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The Australian bee bulletin. Vol. 10, no. 1 April 27, 1901

West Maitland, N.S.W.: E. Tipper, April 27, 1901

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THE AUSTRALIAN Bee Bulletin.

A MONTHLY JOURNAL, DEVOTED TO BEE-KEEPING.

EDITED AND PUBLISHED BY E. TIPPER.

Circulated in all the Australian Colonies, New Zealand, & Cape of Good Hope.

VOL. 10. No 1. APRIL 27, 1901. PER COPY, 6D.

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ROSEBUD APIARY,

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The Australian Bee Bulletin.

A JOURNAL DEVOTED TO BEEKEEPING.

— Edited and Published by E. TIPPER. —

MAITLAND, N.S.W.—APRIL 27, 1901.

The following is a list of advertisers in our present issue:—

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R. K. Allport, Chuter St., North Sydney.
A. Hordern & Sons, Haymarket, Sydney.
The W. T. Falconer Manufacturing Co.,
Jamestown, N.Y., U.S.A.
Chown Bros. and Mullholland, Ltd.,
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Mrs. Jennie Atchley, Beeville Bee Co.,
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J. W. Miner, Ronda, N.C., U.S.A.
R. H. Jervis, Moss Vale, N.S.W.

Miscellaneous.

A. Hordern & Sons, Haymarket only,
Sydney.
Allen & Co, 242 Sussex street, Sydney
The Farmers' Co-operative Company,
Ltd., Sussex street, Sydney.

 R. Albert Gale is leaving no stone unturned in order that a Foul Brood Act shall be passed by the Legislature of New South Wales. Statements are made in the Sydney press and in other places that foul brood is rampant all over the colony—that the colony is reeking with it; that *there are only half the bees in the colony there were a few years ago, all from this cause!!* Also that those who are opposed to the bill only do it because they have foul brood in their own apiaries, and don't want inspection! For ourselves

we replied in the Sydney dailies if there were only half the bees there were a few years ago it was not due to foul brood, but to bad seasons, uncertainty of flowers and steadily decreasing prices, that caused people to give their time and money to something more certain in its results and paying than to bees. Having done that much we feel our duty is done by now calling the attention of beekeepers to what is going on. If they as a body are satisfied a Foul Brood Act is necessary, so will we be. If they are not, let them use their influence with their legislators and the press to prevent its becoming law. We may be wrong, but it seems to us there is a mountain made out of a mole hill, by Mr. Gale and his following, as after visiting apiaries in different parts, and being in constant communication with apiarists all over the colonies, we have very seldom heard foul brood mentioned in New South Wales for several years past till these wonderful tales of its dreadful ravages are thrown broadcast, to the frightening of inexperienced persons. We advise beekeepers to think the matter well out. Six months ago we asked for opinions, giving no bias in any way. In nearly every case the replies were against such a bill. A serious matter in connection with these false reports: Who will buy queens in New South Wales, or foundation, when such reports are circulated? Or again, who in New South Wales will launch out in such a (as is falsely represented) plague stricken industry?

—♦—
Get Sample Labels from the *Bee Bulletin* Printing Works.

THIS issue commences the tenth volume of the *Australian Bee Bulletin*.

We have through those nine years endeavoured to do our journalistic duty in the best interests of the fraternity. While endeavouring to impart the fullest and latest information, also all the different ideas and opinions obtainable, we have never failed to give the two sides of the industry, the advantages and disadvantages, the ups and the downs of it. We have embarked in it ourselves—have several hundred pounds in it, had a few years' experience, had bad seasons, and so can well sympathise with others situated the same. We have tried our best to gain knowledge, not only by reading, but by going to the homes of the apiarists. In doing this we have to rely on our own apiary and our subscriptions and advertisements. We are not supply dealers. And we must sincerely thank those who have for years assisted us as contributors, and giving their sympathy and support to the policy we have been and are pursuing. We will continue to strive to deserve such sympathy and support, and our motto will ever be the making the industry profitable to those who look to it as their main means of livelihood. We ask our readers to well scan the index given with this issue, feeling assured it will cause them to look over the back numbers, and to note many useful and valuable things that may have slipped their memory. Many a pleasant hour have we spent looking over the bound volumes of the past years.

During winter time handle your bees as little as possible.

IMPORTANT.—Have you left sufficient honey in your hives to carry them through the winter?

Mating queens in confinement an accomplished fact. See article on another page.

It is too late to take honey off hives now. If you do so don't be surprised at robbing.

See Bee-Farmer's Association report elsewhere.

Frames with dead brood, put in a hive on an ant bed, were thoroughly cleaned by the ants.

The man, the locality, and the bees, have as much say as the hives used in the production of honey.

The successful wintering of a colony depends much on the compact shape of the stores in the hive.

Bee moths may be trapped by setting a lamp in a wide pan of water and kerosene during a still summer night.

It is said honey diluted in water given to small pox patients, the pustules of the worst variety will disappear, and the fever immediately diminishes.

The Rev. Hessel Hall is satisfied, opinions to the contrary notwithstanding, that bees gather a great deal of honey from maize.

For population in proportion to area United States and Canada has eight times better market for honey than Australia.

A thin coat of French polish on to a tin before putting on labels will make them stick well. Use ordinary boiled floor paste to stick the labels with.

