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## **The Australian bee bulletin. Vol. 3, no. 36 March 24, 1895**

West Maitland, N.S.W.: E. Tipper, March 24, 1895

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A MONTHLY JOURNAL, DEVOTED TO BEE-KEEPING.

VOL. 3. No. 36.

MARCH 24, 1895.

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"Re your queens I must say that although I have had different strains from three of our most noted queen breeders, as well as daughters of imported queens, I have had none that were more prolific, or produced quieter bees and better honey-gatherers than those I raised from queen. One of the untested queens I got from you is also a long way above the average. From her colony his season in a moderate flow I have extracted 300lbs. of honey. Alfred Brown, Leaford Apiary, Parkville." Send for 50 page Catalogue which contains much useful information, and is sent post free.

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## The Australian Bee Bulletin

A JOURNAL DEVOTED TO BEEKEEPING.

MAITLAND, N.S.W. - MAR. 24, 1895.

THIS is one of the most important periods of the year to the man who wishes to be a successful beekeeper. What harvest has been is gathered. In many districts of Australia there will be perhaps sufficient flow to keep the bees all the winter. In others the bees will have to be made snug and comfortable, and better not be looked at for several months. Only in a very small portion of the Australian colonies will the wintering question be of such importance as in North America and the more northern countries of Europe, where bees have to be stowed away in cellars during the winter months. The problem of successful wintering there is solved by some in bottom ventilation and dry absorbents — material over the cluster that will retain heat and absorb all moisture; and plenty of food easily accessible to the cluster. Moist heat in winter is the bees' most deadly foe. Chaff cushions are greatly used. Here in Australia, as the cold weather approaches, the queen ceases laying, and the two or three story hive of bees gradually dwindles down to about six or seven frames. All the superfluous combs should be put aside, and the bees confined snugly by a follower or dividing board. There are those, however, who leave combs on the hives, relying on the bees to keep them free from moth. Some will place the cluster in the middle, and use two followers, one on each side, and filling the vacant spaces

on each side with straw or other heat-conserving material. The top of the cluster will be covered with either bagging, or carpeting. The extra frames that have been removed should be placed where the grubs cannot get at them, in an air-tight room or a large box. Or perhaps the supers piled one on top of another, with nothing between them, but space at bottom where a sulphur pan can be lighted, and the fumes ascend to destroy the moths or grubs. Ill-shapen combs or superfluous drone comb it would be well to melt down. For prevention of diseases it would be well following the example set by the French, and place some disinfectant, such as a small lump of camphor rolled in a piece of rag in each hive. Above all, see that they have honey to keep them. Those that have not give some from a hive that can spare it. Care and attention to these matters will be amply repaid on the return of spring, when with returning warmth the spring flowers appear, and your bees are once again strong to gather the nectar from what is in most places the best honey crop of the year.

This issue completes the third volume of the *A. Bee Bulletin*. To our many friends and supporters our heartfelt thanks are due, not only for monetary support, and liberal correspondence, but for the kind and cheering words that we may say daily reach us. Our sincere hope is that our united efforts will be the means of placing the honey industry on a firm and profitable basis, and that those who intelligently keep bees will have no need of asking the question "Will it pay?" or "Is there a market for my honey?" for to the satisfactory solution of these two questions all our joint efforts tend.

The energetic secretary of the N.S.W. National Beekeepers' Association, Mr. H. R. Whittell, complains bitterly of the little response made to his appeals for beekeepers to join the Association. Surely it is doing good work and should be supported.



**ERRATA.**—On page 245 last issue second column, second line, read 1884 instead of 1894.

Several complaints of careless foul brood apiaries adjoining those of careful beekeepers reached us this month. Foul Brood Act badly wanted in N.S.W.

We acknowledge the receipt of the catalogue of the A. I. Root Company for January, 1895. We need scarcely say it is very complete, and well worth perusal by every beekeeper.

We are pleased to have to record that the N. S. W. Minister for Agriculture, the Hon. S. Smith, has accepted the position of President of the Apicultural Conference to be held at Bathurst on July 3, 4, & 5.

We have it on good authority, that one N. S. W. beekeeper has received a cheque for £650 for his honey from England, and a standing order to supply 5 tons per month. Australian beekeepers, there's no room to despair.

We have quite a number of complaints for non-receipt of *A. B. B.* by our subscribers last month. We are unable to guess the cause, except that there are in some country post offices people who take care of more than they ought to. If so we advise them to be even yet a *little more* careful.

We have received from Mr. Bagot, of Broadwater, a large specimen of one of our native Australian fly bees. The body is a shining greeny black, the wings, four, blue. It has a very long tongue, and the hind legs are covered with long hair for carrying pollen. It is slightly larger than an ordinary drone bee.

We acknowledge receipt from Mr W. T. Seabrook, St. Ives, of slips cut out of the *London Standard*, containing some very valuable information re English beekeeping, and some items of especial interest to Australian beekeepers relating to the spread of foul brood by careless beekeepers, and the consequent cruel losses suffered by those who have spent their means, and perhaps are depending on their bees for support. We will insert some of them in our next.

Index to the third volume will be published with our next issue.

## SPECIAL SUBJECT. THE LONG IDEA HIVE.

H. PETERSEN.

I have been using the "Long Idea" hive for a good many years, and it suits me and my locality better than storified hives for extracting.

JNO. D. G. CADDEN.

At present I use only what is known as the 8-frame hive, but may try a few 10-frame next season; and see if any advantage since there has been so much discussion on the subject in America. I fancy different localities may suit different hives, and in a good district and good flow I might succeed best with a hive that could be extended inside, something like the hive W. T. Seabrooke and Co. name the Convention Combination hive, for from what I saw I fancy it can be worked easily.

BINNI

I tried six of these hives during the seasons 1887—88. Both those years were good for honey, three had the entrances parallel to the frames, others had theirs at right angles. The queens were allowed full play and not restricted by me. I noticed in early spring the queens did not breed up nearly so fast as in the smaller hives. I had more difficulty to get foundation built out in frames. I found the bees could never be prevailed upon to draw their combs down to the bottom bars. This obtained also with regard to sections, and I abandoned the hive in consequence. The good points about it were in cases where disease existed all the bees and combs came under the eye at one time. For extracted honey I found the bees put the surplus together more than I expected, but if the flow was only moderate I found the queens in possession of all the frames. I believe climate and locality must decide results with this hive. With my management, coupled with its immovable character, I could not succeed with it, but I know several large apiarists who believe in it firmly. Of this I am satisfied it is no good at all in a cold country.

E. T.

I have a hive that holds twenty full Langstroth frames. Having had it now twelve months will give my experience. It is suitable for a good prolific queen, not for a weak one, or a swarm that the bees are reduced in by frequent swarming. With a good queen, her bees not inclined to swarm, assisted by full sheets of foundation, the queen will retain her oval for brood laying, and when the honey flow comes



there will be as many frames of solid honey as if a queen-excluder was used with a top story, without the wear and tear to the bees of getting through the zinc. When I extracted from it in November the brood nest was in the back and the honey in the front. At present time the honey is all in the back and the brood nest in front. You can examine the hive and brood nest with less disturbance and killing of bees than a hive with supers. Simply take off the cover, remove say one frame, and then you can lift and examine the others in succession with very little disturbance. I have taken as much if not more honey from them than any other in my yard. As to its being a heavy hive to lift, it only wants lifting when an apiary is shifted, and then two lifting one hive once is no more than one lifting two smaller hives. To say it is not natural, or the heat is not conserved as in one story over another—well bees in trees accommodate themselves to the shape of their adopted home; a roomy hall is surely better than a getting upstairs place; and the fact, in my own case, as well as Mr Petersen's great yields, of their non-interference with the honey crops, proves they are quite in accordance with nature. To conclude, with inferior bees and in a poor locality a long idea hive is a waste of box space. But in a good locality, with good bees, there is at least a saving of labour by their use of one-fourth.

#### C. U. T. BURKE.

Regarding the Long Idea hive, I use the same, holding up to 28 frames, division and excluder boards. I fancy this is the hive of the future. I have two entrances, frames parallel to entrance, one entrance in front and one small entrance at the side, giving eight Root-Hoffman frames to brood chamber, the balance at the back behind the excluder. Every fortnight I open the hive, shift all frames with capped brood behind excluder and fill up brood chamber from empty frames with foundation taken from the back. As the young brood hatches from behind the bees fill up with honey. I leave both entrances open, and at the side entrance bees are bringing in honey always, no pollen, and bees carrying pollen going in the front entrance. I work this hive very successfully, having extracted 100 lbs of honey from one of these hives and that amount was gathered in one week, from Italian stock. The beauty of these hives is—1st That you can control swarming, 2nd If you do not require swarms you have an extra large colony of bees to work. 3rd Being a single story hive the moment the cover is off you have the whole hive before you and can manipulate in half the time than with a two story hive. 4th You can supersede your old queen by rearing a young one behind excluder board. 5th By putting division board in front of excluder at night and closing side entrance after bees have left honey chamber, you have the honey chamber free from

bees and ready to extract next morning, and 6th I can readily detect any disease in its first stages. I think I am trespassing on your space too much, but to fully explain the superiority of this hive to any other would take up fully three or four pages of your *Bulletin*.

#### A. J. FLOOD.

In January number of A.B.B. you invite discussion on the Long-Idea Hive, as you think there is something in it—them's my sentiments. I believe there is a good deal in it, as long as you allow that a 13-frame hive is a bit long or wide compared to an 8-frame Langstroth. I have, and am using side by side, 8, 10, and 13 frames Langstroth size, and I consider that an 8-frame hive is out of my line, and that a 13-frame hive is the one for me. For which I claim these advantages—larger swarms, less hives, as this hive, in a double storey, carries 26 frames, is usually large enough for an ordinary swarm, if not put another on, and you have 39, which will steady the largest. As each copy of *Gleanings* comes to hand there is discerned a growing dissatisfaction with the 8-frame hive as a brood chamber, and the latest is, put two stories together, 16 frames for a brood chamber. I don't like it, nor do many others, and in my idea a 13-frame hive is much better. In the first place we have a square hive, 20 inches. With another storey added it forms nearly a cube. My hives are 10 inches deep, using a top bar  $\frac{3}{4}$  thick, with ends full thickness, which I like much better than rabbiting the ends down to  $\frac{3}{8}$ , so that my frames are really  $\frac{1}{2}$  inch deeper than Langstroth size. And I maintain that a square is the warmest possible hive to make, and my experience (six years) teaches me that bees build much quicker sideways than going upstairs, so I made a cut between long hives, 4 feet long, one storey high, and 8-frame hives, piled 4 feet high, viz.—5 Langstroth hives, 8 frame, 9 $\frac{1}{2}$  in. each, 47 $\frac{1}{2}$  in., 40 frames, 3 of my square hives, 10 in. each, 30 in. Much safer in high winds, less hives, and the bees get a little of their side building tendency. As for wintering, I use a division board for every hive, 8 or 10 or 13, and they can be packed with chaff, or left full width, but a strong 13-frame hive will winter just as well as a strong 8-frame hive.

#### H. W. J. TAYLOR.

Although I have not had much experience with this hive, yet I consider it has its advantages and disadvantages. First I will mention two or three points in which I consider it has advantage over the two storey hive. 1.—We have better control over the brood nest, as we have no lifting off top decks when we want to see how things are getting on there in the brood nest. 2.—No trouble with burr combs, which, we must admit, are very annoying sometimes when we go to lift off the top deck. 3.—Better chance to spread our brood nest, as we have unlimited space, and may be other advantages. Now I will mention what I consider its disad-



vantages. In the first place I believe in leaving the top decks on through the winter, that is if the bees do not get too low or weak. I have experimented in this line by taking some top decks off and leaving others on, and I cannot see that the bees in the single deck hives come out in the spring one iota stronger than those in the two storey hives. By leaving the top deck on with the combs the bees will take care of them better than we can, and save us a deal of trouble. Whereas with the long idea hive we use a follower and have to take part of the combs away in the winter. Even if we did not use a follower and leave all the combs in the hive the bees have not the same chance to take care of them as when direct over the brood nest. Again they are more inconvenient to move from one part of the apiary to another, not so convenient for raising comb honey, more apt to warp being so long, and again some of our apiarists have not the unlimited space for their apiary, and the long idea will take more room. In my opinion the two story hive is superior to the long idea. But, at the same time I do not condemn the long hive and I say to those who have used it with success hold to it. I do not think the kind of hive we use will make very much difference to our honey crop. What we want is the right kind of bees in the right place and right management.

