowed to compete in more than one class with the same exhibit, and no one without a steward as a guide would know where to find any single exhibit. Owing to the very limited pavilion space the exhibits could not be

displayed as well as they would otherwise have been. I have no doubt these faults will be overcome next year, when the show is to be held in the new Show Ground, with increased pavilion accommodation, and then, with exhibits properly arranged and displayed, I am doubtful if another district in N.S.W. will be able to produce a better honey section than the Wellington Valley Beekeepers Association.

HAWKESBURY SHOW.

J. D. G. CADDEN

The 17th exhibition of the H.D.A.A. was held on the Hawkesbury racecourse on May 7th, 8th & 9th and was very successful. The exhibits numbered 2583 or 150 more than any previous year and the attendance very good. The Premier, Hon. G. H. Reid opened the Show on the second day. Below I give the awards in Apiculture. Mr W. Abram and Mr. G. F. Daley being the judges.

Best 6 1lb sections, J. D. G. Cadden, 1 ; W. C. Barker, 2, 3 entries.

Best 3 large frames of honey, W. C. Barker, 2 and Com., 2 entries.

Best 6 lbs granulated honey, W. C. Barker, 1 ; W. M. Moses 2, 3 entries.

Best 6 1lb bottles liquid extracted honey, J. D. G. Cadden, 1 ; W. C. Barker, 2 & Com., 4 entries.

Display of comb honey, W. C. Barker, 1 ; 2 entries.

Display of extracted honey, J. D. G. Cadden, 1 ; W. C. Barker 2 ; 2 entries.

Beeswax, yellow, W. C. Barker 1 & 2, 4 entries.

Comb Foundation, 3 samples, heavy, medium and light, made by exhibitor, W. T. Seabrook & Co., 1 ; Pender Bros., 2, 4 entries.

Best Italian Queen with bees, J.D.G. Cadden 1 & Com., ; A. J. Plunket, 2, 6 entries.

Best collection of modern appliances, the property of and in use by exhibitor, W. C. Barker 2, 1 entry.

Special for most successful exhibitor in the section, counting by points, W. C. Barker.

QUESTIONS NEXT MONTH.

64.—What way do you feed your bees in winter ?

65.—Have you tried to grow yellow or white box trees, and with what result ? What plan of planting do you adopt ?

QUESTIONS.

62.—How are you storing your spare combs ?

J. SEDDON.

63.—As I see your journal is open for questions, I would like to get an expression of opinion from some of our beekeepers upon the following, which, I believe, will also interest some of your readers. In the *Agricultural Gazette* for May, 1895, there is an article on "Winter and Summer Protection for Bees" by Albert Gale. In it the writer discussing preparing of bees for winter, advocates several holes being bored in the thick top bar when the bees have not left what he terms pop holes, i.e., passages to pass from one side of comb to the other. Now, sir, as this appears to me to be directly contrary to the teaching of Root and others, who advocate the use of the thick top bar, I would like to have the opinion of some of our beekeeping friends on the subject. One of the main reasons for the thick top bar, is as I understand, to prevent sagging. Now if several holes are to be bored in it, will it not weaken it too much. Mr. Gale's article is an admirable one, and his theory as to it being injurious to the bees to have to pass around the end or bottom of the frames in order to get at the stores, in the outside frame, and thus leaving the warmth of the cluster during very cold weather, appears to me to be very feasible, but as practice is worth rather more than theory, I would prefer the opinion of some practical beekeeper. As the winter will soon be here, perhaps some one will kindly answer the above, and oblige.

G. GASSON.

62.—I intend to try the pickling process on some this winter, but hitherto I have found storing them in surplus boxes and sulphuring them very effective. I have tried a few half depths this season with success.

E. T. PENGLASE.

63,—Perhaps Mr. Gale meant to say, bore holes in the comb underneath the top bar. That is what I would do if I thought it needed a passage way. I would not do it if the colony was strong, For weak colonies I think it would be an advantage.

W. NIVEN.

62.—In top supers.

63.—I do not practice making holes through frames and do not think I will. If bees have to pass through holes to get to frames with honey, they have to leave the brood nest equally as much as if they had passed under or around the end of frames. Weak colonies should have frames with honey placed in or alongside of the cluster of bees. Strong colonies with plenty of stores do not require holes made through the frames.

C. U. T. BURKE.

62.—If I was keeping them I would have a rack in my workshop so arranged that they would keep dry, and could be submitted to sulphur fumes any time should the moth attack them. But what I do with my spare combs is that I melt them down at the end of the season, as I run my apiaries for wax as well as honey.

JOHN THACKER.

62.—This depends on circumstances. Given strong colonies, I would put on top boxes and store them there. Otherwise we take spare boxes and store them in our honey room. This year we are melting nearly all spare combs, so as to get new ones built.

63.—We have no experience, but why not make a hole through the comb instead of weakening the bar. Our season has been a bad one, in consequence our bees are most of them rather weak.

JOHN ANDERSON

63.—I use the 8-frame L. hives and winter by leaving all the brood frames in, and place several pieces of wood 1 inch square across the top of frames, with mat on top, and a chaff cushion over all. The pieces of wood forms tunnels under the mat, and the bees can get over the frames instead of having to go round. I never open my hives during winter unless I think the bees are short of stores, and I can generally find out by lifting one end of the hive and feeling the weight.

AUSTRALIAN YANKEE.

62.—I am storing mine in the hive bodies. first fumigating them with fumes of burning sulphur and then standing the hives in long calico bags, long enough to hold six hive bodies, tying the calico bag securely over the top. This prevents moths from getting at the combs.

63.—What ever you do don't bore any holes in the top bars. If your hives have a space of ¼ of an inch above the frames, and you use a flat cover, nothing more is needed. If the frames are even with the top of hive, you can punch a few pop holes in the comb, close to the top bar of frame.

W. PACEY.

62.—By leaving the combs in supers, and placing the supers one upon each other on the hive stands in the open air, and a hive cover on the uppermost one. Occasionally sulphuring the combs from below, to keep in check the bees-wax moth. Not having a honey house, I have adopted this method, and it suits my requirements.

63.—As far as this district is concerned, re the matter of wintering bees, all that is required is to see they are provided with sufficient stores and that they have a queen, also that they are a fairly strong colony. As to the question of boring pop holes through the top bar of frame, to give the bees an easy access to all the combs in the hive, could not be done, only where the thick top bar is in use, so that this idea could not be adopted by beekeepers using the ⅞ frame. I use the ⅞ frame, redwood, Langstroth size, and like them better than the thick top bar. The pop holes no doubt would save the bees from having to go to the end of frame to gain easy access to all combs in the hive. Well then don't meddle with the frame, but put a hole through each comb, which will serve the purpose.

W. S. PLEFFER.

62.—I am leaving empty combs in the hives, the bees can keep the moths out of them better than I can, and it provides better ventilation for the bees. Some years ago I used to take the supers off, confining the bees to one story (I use 10-frame Langstroth's), putting an extra blanket mat on, but I found that a mistake, as the hives were always damp inside. Now, the only preparation I make for winter is to contract the entrance, leaving all supers on.

63.—I do not think, friend Seddon, you need bore holes in top bar to accommodate your bees, because it is not the rule for bees to leave holes along the top of their combs, but quite the reverse. Bees do not leave the warmth of the cluster in very cold weather, being in a semi-torpid state, and only feed when atmospheric conditions are favourable. A swarm of bees will hang on a bush for a week in rough weather and not stir, but let the sun shine for an hour and they are flying.

A. A. ROBERTS.

62.—Leaving them on the hives I find the bees can care for them better than I can, and this saves a lot of handling and messing about with sulphur, also a large amount of storage room for supers and frames. I much prefer the brood chamber on top with the entrance contracted.

63.—Re Mr. Seddon's question. Bees are so easily wintered in this locality that they don't require pop holes. The main point is to have them strong with plenty of stores in the fall of the year. I would not care to go to the trouble of boring those pop holes. If I thought them an advantage I would prefer putting them in the combs below the top bar by passing the point of a lead pencil through just under the comb guide. This would answer the same purpose and save the risk of the top bar warping. But I much prefer leaving the comb and top bars sound, and with a good, sound, warm, hive, and the bee space above, the bees run little risk being chilled, as the warmth from the cluster rises and will be sufficient for the bees while travelling from one comb to the other. I always find when I open a hive in cold weather that the bees are clustered right up to the top edge of the top bar, and in lifting the cover off, take some bees with it and I think the danger of the bees chilling is very small.

VICTORIAN BEEKEEPERS ASSOCIATION.