We acknowledge receipt of the 1901 Catalogue of the W. T. Falconer Manufacturing Co., Jamestown, New York, U. S. A. Very full and complete. Beekeepers would do well to write for it.

A ton of yellow box honey was some time ago put up in 7lb tins nicely labelled, and sent to England. The replies re the same said the flavour was too strong, and it was unsaleable.

We will call the Victorian Beekeepers' attention that the Victorian Apiarists' Association hold their annual meeting May 8. Every beekeeper who studies his own interests will try to be there.

Experiments made to prove the relative value of thick and thin foundation, show it is no economy to the bees to give them thick foundation. If foundation is given let it be as thin as possible.

In sending 60lb tins honey away, a little solder prevents the lid flying out and the honey escaping, and messing everything.

In conversation among beekeepers in Sydney, it was said the local markets were not sufficiently worked. Honey was being sent to Sydney, which afterwards had to be sent back again to the country.

A beekeeping farmer we visited lately complained bitterly of the way his neighbour beekeeping farmer was underhandedly trying to find out where he sold his honey and then underselling him.

Messrs. Allan & Co., of Sussex St., Sydney, seemingly get through a great quantity of honey. From the quantity going in and leaving the store they must have good markets somewhere.

VEIL.—Mosquito net with black Brussels net fitted in front to see through. Elastic on top to fit on hat. Make long enough to fasten under vest, or pin in front of dress. If Brussels net not available, colour mosquito net with writing ink.

It is with very great pleasure we hear good opinions of those that advertise in our pages. We do so specially in the case of Chown Bros. and Mullholland. Several beekeepers we visited who have been getting their tins from this firm giving them great praise.

Our bees are working on an exudence from the white box. Some one suggested it might be droppings from plant lice on top of trees. But it is from the white box only, and on both sides of leaves, and also on stems, where it could not possibly be fallings from above. It is like fine dew.

We acknowledge receipt of packet of water melon seed from Mr. H. A. Halbert, of Colman, Texas, U. S. A. It is a sort he has worked for five years to fix the type, and reckons it the very best for family use and home market. We have given it to a couple of good practical farmers to plant and try.

The Manager of the Farmers' Co-Operative Co., Mr. D. McFadyen, in-

formed us that his company, one of the largest handlers of Colonial produce in Sydney, have been energetic in honey matters of late, one result being some 25 tons of honey were then being re-tinned and put in new boxes for exportations to markets they had secured. May their efforts receive continued success.

As this issue begins the tenth volume of the A. B. B. we would strongly urge upon our subscribers having their numbers bound. We do the binding at 3/6 per volume. Only those who keep and read up back numbers know their value, and what good things **they** sometimes are reminded of or have forgotten.

It does not pay to adulterate honey with glucose. It is almost as valuable as honey itself. That cry for a time kept many people from buying honey. Another cry is now being raised that will be perhaps more injurious—that N.S.W. is *reeking* with foul brood! Who will buy honey in Sydney to feed with during the coming winter, should they want it ever so badly? Or N. S. Wales queens either?

Travelling recently in company with a tailor who had never owned a bee hive, it was astonishing the amount he knew about bees, the way to manage them and the advice he could give. He is a sort of village oracle, and gossips gather round his work board who know every thing, or suppose they do. Asked if they knew how to manage his own business better than they did himself, he shook his head. Are there not too many such in the bee world?

O. O. Poppleton says in "American Beekeeper," that virgin queens caged and introduced upon removing the old queen do not lay nearly so soon as if they emerged from the cell among the bees.

Professor Benton says in "Southland Queen."—The race of the Island of Cyprus is the noblest and most valuable of all bees which up to this time have become publicly known.

A lot of valuable copy unavoidably held over till our next issue.

We lately visited the apiary of two lady beekeepers—two sisters. They work about 25 hives in a district with a mixed flow. Make all their own hives, having a well arranged workshop with bench. Sell all their honey at top price, none under 4d. per lb. Not only do they make all their own hives, but they showed us their lattice work fern house, all built by themselves, together with about 30 yards of hose, ditto, with which they water the beautiful assortment of ferns they have collected and cultivated with great care. They showed us the hives containing their best queens, and told us where they were purchased. Were very anxious to know if it was too late to extract now, as they were afraid of the honey candying during the winter. We advised them not. If it candied dip the frames in warm water and the bees would soon dispose of it.

We would call attention that a practical Bee Farmers' Association is now formed in New South Wales. It is an association that all may join, amateurs, commission agents, supply dealers; but no one can hold office in it that does not work 50 effective hives. Persons holding more than that can have an additional vote for every additional 50 effective hives. No person can be elected to office who will not undertake to attend at least one meeting a year. Now as to the officers elected. The President is the Rev. Hessel Hall, M. A., a gentleman who himself works 150 hives, is a fluent and able speaker, and at the council table his advice and remarks abound with practical common sense. Of the Vice-Presidents, Mr. T Bradley is one of the oldest and most experienced apiarists in the colony, a gentleman who formerly held a responsible position under the East Indian Government, and a solid thinking man. Mr. Penberthy is one of our most successful beekeepers, and a man who possesses great influence among the north eastern beekeepers. Mr. Eather is also a beekeeper of experience and many years standing. Mr. Tipper, as

Secretary and Treasurer, is sufficiently known to need no remarks here. It remains for beekeepers to do their part now by joining and helping to make the Association what it ought to be, the speaking-power of the industry. And one matter in connection with this is that persons as they join should give the honey returns they represent, not for circulation of the private returns, but that the Association as a body may be able to say: "We represent the production of so many hundreds or may be thousands tons, and therefore claim to be heard in the councils of the state. We ask our readers to read the rules elsewhere."