G. W. GORDON, Jambero.

I think the long idea hive is a very thick idea for 10 x 12 of New South Wales, and in my opinion is totally adverse to the nature of bees. In all my experience of bush bees I have never known a swarm to go into a hollow log of its own accord, which is on the same principle as a long idea, and when building under the ledge of a rock, the combe never to my knowledge exceeded a circumference of two feet, and plainly showed that the bees like to be compact. Every beekeeper must acknowledge that heat is one of the main factors of its life, and this can only be attained in a compact upward hive. In districts where the honey flow is exceptionally large and long, a long or large hive may be of some advantage, but three stories on a Gallup hive will fulfil all requirements of the biggest honey flow on the South Coast. While on the subject of ideas I warn beginners not to accept the brilliant idea of a well known beekeeper, to winter bees in the top story, so that the bees will keep the bottom chamber free from moths, advocated in your January issue.

The subject was, should the queen be confined to the lower or brood chamber. I say decidedly yes, for the South Coast district. The honey flow here is from three to four months, but there is nectar coming in enough for seven or eight months to stimulate brood rearing and if the queen is not confined you will have large quantities of bees when they are of no value, and

it is a beekeeper's own lookout if he don't provide plenty of room for the queen to lay, so that he has the full working force just at the right time, which is the main point in beekeeping. Another objection is if beekeepers act on the tiering-up process, and use the Porter's bee escape for ridding supers of bees, the fact of the queen having full use of the hive would cause endless confusion and waste of time. You can not rid a super of bees with a bee escape if the queen is in the super, so that you would have to hunt the hive every time to find the queen, if not I venture to say you would lose seven out of every twelve of your queens by the complaint of turning up missing. Re the question—does comb deteriorate with age? Does not everything (except spirits). But so far as I can judge four to five years is the ordinary life of a brood comb, and it is a mere question for the individual beekeeper whether a comb is serviceable or not. I don't think the hatching of brood deteriorates a comb, it is in the manner the beekeeper uses it.

## QUESTION.

A. AYLING.

33.—I have observed during the last three years that there were box trees in bloom every year, but have only closely observed one tree which is growing in my yard over my hives. In September 1892 this tree was heavily in bloom, but though it has twice since shown small buds they have come to nothing, but this year it is forward again and will I think again bloom heavily in a short time. I think that nearly all the year round a few box trees will be found to be in bloom.

F. W. SMITH.

33. My experience amongst the common bush bees inclines me to think that they do not send out bees to find a suitable home, but that they find a home when they are swarming. If they do find a home before they swarm I wonder do they send a single bee or many? If they send several each bee will most probably choose his own favourite tree, and each will want to lead the swarm to its tree. Perhaps they form a committee of 6 or 12 experienced and learned veterans of the colony to investigate and find a home for them. Do you think it likely, Mr Editor?

34. I do not think the box tree remains any particular length of time without blossoming. I have seen box trees go as long as seven years without yielding a single blossom, and then for two or three consecutive years bloom heavily. I believe much depends upon the season.

35. Do brood combs deteriorate with age and how long do they serviceably last.

BINNI.

35.—Theoretically they ought to, but I have failed to notice anything worse than a thickening of the septum, which ultimately would no doubt detract from their usefulness. We are not however Methuselahs,



JNO. D. G. CADDEN.

35.—I find queens prefer new combs to old ones, for, if both present, my queens will lay in the new ones first; but for extracting give me good old tough combs. I think most agree, if good and sound, from five to ten years age not too old. I think I would be satisfied if a comb had done duty for five years.

L. T. CHAMBERS, MELBOURNE.

35.—I have a few old pattern metal corner brood frames in use which I have been using for ten or twelve years and they appear as good as new and are used by the queens. So far as I can determine there is certainly no deterioration. It has been difficult to test the matter thoroughly through the prevalence of foul brood in years past, and for want of distinguishing marks, but these old metal corner frames I can be quite sure about.

T. K.

I have some brood comb at present that I have had in use for over 5 years and they are as good now as they were in the first year, the bees from the same being as large as those from new comb. I think that combs will last fully 6 or 7 years if the hive is well looked after and kept clean. I have all my hives washed and repainted for the spring every year, which as well as being a check to pests, &c., gives a neat appearance to the apiary.

J. McFARLANE, Victoria.

35.—There is no doubt that brood combs will deteriorate after being used a certain time, but how long they will serviceably last I cannot say. I have combs that have been in constant use in brood chamber for eight seasons and they seem all right yet.

G. COLBOURNE.

33.—It is my firm belief that a swarm of bees always sends out a number of bees to search for a suitable hollow in a tree in which to make their future home. I once had clear proof that bees do send out scouts. It was, I think, in the summer of 1888. One day my father came home and told me he had found a bees nest in a tree. The tree was about four or five hundred yards from my apiary. I went at once and saw the bees going in and out of the hollow. In their motions they were like young bees taking their play spells or a new swarm marking their location. The next morning I discovered a large swarm hanging in an elder tree that was growing just outside of my apiary. It must have been hanging there since the day before, as it was too early for a prime swarm to have come out the day that I found it. Well, as soon as I shook the swarm into a box (one that I used for carrying swarms to the hives in) the bees all rose in the air and slowly flew away. I followed them, and judge of my surprise when I saw them go into the hollow where I supposed there was already a bees nest. I procured an

axe and felled the tree. The hollow was nicely cleaned out, but there was not a sign of comb, only the swarm of bees. I take the above as a clear proof that bees do send out scouts. It is my firm belief that a swarm never enters a tree before first sending scouts to find and clean it.

34.—The yellow box usually blossoms every year. The white box about every second year.

WILLIAM GEE.

35. With reference to the above question, my opinion is that they do; when we know that there are at least four young bees hatched from the one cell in three months, allowing at the same time that the queen bee does not lay for ten weeks during the winter. After the young bees come from the cells there is a coating left on the cells, which, if allowed to go on from year to year, must naturally cause the cells to become much smaller, which in my opinion, cramps the young bees, and is the cause of foul brood and paralysis, which we hear so much spoken about among beekeepers. If every beekeeper was to do his duty (by destroying the broodcomb after it had been in use for three years), there would be no occasion to cry out for a Foul Brood Act, as I consider we are taxed enough at the present time. While falling bees-nests in the bush some thirty years ago, I came across some old nests and the brood comb was quite rotten, the cause of which I have since found out was foul brood. The following is a brief account of how I manage my bees.—I have been keeping bees for 35 years, 28 years in the old common boxes, and 7 years in the frame hives; in all that time I have not had any disease among my bees, and at the present time they are strong and healthy. After using store-combs for twelve months I then use them for the brood nests, if I have run out of store-comb I give them full sheets of foundation combs. In winter, when the queen bee leaves off laying, I remove all the old frames from the hive, and put them into a copper of boiling water, and leave them in until the combs are melted sufficiently to remove from the frame. I clean my hives out every spring. After removing the frames out, I plunge the hives into a copper of boiling water for five minutes, then take them out and scrape them clean, and leave them exposed to the open air for seven days, they are then fit for use again. The above process will kill any disease which is apt to originate.

A. A. ROBERTS

35.—I do think they would deteriorate with age but it would have to be many years constant use when they become very black and too heavy. I would say they would reasonably last 15 years and up to that the cells would be deep enough for the proper development of the young bee, after that I would use new ones, on account of the weight. I once saw a comb supposed to be 25 years old, about two thirds the size of I



comb, which weighed 1lb 2oz, but the cells looked very shallow and I think the weight if nothing else should condemn it.

We sent the following questions to Mr Petersen, who, as far as we at present know, has secured the largest return per hive in the world, and he has kindly obliged us with the accompanying answers:—

Q. The size of frame you use and number of frames in hive?—Ans. 18-19 Langstroth Simplicity frames, and a division board.

Q. Do you give your queen full run of the hive, or restrain them to a certain portion?—Ans. The queen has the run of the hive.

Q.—Do you extract uncapped comb, or allow it to fully ripen in the hive?—Ans. The comb is half capped on an average when extracting.

## SPECIAL SUBJECT NEXT MONTH.

## ORGANISATION,

ALSO

## Suggestions re the Forthcoming Bathurst Convention.

We want a great many says on Organisation. It is a matter every beekeeper in each colony should feel interested in.

Re the Bathurst Convention in N.S.W. all beekeepers in that colony should strive to make it a practical success, and we feel assured that every beekeeper in the other colonies has his best wishes for the same.

There is plenty of proof bees will fly five miles, but if they are to store surplus honey the food must not be more than one or two miles away.

Mr F. L. Craycraft, speaking of bee-keeping in Cuba, and the way they work their hives, says:—Taking into consideration the length of the honey season, and having all the rest of the year to requeen, I think a man can manage seven or eight hundred colonies by having an assistant during extracting time.

## CAPPINGS.

*From Gleanings, American Bee Journal, Review Apiculturist and Canadian Bee Journal.*

In order to prevent foul brood, many French and Swiss apiculturists place naphthaline under and about the frames.

TROUSERS CLASPS, such as bicycle riders wear just above the ankles, are a good thing to prevent the bees crawling up inside the trousers. But how about the ladies?

A new disinfectant called lysol, is said to work like a charm in Germany, for the cure of foul brood. A few drops in the bee's food, and all traces of the disease disappears for good in three weeks.

Drone comb is more apt to be built in large hives than in small ones. A writer always noticed when swarms are hived on five or six empty frames there is less drone comb than when given eight or nine frames, or the full number for a hive.

Mr W. H. Morse, says:—I expect almost all bee-keepers have noticed that the honey is more copious when thunder-showers are in the atmosphere, or when the peculiar state of the atmosphere is such as to produce an abundance of ozone, as this gas is a great stimulant to vegetation, more especially to the flower, or, rather, seed organs—in fact, to such an extent that plants that refuse to be operated on by artificial hybridization will, when this gas is present in a large quantity, cross with varieties which would be almost impossible otherwise to obtain. So we see that anything that will affect the stamen and pistil must of necessity produce the like effect on the nectary, hence a large flow of nectar; and if the bees are equal to the emergency, every cell that is capable of being filled is loaded in short order, and the results are preparing for swarming. Also.—I once experimented with pollen to see how long it would retain its power of fecundity, and found it perfect if stored in thin layers with tissue paper between them, and kept perfectly dry for eleven months.



Mr A. Ayre, Western Australia recommends to keep down grass around hives:—Prepare a place on the ground for the hives, and if it is where the hens will not scratch, remove the grass and cover so thickly with sawdust where the hives are to be set, and for several inches around on all sides, that neither grass nor weeds will grow through it.

For preventing Foul Brood:—A German apiarist advises the use of carbolic acid mixed with some wood tar (perhaps he means creosote), and spread the same on a piece of felt, put the felt under the combs, covering it with something that would prevent the bees from sticking to it, and yet not prevent its evaporation.

Professor Cook, Director of Farmers Institutes for Southern California, recommends blue gum and red gum for roadside planting. He says, next to the beautiful pepper trees, they are the most conspicuous and vigorous shade trees of that region. They become large trees in a very brief period (four to five years) and go down to water, so that they are independent of irrigation. He had recently visited a farm where eighty had been planted. This ought to be a good idea for Australian beekeepers to work on.