R. BEUHNE.

At the last Convention, held in the Town Hall, Melbourne, it was decided that the next annual Convention be held in May. So far I have not heard or seen anything in reference to it. In fact so far as this association is concerned it appears to exist only in name. Where is our Secretary and the City Committee? They have evidently done all their work *in camera*, and will no doubt astonish us with their report when it appears. There is also an advisory committee of country members. They are a real sham, they have done nothing at all. I know they haven't for I am one of them. I should have liked to have given advise but was not asked, so I did not know how and what on. Is there nothing to be done? I think there is. There has been bungling, if nothing worse, in connection with last year's exports to London, and we want to do better in future. Foul brood and paralysis are rampant in the colony. Cannot the Association collect data and cause investigations to be made by men of science into the nature of bee diseases and the means of controlling them. An amendment of the Adulteration of Food Act is required, so far as the adulteration of honey is concerned. The preservation of our forests on crown lands, and the regulations against ringbarking of timber on crown lands held under annual licence, are also subjects requiring the attention of the Association. It appears to me that we only hold a Convention when there has been a good season, and then we meet and the great guns hold forth on their totals and their averages, their ways of cleverly handling swarms and subduing foul brood by their power of will, and then its mutual admiration all round, and on every item on the notice paper a resolution is carried that the matter be held over for the present, or be left in the hands of the Secretary, and so forth.

Of course I am quite aware that the past season has been a very discouraging one, but that is all the more reason we should stir and organise to avoid and rectify the mistakes of the past.

Is one bad season sufficient to snuff all life out of our great bee-keeping magnates? They are lying low, you will hear of them again when there is a good seasou. With the exception of Mr. Bolton's article (evidently solicited by Editor), and some articles from Mr. W. D. Russell, I have seen nothing of them for nine or ten months. They are hiding their light under the empty extracting can. Come on now, roll up and let us hear how to better market our honey, how to cope with paralysis and how you have succeeded in wax production.!

FOUL BROOD YET.

The following extract from a letter, and from which for obvious reasons connected with our unjust libel laws, we omit the names, clearly shows the need of the Act which we expect shortly to be passed:—

Dear Sir,—Re Foul Brood, it has gone very quiet. ————had and has foul brood very bad for the last three years. I went to look at his bees about three months ago. I only looked at four colonies and three had foul brood badly, and considering he has had it for three years his bees must be rotten with it. I would not mind only for the fact that my out-apiary is only about 1½ miles from him, and he extracts in an open shed. The consequence is all the bees in the bush round him will be affected, and even not mine escape. Two of mine have shewn traces of the disease.

J. M. G., Shepparton, Vic., May 3rd.—We have had a very poor year over here in the bee line, the worst for many a long year. It has been so poor that lots of bees have cleared out and left everything behind them. They seemed to get fairly starved out and then get disgusted and clear out. We have had some fine rains lately and things are now looking better, but it came too late to give us any honey.

THE RINGBARKING TROUBLE.

Clear Creek, 9th May, 1896.

To Editor Australian Bee Bulletin.

Sir,—I herewith enclose copy of decision of Land Court held at Bathurst, on the 11th prox., also copy of my grounds of appeal.

Mr. Marsden hurried on with the ringbarking as much as possible, but, thanks to the N. B. K. A., his hand is stayed at present.

Nothwithstanding that in the decision it is definitely stated that "all trees that are or may become useful for fencing or building purposes are to be left unrung," he has ring-barked all trees except apple trees, spoiling a lot of splendid timber useful for the above purposes, viz., white and yellow box and stringy bark. If he had acted up to the decision we would have been satisfied, but he has been allowed to destroy timber that was to be left unrung.

The ring-barking that is done will not affect me much, if any, but other beekeepers will suffer.

I sent you the Bathurst *Free Press* with full report of the Land Court.

Accept my thanks for the energy you have shown in this matter, and Mr. Geo. Bloxham and others deserve and have our thanks for the trouble they have taken.

Bees here are in good condition for wintering. It has been a bad season here, but apple trees are now blossoming, and I expect a good season here as soon as warm weather comes round again.

With kind regards,

Yours truly,

JOSIAH E. TAYLOR

[COPY OF GROUNDS OF APPEAL]

1.—That the decision was against evidence, and the weight of evidence.

2.—That the decision to allow the ring-barking is against the interest of the public in general and of the Crown.

3.—That the interests and the industry of the beekeepers in the locality are seriously menaced by the permission to ringbark therein given.

[COPY OF DECISION.]

We grant permission to ring-bark the timber on 3300 acres of the leases in question—subject to the restrictions set forth hereunder, the area to be operated upon to be distributed over the leases, as the lessee may desire.

The following timber is to be unrung:—

(*a*) All river oak, and apple trees.

(*b*) All trees that are or may become useful for fencing or building purposes, and good shade trees, not less, on an average, than three trees to the acre on the area to be operated upon. These trees may be left in clumps.

(*c*) All timber within three chains of each side of Clear Creek.

ABOUT BEEMASTER DZIERZON.

R. HELMS.

In the March *Bulletin* under *Cappings* I note the following: "Dzierzon does not use frames in the brood chambers even now, only in the surplus chamber." This note is scarcely explicit enough to convey an acurate idea of the great beemaster's method of working. Unless anyone is conversant with his system, the paragraph would almost lead anyone to imagine that Dzierzon allowed the bees to build anyhow in the brood nest and that he inserted frames in the supers. This is, however, not so. Over his highly interesting discovery of parthenogenesis among bees, the publication of which at first evoked quite an avalanche of denials of the fact, and when it could no more be doubted the greatest interest in the scientific world, the more practical advances in the handling of bees made by him are almost forgotten. Dzierzon's name will be always associated with the scientifically established truism that the drone is a fatherless creature. But it should never be forgotten that he is also the inventor of the "moveable comb," the most important advancement in practical apiculture for centuries past. It was Dzierzon who in the early "forties" applied to his hive

"moveable bars" on which he fastened strips of comb for the bees to continue to build upon. Baron von Berlepsch in Germany, and simultaneously Langstroth in America, when they became acquainted with the moveable bar system, improved upon it by altering the simple "bar" into a "frame."

Dzierzon would not acknowledge that the frame was an improvement because he contended that it interfered too much with the comfort of the bees, which he thought deserved consideration as well as the convenience of man. He wanted to carry his humane method of beeculture through to the fullest extent, and was not satisfied by merely doing away with the sulphuring pan. For this reason he maintained that the bees should be allowed to build to the sides of the box, as that would keep the draught away from the brood. In fact, he did not think it judicious to interfere more with the inclinations of the bees than was absolutely necessary for the handling of them. When he wanted to examine the combs he seperated them from the sides of the boxes by means of a thin knife, which he sometimes warmed for more rapid work. Beemasters as a rule do not open a hive except for special work, and consequently he did not find it too much trouble to seperate the combs from the box when really necessary. Since the extractor has been invented Dzierzon uses frames for the honey combs.

Dzierzon's favourite hive is the "Twin Stock," a double "Lager Stock" which is much like the "Long Idea" hive. Somehow he finds no difficulty in making the bees build their brood nest some distance from the flight hole, and he still adheres to his old principle in allowing the bees to attach the comb to the sides of the box. Here he knows them to happily tend the brood in summer, and in winter to feel snug in their cluster. The experience gathered by this emminent man during nearly 60 years of practical beeculture has convinced him that bees do not winter better than by his system. In Australia, where "wintering" is only known by name, frames throughout the hive never inconvenience the bees, but in the cold climate of northern Germany, and other frost bound countries, much anxiety is caused by the severity of vigorous weather, and bringing bees successfully through the winter requires great skill and talent.

CALIFORNIA ANTI-ADULTERATION LAW.

An Act to provide against the adulteration of food and drugs. Approved March 26, 1895.

Sec. 1. No person shall within this State manipulate for sale, offer for sale or sell any drug or article of food which is adulterated within the meaning of this Act.

Sec. 2. (part of).....The term "food," as used herein, shall include all articles used for food or drink by man, whether simple, mixed, or compound.

Sec. 3. Any article shall be deemed to be adulterated within the meaning of this Act: (*b*) In case of food: (1.) If any substance or substances have been mixed with it, so as to lower or depreciate, or injuriously affect its quality, strength, or purity. (2.) If any inferior or cheaper substance or substances have been substituted wholly or in part for it. (3.) If any valuable or necessary constituent or ingredient has been wholly or in part abstracted from it. (4.) If it is an imitation of or sold under the name of another article. (5.) If it consists wholly, or in part, of diseased, decomposed, putrid, infected, tainted or rotten animal or vegetable substance or article, whether manufactured or not; or in the case of milk, if it is produced from a diseased animal. (6.) If it is colored, coated, polished or powdered, whereby damage or impurity is concealed, or if by any means it is made to appear better or of greater value than it really is. (7.) If it contains any added substance, or ingredient which is poisonout or injurious to health.

Provided, that the provisions of this Act shall not apply to mixtures or compounds recognised as ordinary articles, or ingredients of articles of food, if each and every package sold, or offered for sale, be distinctly labelled as mixtures or compounds, with the name and per cent. of each ingredient therein, and are not injurious to health.