HIVE MAKING.

The season is now approaching when the beekeeper has little to do. A good way of filling up time is to make a few hives for the coming (let us hope) good season. The great essential is to make the hive of a standard size and to fit the standard frame. The latter is—top bar 19 inches, depth of frame 9 inches. The top bar is $1\frac{1}{2}$ inches longer than body of frame, to afford space for it to hang on ends of hive. It should always be hung at such a height that there will be a bee space between the bottom of it and the bottom board of hive to allow bees to move about on bottom board. Though not making such a perfect hive as if the hive was manufactured out of regular boards, yet in country parts there is no more convenient timber than the kerosene box. To make a hive out of such, fasten top securely on, place box on side. Take off one side. As it now lies, cut a hole near ground on one end for entrance. The ends are thicker wood than sides. Chisel out along the now top of such sides to give room for frames fitting in. A strip of tin 1 inch wide nailed against such top of end enables the top of side to be chiselled a little more so that when the frames are slid one way or another bees are not killed,

fitting the strip of tin so the top of frames allows bees space between them and top or cover of hive, and bee space at bottom. To complete the hive you want a second box. The sides will be too thin for wintering, so out of the second box you take boards to nail on side of hive, putting them so they will not come quite to top, but form a rest on which the cover may come down. Out of balance of second kerosene box a cover may be made to come over all and fit down nicely on second side pieces. The best example of such hives are made by Mr. J. Anderson of Hexham, and they are well made. We also know several ladies who are great adepts at making them. The only fault with such hives, to our thinking, is, the bottom board is a fixture, but that may be overlooked when such a cheap and convenient hive is secured.

VISITING.

While in Sydney we made an excursion to the home and apiary of the Rev. Has-sall Hall, M.A. Having some few years severed his connection with the Wesleyan Ministry he has taken to beekeeping as his main source of living. He has some 25 acres of ground, on the side of the hill overlooking the vast Emu Plains, the hills and gullies for miles back from same being covered with honey-bearing trees and scrub. He seems to have a succession of fair seasons, this year taking altogether about 10 tons from 150 hives. There are a number of orange orchards, from which he secures a quantity of pure orange honey each year. He has not neglected other matters, having cleared a good deal of the land of the immense quantity of stones that encumbered it, manured it, and got some fine crops, strawberries being one. He tried poultry, but beyond family purposes does not consider it pays to go largely into. We spent a very pleasant day in his company and that of his family. Both Mrs. Hall and her little sons are beekeepers, and make themselves very useful in assisting Mr. Hall in the working of the apiary.

ROYAL AGRICULTURAL SHOW.

There was a very fine display of honey at the above, some six very excellent trophies being erected. The Champion Prize of £7 for the best collection of the products of an apiary in trophy form was awarded to Mr. Abram, this being the fourth time he has secured this prize. Mr. F. J. Ward was a very good second. Mr. Abram also gained first prize for queen in observatory hive and both Italian and leather-coloured queens, and frame of honey-comb. Messrs. H. R. Roberts and Co. were large exhibitors, and so also were Messrs. Seabrook, coming first and second in display of extracted honey. Mr. Pankhurst, of Duri, secured first prize for extracted honey, it being a pure yellow box sample. There were some very nice samples of wax, both white and yellow.

Selling honey, both in bottles and sections, was carried on throughout the Show, a real good trade being done.

Messrs. Hebblewhite and Co., formerly bee supply dealers, of Sydney, were exhibitors of Wheeler and Wilson's sewing machines and bicycles.

Messrs. A. Hordern and Co.'s building was well stocked with an immense variety of valuable useful and ornamental goods. They had also a good stock of bee goods.

BEE FARMERS' ASSOCIATION.

A meeting for the purpose of considering the rules and constitution of above took place in the board room of the Farmers' Co-operative Co., Sussex-st., Sydney, on Tuesday afternoon, 9th April.

The Rev. Hassell Hall, M.A., was voted to the chair.

Mr. E. Tipper read the following correspondence:—

Wyeec, April 6.

I cannot come to meeting. Very sorry. Hope you have a good meeting.—Yours faithfully,
E. J. RIEN.

Appin, 7th April, 1901.

Dear Mr. Tipper,—I find I cannot be in Sydney to-morrow. I regret it very much. Understand, however, that I am in complete sympathy with you and others in the formation of the new Association. I'll try and be with you on Tuesday. If I cannot join you on Tu-sday let me know if I can be of service to the Association, and you may rest assured that to the utmost of my power I'll help.—Yours faithfully,

T. H. BRADLEY.

Brushy Hill, April 2, 1901.

E. Tipper, Esq., Willow Tree.

Dear Sir,—I regret very much being unable to attend meeting in Sydney. Low prices and a very indifferent season making money almost non-existent with me at present.