## HONOLULU.

W. HORSFALL.

I have been spending a few days in Honolulu. While there I called upon a beekeeper with whom I had a most interesting conversation. He informed me that the great source of his honey was the flower of the "Algaroba," a tree which has been largely introduced here on account of the excellent cattle food which the pods afford. Its botanical name is, I believe, *Prosopis Glandulosa*, and its native land is Texas. It belongs to the sub-order "Mimosæ." It has light, feathery foliage, and the flowers are about 1½ inches in length, possessing a delicate perfume. The honey which this tree yields has a delightful flavour, and will quite compete with clover honey. This tree, I should imagine,

would grow well in the sub-tropical portion of the Australian colonies. It delights in a sandy soil, and is of rapid growth.

After many years of waiting, Mr. R. the above named gentleman, is now making a nice thing out of his bees. He exports all his honey and wax to England in 60lb tins, as there is no market for these things in the Islands.

My own bees are rapidly increasing. March is the beginning of the swarming season. I have increased my stocks from 2 to 5; and intend to work solely for comb honey in 11b sections. The section is quite a novelty here, and people evidently prefer it to the extracted honey, on account of its white and clean appearance.

Last year I introduced an Italian queen to one of my stocks, but her progeny is given to robbing. So perverse are the Italians in their depredations on other and even strong stocks, that I greatly question the advisableness of "Italianizing." However to introduce a queen from time to time would be judicious, if only to get fresh blood and energy into one's apiary. Mr. R. says that he prefers a hybrid between the black and the Italian. So do most beekeepers, judging from the reports in the journals.

Many years ago I took a great interest in the genus "bombus." That interest has not died out. The humble bee has been introduced into N. Z. within recent years, and I learn that it is rapidly propagating itself in that colony. What was the variety introduced? Looking back to my boyhood in England I can remember about four distinct varieties, but doubtless there are many more than that.

Beekeepers, as a rule, like to introduce into their gardens any new plant which they know to be a favourite with the bees, and I daresay there are to be found men who have got excellent botanical collections of bee plants. Of course we know that for any appreciable result to be obtained from a certain



plant it must be cultivated fairly extensively. Still it is interesting to have in a small garden growing plants whose flowers are recognized honey producers. One plant which should be cultivated where possible is the Antigonon Liptopus, otherwise the Mexican Rose creeper. It can be grown from seed, but more easily from a tuber, and providing it is in the right kind of soil will give fine results, with its lovely light green foliage, and its pretty pink flowers. All day long it will be frequented by bees, with whom it is a prime favourite.

Lahaina, Feb. 11th, 1895.

### DISEASED BEES.

Mr. A. Clark, Bulga, writes:—I have a kind of disease in my bees that I cannot understand, and none of my neighbours know anything about it. They advise me to send a few of the bees to you. The advise I have taken, and send by packet post a small cage containing about a dozen diseased bees. There are not a great many of the diseased ones in a hive, but I think from careful observations that the malady is spreading. I trust you will be able to give me some information on the question and perhaps a cure. We forwarded specimens to R. Helms, Esq., from whom we received the following:—

Sydney, 1st March, 1895.

E. Tipper, Esq.

Dear Sir,—It is impossible for any one to say what was the matter with the bees you sent. They arrived quite dead, there was no food in the cage. The only remarkable thing I noticed are some dry excrete, which is rather unusual occurrence, and in this case may have been the result of long confinement. In my report on the experiments made at Campbelltown, I have diagnosed both bee paralysis and the dipilating disease, and if your bees are affected with either you ought to recognise it from these. Only in one case I was puzzled regarding a disease but think it was the dipilating disease. It was at Moss Vale and occurred in Autumn and as in that climate the bees duly hybernate I intended to examine it further in spring. However, the disease disappeared without extending, when the brood freely matured.

Yours faithfully,  
R. HELMS.

### The Growth of Heddonism,

G. R. HUMBLE.

No one taking an interest in hive construction suitable to the climate of New South Wales, and to the conditions of beekeeping as generally practised, can fail to observe the tendency of beekeepers to favourably regard the adoption of what is now generally known as "*the shallow frame*."

Unfortunately the majority of beekeepers, having strong vested interests in old established types of frames and hives, are naturally slow to entertain innovations that must necessarily entail fresh outlay of capital, and however dissatisfied at heart with what has been adopted, refuse to admit of such a thing and courageously swear "*by what they have got*." Still that all important and vexatious question "*If you were to commence afresh what hive would you adopt?*" will generally find the wise and unprejudiced mute and undecided. Better so than to give yourself away by retorting, "*The xxx hive is the best. I have used no other*."

But when two or more work independently of each other, yet arrive at similar deductions, there is naturally a great deal of satisfaction to be felt, and confidence to be expressed in the result, and as something akin to this has been my experience for the last two or three years, it may interest some of your readers to hear how I became first a convert to the shallow frame, and ultimately a Heddonite, without any previous knowledge of any movement in the direction of the former, or of any clear idea of the principles of the latter.

Without wearying you of the details of the disheartening obstacles a beginner has to face, let it suffice to say that after dabbling with bees, ordinary boxes not necessarily gin cases, I made a commencement with the old Langstroth frame in simplicity hives, with which I "*doddered*" along in a helpless sort of fashion for about twelve months. until I came to the conclusion that if bees were to refill their hives as fast as I could empty them, I could not make bee-



keeping pay. By beekeeping I mean honey production, and by honey production I mean honey stored in such a form that it can be extracted and placed upon the market at a cost that will allow of a profitable return for the labour and capital involved. The beekeeper does not produce honey. If honey is all that he wants I will make him a present of tons of it, but he will have to take an axe and get it. I will even lend him the axe, only stipulating that he shall not ask me for a temporary loan to enable him to return "*with his experience*" to the bosom of his family.

The advent about this time of the Root Hoffman self spacing alleged burr-comb proof frame gave me fresh hopes, and I determined to persevere. I abandoned the Simplicity frames and hives, and went for the eight frame Dovetailers for all I was worth. The change was a decided step in advance. I found the hive workable and doubtless queen raisers, &c., are well content with it. But, I soon discovered if one's object was payable honey, I was not on the line of reef at all.

Having by this time some 40 or 50 hives, a further venture may become a matter for serious consideration. Eventually I found myself bound to effect a sort of compromise. I turned all Root-Hoffmann frames into the brood chambers, and thus found myself at liberty to indulge in another plunge as regards supers, my idea being and which I still hold, that as it does not pay to extract from brood frames, non-interchangeability was not of supreme importance, and therefore I had a fresh field to work out my own ideas, guided solely by my own needs and necessities, based upon what experience I had gained.

Now what direction did this new departure take? I commenced by using a shallower frame, object, induce stronger and straighter combs and to facilitate the hitherto tedious business of uncapping. Progressing in this direction, I speedily found myself with half frames in half stories with more satisfactory results than I had ever experienced since I commenced beekeeping. Here I successfully

attempted the tiering up principle and things began to hum abit. The necessity for perfect combs attached to the frames at every point now paved the way for inversion. I had in use some half storey supers with tin supports for  $4\frac{1}{2}$  sections in section holders. To make these interchangeable, with shallow frame supers, by adopting a closed end shallow invertible frame was the next logical necessity, and the practical outcome of my own personal endeavour to work along the line of the greatest return with the least exertion.

My astonishment can be better imagined than described when in a recent correspondence with Mr W. S. Pender, of Maitland, the frames I had in use were referred to by him as the "Heddon Frames." It was the first intimation that I had such a fame, but being wiser now I find the only difference was a slight one of dimensions, the frame I had in use being  $4\frac{1}{2} \times 18\frac{1}{2}$  with end pieces  $19-16 \times \frac{1}{4}$ , top and bottom bars  $1 \text{ inch} \times 5-16$ . Seven of these frames will be found to work in comfortably in the half storey dovetail hives or tin, supports in lieu of section holders follower and wedge being used as usual,  $\frac{1}{2}$  set offs being tacked to side of  $\frac{1}{2}$  storey and face of follower.

To those using the eight frame dovetail hives running from comb or extracted honey I recommend half storeys of these shallow frames for supers. Turn all your Root Hoffman frames into use for brood purposes, that is lay down more hives with your present full depth top storeys. Adopt  $\frac{1}{2}$  story supers with shallow, closed end, invertible standing frames, alongside section holders for comb honey. If you like in same super tier up and make things hum abit comb honey above, shallow frames for extracting below, or both or either according to the strength of your colony Uncap four shallow frames to one full-depth, no broken comb, because perfect through inversion. No fastening of foundation in empty frames required (2 horizontal wires embedded, will hold foundation securely in position.) Winter under  $\frac{1}{2}$  storeys and gather a winter



crop. Examine a whole crate of shallow frames, viz., 7 to one full depth frame. Handle crates not frames, and above all don't fuss with brood frames below stairs. And then, yes, and then, when you have found out all the advantages of the shallow, closed end, standing, invertible frame in the supers, you will want the same advantages in the brood chamber, and a lot more besides, and like me you will ultimately become a Heddonite, at heart, if not in practice, from pure and simple evolution.

## SIZE & SHAPE OF HIVES AND FRAMES.

*Paper read by W. S. Pender at H. R. B. K. A.*

II

It will be seen from the foregoing that as the hives and frames vary in construction and size, so must the manipulation. I have already pointed out some of the difficulties with deep frames for supers, and will now proceed to point out a few more. How seldom will we get a honey flow that will fill a set of full-depth supers as a full 8-frame simplicity super, which will hold about 56lbs. of honey? How often will the upper half of the combs be sealed, and the lower half unsealed through the cessation of the honey flow? Now how much better if this full super were given in halves, one at a time, and when bees were well at work in the first a second placed under it. When we come to extract we find the upper one sealed throughout, and if the bees are well at work in the lower one, and the honey flow continuing, the first can be extracted and inserted under the one left on the hive, or a third super added under the two previous ones. This gives a small amount of increase at a time, and does not discourage the bees so much as the full-depth super. The Dadants in America advise the use of shallow supers, and with their system of management leave all on the hive until the end of the season. This may be one reason why they have not much swarming. The shallow supers are almost as easily handled as single frames, and the whole super removed from the hive in much less than half the time required in full depth supers. To do this, proceed thus, Remove the cover, using a little smoke, then spread a sheet of calico over the top of the frames which has been dipped in the following mixture, and wrung out as dry as possible: 1 oz. carbolic acid, 1 oz. glycerine, well shaken together and then added to one quart of water. The cover replaced and another hive treated and so on. With five cloths the bees can be cleared as fast as the beekeepers

can remove the supers, for in 10 minutes time after the cloths are placed on the hive, hardly a bee will be in the super, which can be removed without danger from stinging. If black or crossbred or restless bees are used the carbolic quilts need not be used. A good puff of smoke clears most of the bees, when a good vibratory shake of the super or a jar on the ground will remove most of the rest.

With the full depth super, the frames have to be removed singly, shaken, or the bees brushed off and the combs placed in a box, to be carried to the extractor, whereas not a frame is removed from the shallow supers until they reach the extractor. Here, again, is a saving of time, a super of eight half-depth combs will be uncapped in about half the time four of the full-depth combs could be.

Now we have considered the advisability of half depth or divisible supers, I will say a few words on the divisible brood chambers as compared with the full depth brood chambers.

As an instance I will take what has a bee-keeper to do when his colonies of bees have reached the full number he can manage? They will continue increasing and swarming, and to do this they must consume honey and if he can prevent it he is saving honey. It is not bees we keep bees for, but honey. When we have all the bees we require what will we do with future swarms? It is certainly loss to let the swarms fly away. Well there is one way in which those surplus bees can be converted into honey. Prepare a hive having comb foundation starters in the lower chamber, put on a queen excluder and as many supers of empty combs as the bees will cover. Our object is to have the brood chamber so crowded with bees that for room they have to go into the supers, so a small brood chamber will be best, use a half-depth body of shallow combs. Some may say why not put 5 full depth frames and fill the remaining space with dummies. This can be done, but it must be remembered that bees naturally store honey over their brood and if the experiment is tried it will be found that very little honey will find its way over the dummies. A shallow brood chamber is the full size of the hive and the want of depth causes the bees to spread the brood all over the body so everything goes on well above.