Sec. 4. Every person manufacturing, exposing or offering for sale, or delivering to a purchaser, any drug or article of food included in the provisions of this Act shall furnish to any person interested, or demanding the same, who

shall apply to him for the purpose, and shall tender him the value of the same, a sample sufficient for analysis of any such drug or article of food which is in his possession.

SEC. 5. Whoever refuses to comply, upon demand, with the requirements of Sec. 4, and whoever violates any of the provisions of this Act, shall be guilty of misdemeanor and shall be fined not exceeding 100 dollars, nor less than 25 dollars, or imprisoned in the county jail not exceeding 100, nor less than 30 days, or both. And any person found guilty of manufacturing, offering for sale, or selling an adulterated article of food or drug under the provisions of this Act, shall be adjudged to pay in addition to the penalties hereinbefore provided for, all necessary costs and expenses incurred in inspecting and analysing such adulterated articles of which such person may have been found guilty of manufacturing, selling or offering for sale.

SEC. 6. This Act shall be in force and take effect from and after its passage.

WHAT AMERICANS THINK OF EUCALYPTUS TREES.

"A prophet is not without honour save in his own country and among his own kinsfolk."

Professor Cook, of California, in the *American Bee Journal*, says:—

Another bee-tree—or bee-trees, for there are it is said more than one hundred species—which Californians should observe and study with the greatest care, is the eucalyptus. It is destined to become the great shade-tree of this State. It blossoms from September to April, depending upon the species; is a favourite with the bee whenever in bloom and seems to furnish much and excellent honey. Some of the trees are wondrously beautiful, and the tassel-like bloom, white, buff, or crimson, with the curious caps to the flower-buds, is not only wondrously beautiful, but exceedingly interesting. *Eucalyptus Globulus*, or blue-gum, is the common one. This tree has an entirely different foliage when young from that of later growth and years. The white blossoms are showy, and are freely visited by the bees. But it blossoms in winter when the bees are not numerous and when they are mostly shut in the hives, so that the amount of honey is not great, though I knew bees to get not a little blue-gum honey during the last winter. I have some of this honey now and have just sampled it. It is amber-coloured, very sweet, and has a very peculiar flavour, which, I think, might become very pleasant with use, but I doubt if it would be as well liked at first. It is claimed that this honey has rare medicinal properties, which seems not at all improbable. The deep-red showy blossoms of *eucalyptus fissifolia* which will make this tree a great favourite, blossoms from August to October, and attracts the bees. By proper selection of species we can have blossoms from August to April.

Eucalyptus robusta is quite a favourite for planting in this locality at present, because of its beautiful habit, and foliage, and the strong thrifty growth which it makes. It blossoms at the same time with the common blue-gum.

Encalyptus corniocalyx, so called from the long horn-like cap that covers the bloom in bud, blossoms in October and November. It is so curious and interesting that it may well be planted. I saw the bees thick about the blossoms in November, while the cap was only slightly raised and not yet fallen from the blossoms. I have much hope from these eucalyptus. They come from arid Australia and more than likely will be indifferent to the most severe droughts. Indeed, this is more than a guess, for the winter of 1893-1894 was one of the driest ever known in this region. The bees were idle—entirely idle—all through the following summer. I saw not the least evidence of honey-gathering after fruit in March and April. Yet my bees gathered quite an amount of honey in December and January of the following winter from the blue gum.

I think it behoves all of us in Southern California to keep close watch of our bees and their storing from eucalyptus, and at all such times be sure to make note of date of bloom, earliest and latest, and unless the species is surely known, send bark, leaves, bud, and blossom to someone who can identify it, that we may learn the most valuable species. Beekeepers near Smiley Heights, Redlands, where there are over 80 species of this genus, or at Santa Monica, where the State Forrestry Station is located, and where there are a large number of species of the eucalyptus, can do excellent service in this direction. I am trying to secure such data, and already have a long list of species with rate of growth and time of bloom.

I think beekeepers may well do all in their power to encourage road-side and field-planting of eucalyptus. Such plantations as are being made all over the grand Elysian Park at Los Angeles, are large with promise to beekeepers.

Mrs. Atchley says:—Holyland bees are a greyish blue colour, with three narrow yellow bands, much narrower than the yellow on Italians, the third band not showing very plainly. The Cyprians are somewhat different from the Holylands. The Cyprians came from the island of Cypress, and the Holylands from Palestine.

PAINTED, VS. UNPAINTED HIVES.

G. M. DOOLITTLE, in *American Bee-Keeper*.

All will admit that hives look much better and will last longer if painted than if left unpainted. But after years of experience with both painted and unpainted hives in the same apiary, I contend that bees will not do as well in a painted hive as they will in an unpainted one. But I think I hear some one asking "wherein is an unpainted hive better than a painted one?" Principally in this, that if properly covered it will keep the bees dryer at all seasons of the year, and owing to this dryness they are consequently much warmer. As unpainted wood is porous the moisture evaporates or passes through all parts of the hive, keeping the bees dry, warm and quiet, avoiding any undue consumption of honey, as well as disease. Several years ago I had a number of box hives, some of which were painted, while others were not. I set them out of the cellar about the first of April, in as near equal condition as well could be. In the morning after every cold, frosty night, there would be water running out at the entrance of those that were painted, and on tipping them up the combs were found to be quite wet on the outside next the hive from the condensation of moisture, while those in the unpainted hives were dry and nice, and these last increased in numbers faster, and swarmed from one to two weeks earlier, than did those in the painted hives. This gave a greater force of bees to work in the honey harvest, which in turn gave a larger yield of honey, and this gave more money for me to jingle in my pockets. "But," says one, "I use ground cork, cut straw, sawdust, forest leaves or some other absorbent in the top of the hives to take care of the moistnre, by letting any excess that may arise pass through these and out of the top of the cover." This will help much as far as the moisture is concerned, but if not done on a scientific plan it will let out much of the heat, which is so necessary for the welfare of the colony in early spring, by such a direct draft process. Even if done properly I cannot help thinking that hives will keep bees better if unpainted. Paint is useful only so far as looks and durability is concerned, and is positively injurious as retarding the evaporation of moisture.

This is the result I have arrived at after 25 years of experience and close observation with single-walled hives, and I believe the damage to the bees is far greater than the cost of a new hive occasionally, where ordinary hives are used, say nothing of the cost of the paint or time in putting it on. However, with chaff or double walled hives the case is different, for then the moisture is driven through the first wall of unpainted lumber, out into the chaff or other packing, from whence it goes out through the many cracks and ventilators provided in the outer shell of the hive. From this comes the reason, largely, why bees winter and thrive so much better in chaff packed hives, rather than that the extra protection has all to do with it, as some claim. Bees can endure any amount of cold provided they are kept dry, but wet, dripping combs and hives, they are not able to stand, where cold is added to it. Thus, in accordance with the views expressed above, I paint all of my double-walled or chaff hives, and leave all of the single walled hives unpainted.

CAPPINGS.

(*From American and other Bee Journals.*)

Half sugar and half water, well swirled round the extractor, is said to make the very best syrup.

Sweet Clover has several other names viz:—Melilotus Alba, Melilot, White Melilot, Bokhara, Cabul Clover, and Honey-lotus.

Doolittle had a hive containing 32 frames with brood in, equal to 15 frames of brood coming out to the wood all round He reckoned that hive had 160,700 bees.

A recent English paper says:—A mysterious disease has broken out amongst the bees in Surrey, and threatens to affect the honey harvest. It is akin to rabies, for the insects impart it to one another by bites.

It is always safe to use combs as long as they are in good condition, and old combs have the advantage of being better for the bees during winter than new; consequently I have no thoughts of throwing away these 20 year-old combs at present.—*Gleanings.*

There are over a thousand beekeepers in Southern and Central California. Around the town of Acton and Antelope Valley the average number of colonies to each beekeeper is 90; taking those figures for a basis, 1000 beekeepers own 90,000 colonies. Average yield per colony, during the past season, one case, or 120lbs., or 90,000 cases, or 5249 tons, or 437 carloads. Value, at 4 cts. per lb., 419,920 dollars.—*Gleanings.*

At the State Convention at Chicago, Jan. 9 & 10, attention was drawn to a false foul brood. The cappings of the brood would become punctured, sometimes sunken, the larvæ shrivelled up and turned yellow or brown, but lacking the pronounced ropiness of true foul brood. It never amounted to anything and finally went off itself.

In purifying wax by sulphuric acid "Skylark" in *Gleanings in Bee Culture* says :—Never put any acid in until your wax is completely melted—every bit of it, out of your old comb. When it is done boiling, pour your acid in slowly —very slowly—stirring your wax all the time until it is milky—quite milky. When you have thoroughly stirred and mixed it, let it settle. The acid drives all the dirt to the bottom, and in a little while you can dip it out carefully—not going to the bottom of the wax—and run it into merchantable cakes.