The formation of the Bee Farmers' Association has my hearty support, and good results for bona fide beekeepers are bound to follow.

The matter of export and marketing of honey is a burning question with most beekeepers, and if the meeting can devise some better means, it will have accomplished more than all previous conventions, and all the blatherskiting of Messrs. Gale and followers. I regard the scheme for export of honey of the H.R.B.A. as a really good thing for—supply dealers, providing for the maximum amount of outlay for a given quantity of honey without a reasonable prospect to compensate producers for the heavy outlay and extra labour. However, I think it does not take a prophet to see that this elaborate scheme will end in nothing.

Wishing yourself and brother bee farmers every success.—I remain, yours sincerely,

PAUL VOLTZ.

Bellinger, Feb. 18.

Dear Sir,—As I make my living by the little busy bee, I would like to become a member of the N.S.W. Bee-Farmers' Association. Kindly state the amount required and oblige.—I am, yours truly,

JOHN F. DONNELLY.

Stuart's Point, Macleay R., April 3

Mr. E. Tipper,

Dear Sir,—Re the matter in Circular 7, N.S.W. Bee-Farmers' Association. Being unable to attend the meeting on the 9th inst., I request you to act for me as a bee farmer, (whose sole living and occupation is bee-keeping). I am convinced that we need such an Association to guard our interests. I wish to be enrolled as a member, and shall send subscription to your direction. Being the chief beekeeper of this part, where there are many apiaries, and being well-known as such, I am willing to do any writing or take any office in the Association that will not demand long journeys to such as Sydney. With me, it is not merely the cost of

the trip, but the big difficulty of getting to the steamer from here, unless a craft is going by chance to the entrance, it is a long way round. I hope you will be able to set the Association up and I promise to do what I can for it.—I am yours faithfully,

PETER RIDDEL.

P.S.—I have a good stock of first class honey and some second. Waiting better prices.

Mr. Penberthy moved and Mr. Eather seconded "That those present form a Bee Farmers' Association." Carried.

On the suggestion of the Chairman, it was resolved the Secretary take steps to obtain the quantity of honey the members of the Association represented, the private returns not for publicity.

The following rules were then adopted:

OBJECTS.

1. The careful watching of the interests of the industry.
2. To arrange for combined action in exporting honey to relieve local glut when necessary.
3. To advise members as to suitable localities for establishing apiaries.
4. Any beekeeper can become a member on approval of committee, subscription 2/6 per annum.
5. That every member with more than 50 hives shall be allowed an extra vote for every additional 50 effective hives.
6. No member be eligible for office who has less than 50 effective hives, or his subscription is in arrear.
7. The Association to consist of a central body and district branches affiliated with it.
8. The principal officers be such as will undertake to meet each other in committee at least once in twelve months.
9. The officers shall consist of President, Vice-President, Treasurer and Secretary, and Executive Committee.
10. After the first election of officers, arrangements to be made by the Secretary to call for nominations for office-bearers, and issue ballot papers prior to next annual meeting.

The election of officers was then proceeded with, as follows:—

President, Rev. Hassall Hall; Vice-Presidents: Messrs. F. W. Penberthy, Bradley, and Eather. Treasurer and Secretary: Mr. E. Tipper. Committee: Messrs. Gersbank, Myers, Shaw, W. Handcock, F. Donnelly, C. U. T. Burke, E. J. Rien, J. Anderson, with power to add to their number.

The Chairman moved a hearty vote of thanks to Mr. McFadyen for the use of

the Board Room, alluding to the great interest that gentleman had always taken in the exportation of honey and the produce of the land generally.

Mr. McFadyen, in reply, spoke of the efforts that had been made by his company to secure the largest and best markets. He believed we have a very good future before us. Spoke of the likelihood of a system of adulteration being carried on in Sydney. He would do all he could to help the Association, and the board room would be always at their disposal for meetings.



316.—Italian queen mated with black drone, will her drones be pure Italians?

317.—It has recently been stated that N.S.W. is "*reeking* with foul brood." Will you kindly state how this refers to your district?

W. NIVEN.

317. During all the years I have been among bees, less than a dozen cases of Foul Brood have come under my notice. I may say Foul Brood is hardly known in this district.

T. F. BRADLEY.

317.—So N.S.W. is said to be "*reeking* with foul brood"! Is not this to say the least of it, a highly coloured assertion? It is certainly untrue in regard to the districts of Appin, Campbelltown, Camden, Wilton, Sherbrook, Dark's Forrest, and Wedderburn.

ELLIOT J. RIEN, M.H.A.C.

316.—In the case of first cross, I think there will not be much difference but still I am not satisfied that they are really pure.

317.—Re this, I have never had foul brood in any of my apiaries or seen it in any apiary I have visited, and I have visited a good many.

J. F. DONNELLY.

316.—In reference to drones from pure bred Italian queens which have been mated with black drones, their drone progeny will be pure.

317.—There is no foul brood in this district and never was to my knowledge, nor yet from here North. My opinion is that Mr. Gale should be very careful as to his statements re the ravages of this disease. I have visited apiaries both on the Clarence and Macleay, and am well acquainted

with all the bee-farmers of the Bellinger, and I never saw the disease in any of the three districts, and am perfectly sure that it is not in existence in our district. Do all in your power to prevent the foul brood act going through the Legislature.