We have hived the bees in a shallow brood chamber with starters only, this is far too small for the bees, they have to pass through the excluder and go into the supers. Here they will commence work and as honey is being gathered and there are no cells ready to receive it below it has to be stored above. As fast as the combs are built below the queen lays in them, so all honey is stored where we want it. I may here say that combs will not be so rapidly built in the shallow brood chamber for the smallness of the apartment limits the number of bees that



will secrete the wax for the combs. This sends a further force of working bees into the fields for honey.

*To be continued.*

## SPECIAL WORK—MARCH NEW ZEALAND.

The past month has been favoured throughout with genial showers, which has had the effect of keeping up the honey flow, and bees generally have been gathering quite a quantity of honey all through the month. In the neighborhood of Auckland there is a large quantity of pennyroyal growing both on the roadsides and in the paddocks; in fact some of the latter are simply overrun with it. This yields a large quantity of honey, rather strong in flavour, but to my mind not at all disagreeable. This will be in flower for another month or six weeks, so that in many places there is no reason why the bees should not be able to gather surplus honey up to the end of March.

### ROBBING.

As before recommended, this should be particularly guarded against, and during the manipulations of hives at this time of year the operation should be got through as quickly as possible, or as a sure preventive the work should be conducted under the protection of a bee tent. Care should also be taken not to leave any scraps of honey or comb lying about, as this will often lead to robbing and fighting, and the disorganization of the whole apiary.

### OVERHAULING COLONIES.

During the present month the bee-keeper should go through the apiary, and carefully examine every hive, in order to see that they are in a good condition for wintering. Many circumstances have occurred during the honey season, such as overswarming, loss of queens, &c., that many colonies may be found much stronger than others. Consequently it will be well to equalize matters as far as possible, by strengthening the weaker ones, by adding combs of honey and brood from the strongest, and

in the case of colonies found to be queenless, it will be found preferable to unite them to other colonies, should there be no fertile queen on hand, rather than allow them to raise queens so late in the season, which often turn out to be drone breeders, and therefore useless.

### WORKING OUT FOUNDATION.

Sheets of worked-out comb foundation, if carefully preserved through the winter, will prove invaluable next season, saving the bees much labour, and giving them quite a start. Should sufficient honey be gathered during the present month to enable the bees to work out frames of foundation, advantage should be taken of the fact, and the bees supplied with foundation as fast as they can work it out. The prosperity of the colony in spring depends almost entirely upon its condition in late autumn, and nothing will conduce to this so much as the presence of a large number of bees reared the previous season. To secure this there should be in the first place a young prolific queen at the head of every colony, and in the next place a good supply of stores. Under these conditions breeding will be kept up right into winter, consequently there will be a large force of young and vigorous worker bees just when they are most needed in the early part of the coming season. It should be borne in mind that the aged bees die off very rapidly in the early spring, when, should there be a lack of young bees, the colony will rapidly decrease in population, and probably succumb to what is known as "spring dwindling," or if not will prove of very little use.

### PAINTING HIVES.

Hives should have a good coat of paint at least every other year; not only will the hives look brighter and cleaner after the operation, but they will last for many years longer than they otherwise would. The present month will be about the best for this operation, for when it is done in the spring the paint is liable to be affected by the hot rays of the sun during the ensuing summer, and the first heavy shower of rain frequently



washes most of it off. The best way will be to shift the bees temporarily into another hive, and remove the one indoors to be painted; you will thus save annoying and being annoyed by the bees during the operation.

#### LEAKY COVERS.

These are an abomination, and if not attended to in time may lead to the destruction of the colony; nothing is more detrimental to the health of the bees than a constant dampness within the hive, which is found to result from leaky covers. If the crack in the cover is not very wide it may be stopped with white lead; some apiarists recommend tacking a piece of calico over the whole of the cover and then giving the top a couple of coats of paint. A writer in one of the American bee journals some time ago recommended the following plan for stopping leaky covers:—

“Cut a piece of thick brown paper the size of the hive cover, and paint it over on one side with hot pitch; now lay it on the hive cover, and run a hot flat iron over it. This will cause it to adhere to the cover. Now give it a coat of paint and the job is done.”

The above is said to be a perfect cure for leaky covers, and will last for a considerable time.

#### DISINFECTING HIVES, &c.

All hives and appliances should be thoroughly disinfected before being stowed away for winter. Nothing will tend to the prevention of foul brood or the spread of that disease more than the constant use of disinfectants in the apiary. The following solutions will be found very effective, either for painting over hives or spraying combs:—Salicylic acid, 1oz.; soda borax, 1oz.; water, 4 pints;—or one part of absolute phenol to 200 of water may be used for the same purpose. It is also a good plan to place within each hive of bees a small piece of camphor tied up in a piece of rag, to prevent too rapid evaporation. I practised this when at Mata Mata, and to it attribute my success in keeping foul brood entirely clear of that large apiary.

#### MISCELLANEOUS.

The Auckland market is so glutted with fruit at the present time that there is but a small demand for honey. I advise beekeepers instead of rushing their honey into the auction mart and so glut the market, rather to pack it carefully away and hold it over for a time. Of course tinned honey will keep any length of time, but section honey that is at all likely to granulate should be sold at once. Rape and mustard seed should now be sown, and it will afford good forage for the bees in early spring, and prove a valuable stimulant for early breeding. Surplus boxes not required should be removed, also spare combs, and the latter carefully put away beyond the reach of the wax moth.

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Mr. J. F. O'Connell, Moruya, writes: I am very well pleased with the labels, as they help to sell the honey a good lot. Honey is coming in now in great style, I wish I had about five times as many bees.

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#### VISITING.

E.T.

We lately made quite a round of visiting. Our first halting place was at Gosford. The local Agricultural Show was on. It was not well patronised; the honey display was perhaps among the best there. The Messrs. Macansh, with their able manager, Mr Schroeder, came out with a very fine display, and secured the lion's share of the prizes. The Messrs. Pender were also in evidence with comb honey, extractors, &c. Mr H. Cadell added a quota to the same department, though his chief contribution was poultry, of which he had some beauties in another part of show grounds. Mr Kohlhoff had a very ingenious three-frame observation hive, which was the source of great attraction. Our picture-frames, with photos, &c., of apiaries, were well scanned. In the afternoon we had a look at Mr Peck's apiary of some



25 hives. Mr Peek being from home, his son some twelve years old, who is an enthusiastic beekeeper, was most entertaining in telling us all about them.

On the following afternoon we found ourselves at the residence of Mr J. Trahair, at Enmore. Mr Trahair has been very fortunate in securing two live queens out of three from Mr A. I. Root. The third one could not have travelled far as the candy had scarcely been touched. He had wished for one of the live ones to supersede a black queen in his yard, but her majesty was invisible, or wickedly hid herself for the purpose of saving her own life. So he removed herself and hive to a fresh stand. Then took two frames of brood and placed in a new hive on the old stand, and placed imported queen in same. All the flying bees from the old hive came to the new hive, and the new queen was liberated in a day or so, and when we saw her was doing well. But the black queen was in the other hive and had not been seen, so another search. She's found at last, and amid protestations from lady onlookers, she was—Oh yes, quite true,—ruthlessly squeezed to death. Of course an inquest was held, and little Master Trahair, in his own chair, was chosen foreman of the jury, and a verdict of justifiable homicide duly returned. The jury then retired to tea and scones.

Following day found us at Richmond on the Hawkesbury River. A pretty secluded township, boasting of some four hotels and the N. S. W. Agricultural College with connective orchard, dairy, poultry, and bee farms. The last mentioned is some two miles from the town, and it and the poultry are under the supervision of Mr Elliott J. Rien. Some 70 hives, in full size Langstroth frames, are in excellent condition, and Mr Rien is a careful student of the habits and peculiarities of the busy little creatures. There is a skirting of tall trees to the south of the apiary, but all else around is cleared paddocks, so all queens' wings have to be clipped, as their first start when swarming is to the

branches of these tall trees. There has been no honey flow here for two years, so beyond having extractor and uncapping tin the honey house has not yet been brought into practical use.

Mr Rien batches in a house that was intended to be sent to the Chicago Exhibition, as a sample of an Australian settler's house. We believe, however, a more commodious building is to be erected for him, when, it was whispered to us, he will cease batching; Hooray. We had a pleasant interview with Mr Thompson, superintendent of the college. We found him busy in his office, which was chock full of literature, specimens, &c. &c, and the wall covered with various maps and drawings, colored, not the least interesting to us being enlargements of Cheshire's bee anatomy.

Mr Thompson told us he had at one time kept a great many hives of bees in Adelaide, but did not care for them in the open, preferring them in sheds. He is the college lecturer, and as such has to give lectures on bee culture to the students.

Before leaving Richmond we called at Mr F. G. Daley's. He was away from home but Mrs Daley kindly took us to the apiary. She told us they had been unfortunate with their bees. Three years ago they had foul brood and the last two years there has been no honey flow. Since we have come home we have received a communication from Mr. Rien, that a honey flow has at last set in, but there is one hive still queenless.

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## VICTORIAN BEEKEEPERS ASSOCIATION.

*From the Australian Farm and Home.*

A meeting of the local committee of the Beekeepers' Association was held on the 13th inst., Mr Ellery presided.

The Secretary read copy of circular letter which had been sent to the country members of the committee, together with the comments made by members upon it. In accordance with the views expressed, it was resolved to forward the recom-



mendations to the Secretary of Agriculture, asking that the conditions upon which honey might be shipped under bonus may shortly be published.

As many complaints have been received of the apiary depredations of the bee-martin, it was resolved that the Government be requested to remove the name of that bird from the list of protected native birds.

The Secretary was instructed to make the necessary arrangements for calling a conference in June next, date to be fixed by himself.

## CARRIAGE OF HONEY, ETC.

HOW THE VICTORIAN RAILWAY DEPARTMENT HAMPERS THE BEEKEEPING INDUSTRY

*By Thos. Bolton, Grampian Apiary, Dunkeld.*

In the *Australian Farm and Home* I wish to bring under public notice the concession made on the Victorian railways to jam factories and rabbit factories, but which, notwithstanding several attempts, I, single handed, have so far been unable to convince Railway Commissioners would be fair and helpful if also allowed to beekeepers. I refer to the rebate allowed on the carriage of tin, packing cases, etc., used by the two industries mentioned. (See Railway Tariff-Book, under headings "Fruit," "Rabbits") To illustrate the point, I will show in figures what the concession would mean if a jam factory and honey producer were in operation say in this town, 200 miles from Melbourne. Take tin-plate for a case in point. The jam factory and honey packer will both pay 2nd class rate of 75s. 5d. per ton to get tin-plate from Melbourne, but on re-shipping the jam factory is allowed a rebate to B class, or 30s 6d. per ton, equal to a reduction of 44s. 11d. per ton. This cheaper cost of tin-plate to the jam factory is just so much handicap on the honey producer, whose wares have to compete with, or rather are affected in their value by, the cheapness or otherwise of jams and fruits. But this is not the only hardship. Jam is carried from

Dunkeld to Melbourne at 30s. 6d. per ton, while honey is charged 47s. 3d. per ton. Surely this is unfair, fostering one branch of rural industry to the detriment of another. These double rates also give middlemen and dealers in the city a great advantage in competition with the honey producer in putting tinned or bottled goods into the hands of the grocers. If rebates can be granted to jam factories and rabbit factories—concerns with plenty of capital, as a rule—why cannot the same concession be extended to bee-farmers, who, as a general rule, have precarious yields and low markets to face, and who, as a class, are not men of capital? Recently a concession has been granted to beekeepers by the Railway Department in that empty kerosene tins are carried up country at about half the former rate. All our tins are entitled to come back to us at "returned empties" rate, but as a matter of fact, once a tin leaves my apiary by rail, whether it be a 1lb., 2lb. or 60lb. tin, it never returns, and this, I presume, is the case with every other beekeeper. We are not even allowed for empty cans by buyers. Why then cannot the return empties rate be put on when the tins make their *first* journey over the railways to us in the first instance? Even this, if granted, would not equal the concession granted to the jam packer, as it would still leave their tin-plate about 17s. per ton cheaper than ours in cost of transit—200 $\frac{1}{2}$  miles.