Keeping Down Increase :—If you keep your queen clipped, no prime swarms will go to the timber. When a swarm issues, hive the swarm on the old stand after first removing the old hive to a new stand. That will so weaken the old colony that a second swarm is not likely. But some say this is not always effective. It will be more effective if you set the old hive close beside the swarm, after hiving the swarm on the old stand, and then a week later move the old hive to a new stand. Then in the spring unite until you have the desired number.—*American Bee Journal.*

In New York State there are excellent pure-food laws; and a recent decision from the Ohio Supreme Court sustains them on every point. It is a misdeameanor, not only to adulterate, but to sell foods in the State, even though adulterated in another state; and it makes no difference whether the vendor knows of the adulteration of the product or not. The State does not have to prove it, and he is liable just the same. The recent decision means at least, 20,000 dollars to the State annually. Our food-inspectors are active and alert, and are making the sale of adulterated food-stuffs a dangerous business.—*Gleanings.*

Professor A. Taylor, of the Michigan (U.S.) Experimental Apiary, says :—What possible ground for fear can there be that clipping the wing of a queen will weaken the power of her worker progeny to fly? If the fact that for many thousands of years at the very least, the queen bee as well as the drone has neither exercised nor had the power to gather honey and pollen from the flowers, has neither destroyed or weak. ened the desire and the ability of the worker-bee to perform that labour, we may safely dismiss any fears we may have harbored that clipping the queen's wing will in any way affect the usefullness of her worker progeny.

Mr. R. M'Knight, *Beekeeper's Review*, says :—If corked or sealed when hot the honey will not re-candy so long as the air is kept excluded. I am of opinion, however, that honey drawn off at 140° F will not insure permanent liquefaction under any conditions, because crystalisation will not be completely destroyed at this degree of heat; although sufficiently liquid to run through a strainer cloth, the nuclei of crystals will still exist, and their affinity for surrounding molecules will strongly manifest itself in the honey re-candying. My own experience is that honey heated up to 160° F. will destroy granulation and insure its remaining in a liquid state if kept under the conditions above mentioned, and not perceptibly affect either its colour or flavour.

Curing Foul Brood without Drugs :—Mr. Baldridge—The plan I use and recommend is the one I described in the *Beekeeper's Review* a couple of years ago. I bore a hole through the front of the hive that has the disease, and attach a bee-escape. What I used is a perforated tin cone. The entrance is now closed, and the hive removed a few

inches to one side of the stand it occupied, and a clean hive with a frame of brood and adhering bees is put in its place. The queen is caged in the diseased hive for a day, when she is removed and allowed to run into the new hive on the old stand. It is evident that no bee can get in or out of the old hive except by the escape, and in from 30 to 60 days they will all be out—the bees in the old hive, as well as those yet to be hatched from the brood. I thus save, as you see, all the brood that is good for anything. At the end of the 60 days I remove the old hive, disinfect it, and burn the combs.

The Cheshire Cure for Foul Brood —Wm. F. Clarke, in the *A. B. J.*—So far as I know, I am the only beekeeper on the American Continent who has patiently investigated the Cheshire method and got to the bottom of it. He prescribes from the 500th to the 750th proportion of phenol. I am inclined to think the drug is not always of the same potency. At any rate, the main difficulty is to get the bees to take the mixture. When they will do that, it is plain sailing. My eyes were opened when, after many failures, I at last got a foul-broody colony to take the phenolated syrup. I fed them 20 pounds of it in the fall. Next spring and all through the following season they were the best colony I had. Of all the many pretty processes in beekeeping, there is nothing prettier than to see how the bees will clean out the foul brood when once you get them on to a diet of phenolated syrup. It is like magic the way it works.

Preparing and Moving Bees on a Wagon, by B. J. Slease, in *American Bee Journal*:—The best time is immediately before the working or breeding season, in the latter part of winter or early spring. Leave the hives just as the bees sealed them down for winter. A strip of stiff spring burlap (the opener the better) two inches wider and two inches longer than the hive entrance, doubled in at the ends and pushed into it with a thin knife-blade, placed on the centre line, so that it goes in double, with a small wire nail in each end, is all the closing they need for either a long or short haul on smooth roads. On rough roads a good cord or wire tied tightly around each hive will answer, and on very rough roads a cleat should be nailed on each corner of the hive, long enough to nail to both cover and bottom, where bottoms are loose. To prepare the wagon, take the bed off and couple it 12 feet long for plank 16 feet long, or 16 feet long for plank 20 feet. Floor the wagon with 2-inch plank if the road is reasonably good; if rough lay a 2x4 crosswise on each end of plank floor—one behind the front wheels and another in front of the hind wheels; floor on top with inch boards, and pinspike or bolt the four corners, and you have a platform that you can haul the bees over any road in perfect safety, if you have a good team, and the driver is neither scary nor balky. Choose a good, moonlight night. Close the hives as early as possible, put on as many as you can, and drive through as soon as your team can walk it. Put off the hives and open them at once. Put a board or some obstruction in front of each hive to compel, or rather, induce the bees to locate, and repeat each evening until the bees are moved. I have hauled bees on this plan two hives deep, more than 100 miles. I was on the road four or five days, and passed several miles in which the wheels constantly hopped from one rock to another without touching ground. If the hives are bad, cover down as soon as loaded with a wagon sheet, tarpaulin, or old bed-quilts, to keep as dark as possible.

Mr. L. A. Aspinwall, in the *Beekeepers Review*, recommends artificial wooden combs as a preventative of surplus drones, and practically proof against the inroads of the bee-moth. The following experiment is interesting:—With hives containing artificial worker comb exclusively of the regulation size and depth, no drones will be

produced. In the course of my experiments I made combs with cells ⅝ of an inch in depth, 18 cells to the square inch, hexagonal in shape. Such cells being larger than for workers, and smaller than for drones, served to throw much light upon this question. I found that with an average queen, workers would be produced from every cell. The additional depth of cells compelled the queen to lengthen her abdomen, naturally causing compression during the work of laying. With an undersized queen I found occasional cells would contain drones. I will state in this connection, the under-size queen which I introduced on wooden comb produced workers exclusively in cells of regulation size and depth. This experiment was in accordance with Mr. Quinby's experience, 'Quinby's Beekeeping,' 2nd Edition, 1865, page 44, last paragraph. Using his words—'When I first saw the smallest queen that I ever raised, whose body was even smaller than a worker's, it occurred to me at once that if she ever laid it would be a test of this principle, her body being small it could not be compressed like others, and a large portion of her progeny would prove to be drones in worker cells. The result was just what was expected—one half were drones.' The drone eggs can be laid in shallow cells, as in the instance of occasional patches being cut down by the workers in a hive containing worker comb exclusively—also in cells containing pollen as already mentioned—and that no drones can be produced in worker cells of regulation depth—furthermore that worker eggs cannot be laid in drone cells of regulation depth without first contracting the mouth of such (which bees occasionally do), goes to prove that compression is necessary to fertilize the eggs which contain workers and queens. That queens deposits worker eggs in shallow or incomplete worker cells, is certainly demonstrative of volition on the part of the queen. The foregoing facts leads me to sustain both the Wagner theory and the position held by many—viz.; that of volition on the part of the queen when laying in shallow worker or queen cells—but in finishing worker comb, where the thousands of eggs are deposited, the size of the cell materially assists the queen, and insures against any mistake which might occur through fatigue, if dependent upon muscular effort alone.

C. U. T. B., Loyalstone, Lyndhurst, March 16th.—Am very busy at present extracting. Honey plentiful this last two months from white gum and apple tree. We are having a splendid autumn just like a fresh spring, and every prospect of having a good winter. Foul brood is very prevalent round here, broken out in two apiaries close here, so have to keep a close watch on my bees. I am afraid it will be very bad as a lot of amateurs with a few boxes will not go to the trouble of curing them, as a swarm of black bees are not considered of much value round here, there being plenty nests in the bush. With regard to how long a queen will live out of a hive. At one of my out apiaries, one of my hives swarmed, queen had wing clipped, so bees evidently came back to hive, as hive was full of bees, but the queen was missing and nowhere to be found. And to-day, about 25 days from the time she swarmed she was found alive and hearty about 15 yards away from hive with about 20 bees attending to her. Where she had been in the meantime, I can't make out, unless she crawled under some logs close handy and I over-looked her. I never heard of a queen existing in the open for such a length of time considering the rain that fell and the cold dewy nights she was out. In the hive from where she swarmed one of her progeny is laying away first class.

P. A., Ashburton, N. Z.,—Sorry I can't give a good account for our season here, about 7cwt of honey as against nearly 2 tons last year, but bees are healthy and may do well next year.

J.E.P., Guildford, March 23, 1896.—We are having a very bad season here for honey. I will have to let my bees live on all they have, which is very little. I am thinking it will be wise to let them remain as they are, they have plenty of wax (comb). Could you advise any other plan.