PAUL MOORFIELD.

316.—I have had pure queens, that is queens whose progeny have had the 3 bands, and have had queens from these that have been mated with black drones. From my observations of the drones, I found some of them perfectly black and some golden, so that I think some of the drones are black and some pure like the workers, although I have had black coloured drones from pure queens whose progeny workers were all marked with the 3 bands. It is now difficult for me to give an opinion as there is such a lot of black and hybrid bees round here, although they are now all getting Italians.

317.—How this refers to this district. Well, about twelve months ago there was foul brood here and I got a good dose of it, but I soon got rid of it by the starvation plan. It was in the trees in the bush, and the bees dying out my bees used to go and rob the remains. There was also a man who had a few hives (3), he had it bad, and when his bees died out, he used to leave his boxes open so that my bees could go and clean them out, so he says. He now says beekeeping is no good, and gives them up. Well, I used to be a bit sore about it one time, but when I came to consider I saw that it was a good thing, for this reason: It meant that no one would go in for beekeeping who would not look after them, as they would soon get full up, and also that it would give the struggling bee-farmer a show to get a living, as what I have seen it is those who have one or two hives who bring down the price of honey to a starvation limit. They go to a storekeeper with their one or two tins of honey and sell it at what it will bring, and when the bee-farmer wants to sell his, he is told "Oh I can buy it at so and so," and he has to sell as he has no Government firm to help him but has to depend on bees for his living. The bee-farmers can look after their own bees without any inspector coming round, and will it be a nice thing to tax the industry for the sake of keeping a few school teachers, etc., to compete against them, while they have the Government pay to back them up. I think we ought to get a law passed to prevent civil servants competing unfairly against us.

LOYALSTONE.

313. This is a matter for scientists to decide. In my opinion the drones are not pure Italians. I firmly believe that the drones inherit certain traits from the drone that mates with the queen.

317. You want to know whether N.S.W. is "*reeking* with foul brood." Certainly it is. The air we breathe is contaminated with it, and no doubt the bubonic plague and typhoid fever

is accelerated by it. All the bees in N.S.W. will be dead with this disease in the course of one year or 18 months, and unless decisive steps are at once taken by the Government the human race will catch it, and when once it gets hold of the people the population of the world will be decreased one half. I think the best thing that can be done is to appoint about 20 inspectors with large salaries, railway passes, etc., and have an experienced man at the head to direct these inspectors—one gentleman for instance, who has overwhelming experience in this class of disease. Give him a tip-top salary, say £1000 a year and all expenses paid. Likewise otherwise distinguish him by getting the Duke of York when he visits Sydney to confer on him the distinguished title of Champion Foul Brood Inspector of Australia. All the salaries are to be exacted by a tax of £1 per colony of bees per annum, and when this is done Foul Brood will be effectually stamped out. I also consider that "Loyalstone" should have a show and be appointed right-hand man to the head inspector, because I know he wants a snug billet as well as the rest of them. Mind you, these are not "Loyalstone's" ideas. These ideas were dictated to me by my six-year-old son. The following is Loyalstone's reply to question 317. No; N. S. Wales is not "reeking with foul brood." There is less of it now in N.S.W. than there was three years ago, notwithstanding Mr. Gale's assertions. Any beekeeper, whether only having 7 hives or 100 takes jolly good care that foul brood will not clear him out of bees. I have travelled over a good part of N.S.W. and I have always found that any beekeeper that had foul brood, at once took means to eradicate it. I found odd cases where beekeepers did not know how to cure it, and when shown, promised in the future to treat any case that appeared in the manner shown. Of course there may be a few that when foul brood gets a strong hold, get disheartened and let things take their course, but I think most of them, when things got so bad, make a pile of the hives, frames, etc., and fire the lot, and chuck up beekeeping as a bad job. The falling off in the number of colonies of bees this last few years, is partly owing to bad seasons, and mainly owing to the industry not being the thing it was "cracked up" to be by lecturers, supply dealers, etc. The industry was praised up in glowing terms, and a lot of people enamoured with the idea, set up beekeeping, knowing little or nothing about it, and tried to increase the colonies up too quick, the consequence was "they fell in" and found that instead of having strong colonies they were half starved through want of experience, etc., and being disgusted, threw the business up. If you have taken notice, beekeeping has decreased since there has been no lecturer going round to foster the industry up. But take the beekeepers who have been in the business for years and

understand it, have their colonies decreased? If so, it is not through disease, but from the ring-barking and clearing of land, and beekeeping must decrease unless the Government take some steps to preserve the forests that are left. If Mr. Gale wants to assist beekeepers, why does he not make this matter of forest preserving his foremost plank, and leave diseases in bees the next consideration? but no! it is quite easy to see what he is driving at. Are we beekeepers going to allow a few supply dealers, etc., comprising the N.B.K.A. to govern all of us, without having a say? Is the Government silly enough to take notice of a minority, something like 36 men rule the honey industry of N.S.W., without the consent of the beekeepers? I say no! We're quiet while we are let alone, but annoy us, and the Government will have angry bees humming round them.

A Good Word from Victoria.

Tooboorac, Victoria,

April 19, 1901.