It seems to me that the present is a most opportune time to get this concession made. If we hope to export honey railway freights must be reduced. One of the conditions of the export regulations is that only new 60lb. tins should be used. As these are expensive in town, they are much more so at the high rate (98s. 11d. for 200 $\frac{1}{2}$  miles) now charged on them (tinware 3rd class) for rail transit.

What is the use of one Government Department sticking candy in our mouths so to speak, in the shape of an export bonus, while another Department robs us of our candy by charging exorbitant freights?



## THE NATIONAL B. K. A. OF N.S.W.

A committee meeting of the above was held at Messrs. Hebblewhite's store, George street, Sydney, on Friday, March 8th. President: Messrs. W. Abram, vice-president, in the chair; Whittell, sec., Cadden, Trahair, Tipper (*A. Bee Bulletin*), Seabrook, Allport, G. Gordon, and Bloxham.

Minutes of previous meeting were read and confirmed.

Correspondence was received from Rev. J. Ayling, apologising for non-attendance on account of domestic affliction.

From the Lachlan Bee-keepers' Association, enclosing resolution passed by them urging the committee to use their influence with the Railway Commissioners that empty honey tins should be allowed to go free, being the similar privilege as was accorded to fruit-growers and milk-venders; also that the rate on quantities of honey under half a ton be reduced.

A letter was also read from the Wellington Association urging the same steps.

On the motion of Mr. Bloxham, seconded by Mr. Allport, it was resolved that the Committee wait upon the Railway Commissioner re these matters on the following morning.

On the motion of Mr. Whittell, seconded by Mr. Trahair, it was resolved a letter of sympathy be sent to Rev. Mr. Ayling on his present great trouble.

Re the matter of railway passes to the forthcoming convention at Bathurst, it was resolved that the secretary write to the Minister for Agriculture re same; also to the various steam companies for concessions.

The names of several Bathurst beekeepers were mentioned, and it was resolved the Secretary write asking them to form themselves into a sub-committee, for carrying out matters connected with the convention.

It was resolved that the Hon. Sydney Smith be asked to be chairman and the Mayor of Bathurst as vice-president.

The dates of the Convention were fixed for Wednesday, Thursday, and Friday, July 3, 4, and 5.

Mr. Abram suggested that for future Conventions it would be advisable to have local committees chosen at the same time the place was fixed on.

It was resolved that the annual meeting of the National Beekeepers' Association be held on the second day of the meeting.

It was resolved invitations be made to beekeepers to supply papers to be read, and all replies concerning same to be in by the 31st of May; and selections from such replies to be made at subsequent committee meetings.

On Saturday morning the following gentlemen waited on Mr. Fehon, Railway Commissioner:—Messrs. Trahair, Whittell, Cadden, Seabrook, Bloxham, and Tipper (*A. Bee Bulletin*.)

Mr. Whittell introduced the business, read the communications from the Lachlan and Wellington Beekeepers Associations, and urged the justness of the concessions asked.

The other members of the deputation addressed the Commissioners on the matters at issue.

Mr. Fehon said that with regard to returned empties an officer of the department was already investigating the matter, and in due course they would be acquainted with the result. With regard to the question of freight, it was pointed out that the freight had already been reduced about 60 per cent, during the last few years, and the Commissioners could not see their way to disturb existing rates or minimum.

Attention having been called that there was a special rate for parcels under 90lbs, it was pointed out that two 60lb tins of honey in a case would be much above that privilege. Mr. Fehon promised to go into the matter of raising the quantity to 130lbs at the same special rates.

Mr. Whittell called Mr. Fehon's attention that a practice now prevailed in America was very likely to become common here, of shifting apiaries to places where honey flows were on, and asked if special rates could not be provided for such. This Mr. Fehon also



promised to consider, and the deputation withdrew.

The deputation afterwards called at the office of the Minister of Agriculture, but that gentleman was out of town.

They next paid a visit to Mr R. A. Price, M. L. A., the energetic member for Gloucester, who promised to give the wants and requirements of beekeepers, such as the Foul Brood Act, and the adulteration question, his very special attention.

## MUSWELLBROOK B.K.A.

*From Muswellbrook Register.*

### SPECIAL MEETING OF MEMBERS.

A special general meeting of the above was held in the School of Arts, on Saturday evening 23rd instant, to make arrangements for obtaining prizes to be offered at the forthcoming show. The attendance was fair. Correspondence was received from the Lachlan Beekeepers Association, re empty tins being returned free by rail, and it was decided that the matter stand over for consideration till next regular meeting. A letter was also read from the Secretary of the Upper Hunter P. and A. Association in reference to prizes intended to be offered by the Association. The Secretary was requested to acknowledge the receipt of the communication. Mr. Moore of Singleton wrote giving £1 1s for a prize.

Moved by Mr. Weidmann, seconded by Mr. Luscombe and carried that Mr. Moore's donation be handed over to the Show Committee to be dealt with by them.

Moved by Mr. Weidmann and seconded by Mr. Luscombe, that the following gentlemen be appointed as a committee to draw up a prize list, and make all arrangements in connection with the coming Show, viz., Messrs Hazelwood, Paul, Ellerton, Grant, and Roberts. Carried.

Mr. Paul asked the Treasurer through the Chairman how much money the Association had in hand.

Mr. Ellerton replied that the amount was £2 8s 9d.

Mr. Paul moved that the Association give 30s for prizes to be competed for by members of the Beekeepers Association only.

Seconded by Mr. Weidmann and carried.

A subscription list was then opened, and the sum of £2 6s was subscribed in the room.

It was decided that the members make an extra exhibit of apicultural appliances, etc.

Moved by Mr Paul, seconded by Mr. Luscomb that the secretary be instructed to apply to the Secretary of the P. and A. Association for space for the extra exhibit. Carried.

This concluded the business and the meeting terminated.

### SHOW COMMITTEE.

The Show Committee of the above Association met on Friday night, the 1st. inst., to draw up the prize list in connection with the forthcoming Show. The following is the list:—

For collection of the best apicultural products in trophy form, to include extracted honey, comb honey, and beeswax; First prize £2 2s, second, prize £1 1s, by the Upper Hunter P. and A. Association.

Special prize offered by Mr A. J. Brown, Parkville, of 10s, second 5s, by A. A. Roberts, for best Italian queen and her progeny to, be shown in single frame glass observation hive, to be limited to beekeepers in the Robertson electorate and to be bred by exhibitor. Entrance free.

Special prizes offered by the Muswellbrook Beekeepers' Association, open to all comers. Entrance free:—

Best 12lb extracted honey in 1lb jars: 1st prize 10s, 6d, by T. H. Moore; 2nd prize 5s by Alex. Weidman.

Best 12 bottles extracted honey: first prize 10s, by J. W. Humphries; 2nd prize 5s, by S. H. Luscombe.

Best 12lbs granulated extracted honey, in 2 lb jars: 1st prize, 10s, by T. Ellerton; 2nd prize, 5s, by A. A. Roberts.

Best 12 1lb sections comb honey: 1st prize 10 6d, by T. H. Moore; 2nd prize, 5s by W. Thomas.

Best 2 large frames comb honey, L size—1st prize, 10s, by Ven. Archdeacon White; 2nd prize, 5s, by H. J. Clark.

Best 3 small frames comb honey, half L size —1st prize, 10s, by J. W. Humphries; 2nd prize, 5s, by F. Budden.

Best 12lbs beeswax—1st prize, 10s, by J. Hazlewood; 2nd prize, 5s, D. G. Grant.

Special prizes, open to members of the Muswellbrook Beekeepers Association only. Entrance free:—

Best 6lb extracted honey, in 1lb jars—1st, prize, 10s, by R. T. Keys; 2nd prize 5s, by Muswellbrook Beekeepers Association.

Best 6 bottles extracted honey—1st prize, 7s 6d; 2nd prize, 2s 6d.

Best 6lbs extracted granulated honey in 2lb jar—Prize 5s, by Muswellbrook Beekeepers Association.

Best 6lb sections comb honey—1st prize 10s. by C. C. Paul; 2nd prize, 5s, by Muswellbrook Beekeepers' Association.

Best large frame L size comb honey—Prize 5s by Muswellbrook Beekeepers Association.

Best 2 small frames  $\frac{1}{2}$  L size comb honey—prize, 5s, by Muswellbrook Beekeepers Association.

Best 3lbs beeswax—Prize 5s, Muswellbrook Beekeepers Association.

Best 2 empty combs built on foundation L size—Prize 5s by J. C. Luscombe.

Best wired frame of comb foundation L size—prize, 2s 6d, by J. McKenzie.



## H. R. B. K. A.

The usual monthly meeting of the above was held at West Maitland on Tuesday, March 12, Mr J. W. Pender, V. P. in the chair.

Mr Mansfield placed on the table six bottles containing imported queens, drones and workers, in spirits.

The minutes of previous meeting were read and confirmed.

Letters were read from the Lachlan Beekeepers Association asking the support of the Association in urging the Railway Commissioners to reduce rates of honey and convey tins free per rail.

Also from the Wellington Association re the same.

Mr Tipper gave an account of the proceedings at recent committee of the National Beekeepers Association, and the interview with the Commissioners.

On the motion of Mr W. S. Pender, seconded by Mr Tipper, the secretary was instructed to write to Mr Whittell, asking him to point out that 130lbs. was not enough for the proposed re-consideration, a case containing two tins of honey weighing more than that. The two tins alone would weigh six pounds, the case at least 10lb—total 136lb.

Mr W. S. Pender moved, Mr Noad seconded, strongly supported by Messrs Mansfield and J. Pender, and carried unanimously: that this Association approve of the energetic action taken by the Committee of the National Beekeepers Association.

Re the letters of the Lachlan and Wellington Associations, as the work had already been done by the Committee of the N. B. A. nothing further could be done.

Reports were then given in by the members. Mr W. S. Pender at his out apiary had extracted 1060lbs., and about 1200lbs. were in the hives, chiefly from white box. The bees were very strong and inclining to swarm. At Drumfin not much change.

Mr. Noad's bees were just keeping themselves. Very little honey in the bash around, though a little in some of the flats. It was hardly safe to open the hives for robbers.

Mr Tipper had not had time yet to extract, but there was a lot of honey in his hives, and it was coming in steadily.

Mr Mansfield had no honey flow since the last flood, that had destroyed all the lucerne around.

Mr Tipper re-opened the discussion on the Heddon super. He was not interested in any way in one particular hive or other, and had no axe whatever to grind, but wished to ascertain what was really the best hive. He alluded to the strictures made against the Heddon hive in the *Apiculturist*. He spoke of its good points, the handiness of the frames to the uncapping knife, the reversibility enabling the half frames to be filled with honey from top to bottom; the gradual adding to the bee room instead of full

supers with a lot of unwanted space. After that he spoke of a hive which he had in his yard, and which he had particularly watched. For honey producing it was about the best there, but that might be because the queen was good. It consisted of 20 frames, with one entrance parallel to frames, and an inch thick follower. It had now all the comb filled with brood and honey. When extracting in November the brood was in the back and the solid frames of honey near the entrance. But now the brood was in the front and the honey in the back, the queen retaining her brood oval, that working back and forward, and the honey being by itself, showing no need whatever of queen excluders. There was no killing bees by taking off and on supers, and the bees were very little disturbed in manipulation.