[If they have not plenty of honey you'll have to feed them.]

R. J. G., Coolac, March 27th,—There has been very little doing among the bees lately in this district, very little honey coming in this last three months. Bees are all very strong, I think they will pull through winter all right. This has been a very bad summer in this district. I lost some 14 colonies through the great heat, honey fell and smothered them right out. One cannot take much notice about wiring frames. Most of my frames had four wires but the hives were in the open.

J. McF., Thelangarin, March 28.—Your little paper has helped me very much. For a first year my bees have had a very hot time, but they did not melt down as I was always afraid they would. The thermometer was 112 to 114, under a refrigerated iron-roofing. However, their trials are over for the summer, our box trees are coming out in bloom, and my garden is a perfect show with red and blue salvias and portulacca, and for the first few hours in the morning the hum of the bees sounds like the surf, it is wonderful. Wishing the *Bulletin* every success, &c.

P. S., Marrar, April 7th,—Just a few lines to let you know I am alive, but I can't say so much for my bees; they had a great battle against starvation. Just before the dry season set in, I sent a hive of bees to a town about 23 miles away from where I live. They seemed to do very well there till the dry season set in, then they began to gather honey of a very peculiar colour, something like raspberry syrup, and when using smoke among them they would fill themselves with the honey and become of the same colour. An experienced beekeeper thinks they must be getting it from the cordial factory. Could you throw any light on this subject?

[Perhaps some of our readers can? We can't]

E.W.W., Beechworth, Vic., March 18—I appreciate the labour and energy with which you carry on the work, and trust you will in the near future receive a greater circulation and be enabled to illustrate the *Bulletin* with some of those photos you have from time to time been telling us about in your pages. I always thought it a shame that we had to go to America for our literature, and was much pleased when it was decided to have a paper of our own, though hardly so grand as the *Gleanings*. The matter I consider equal, if not above the latter journal. A. I. Root no doubt is a most excellent man, and truly deserves all the great success he has attained unto, but I have always thought there was a little too much of A. I. Root—too much flippant, irrelevant matter in it, *i.e.*—

"Observe I'm a very superior man,
A much better fellow than Angus McSan."

But perhaps I should not be too critical, for we must admire the way our brother beekeepers on the other side of the world are united and friendly towards each other. I trust we may take the good example they set and let us beekeepers in these four great colonies federate at once and show our ponderous governments the errors of their ways. The season here is bad, no honey, but we look forward to next season for a return of the busy times we are all so fond of, and by sticking earnestly and patiently to our business we shall at last come out on the right side. We should secure the home market, come what may, and I think by the help of your journal and by encouragement from the governments we shall at last rise to the top, if each individual beekeeper will do his part in an honest and square manner. We have, without doubt beyond question the finest and richest honey in the world, and as to climate it is a veritable paradise.

G. B., Cherauburn, May 10th,—Things have been so bad this season, that I, although single, have not knocked out expenses of living. Wishing your paper success, &c.

T. W., Masterton, Wellington, N.Z. April 22nd.—I am sorry you have had such a poor season. My bees averaged 112 lbs for every hive extracted. The latter part of the season was too dry for a large average.

H.H.D., Queen St., Melbourne, Vic. May 15th.—Please let me know the subscription to your journal, and send sample. I feel that some book is needed to keep beekeepers together and in touch with things in general.

E. J. C., Fairview Apiary, Tarrawingee, Victoria.—I sent two tons of honey to England this time last year, government stamped, and have not received any returns of it. I paid £12 on it and after waiting twelve months have not received any account of it. Wishing your valuable paper every success.

A. E. H., Wanganui, N. Z., April 6th. —I was sorry to see by last *A. B. B.* that most of the Australian fraternity seem to have a bad time of it this season. However probably better luck next time. I myself have not got much honey this season. Perhaps I told you last spring I shifted 120 colonies of bees and 80 empty hives 90 miles by rail, and 250 by water, and located them close to some small clumps of bush which I thought would be harmless, but judge of my surprise when the bees brought in nothing but thick unextractable honey and all the honey I have for sale is ½ ton of comb honey. However, I increased to 220 and have ample stores for winter. I will shift again in a few months, which will be the fifth shift in 10 years beekeeping. I am getting used to it but at the same time tired of it—shifting I mean, not beekeeping. I had hoped to go over to Australia this autumn and see the country and the beekeeping fraternity, but the honey crop will not run it.

J. A., Chiltern, Vic., May 18th,—We have had a very bad season here this year. I have not taken a pound of honey and had to feed the bees their winter stores. I always use formic acid in the feed when feeding my bees. and I think if beekeepers would only use a little of the acid occasionally when feeding up weak colonies we would not hear so much about foul brood. I have noticed that foul brood is always worst in bad seasons and that a good deal of it is caused by messing with the bees in cold and wet weather.

R.R., Rous, March 17th,—Mr Editor, As you have asked me for some news about my bees, I will try and tell you a little about them. I only started last season, I had nine swarms in common boxes and I transferred them into Langstroth hives, and before the winter set in I had increased to 18, and they all came through the winter strong and I did not lose one. I have now got 28 nearly all Italians. I got two leather-coloured Italians from Queensland and they are doing well. The honey flow is not as good as it was last season. I have all my boxes painted, I have five different colours, so you can imagine how gay they look. I have a honey house and all the appliances for working my bees. I had one very large swarm come out this month. Since I started I have not lost one swarm to my knowledge. I have one native swarm working in a common box. My way of finding a queen is: If it is a very large swarm I have an empty box by me, and as I take the frames out I look them carefully over and place them in the empty box until I have looked them all over, and I generally get her. Amateur, Queenscliff, V., writing about transferring his bees. Six weeks is a long time before they start working, if they were mine I would be very uneasy until I saw the queen. I had two swarms the same way. I looked through them and I found them both queenless. I put a queen in and in less than a month they were working as usual.

W. B., Maybloom Apiary, Young, March 16th.—Now a little about the honey flow. I commenced this season with 22 swarms, I extracted about 4 cwt. in November and December and not a drop since. If we had only got rain at the proper time, I think this would have been the best season we had for this many a year, but having no rain the blossoms all dried up. We have had great rain lately which brought the bush apple trees out in flower, but the bees only worked on some. Very near all the apple and plum trees (fruit) had a second crop of blossoms on this last two or three weeks. The bees got a lot of feed from them but I doubt if they got any honey. I got 12 swarms from 5 colonies in November and December, none of the others swarming till last week, when 4 or 5 started. I had a large Italian swarm issue on Sunday, I put them in a new box and gave them a frame of brood in all stages, also two frames of comb with a little honey in them, the rest of the frames all had starters. The swarm issued again on Tuesday. They clustered. I got the queen (she having her wing cut) the bees went back in the box, then I put in the queen. On Monday a gentleman came into the garden, picked this swarm out and said, I will give you £1 for it, and I sold it to him. On Thursday they came out again, my sister looked in the box and found five queen cells ready to cap. I cut them out before the bees went back, they stayed in all day on Friday and the owner came for them that night. Now, what were they rearing those queens for? Mind you the queen is only two years old and left seven frames of brood in the bottom story of the hive she came from. Again, very often when a hybrid queen mates with a hybrid drone, some of her bees are pure black, and others are pure Italians, to look at. Now what I want to know is, if the bees used some of each of those eggs to rear a queen, would one be a black and the other an Italian. Hoping I have not trespassed too much, I will conclude by wishing you and your journal every success.

Bees, when they once get the swarming fever, are very determined, and will not be hindered if they can help it. From Hybrid queens nothing but uneven bees or impure queens can be raised and the colour of the queens vary more than in the case of purely mated queens.

E.T.P., Fernbank, May 5th,—People in England must have a very keen taste to be able to find the Eucalypti flavour in our honey. I have heard too, they can detect the tannic acid in honey gathered from our wattle trees. Perhaps, if we followed J.S.L's advice and grew poppies they would say there was too much opium. But how could we get them to work on the poppies? Paddock them I suppose inside wire cloth. I was speaking to a man from England the other day about the sharpness of their palate when Australian honey was about. He was eating some of it at the time. "All rot," he says, for them to run the honey down." Get rid of the middlemen and your honey will go alright and bring a good price too." Last June I received a letter from a large beekeeper on the Snowy River. I will give you his experience on the London Market. He says "I sent three tons of honey to London last season, and all I netted was about £10. The agents and middlemen had it all, and to mend matters they wanted to make out that it was adulterated." They dont want our honey there! "Loyalstone" says in your last issue chrysanthemums was a good thing to plant. I have about 12 different kinds and I have never seen a bee on one. Perhaps they work on them in other localities. They dont here, I think rape would pay to grow on good land because there is a ready market for the seed. But if we want to grow honey we must get away from gum trees, for as soon as they bloom, the bees says good bye to the poppies, &c. There's more chance of a load out in the forest.