Dear Mr. Tipper,

I am indeed very pleased that you have established your Bee Farmers' Association on a satisfactory basis, and that you have first-class men in office. You will need them.

I trust that your N.S.W. beekeepers will use their advantage and join. Your Association will need above all things to be deliberate and moderate in its efforts at the beginning, but persevering regardless of obstacles, and time will tell in your favour.—Sincerely yours,

R. BEUHNE.

J. A., Kilcoy, Hexham, April 23:—I made all the inquiries about foul brood, and I don't think there is such a thing between Hexham and Port Stephens. There was a lot of bees died through cheapness of honey. One man told me that he sells the swarms that came out for 2/6 each. He said as long as he could get a 60lb tin of honey for 7/- and 8/- he was not going to bother with bees, I can assure you that is the kind of foul brood a good many have got. I know another man who is going to sell his bees off, because they will not pay him to look after them.

It is not only a waste of time, but often proves to be a loss to open a nucleus from the time a virgin is two days old until the time for her to be laying.—*Exchange*.

P. W. Hahlman, in "American Bee Journal" states he had charge of 400 colonies last year, and over half of them were destroyed by black brood.



VICTORIAN NOTES.

R. BEUHNE.

VICTORIAN APIARISTS' ASSOCIATION.—The Secretary (Mr. W. L. Davey) and myself had an interview with the Minister of Agriculture, to bring under the notice of the Government the requirements of the Beekeeping Industry. The Minister expressed himself as being entirely in sympathy with our aims and objects, and requested the wishes and opinions of beekeepers be formulated into a series of resolutions at our Convention in May, to be submitted to him for the guidance of the Government in matters affecting the interests of the Beekeeping Industry. It is therefore desirable that all beekeepers should attend and assist in framing these resolutions or state their objections if opposed.

It has come to our knowledge that many who have attended meetings in the past have been somewhat disappointed at the absence of technical instruction in beekeeping matters. This want will be fully supplied at the coming meeting, with profit to the younger members in our calling. The subjects will include: Uncapping combs, wiring frames, fastening foundation, introducing queens, etc. In my opinion it would also be advisable to have a general introduction or reception. There are many who know one another through correspondence, or have heard of one another, and yet are unknown to one another personally, and this would bring them together to exchange ideas and compare notes on particular subjects not necessarily always of interest to everybody.

The Association has done its work quietly, some of the work always will have to be done quietly and privately, as publication even in our Official Organ would defeat some of our objects, such as advising members who apply for the information as to the advisability of selling at certain times and prices, and the financial integrity and methods of buyers and agents.

ACCLIMATISATION.—It appears to be now pretty generally conceded that of the two

VICTORIAN APIARISTS' ASSOCIATION.

ANNUAL CONFERENCE, May 1901.

I beg to draw the attention of all those who intend visiting Melbourne to take part in the Convention to the train service that will be running to the Commonwealth celebrations. The subjoined list shows the dates upon which extra trains will be run on most of the main lines:—

Cobram ..	..	April 24	May 1
Warracknabeal ..	..	April 25	May 1
Albury ..	..	April 25	May 1
Beechworth ..	..	April 25	May 2
Mansfield ..	..	April 25	May 2
Bairnsdale ..	..	April 25	May 2
St. Arnaud ..	..	April 26	May 3
Sale ..	..	April 26	May 3
Echuca (Seymour) ..	..	April 26	May 3
Nathalia ..	..	April 26	May 3
Maryboro to Castlemaine ..	..	April 26	May 4
Leongatha to Cranbourne ..	..	April 27	May 4
Echuca (Bendigo) ..	..	April 27	May 4
Port Fairy (Larpen) ..	..	April 27	May 2
Mitiamo ..	..	April 27	May 4
Yarrowonga ..	..	April 27	May 4
Warragul ..	..	April 27	May 4
Ballarat to Parwan ..	..	April 29	May 1 and 3
Ballarat (only) ..	..	..	May 4 and 6
Bendigo to Harcourt ..	..	April 29	May 1 and 3
Bendigo (only) ..	..	..	May 4 and 6
Colac ..	..	April 29	May 4
Castlemaine to Riddell's Creek ..	..	April 30	May 4
Swan Hill ..	..	April 30	May 3 and 6
Geelong ..	..	..	May 6

By all these trains cheap excursion fares will be charged, but any beekeeper wishing to gain a special cheap rate to attend the Convention must apply to me for the necessary form not later than May 6th. Beekeepers applying will receive, by return post, a railway voucher which will secure them a return ticket at the cost of a single fare one way, but they must return not later than Monday, 13th May. I should, however, advise beekeepers who wish to remain in town for a longer period to travel by some of the cheap excursions which commence running on April 22nd and cease on May 6. Tickets will be issued at half the ordinary return fare and hold good to May 31st.