Mr W. S. Pender spoke of Mr Tipper's allusions to Alley's opposition to the Heddon hive, but Alley was always opposed to what he did not invent himself. He was inconsistent. As to a long idea hive he had used hives which had 15 frames 12 x 12; these did very well, but the deep frames were difficult to lift out of the box. Re the save in not crushing bees, he would not lose 15 minutes on a hive, and not crush half-a-dozen bees. The long idea was a cumbersome hive for carrying about in an out apiary.

The discussion here dropped.

## BATHURST A. H. AND P. ASSOCIATION.

The following are the prizes to be competed for at the above on 24th, 25th, 26th April, 1895:—

## HONEY (No Restrictions.)

- 426 Best Honey display to include extracted, granulated, and comb honey, honey beverages, honey confectionery, wax, etc; 1st, £1; 2nd, 15s.
- 427 Best 12 1lb. Sections; 1st, 5s; 2nd, 2s 6d.
- 428 Best 3 large frames, Comb Honey, not sections; 1st, 5s; 2nd, 2s 6d.
- 429 Best Extracted Honey, 12 1lb jars, 1st, 5s. 2nd, 2s 6d.
- 430 Best Granulated Honey, 12 1lb jars, 1st 5s, 2nd 2s 6d.
- 431 Best Beeswax, 5lbs. white, 1st, 5s; 2nd 2/6
- 432 Best Beeswax, 5lbs yellow, 1st, 5s; 2nd, 2s 6d.
- 433 Best Collection Apiarian Appliances, 1st £1. Entries close in all sections April 10th.

At the late Port Macquarie Agricultural Show, the following were the apicultural prizes awarded:—

Exhibit of beekeeping appliances: 3 entries, Mr. J. S. Dick.

Best hive of bees for apiary work (Dick's special), 1 entry; R. Davidson recommended for 1st prize.



## HASTINGS RIVER B. K. A.

The usual monthly meeting was held on the 14th March. Mr. T. Pepper acted as Chairman, but owing to some uncertainty as to date of meeting, the attendance was meagre.

One new member was elected.

Correspondence was read from the Sec. of the Lachlan Association with regard to the agitation for a reduction of freight of honey and also for certain other concessions, and from Mr. Pender relative to the proposal to send someone to America to select queens from the best apiaries there.

The meeting then fixed the date of next meeting to 11th April, and after an interesting conversation on bee matters the members dispersed.

R. SELKIRK, Sec.

## LACHLAN B. K. A.

The usual monthly meeting of the Lachlan Beekeepers Association was held in the School of Arts, Eugowra, 6th inst.

Mr N. E. Osberg, President, presided.

Minutes of previous meetings were read and adopted.

Some accounts were passed for payment. Correspondence was received from Secretaries National Beekeepers Association, Wellington B. K. A., Muswellbrook B. K. A., and E. Tipper supporting two resolutions passed at a previous meeting of this association. The members looked upon this as very satisfactory, the prompt action that has been taken in this matter by the secretaries of the various B. K. A's.

The rules for the Association were received, printed by E. Tipper, *A. B. B.* office, and for get up and cheapness came as a surprise to the members of our association. It was decided to hold our next meeting in Forbes, April 10th, at 7.30. p.m.

Papers read.—Essay on Bee Farming, written by J. E. Taylor of Cowra, and read by Mr Miller, which was attentively listened to.

Paper read by J. Smith, placing honey on foreign markets. He holds the opinion that it can be done with great advantage to producers in this colony.

The members of the Lachlan B.K.A. congratulate the members of Wellington B.K.A. on forwarding their consignment of honey to England, and have our best wishes that success may attend the undertaking. W. NIVEN, Hon. Sec.

## SHIPPING HONEY TO ENGLAND.

By JOHN SMITH, Brisbane, Q.

As I am continually being asked questions respecting the best way of getting up honey to suit the English market, possibly a few remarks on the subject in your valuable journal may help in a small way to put beekeepers on the right track. Doubtless there is plenty of room to improve on our plan—but the way we do is suited to apiarists of limited means. Those who have lots of money can of course get more elaborate and perfect appliances. To start with—let beekeepers bear in mind two things—First, that all the best honey in the world finds its way to England, hence inferior honey has to take a back seat. Second, that English housewives are very particular about the table, everything on it must be as nice as possible, hence the greatest care and cleanliness is necessary in the "get up" of every article of food. Bear these two points in mind, then you will never send any unripe or inferior honey to the old country. If for any cause the honey in your district has an unpleasant or peculiar taste, or is very dark, or in any way is not first class honey, you had far better sell it on this side of the water, than pile on expenses by shipping it to England, only to be grievously disappointed with the venture.

Supposing your honey is good, then the very best thing to do is to let the bees seal it before extracting. I know there is a difference of opinion on this point, some holding that it can be ripened as well afterwards. It can be improved afterwards, but nothing in my opinion equals sealing it first. Having got it extracted, the next point is to get it clear and light, and also to get the whole of each extracting as near one even sample as possible. Nothing is more calculated to annoy a buyer than to open two or three tins and find them all of different consistency and varying in colour, &c. Very well then, after the extracting is over, if you have a large tin put all the honey in it and, if possible, let it stand a fortnight, so that the wax particles will rise to the top, and the air bubbles clear out of it. If you have not a large tin but have



been running it into 60lb tins, then take the gearing out of extractor and fill it with the honey out of the 60lb tins. After the scum has risen to the surface and you have let it stand as long as you can, then you are ready to run it into shipping tins; 60 and 28lb are the best size. Before it goes into the tins it must be strained, and this is one of the *greatest points* which, if neglected, may spoil all the rest of the care and pains you have taken. Rig up a bag, we find clean 100lb flour bags as good as anything for the purpose, fasten this securely that you can run the honey in out of extractor, or empty it in with tin buckets or anything you have handy, under this must be another bucket to receive the strained honey, you will find it come through very quickly. Then we have a large funnel over the shipping tins and the strained honey is put through a *double thickness of mosquito netting* and allowed to run through the funnel into the tins. We have tried cheese cloth and other things, but find nothing answers so well as mosquito netting. Of course beekeepers will know that whilst the honey is standing in the big tin or extractor, this should be stood on some kind of a strong stool with the *legs in water* to keep ants out of the honey, and a cloth over the top to keep flies and other insects out.

The shipping tins should all be new and unmarked, with wide patent tops; the tins should be filled within one-eighth of an inch of the top. If more space is left the rolling about on the voyage fills the honey with minute air bubbles, which make it look cloudy and takes time to clear again. The cases should all be new, with half-inch partition between the two tins, and no mark on them except shipping brand or numbers and shipping port. When the tins are in the case care should be taken to see if the lids of tins touches top of case; if they do not thin pieces of wood should be fixed over the lids, otherwise in transit the lids of tins may by some accident be forced off and all the honey run out; this point is of *vital importance* to shippers.

Each extracting should be kept separate, and date of extracting may be pasted on the tins over the lids, but no writing beyond marks, numbers, dates, and quantities should be put either inside the cases or outside. Otherwise the package becomes chargeable as a letter. Some people are really so thoughtless that they do put written papers inside cases of goods, this must never be done.

Kerosene cases or kerosene tins should never, under any circumstances, be sent with honey to England.

Don't kill your own trade or spoil a market by sending one lot of good honey as a sample shipment, and the next lot inferior.

Don't mix thin or unripe honey to ship, it ferments, and you need never expect a second order. With every shipment try "to go one better every time."—Let Excelsior be your motto.

We have known hastily packed honey to sweat and cover the top of inside of tin with rust, then when moved the rust comes off into the honey, filling it with dark specks.

If anyone can suggest further improvements, I feel sure we shall all be thankful if they will send them along quick as possible. Australian beekeepers are all in the same boat.

It surely should not be necessary to say, don't adulterate your honey with anything—let it be genuine, pure and good.

## QUEEN-BREEDING.

W. ABRAM.

I have raised thousands of queens on various methods. Usually I select the larvæ of a certain age from which the bees have to rear queens. I also notice the hatching of most queens within a few hours, and keep a record of all queens. Some queens occupy the cell for a day or two longer than others. The thought then occurred to me to note the exact time each queen remained in the cell, in order to ascertain the difference, if any. I have now bred about a thousand queens on this plan, but I find the difference is not very great, so long as the queen is not abnormally long confined to her cell. Still, what difference there is, is in favour of queens that developed the quickest. When I began the experiment I inclined to the opinion that the longer a queen occupied the cell, the better and stronger she ought to be. Considering the matter from every standpoint, however, the result could not be otherwise. As it is it is mainly the food and the warmth that assist the quick development of the queen. This being admitted it is quite natural that the best nourished larvæ must develop and hatch first, and be stronger; hence the preference in favour of quick matured queens.

With queens reared in natural or swarm cells, where the egg is laid in the designed cell by the queen, we find too, that the ones that hatch first are the favourites.

Where the selection of larvæ is left to the bees and they have their choice, they may select larva of various ages



from which to rear queens, and the hatching of one much sooner than the rest is no signification that the strongest arrive first, because the oldest larva will be the first to hatch.

When weak stocks and places remote from the brood nest are utilized for rearing queen cells, and when the temperature changes very considerably during that period, the hatching of such queens will vary considerably; some will be from one to three days later than others. Queens ought therefore to be reared in fairly strong stocks and in the brood nest, not in remote corners of upper stories.

Thinking of the changeable weather this season reminds me to mention that with the exception of a few stocks mine had no drones for about the last two months, and only lately some have them hatching again. Had the few stocks not kept on breeding drones, there would have been none, but as it was and these were selected for drone breeding, I have now the pleasure to see the progeny of the queens fertilized during the last few months as nice a lot as I ever had.

Re the forthcoming Bathurst Convention, I see no reason why everything should not go as smooth as butter, provided everything is arranged in time. The difficulty with many of us may be that the money bag will be mighty small and debar many from taking such active part as they would desire. Beekeepers, as a rule, are not millionaires, and a good deal of money has gone to America for queens, etc. Still is to be hoped that the bees will work well and pay for us along to Bathurst and back. Perhaps some Americans will be there too.

## THE GOLDEN BEAUTIES.

Mr. A. Ayling, writes:—Dear Editor, It seems to be getting quite fashionable in certain quarters to lose no opportunity to draw comparisons between the "golden beauties" and the Ligurians, and always to the disadvantage of the

former. I do not wish to retaliate and say that the ligurians are a failure, but will give my experience to show that they are not always the best.

I may state that I have not had a sign of foul brood in any of my hives and so cannot say which variety best resist that disease.

Last season I procured queens of both varieties from colonial breeders, and worked them under similar conditions, with the result that the light coloured breed were before the ligurians in gentleness, energy, and were also more prolific. From the golden beauties I got over two hundred pounds of honey per hive, and less than half from the best hive of the Ligurians, working under similar conditions. I was so impressed with the superiority of the goldens, that I imported from Mrs. Atchley and am well satisfied with the queens I have since bred. As far as I can see the brighter the bees are the better workers they prove. Perhaps the Dubbo climate may suit the golden Italians best, but the above will go to show that they are not quite played out yet.

## NO (?) MARKET FOR HONEY.

Mr. S. Wells, of Aylesford, Kent, England, in a long communication to the *Canadian Bee Journal*, gives his financial position in account with the bees as for the year 1894 as follows:—

Seventy-two one pound sections comb honey at 11d each	....	£3 6 0
Five hundred and twenty-four lbs extracted honey at 3½d	....	18 11 2
Twenty-four lbs beeswax at 2s.		2 8 0
Total	.....	24 5 2
Deduct expenditure during year		4 9 0

£19 16 2  
Showing the net profit to be a fraction over  
£2 9 6 per hive.

Mr Stephens, Pialba, Queensland, reports the honey crop as fair this season.

Mr. C. E. Russell, Baerami, writes:—My bees have been doing well, lately, I have had to put on three stories.