Rev. W. G., Aberdeen, May 12th.—I am well pleased with the way the *Bee Bulletin* is conducted and wish it every success.

W. S. P., Wyndella, Armidale, May 16th.—The month of April here was the best I have ever seen for bees, abundance of stringy bark blossom and warm genial weather. A light fall of rain on the 3rd of May was succeeded on the 5th and 6th by severe frosts, ice ¼ of an inch thick, which checked the honey flow. Then a few more warm days and a light fall of snow on the 13th. To-day and yesterday, 15th and 16th, has been very warm, which enabled the bees to fly again, but we cannot expect them to gather much more, winter having now set in.

G. G., Leybourn Apiary, Plumpton, Vic., May 18th,—I notice by reports in *A.B.B.*, that the honey crop is small this year. I have not much reason to growl as I have done very well for this district (which is a poor one.) Apple trees blossomed very heavily this year, but the extreme heat turned the honey from it black, with a smell and taste of burnt sugar. There has been a very good box flow since, which is just finishing. Have been away from home for three months, found bees on return in very good order, surplus combs sealed right down to bottom bars, tipping the scale at 10 and 9 lbs each. No swarms this year.

The following we clipt from a local N. S. Wales paper. Will some of our Wimmera friends give us a few more particulars :—"An application, made to the Victorian Government from the Horsham district, for a special bonus of £20 per ton, on account of each farm supplying honey to the Wimmera Apiary Company for export, has been granted. The special feature of the company's undertaking was to put the honey up in a first class manner for the home market, and they adopted special tins (2lb & 4lb) and labels, and boxes for this purpose. A top price was realised for the trial shipment, and several large orders from London buyers have since been received."

Rev. J. Ayling, Pitt Town, May 7th,—The honey season has not been a good one here. I suppose I have done as well as anyone, and better than most, which is not saying much. I brought my bees through the winter very well, having left them abundance of stores, but they set to breeding and swarming a great deal more than I wanted ,and I could not stop them, as I ought to have done if I had been able to attend to them. However, I got honey much earlier than I ever did before, having commenced extracting Jany. 9th. Rain coming in Feby. extracting ceased for a time, and when I resumed at beginning of March, operations were again suspended on account of my illness. I infer that the Committee have fixed on Goulbourn for the next Conference. I have lived in Goulbourn, and I know that it is about as cold a place in winter as I found Bathurst to be last July. I would prefer some other time of year for the Convention, if such places as Bathurst or Goulbourn are fixed upon. But no place or time would suit everybody. For myself, I fear that my weak state of health will prevent me taking any active part in bee matters for the future.

W.S., Bacchus Marsh, April 17th,—Bee lore very scarce. The season opened very well and to all appearances looked as if we were going to have a good old time of it, but as the season advanced and no rain came, but plenty of wind, it was evident that we might as well close up shop and look forward to the coming season, as there was nothing to be got out of this. We are now busy preparing bees for the winter, and we are sorry to say it will take the bees all their time to pull through the winter, in fact we shall have to feed some of the weaker colonies, so as to get them in anything like ship-shape order. We are about to form a beekeepers association here, and I think it will do a lot of good among the beekeepers here, who are mostly box hive men, there being only a few advanced beekeepers. Your journal is chock full of solid interesting matter, and to my mind continues to improve with every number.

S. V., Prebbleton, N. Z., May 5th.—I keep a few hives of bees and some of them contain foul brood. Can you inform me through your paper what the best cure for foul brood is, the best time and how to use it?

[Put in clean hives with starters. Three days after repeat and give food. Destroy old frames and disinfect old hive. Put queen excluder zinc on clean hives, to prevent them swarming out.

W. J. D., Marrickville, April 4th.—You asked me for bee news from here, but as I am not in touch with any bee-keeper round here, I can send you very little except my own experience. I have only 5 swarms and I use von Berlepsch hives. I have been keeping bees two seasons and I started with one swarm which I purchased intact, hive and all. From the experience I have had, I think my district is very little good for honey, I only got 15 lbs off 3 hives last season, and only two out of my five swarms are doing any good now, and one of them swarmed last week without my knowledge and I lost my old queen. I tried introducing queens for the first time this season. I got one first and introduced her and she swarmed in my absence 4 or 5 days after, so I lost her. Then I got another which was a beauty and I introduced her to the same hive after removing a young queen and all queen cells, and I am glad to say she is doing well. Speaking of swarming my bees never attempted to swarm last autumn, but this time they have pestered me, especially two swarms, one I returned to the hive, four times. Can you tell me why it is that two hives of equal strength, as far as bees are concerned on the same stand are doing so different. One is full of honey and in the other there is not a pound I believe altogether. My bees seal their honey terribly uneven, which makes it very awkward in uncapping. I use a slinger for extracting and I find that I can't get all the honey out of the combs and it makes a very messy job and breaks the combs away from the frames, but I cannot afford to buy a better one, and I don't think my bees will ever pay for one here at any rate. Ought I to leave all honey in the hive till it is quite sealed over or can I extract when only partially sealed. I blame my leaving the honey too long in the hive for my old queen leaving me, as I was waiting for them to seal it all over, when she cleared out and I believe if I had extracted it she would not have swarmed. The little honey I get seems to come from the Bloodwood which is about the only honey producer round here, and a little bit about 4 lbs I extracted last week had the eucalyptus flavour to perfection, you could smell it without tasting it. I read J. S. L's. letter in last month's *A.B.B.* with interest and I believe he has struck the only real solution of the eucalyptus difficulty. If ever I am in a position to try his plan of bee-farming, I will do it.

It is better to leave the honey till it is sealed over. With your hives near each other one may possibly be robbing the other, the immediate proximity rendering the bees familiar with each other. We have had one hive with bright colour bees in a row of a number of dark coloured bees, and have noted the young bright coloured bees going in and out the dark bee hives without any attempt at interception. Starvation, excessive handling, or want of pollen, will often cause swarming out in the autumn.

CRUMBS.

AUSTRALIAN YANKEE.

I am surprised at Loyalstone, not mentioning African Box Thorne, as a honey producing shrub. I consider it one of the best, if not the best honey producing plant or tree that I know of. It blossoms all the year and is always swarmed with bees. If you examine the blossoms in the morning before the bees are up you will find them almost full of honey, quite enough honey in each flower to get a taste of the honey. I believe 40 acres would produce sufficient honey to keep 100 colonies of bees storing honey, provided it was planted in good soil. My advice to all is to try a few bushes and see for yourself, as it may not produce honey alike in all localities. It is easily raised from seed and bears transplanting well.

BEEFARMING—PURE & SIMPLE.

Mr. R. Beuhne in last month's *A.B.B.* sits down rather too heavy on J. S. L., Warri. While I don't believe it would pay to cultivate flowers for honey alone in a district where there is an abundance of natural trees and shrubs, still, I believe it would pay big in a locality where the timber was all dead for at least two miles in every direction. But, as Mr. B. says, the one planting the flowers would want to hold the ground for two miles all round him. If I were to go in for such beekeeping, I would plant my land as follows: 30 acres African Box Thorne, 10 acres of blackberries, 5 acres Raspberries, 1 acre Chinese Woodbine, 4 acres Rosemary, 3 acres Thyme, 4 acres Sage, 6 acres Mignionette, 15 acres Cosmos, 10 acres Almond Trees, 4 acres Wall Flowers, 10 acres Turnips, 102 acres in all. This would give ample employment to 150 colonies and I venture to say that there would not be a finer honey producing locality in the world. Who will be the first to lay out such a honey farm?

DO BEES HIBERNATE?

Well, Yes! Of course their hibernation is different from that of snakes, lizards, &c. Also different from wasps, and hornets. Extreme cold will kill bees when in a state of hibernation, whereas snakes, &c., can be frozen hard, and still revive with the warm breath of spring. Bees awake at certain intervals and take a feed of honey, to keep up the warmth. In the warmer districts I doubt if they really hibernate at all. I guess mine are hibernating now as there is about four or five inches of snow on the ground, and the thermometer has stood at 34 degrees all day, and this only the 13th of May. I never saw anything like it so early.

COLD WEATHER.

How are your bees off for stores? If they are anyways short, you should lose no time in feeding them. Some of mine have about 60lbs of sealed honey. It makes one feel comfortable this cold weather to think that they have plenty of stores. I don't like my bees to be pinched with hunger. It is poor policy to extract the honey in summer and sell it for 2d per lb, and then buy sugar at 3d in the winter, to feed them on. The easiest way to feed bees in the fall is to fill a few combs with syrup and hang them in the hive. Don't go to the expense of feeders, as they are a tarnal bother. More crumbs next month, if Mr. Editor will be bothered with them.

Send them along.

QUEENSLAND.