W. L. DAVEY,
SECRETARY.

principal bee diseases, Paralysis is more prevalent north of the Dividing Range, and Foul Brood south of it, or at any rate Paralysis is dreaded more in the warmer districts, and Foul Brood more in the cooler localities. Many beekeepers fearing Paralysis have obtained queens from districts free from that disease, and others have sent for queens to places not troubled with Foul Brood. This is perfectly right so long as the disease you wish to guard against is not already in the district, but of such places there are but few left now. When disease exists in a locality already, I am strongly of opinion that it is far better to select as breeders, queens of colonies which have resisted disease, with the means of infection all round them. For fresh blood I should prefer to send to an apiary through which disease has swept, and obtain queens from the survivors. It is upon these surviving colonies that I look as the best to breed from. The fittest survives, that is to say the fittest for the surrounding climatic and other conditions which fittest may however be quite unfit for other surroundings. During the last six or seven years, I have had queens from many different places, many of them have turned out quite worthless, worthless for the altered conditions showing weakness and predisposition to disease. In justice to the breeders of these queens, I must say that I have not the least doubt that where they were raised they were all that could be desired.

This is also the experience of many other beekeepers with whom I have discussed this subject. Of course new blood has to be infused occasionally, but it should as far as possible be obtained from places similar in climate and flora, or else should be done very cautiously, for no matter how good a particular queen may have been in her original location, her progeny may not be suitable to your locality.

Breed only a limited number of queens from her the first season and let them prove themselves to your satisfaction.

I had a very expensive experience in '94-95, when I had bred some ninety

queens from two queens obtained from outside this colony, the result being paralysis in almost every colony having such a queen. To prevent them dying, out before I could re-queen them, I had to draw on my old strain to such an extent that I lost entirely what honey flow there was that season.

SWARMING.—The best bee men in America, and other countries have been trying for years to find out the cause of swarming. Let them come to Australia and learn. Bee chat in the *Austral Cultivist* has discovered it, it is because when the broodnest is completed the bees say "we are enough for two, we must divide" and they raise queen cells.

This is new, but it is not true. I have never heard my bees say anything at all, I don't even know what they think.

Putting starters in the centre of the brood nest is the remedy against swarming, and in proof of its effectiveness an apiary is given as an instance with only one swarm in three years. Bee Chat was evidently so well pleased with himself at making this discovery, that failing the expected appreciation of others, he calls himself "our enthusiastic young friend" in the following issue, and strongly recommends others to follow this method of producing drones.

Now, I happen to know a little about the apiary in question, and know that the reason of having only one swarm in three years is a totally different one. What the reason is I will leave to our up-to-date enthusiastic young friend himself to find out, after which he will probably be a little more careful in giving instructions to beginners. As a short-cut for the above method of the incomplete broodnest, I should recommend hiving bees in piano cases.

OPINIONS ON ITEMS IN MARCH ISSUE.—That writer in *Austral Cultivist* re £200 a year makes an abstract statement equal to "A man can walk four miles an hour." It depends upon the man, the road and how long he will keep it up. It is on the strength of such undefined assertions that people lose their money and time after

investing in bees. Just put 100 hives of bees into a paddock that will not carry 100 sheep and you will get £200 worth of honey instead of a miserable bit of wool, and of course it is inferred with as little trouble.

The Editor's way of going about the extracting business is alright, "Take away the full combs and put empty ones in their place"; my way won't be wrong for I do it the other way, I put empty combs on the hive first and take the full ones away a day or two afterwards. Of course you must have the spare combs if you run your colonies with only one super. Two supers is better, and if you get behind a little use three and the bees can go on working when your extractor has gone bung. If you extract all the supering at one time and return extracted combs or foundation, you lose a day's gathering and get the brood combs glutted with honey, but if the bees have a start on empty combs or foundation for a day or two before you take away the full combs you do not disturb them at all.*

Yes, Mr. Editor, 2lb treacle at 7d or 2lb honey at 9d. That is something to think over, apart from the difference in price and the difference in profit to the storekeeper. To bring honey into general use the same as treacle, it should sell at about two-thirds the price of treacle. You will be horrified, because it's so much nicer than treacle, but that is just the reason why it should be cheaper. Some years ago, when I had the middle man craze, I dealt largely direct with the consumer and sold at treacle prices. There was quite a run on it for a bit but after three or four doses of honey people would go back to treacle. Now, I made it a practice to find out why? Many told me at the same price honey was dearer than treacle, because much more was used; others said they were tired of it, but a little diplomatic questioning would generally bring the reply that honey did not go so far as treacle.

Now, where are we! Sell our honey at

*By taking away only full combs there are always some unfinished ones left.

less than treacle, and give the grocer as much or more profit than what he makes on treacle, and then there is room for thousands more beekeepers. Just think, Mr. Editor, of the many new subscribers that it will bring to you, and customers to those philanthropists who have hives for sale. In my opinion treacle is a by-product, honey is not a buy-product.

QUESTION.—No. 316 puzzles me. Italian queen mated with drone, etc. Do they ever mate with anything else? Say, cockroaches, don't know whether I should express it more politely and say rooster roaches.*

CLIPPING QUEENS WINGS.—Judging from the amount of ink used over this subject in bee-papers, clipping queens wings is a very difficult operation. I don't quite understand the Editor's instructions in last issue "catch the queen with the thumb and forefinger of your right hand" I always do it that way when I want to kill them. Then again "drop the frame," I won't, it damages the comb too much, sooner than clipping like that I'll hobble my queens.

*A printer's error; should have been 'black' drone.

ANTS IN FLORIDA, U. S.

PROF. COOK IN *A. B. Journal*.