## PARKVILLE.

A. BROWN.

Re Mr Roberts' experience of two eggs in a queen cell, I have a cell at present with two eggs in it, and saw another a short time ago, but I do not know what the cause is unless it is similar to a queen laying two eggs in an ordinary worker cell, viz: Want of room. In last issue I notice a reply by Mr G. J. Richardson to Mr T. B. Peek's enquiry, in which he explains different coloured drones appearing in hives. This does not answer the question—which I think was—Why an Italian queen, bred from a pure mother, will at the same time produce both yellow and black drones? The appearing does not answer for producing, as every beekeeper knows. Drones will intermix at all times. The producing of different shades of drones by a queen is also common, as queens that produce drones *exactly alike* are few and far between. My opinion, and that of other well known beekeepers, is, that the drone progeny of any queen is influenced by her mating. This is probably what led to Mr Peek's enquiry, as no doubt his queen is mated to a nigger.

My bees have done very fair work this season. I have taken off about two tons altogether. From August to Dec. I took a ton from 11 colonies. I am running 40 now. Highest return from one hive 350lbs from pure Ligurians. Honey is coming in nicely yet from ironbark and white box. No trouble to sell all I can produce, some local, some to Newcastle buyers. Queen breeding is nearly over here, colonies that have drones are throwing them out now. Total number of swarms for season 4. Dont believe in swarming and never encourage it. Have seven colonies that never attempted to swarm for two years although very strong.

Mr James Freeman, Port Macquarie, writes:—This is a very bad season for honey here, my bees have made very little surplus honey.

## CAPE OF GOOD HOPE.

"BEE KING."

Mr. E. Tipper,—Dear Friend, I see your valuable bee-paper is improving every month, not only in the general information, but also in the advertising leaflets which I hope will still increase. It is certainly one of the best books on beekeeping and the mysteries of bee life. It is the most suitable book for the Cape Colony and our colonial beekeepers should strongly support it. I see in your advertisements that the prices of your beekeepers supplies are so moderate in price that is within reach of all to procure them. We have very dry weather in Port Elizabeth, so dry that we have to feed the bees and if the drought does not break up soon there will be no honey harvest in Port Elizabeth, not before July. Would like to introduce the Italian or Ligurian bees in this country, but the question is can they be sent to South Africa and for every queen bee that can be sent out alive, I will return a South African queen bee in exchange. Will any of your queen breeders accept my conditions of exchange.

[The transit of queen bees from Australia to the Cape of Good Hope ought to be very easy, as there is not the crossing of the line.]

Mr G. Kelly, Dungog, writes:—I have removed my bees out of town three miles, where they are doing well. I came through winter with nine colonies and have since increased to 30, and have taken 1 ton of honey. I had to pale my bees in as the fowls took to bee eating. One young one was a perfect demon, and I shot him and found 120 bees in his crop. I notice by the A.B.B that you had a queen cell sent you with two eggs in it. I accidentally cut into one last month while seperating some choice cells, then I opened it and found two perfect queens. The same thing happened to me last summer. I am very pleased with the A.B.B., and anxiously wait next issue to get information re Long Idea Hive.



## MR. I. HOPKINS OF NEW ZEALAND.

We are pleased to be able to give the following sketch of the author of the *Australasian Bee Manual* :—

Mr. Hopkins was born in the Tower Hamlets, London, on the 26th of August, 1837,—the eldest son of a family of twelve. After a fair amount of schooling,—having developed a spirit for roving—he was, at his own desire, and much against his parents' wish, apprenticed to the mercantile marine, at the age of thirteen and a half years. There was much about this life that was disagreeable to him, but during the fourteen years he followed it he visited most parts of the world, including Australasia. It was during this latter voyage that he made up his mind, sooner or later, to settle down in New Zealand. After a three and a half years spell in India and China, Mr. Hopkins found himself once more in his native city, where he took unto himself a wife, and on the 28th of August, 1864, they both sailed for N.Z., landing in Auckland on the 5th of January, 1865, where they have been ever since. The attraction of the gold fields, with the free and jovial life of a digger in those days, was more than Mr. Hopkins could withstand,—he took the "gold fever," and made for the newly-discovered "West Coast," and afterwards to the "Thames" Goldfields, where he remained for fifteen years. It was during his residence there that he took up with bees and bee culture. Mr. Hopkins had always a love for domestic animals, but had never been so situated previously that he could indulge in his hobby.

During the year 1874, Mr. Hopkins first particular interest in bees commenced through watching those of a neighbour going in and out of their box hives. Mr. Hopkins determined to have some himself on the first opportunity. Some little time after the opportunity came.

### TACKLING HIS FIRST SWARM.

Whilst at a friend's house one day, a stray swarm settled under a bank of earth in a cutting near by. Although Mr. Hopkins had not the slightest idea how to go about the work, he made up his mind to take that swarm at all hazards. Armed with a sheet and a box he essayed the job, and after some little trouble, safely located the bees in his friend's garden. Whereupon he got a square gin case, put a sheet of glass in one side, and actually transferred the bees the next day into the new hive without, so far as his recollection serves, getting a sting. The hive was placed on a stand, everything left comfortable, and the colony did well. Mr. Hopkins was now more eager than ever to get bees of his own, and shortly after that bought what he knows now must have been a very small second or third swarm, for which he was charged 25s,

—the bees were all dead in about three weeks. Mr. Hopkins' next venture turned out more successful, and was the ground-work of his after success. Mr. Hopkins bought an established colony in a "gin case" during the Autumn, away back in the hills, which took him and a friend the best part of a dark night to carry over a high range, slung on a pole between them, groping their way by the light of a lantern—they reached home thoroughly exhausted, *but the bees were safe.*

At this time Mr. Hopkins was absolutely ignorant of all forms of bee culture; he knew, of course, there was a murderous plan of getting rid of bees by sulphur for the sake of their honey, but felt certain there must be a better and more humane method than that, and he determined to find it out. Mr. Hopkins bought all the bee books to be got in Auckland, among them being "The Times Bee Master," "The Rev. J. G. Woods' Work," Cotton's Book," and other old-fashioned works, but these were of very little use except in giving general ideas. Mr. Hopkins next wrote to London for the most modern bee books there. In the meantime he was experimenting, and at last raised a super of beautiful white comb honey, weighing about 80lbs., which was exhibited in a shop window and considered a very great novelty. It might be mentioned here that he was experimenting with different kinds of hives, including the "Stewarton," "Carr-Stewarton," "Woodbury," "Harbison," (which is much the same as the Berlepsch), and many others for about five years; and also with different systems, such as "supering," "naidering," "eeking," and the "collateral" plan. About this time he read an article in the *Journal of Horticulture* by a Mr. Arthur Todd, who was living in Algeria, which fortunately led him on to "Root's A.B.C.," then being published monthly in *Gleanings*, which he sent for at once. He believes he was the first out of America to get a bound copy of that work. The book sent him from London happened to be that delightful one of Langstroth's, and shortly after the "A.B.C." arrived—this was in 1878. He eagerly read both and at once adopted the Langstroth hive, making several modifications in it, which he considered improvements. This hive has become practically the standard hive for Australasia. He next obtained from Root one of his 9-inch foundation machines, costing £14 landed in N.Z. This was the second foundation machine in use in the British Dominions; the other one belonged to the late Mr. Raitt, of Blairgowrie, Scotland. Mr. Hopkins also received at the same time a 2-comb extractor, smoker, and other appliances, which with the Langstroth hive made his apiary complete. From this time he dates the introduction of modern bee culture into the Australasian colonies. After Mr. Hopkins got properly under way, the novelty of the thing created such a stir that visitors came from far and near to see the working of the hives. He



was then engaged to write articles on bee culture weekly for two papers, and through these orders came pouring in for hives and appliances, although at that time he had not the slightest intention of supplying any, his sole object being to establish a large bee farm. However, he had so many applications for hives and appliances that he altered his mind. With regard to the number of hives, extractors, smokers and other appliances supplied by his firm during the intervening sixteen years, it would take too long to calculate; but of comb foundation they have made and sold well on for 35 tons. With regard to comb foundation machines, he has had and used one of Root's original ones, a "Vander-vort," a "Given Press," a "Neighbour's Flat Bottomed," and has now in use one of Root's latest 10 inch, and a flat bottom machine from the same firm. And the two latter he considers far and away the best of any made. One of the first gentlemen he supplied with comb foundation out of New Zealand was Mr Chas. Fullwood, who then resided in Brisbane. Later on he supplied the whole of Australia for a time from Adelaide to Sydney, Brisbane and Tasmania.

Early in 1881 he received his first Italians from Wilkins, of San Buena—Ventura, Southern California—two colonies, which, with freight cost nearly £14. His next consignment was from the late Mr. Carey, also of California, and some of the bees bred from these latter queens were the most fierce he ever handled. Up to this time he had never worn a bee veil, but was glad enough to do so after handling these bees. One colony was so fierce as to compel him to smother it. After the receipt of a large number of requests to publish his articles to the papers in a collected form, he decided to bring out the *New Zealand Bee Manual*, the first edition of which was published in September, 1881, and the second edition 13 months afterwards. At this time he had a large and increasing supply business, besides running an apiary of some 40 to 80 hives, both for honey and queen rearing. The industry being new, the chief part of the work fell upon himself, although he had several men employed. He was frequently working more than 100 hours per week during the busy seasons.

Early in 1882 Mr I. C. Firth, a large landed proprietor in those days, being impressed with the importance of the industry as pointed out to him by Mr. Wile, the editor of a weekly Agricultural paper, offered Mr. Hopkins an engagement to set up apiaries on his estate, and his sympathies being more with the cultivation of bees than with the supply trade, he undertook the task. Moreover, he was desirous of demonstrating by practise what he had been theoretically preaching, and that caused him to be looked upon as a fool and a madman, viz., "That honey could be raised in New Zealand by the tons." Commonplace as this remark looks

now, in 1878 it seemed to most colonials a very foolish one. His first season's take of honey on Mr Firth's estate was ten tons, and thus he had proved his case. Mr Hopkins can look back at this performance—not on account of the quantity of honey raised, because that has been eclipsed many times since, but as being the first practical demonstration of what was possible in these colonies under the new system of bee culture. In July, 1883, he published the first number of *The N.Z. and Australian Bee Journal* (the first of its kind in the southern hemisphere. After running it for two years he sold it to the *N.Z. Farmer*, with which it was incorporated. The last edition of the *Australasian Bee Manual* was written and published at Matamata, and while there he imported each season a large number of Italian queens direct from the late Charles Bianconcini and others. Also Cyprians, Holylanders, and Carniolans, the latter of which however arrived dead. He bred largely from these and their crosses, but he considers the very worst and most vicious bees to handle were the cross between the Italian and the Cyprians—smoke would only make them worse, and if you used water as soon as their wings were dry they would attack you again.

In 1886 he removed to Auckland, and again started in business, and brought out the *Australasian Bee Journal* in 1887, which was making good progress when his health completely broke down, and at the end of the third volume he had to give it up. Like the former journal it was sold and incorporated with the *N.Z. Farmer*.

He attributed the breakdown of his health to excessive overwork, but is thankful he can now carry on his business, although he cannot take the very active part in promoting the industry he used to do, but still does a considerable share in that direction.

In conclusion, it must afford Mr Hopkins no small amount of pleasure to note the successful amount of progress bee culture has made through out the whole of Australasia. He speaks with pleasure of the keen interest taken of late in the industry by the beekeepers of New South Wales, and firmly believes the time will come when the exportation of honey from these colonies will be of such magnitude as we have no conception of at the present time.

Mr. Fred Taylor, Graham's Town, Cape Colony, writes:—My dear sir,—Many thanks for the book and paper you kindly sent me, which arrived right. I wish I could send you some news, but our season here is about the worst we've had this last six years, that is for honey. Indeed farming all round is in bad state, prices of produce very low, so our outlook is not at all bright.



Mr. C. A. C. Wilson, Teesdale, Victoria, writes:—We are having a very good season here. The red gums flowered well and gave a lot of grand honey, and then the yellow, and gray, and bastard followed and are still in bloom. I am interested to see the replies to Mr. S. Richardson's question (No 34) and should like to see it extended to red gum and the other honey bearing eucalypti.