H. L. JONES, GOODNA, Q.

After experiencing the worst season I have known for the past 14 years, I am happy to state that a complete change has now come o'er the scene. The giant Eucalypti have again come to the rescue in the shape of the blue gum, iron bark and spotted gum, which are commencing to bloom; honey is coming in nicely and all the queens rapidly annexing new territory. The blue gum is in the van, and the fragrant odour of the freshly gathered nectar can be detected at once on approaching the apiary. With the advent of cooler weather the development of the buds of the ironbark and spotted gum will probably be retarded somewhat, so that they will not blossom profusely until the spring. Anyhow I trust that it will be so, as when they blossom during the winter the secretion of honey is not nearly so lavish as when they blossom during the warmer months. The blue gum, however, as it usually does, will continue to bloom throughout the winter, and thus bring the bees through in splendid condition for the spring. After such a severe season it is perhaps excusable for one to become rather unduly enthusiastic as he watches the nectar laden blossoms gradually displacing the leafy tops or the giant blue-gum, the rugged ironbark and the towering spotted gum. So hurrah for the nectariferous north!

HOW TO MAKE A START IN BEES.

BY LOYALTONE (*Continued.*)

VII. Transferring Swarms into Bar-frame Hives.—If you can afford the expense perhaps you will buy a few colonies of bees in bar-frame hives to make a start with, or you would prefer a cheaper method by falling nests in the bush and transferring the swarm from the tree to your bar frame hive. It is risky sometimes in falling trees that you may kill the queen. I put it down that to every 12 trees you fall, on an average you kill three queens. Supposing you start to fall a bees nest, have a smoker, veil, knife, tubs and ladle handy. When the tree is down—of course you don't fall a tree that is likely to smash up the place where the bees are located.—pick a nest in the barrel of a tree or a strong limb, and there will not be much liklihood of the queen being destroyed as there would be in a tree that would break up—cut open the hollow of the tree where the nest is, exposing to view the whole of the nest before you take any of the comb out. Now take your smoker and smoke the bees to one part while you take the other out carefully and *vice versa*. Don't mix the young brood with the honey comb, but cut it off, and you may get a piece or two good enough to place in one of your frames, tying it securely with tape. Now, the job is to get the bees. Have a box slightly larger than the ordinary candle box, with two cross sticks nailed securely in the middle, and a wire cloth cover to fit on the box. Place your box above where the bees are collected (you might have a piece of old comb on one of the cross sticks), and with patience and perseverance, aided with a little smoke. drive your bees into the box, and when you have nearly all in close the lid. Leave the box there for about a quarter of an hour and the rest will collect on top of the lid (providing you have the queen in the box, which you will know by the excited state of the bees left out of the box.) Then carry your bees home and have your frame hive fixed with starters. Take the lid off your hive, and with one gentle shake, shake the bees on top of the frames, and replace lid and put a queen excluder on entrance and you have them secure. You may take the excluder away after four or five days. In case you transfer from a box hive, a quick method which I have found successful, is, to take the box hive from its stand and put in its place your bar frame hive with starters, with the exception of two frames which you keep to put or tie in the best of the brood you take from the box hive. Place an empty box over one end of the box hive and with a little smoke and a slight tapping with the foot you drive all the bees into the empty box, and in turn you dump these into your bar frame. Replace the two frames filled with their brood neatly put in and place queen excluder on and you have them safe, and in a few weeks they are working away as briskly as ever. The secret of successful transferring of bees is in taking your time and do not get flurried over it. Remember, more haste, less speed.

VIII. Artificial Swarming for Increase.—This is also a process in which you must go slow. If you increase too much you weaken all your hives and it takes them a whole season to recover themselves and that without giving you any surplus honey. We will say you have two ten frame hives, strong colonies, and you wish for more bees to bring you in a surplus the following season. Take three frames brood and two of honey with bees attached, also the queen from one of the hives, and place them in a fresh hive, filling up the space with frames with starters. And, if you do not have enough bees in the fresh hive, shake some more in off frames of old hive. In selecting brood frames for new hive always take those in which you notice the young bees hatching. And the honey frames with honey about half sealed. Now from the hive from which you took the queen look to it in eight days time and cut out all queen cells but one, and with those you cut out place in a queen cell protector, and use your own discretion as to how you can divide your hives up, giving to queenless half one of your queen-cells attaching same to one of the brood frames. When dividing and having queen cells on hand, always leave the queen in hive you divide and give queen cells to new hive. Always wait till your colonies are very strong before you do any dividing. If your pocket can stand it, the quickest way to increase is to buy untested queens from some reliable breeder and introduce them to your new colonies in a Benton cage as per directions on the underneath of cover of same. By this method, in a good locality, in a good season, you could easily increase two strong prolific swarms to 40 colonies at the end of the season, and have good surplus of honey besides. Never forget giving plenty of bees to new swarm, as nearly all the old bees return to their old stand. To let the bees increase naturally is rather slow work, especially with Italians, but you can induce them to throw off from four to five swarms in a fair season by putting a prolific queen in a five frame hive, and when they swarm put swarm also in a five frame hive and so on all through the season, and at the end of the season you will find you have increased your number of colonies considerable. You can hive the swarms in 10-frame hives and close them up on five frames with a division board, and when the season is getting too late for swarms, you can take division board away and let them have the run of the whole hive.

IX.—Wintering Bees.—A beekeeper who can bring a large number of colonies through a severe winter without loss, is one who is not too greedy in the honey season, and has some compassion for his bees. Before the winter sets in

see that all your colonies are strong, have, say 20 lbs or four full frames of honey, a secure box water proof with a mat over frames (for winter only) of roofing felt, which will serve to keep them snug and dry, a good queen, and the chances are they will be about early in the spring and bringing in a surplus of honey, when your neighbour, the selfish beekeeper, has lost say 25 per cent of his colonies, and the balance will take a good couple of months to get strong again.

To be continued.

DUBBO.

W. S. PENDER.

VISIT TO MR. INGRAM'S APIARY

On Thursday, May 5th, it being a delightful warm day, I went in search of the apiary of Mr. Ingram which is situated at old Dubbo, about five miles from Dubbo. Arriving at his residence, I found Mr. Ingram at home, and as I had but a short time to stay, having to catch the train in the evening, I was immediately introduced to the bees, to make the best of the limited time. Mr. Ingram is at present altering the position of his hives, and as any alteration takes time, he has hives in various places round his house. When Mr. Ingram first started, a good many years ago, before the adoption of the frame hive, he adopted a long, rather wide and shallow hive, having a movable back. I cannot remember the size of the hive but think it is somewhat thus: 40 inches from front to rear, 24 inches wide and 9 inches high. These were arranged on shelves under sheds, one row being about 18 inches from the ground and the second row about 4ft. When time for "robbing" came the back would be unscrewed and the honey in the comb removed, the brood was not disturbed and the back again screwed in position. This hive worked similarly to the present long idea hive, where the entrance is at the narrow end. The honey being stored at the rear of the brood, and the brood combs not being removed, the queen was not induced to go into the newly built combs, so nothing but honey in new combs was taken. The honey comb was taken to a room, and the combs broken up on a coarse wire screen, which kept the most of the comb from passing through, but allowed the honey to drain through readily. Under the coarse wire screen was a large tin funnel, I should say 3ft. 6in. in diameter, in the centre of the funnell, corresponding with and fitting into a honey tank is a brass wire cloth strainer, which separated all the finer particles of comb, and left nothing but a fine, clear honey in the tank. This system adopted by Mr. Ingram, perhaps it was his own idea, produced large quantities of honey, very little, if in any way, inferior to our extracted honey. Nearly the whole of these hives gave place to the 10-frame simplicity hive, which were kept in the same sheds. Owing to the ant pest, these sheds are now giving way to ant-proof structures, in which are now fixed perhaps 170 colonies. These structures are constructed with substantial posts about 7ft. apart, having strong pieces of timber between the tops of posts lengthwise and crosswise. From the crosswise pieces hang four iron rods, holding at their lower end strong scantling, say 5in. x 3in., upon which two rows of hives are placed about 6 inches apart, facing opposite directions, and leaving a 3ft. passage way down the centre. They were not found sufficient to keep the ants off, so the upper ends of the iron rods are coated with vaseline every week. I think it is Mr Ingram's intention to trellis grape vines over the hives. Most of the bees are either Italian or Italian-black crosses, a very good honey-gathering strain. These hives being so close together are not in the best condition for having young queens mated. Mr. Ingram gets over the difficulty by having a few nuclei scattered about in different parts of the ground, some on suspended stands, and in one instance the nucleus stood on an island, a trench having been dug around it, and kept wet with water to keep the ants away. I could have no idea ants could be so bad as to cause so much labour and expense to cope with

them, but the very structures suggest that they were almost intolerable to cause so much labour; and now, by constant attention, Mr Ingram can feel at ease about there being no chance of the ants driving out his bees.

Mr. Ingram opened a number of the hives and the inside furniture was in just the same regular order as everything about the apiary, nothing being out of place. I regretted not having a camera with me to get a photo of the apiary.

Mr. Ingram has all his honey stored in 1lb. sections, from which he extracts, and says he finds them easier to handle than frames, and they are so easily uncapped. We next visited the honey house, which is very conveniently arranged for quick work and cleanliness. The room is of a large size. On one side stands a 2-frame Stanley extractor, the smoothest running Stanley extractor I have ever seen, kept in splendid order and very clean. It stands about 12 inches above the floor, just ready for work. Under the honey gate is a large wide mouthed funnel, leading the honey to the cellar below, where it is strained and tinned. The cappings are placed to drain on the coarse screen previously mentioned. The whole of the honey is placed on the Sydney market. It is gathered chiefly from white and yellow box, mountain gum and river gum. I carried off with me a sample of honey from yellow box, that had been extracted three years ago. It was very dense, sparkling of fine flavour and colour—in fact a finer sample of honey would be hard to get. The honey from the white and yellow box country is hard to beat. After partaking of Mrs Ingram's hospitality and admiring a few choice yellow bees kept in front of the residence, I bid good-bye to Mr. & Mrs Ingram, the latter of whom I may say is as much interested in the bees as her husband, and I have no doubt a considerable amount of the neatness in and around the apiary and honey room is due to her. I forgot to mention before that about 200 colonies are in the apiary.

BEWILDERED!

R, H. LONG.

In his beeyard we were walking,
All at once he started talking
Of some queen he had, and praised her
Till the tears stood in his eyes.
Such a depth of tender feeling,
In his pride of her revealing
That I thought he must have raised her.
And she'd taken some big prize.

He spoke about her colonies
And everspreading families,
And her temper, too, he told me
Was as peaceful as could be,
Though should foreign foes come flying
And her subjects brave defying
They could fight full well and boldly
For their home and liberty.

Then, just to show him that I knew
In beeman's lore a thing or two
And in the treasure that he had
True interest did not lack.
I said "is she a Syrian,
A German, or Italian
(And envy prompted me to add)
A Hybrid or a black?"

Then he looked at me so wildly,
That I thought (to put it mildly)
His wits, up Inisome story far,
Were not as they should be.
Then, suddenly it dawned on me
The blunder I had made, for he
Had meant our Queen Victoria—
And I had meant Queen Bee!

We would call attention to Mr. G. Colbourne, jun.'s advertisement elsewhere of a method of getting rid of the ant nuisance in an apiary. We do not know the particulars of his plan.

Revised Prices.

Eight-Frame Dovetailed Beehives.

Crates of

	5	10	20	
No. Set up				
1. 6s ea.	25s	47s 6d	93s 4d	pr crate
2. 8s ,,	33s 9d	65s	£6 5s	,,
3. 9s ,,	37s 6d	73s 4d	£7 5s	,,
4. 10/6	45s	85s	£8 5s	,,

Ten-Frame Dovetailed.

Crates of

	5	10	20	
No. Set up				
1. 7s ea.	30s	57s 6d	£5 10	pr crate
2. 9s ,,	37s 6d	72s 6d	£7	,,
3. 10s 6d	47s 6d	90s	£8 10s	,,
4. 12s ,,	52s 6d	100s	£9 10s	,,

Simplicity Bee Hives Ten-Frame.

Crates of

Set up	5	10	20	
1. 7s ea.	33s 9d	65s	£6	pr crate.
2. 9s 6d	42s 6d	82s 6d	£8	,,
3. 10s ,,	45s	87s 6d	£8 10s	,,
4. 12s ,,	55s	107s 6d	£10 10s	

Heddon Hives.

	5	10	20
4 storey			
12s 6d ea.	52s 6d,	100s.	£9 15s

Observatory Hives.

Single Frame, 5s each.

Hive Stands.

Heddon or 8-frame Dovetails, 1s.

— Hive Parts see new — == Price List. ==

Beekeepers' Outfits.

£2 10s; £2 19s; £3 5s; £3 10s; £4; and £4 4s each.

Bee Veils, 1s 6d, 2s, 3s, 5s each,
,, ,, (English) 2s 6d, 3s, 3s 6d ea.
,, Brushes, 6d and 9d each.
,, keepers Hats, (any size) 2s ea.
,, Escapes, (Porter's) 9d each.

Fancy Boxes for Sections, 2s 6d doz
Comb Fastners (Parkers Section) 1s 6d each.
,, Rollers (Daisy), 1s each.
Comb Fastners (Daisy with Lamp) 4s each.
,, Boss water jacket), 2s each.
Cartons Cardboard Boxes, 7s 6d gross

Comb Foundation.

1lb, 5lbs, 10lbs. 35lbs

Colonial Brood, 2s, 9s 6d, 17s 6d, 58/4
American ,, 2s 6d, 11s 3d, 21s 8d, 70s
,, Light ,, 2s 6d, 12s, 22s 6d, 75s.
,, Section ,, 3s, 14s, 26s 6d, 85s
Comb Foundation Mills, (10 in) £6.
,, ,, Plates (metal) £2 10s
,, Plaster Moulds, £1.
,, Buckets, 5s each.
Dipping Tanks, 12s 6d each.
,, Boards (imp.) 2s 3d each,
Drone Traps (Alley's) 1s 9d & 2s 3d.
Dextrine for labels, 1s lb.
Entrance Guards. 3d each.
Enamel Sheets, 6d each.
Frames, all wood, 7s 6d per 100.
,, Thick-top, 9s 6d ,,
,, Root Hoffman, 12s ,,
,, Shallow, A.W., 7s 6d ,,
,, ,, Hoffman, 8s 6d.,,
,, Metal Corner, 9s ,,
,, Wide for sections, 12s.,,
,, Nursery, 7s 6d each ,,
,, Blocks, 2s each. ,,
Feeders, 3d, 1s, 1s 9d and 2s 6d each.
Gauge Frames (simp) 2s 6d each.
Gloves, special rubber, 7s 6d pair.
,, English, 4s 6d pair.

Honey Extractors.

Novice "American" 40s.
,, —Col. deep tank—40s.
Cowan Rapid Reversible, 50s.
,, —deep tank—52s 6d.
,, "American" 57s 6d.
,, —4 frames—£5.
,, —6 ,, —£6
Stanley —2 ,, —75s
,, —4 ,, —90s.
Little Wonder—single frame—10s and 12s 6d.

Parts of Extractors.

Novice Baskets, with gear and gate 25s.
Cowan's ,, ,, ,, ,, ,,
36s.
17in Bevel side gear, 8s set.
20in ,, ,, ,, 10s ,,
Honey Gates—japd—1s 3d, 1s 6d, 2s
,, ,, —tinned & cut—3s 9d
4s 9d. and 6s. each
Honey or Queen excluding boards, 1
,, Cans—for counter—15s.
,, Tanks, 5cwt., 22s 6d.
,, ,, 7½ ,, 32s 6d.
,, ,, 10 ,, 42s 6d.
,, Jars, 1lb, N. top, & wads, 33s gr
,, ,, 1lb—tin ,, —27s 6d gros
,, ,, 2lbs N.T. & wads, 48s ,,
,, ,, 2½lb,—tin tops—48s ,,
,, ,, 1lb,—tie over—28s gross
Honey Tins, 1lb, 1s 3d doz, 12s gross
,, ,, 2lb, 1s 9d ,, 17s 6d ,,
,, ,, 4 ,, 2s 6d ,, 27s 6d ,,
,, ,, 7 ,, 3s ,, 32s 6d ,,
,, ,, 14 ,, 7s ,, 75s ,,
,, ,, 60lb—1½in bung—10s doz
,, ,, 60 ,,—2 in lever—10s ,,
,, ,, 60 ,,—1½in screw—11s 6d.,,
,, ,, 60 ,,—3 in ,, —12s 6d ,,
,, ,, 60 ,,—4 in ,, —13s doz
,, ,, 28 ,,—1½in bung—7s ,,
,, ,, 28 ,,—2 in lever—7s ,,
,, ,, 28 ,,—1½in screw—8s ,,
,, ,, 28 ,,—3 in ,, —9s 6d
Hammers —tack— 1s 6d each.
Hive Clamps —per pair— 3d.
Metal Rabbits, 9d doz.
Knives —Novice— 4s 6d each.
,, —Abbotts—5s ,,
,, —Bingham—6s ,,
Knife Heaters, 4s 6d ,,
Nails, —flat heads,— ⅝ in 7d lb.
,, ,, ,, ¾ ,, 7d ,,
,, ,, ,, 1 ,, 6d ,,
,, ,, ,, 1¼ ,, 5d ,,
,, ,, ,, 1½ ,, 5d ,,
,, ,, ,, 2 ,, 4d ,,
,, ,, ,, 2¼ ,, 3d ,,
,, ,, ,, 2½ ,, 3d ,,

Orders—£2 to £5, 2½ %; £5 to £10, 5 %; £10 to £20, 7½%; £20 and over, 10%.

Continued on Page 2.

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