Mr H. J. Gardiner, St Peters, writes: That strong colony that I thought so much about, I told you had so much honey up for a start in the season has gone bung, foul brood and no brood at all. I tried sulphur and drove the old hen up in the super—I mean the queen. I have now taken the old comb out and washed it in solution of carbolic, but it has a bad smell; now I think I shall melt it all down. I have a choko in full bloom for the past three weeks but I never see a bee on the flower of it.

[Make a clean job of it at once by destroying the affected combs, hive in a new hive with starters, and keep carbolic or some disinfectant in the hive as a preventive.]

Mr P. Anderson, New Zealand, writes:—For the twelve months passed the A. B. B. has proved very useful to me in the management of my bees, and about the beginning of each month I am always on the lookout for it. I use all Langstroth frame hives, and have about a mixed up lot of bees as you will find anywhere, but they are all first class honey gatherers. I have Carniolans, Italians and crossbreds. I prefer the pure Carniolans, although the Italian is a beautiful bee, the Carniolans always comes out ahead of all the others. I cannot raise pure queens as there is such a lot of blacks about. I have had several queens from Australia this season, and if they turn out as well as they are promising I will want a few more next season. The weather here has been so dry, honey has not been very plentiful. 4d per pound is the general price. I have not quite so much honey as I had last year, but hope for better results next. Wishing every success to the A. B. B.

Mr. J. E. Field, writes:—Do you think that this and next month (March) would be in a good time to introduce Italian queens? What is the difference between tested and untested queens? Are untested queens those which have not been fertilized. I have a colony of black bees which, while they have any amount of brood, never produce much honey, not enough to pay their expenses, can you explain this? If I am not troubling you too much in asking these questions I would be glad to hear your reply. I forgot to say that I have noticed at different times the bees carrying away from the hives a number of young bees that had arrived nearly to maturity. they take them right away and apparently drop them, can you explain the reason of this.

[March is not too late to introduce an Italian queen. A tested queen is an Italian queen that has been fertilized and her young bees coming out all banded alike show that she has met an Italian drone. An untested queen is one that has mated but her young bees not having yet come out it is yet a matter of doubt whether she met a black or an Italian drone. The rearing of a mass of young brood must certainly interfere with the gathering of surplus honey. Re their carrying away their young bees have you worms in your hives? Bees will not tolerate any unhealthy or dead brood.

Mr Richards, Cooktown, Q., asks:—Can you tell me how to ripen honey, as I have great difficulty in that line in damp weather. Of course I know what was discussed some months back in your journal, but that is no solution of the trouble. I have 2-storey, 3, and 3½ story L 10-frame hives. When extracting my slides are three-parts sealed, or every slide some sealed all over, but I find it hard to get the bees to seal all of the frames, they preferring to swarm when full of honey. I am sure the greatest drawback to the sale of honey to-day is the unripe honey which is put on the market. Storekeepers keep it for many months, some years, and it gets very bad tasted. I have extracted 4880 lbs from 50 hives, spring count 30, and our season not done yet.

[Wet weather does not last always, and in your latitude you surely have places—room—where the honey can be exposed and all the moisture evaporated out. Have you a March number *A. Bee Bulletin*, 1894?



Mr. Burr, Blenheim, N.Z. writes:—Dear Sir, My subscription falls due with the new year amount herewith. Your paper is greatly appreciated by me and deserves the support of every colonial bee-man. I am only an amateur. It's my hobby.

Mr. Wallis, Wartook, Victoria, writes:—Enclosed please find 5/6 subscription to A. B. B. which I may say is a grand bee journal, and no beekeeper should be without it. It is not only instructive, but lets us know what our sister colony is doing.

Mr. Thos. Hadfield Junr., Grafton writes:—There is not very much news in the bee line up here. This season has not been very good for honey. My best colony only returned 200lbs of honey this year, while last year it stood at 360lbs. The late flow has been spoilt by the late rain last month. February is the worst month we have had for swarming up this way. I do not know how you fare on the Hunter.

Mr. Thomson, Wollongong, writes:—I as well as others in the district would like to see the question of hives and frames thoroughly thrashed out in your columns and this apart from business motives which no doubt actuates a number of the supporters of the various hives, &c. I notice that a few argue in favour of the Langstroth on account of its general use, but this is not argument. If there is a better by all means let it be adopted.

Mr. Selkirk, Wauchope, Hastings River writes:—The weather just now is very favourable for the bees and they are showing their appreciation of same by working away right merrily, bringing in fair lots of honey for winter supplies. The honey flow is now chiefly from the blood wood trees which are white with great heavy masses of bloom. We should be able to winter well here and commence in spring with good strong colonies. So far we have not met with any foul brood and for this we are, as we should be, very grateful. Long may it be unknown to the locality.

Mr. E. J. Rien, Hawkesbury Agricultural College, writes:—You will be glad to hear my bees are beginning to roll the honey in at last. I will have nothing to say re "the long idea hive," as I am in want of information. As to the questions, after the combs get a certain age I do not think they ever get any worse. I am of opinion the bees remove the cocoons then. I have some about 6 years old which are in good order, the cells are a little small, but I do not think they will get any worse.

Mr. Jno. D. G. Cadden, Windsor, writes:—When I was a boy I often heard it said that the famous lawyer, Bob Nicholls, frequently said he could drive a coach and four through any act of parliament passed up to that time, in the 50's. Well we are supposed to have improved since then, and we now pay our law makers £300 a year to make good laws, but do they do any better? Just take two—The Vine Diseases Act, and The Adulteration of Food, and in both the same remarks apply. The former has been almost unworkable from the start, and the latter requires an amending clause before we can convict for adulteration of honey; and so the adulteration goes on. Let us stop their grog till they do better in law making, or let us have less law and better administration.

Mr. Solomon Hopson, writes:—Although I am only quite a small bee-keeper my apiary consists of five colonies, two Italians, and three hybrids, all in good order for winter, each hive having over 30 lbs of honey. Nearly all my bees died last winter with some kind of disease, only leaving me three hives, and they were very low towards the end of the winter. There is a small honey flow here just at the present, and the bees are laying up a good store for winter use. I hope to increase my colonies up to 10 next spring, by making artificial swarms. Could you please tell me the best and safest time for making artificial swarms.

Wait till the natural swarming time and just before the bees would swarm naturally themselves.



Mr Thomas Halloran, Wagga Wagga, writes:—The honey flow still continues. My bees have given 1,100lbs of honey for nine colonies up to date. Moths are doing good work in clearing out the box hives. The man with the gin case will be a thing of the past shortly. Foul brood is still about, I saw a case of it in a neighbour's apiary to-day. We are about forming an association here to see if we can improve things by working in union.

Mr R. H Jervis, Wrekin Apiary, Moss Vale, writes:—It has been a very poor season in this district. This is the third bad season in succession, last season owing to the wet, this season for want of bloom. I number over 100 now, near 70 colonies in my out apiary. Took them 15 miles on a very rough road, hives cram full of bees; a lot of them with two stories, all the frames wired; not one of them broke. Most of them self spacers and a few of the ordinary. The sooner we get a Foul Brood Act the better, as my neighbours bees are unfortunately alive although he thought F. B. had killed them. He is going to what he calls rob them; that means, strew broken combs all over the place for bees to clean up; he lives within 200 yards of me. That means I have a few hives to treat for F. B. next spring. That is what I had to contend with the last two years and still his bees are alive after being affected so long.

Mr Broadbent, Mount View, writes: For nearly two years I have been taking the *Bee Bulletin*, and the practical little journal has been very serviceable to me during a bitter experience of eighteen months in beekeeping. So bitter an experience that I often wished for a partner to share with me the responsibility. The longest lane has a turn, and so with my experience, for the bees are now freely bringing in honey, principally from the common Australian box tree, which is now flowering for the first time since I came here, and that was in November, 1893. I noticed in your journal

that the Wellington beekeepers have sent to England a shipment of honey. That is a step in the right direction, and I heartily wish them every success in their venture. Let all of us who correspond with friends and relatives at home (England) season that correspondence with enquiries about the honey trade and continue to send small consignments of honey. In this way we will get in the thin edge of the wedge and we need not fear the result, so long as we sell good pure honey.

Mr. C. U. T. Burke, writes:—I would like to ask you two "ticklish" questions and if you can answer them I will feel greatly obliged to you. No. 1 is, Opening a hive of Italian bees to show my brother some young bees just hatching, I was greatly surprised to see a large black queen running about on the comb and the bees seem to bear her no ill-will. Thinking my Italian queen turned black I further overhauled the hive and found the Italian queen on another comb. That they had met and fought was quite evident as the Italian queen had two legs pulled off, otherwise she is not hurt. Now I have only two black hives with black queens and both are laying away. And no other black bees within half a mile of my place, and what I want to know is, 1st How came this black queen into the hive? 2nd How is it the bees in hive did not ball her and turn her out? 3rd The queens, showing signs of having fought, why did not one kill the other? That's one question, Mr. Editor, now the next. No 2. I introduced a young Italian queen into an Italian hive. She layed away for about two months, and now she has stopped laying for the last three weeks. I have watched her on the combs and she makes great pretence of laying, but "the devil a one" she lays. Query, What's the reason of this? Don't go and say to my first question that the black queen probably came from one of my black hives, for such a thing was not possible with me.

We will hand these questions over to our readers.



## Queens From America.

W. MAITLAND,  
26th FEB., 1895.

DEAR SIR,

Considering the large number of Queens sent from America to this Colony, and the very large percentage of loss on the voyage, it has induced us to arrange with W. S. PENDER, who will, if sufficient inducement offers, visit the United States during the coming winter (American Summer), and purchase from the most noted breeders, a large number of Tested Queens to order, of the undermentioned varieties. He will return in August or September, which will land queens in time for our next breeding season.

- (1), 5 Banded or Golden Queens.
- (2), 3 Banded (Italian) Queens.
- (3), Grey Carniolans.
- (4), Golden Carniolans.

The Apiaries most likely to be visited are those of :—  
G. M. DOOLITTLE (breeds 1 & 2). A. I. ROOT (1 & 2); A. E. MANUM (1)  
J. D. GIVENS (2); J. P. MOORE, (1); L. L. HEARNE, (2); J. B. CASE,  
(2); C. D. DUVAL (2); HENRY ALLEY (4); F. A. LOCHART (2 & 3);  
F. BENTON (3); S. F. TREGO (2); MRS. ATCHLEY (1 & 2), etc.

We will be pleased to receive an order from you for one or more of the above mentioned varieties of queens from any of the above named or other breeders. Price, 20/- each, 5 at 19/- each; 10 at 18/- each, 20 at 17/- each.

The following advantages will be gained by trusting us with your order :—

- (1) **SAFE DELIVERY GUARANTEED.** This will be a great consideration, as under the present system of importation the loss is very great; in the case of the Drumfin apiary alone the first 17 queens were lost.
- (2) **PERSONAL SELECTION OF QUEENS** as far as possible.
- (3) **PERSONAL ATTENTION** on voyage. By giving necessary attention on the voyage the queens will not suffer as they would in the mail bags.
- (4) If you import direct from the breeder you have to take all risks, and would probably order and pay for at least double the number you require, and then perhaps not get any alive. *We will guarantee safe delivery or return the money.*
- (5) A queen from each of several yards can be ordered, and thus different strains obtained.

It is very important that you should communicate with us at once the number of queens required; the money can be sent either with order or not later than 10th April. Further information can be had on application.

### **SPECIAL NOTICE.**

N.B.—Owing to the lateness of season and a large number of queens being required, I will not book any further orders for delivery of queens this season.

Yours faithfully,

**R. L. PENDER.**



# THE AUSTRALIAN AGRICULTURIST THE AUSTRALASIAN BEE MANUAL

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**Mrs. Jennie Atchley,**



BEEVILLE, BEE Co., TEXAS, U.S.A.

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