I have long believed that ants are to the Arthropoda what man is among Vertebrates. Even the study of the ant's brain would establish its position at the head of its phylum. Its brain is not only large in proportion to its body, but has a kind of corrugation which reminds us of the convolutions of our own brains and those of the higher mammalia. We know that ants sow seeds, clear the ground, gather and cure their grain, make slaves and do many other things that indicate very high intelligence. We are not surprised, then, at what Mr. Hill writes of this apicide of Florida. He states that in the early evening, scouts are sent out in advance of the main army, which select the colony of bees to be destroyed and plundered.

These advance agents may be seen running over the hive at the very dawn of the night. In such case, the colony of bees is usually doomed unless removed beyond the reach of the menacing host. Mr. Hill has frequently removed the imperilled colony with the result that an adjacent colony was attacked and destroyed.

This method has been the most successful of any tried. Mr. Hill reports that the bees show the utmost consternation when attacked by these ants. The chitinous crust, which in all ants is very hard, is specially so in the case of this bee-destroyer of Florida. The ant has immense strength, is very agile and alert, and, by use of its sharp, scissors-like jaws, is sure of victory. The hum of distress, and even of despair, made by the bees is so characteristic, that it would be quickly recognized even by the inexperienced.

As before stated, these attacks are always made in the night. During the time of the contest, thousands of ants may be seen running over the ground and the hives near by. The ants grasp the bees and the two may be seen whirling one over the other, until the bee is hurled from the hive maimed or dead. This hand-to-hand conflict, if we may so call it, goes on until all that remains of the bees is, to quote Mr. Hill, "a crawling, wreathing mass of dismembered bodies drabbled in perspiration and honey." The victory is sure to come to the ants, but it is not without its fearful sacrifices. Hundreds of the ants are disabled or killed in the battle. These are mixed with the perishing bees and reach high up from the bottom board between the combs. After the terrible carnage, the remaining ants feast upon the honey which is left in the combs and in the honey-sacs of the dead bees.

The immense numbers of these destroying ants can be easily imagined, as Mr. Hill states that he has burned thousands of colonies during the past two years. They seem to be proof against the use of bi-sulphide of carbon. When this liquid

is used, they pick up their eggs and move to new quarters. The free use of gasoline and the torch seems the only practicable way to destroy the destroyers. Mr. Hill has invented a very ingenious way to protect his queen-rearing colonies from these ant banditti. He places them on a stand, the legs of which are so turned that a little basin encircles each leg. This little basin is made impervious by coating it on the inner side with paraffine. By keeping this full of kerosene or carbolic acid, the ants are unable to pass up the legs and so cannot reach the bees. Of course the liquid has to be replaced as it evaporates.

Like all ants, this "bull-dog of Florida" has a sort of scale or hump on its narrow thorax. There are two sizes of the ants, the ordinary small workers and the much larger soldiers. The heads are very large, the eyes round and small, and the jaws very strong and sharp. The entire body has numerous hairs. Except the eyes and the abdomen of the soldiers, and the tip of the same in the smaller workers, which are black, the entire ant is red. As Mr. Hill has not sent me any specimens of the queens, I do not know how they differ from the others except as very likely they are larger and will show stubs of wings. The queens of all ants, as also the males or drones, have wings and fly.

BEEKEEPERS COMMANDMENTS.

The following appeared recently in the "American Bee Journal," with the observation that No. 4 was not a sin, and that 7, 8, and 9 were quite debatable:

1. Thou shalt have no other craft before bees.

2. Thou shalt not bow down to other craft by calling thine own craft "fussing with bees."

3. Thou shalt not use naughty words when your bees salute thee, neither when they cross thy expectations, neither when they clear out thy nuclei.

4. Remember to have a Sabbath corner in thy soul for some other things besides bees. Thou mayest have bees on

the brain, but not on the whole of thy brain.

5. Honor the bee book, which is as thy father, and the bee paper, which is as thy mother. Whoso curseth father or mother let him die the death.

6. Thou shalt not kill—either thyself by over-much worriment, neither thy bees by over-much neglect in the fall, neither thy Gentile neighbour by over-much bee talk.

7. Thou shalt not commit adulteration—neither at the glucose barrel; neither shalt thou accomplish a similar thing by extracting thine honey too soon.

8. Thou shalt not steal thy neighbours cash by selling him poor honey. Thy honey shall be pure, clean, and ripe.

9. Thou shalt not bear false witness in favour of thine hobby—for the same is false witness against thy neighbour. Behold, he will try to ride your hobby, and fall bleeding by the wayside.

10. Thou shalt not covet for an out-apiary thy neighbours range; neither shalt thine eyes be evil towards thy Gentile neighbours few hives. Neither shalt thou covet the honey thy bees need for food. Thy heart shall be large towards every creature, for behold, the same God which made the insect and the angel made thee.

TAMWORTH.

Is one of the few country towns in N. S. Wales that is going well ahead. For some time it was kept stationary on account of land being blocked up by the Peel River Company. That company having decided to dispose of a large portion of such land, a number of well-to-do farmers with cultivated land have superseded the sheep walks. The stores and streets show signs of great prosperity. The annual show this year was a great success, some 400 exhibits more than last year, and the attendance very much

larger than then. The bee exhibits were very fine. Among the prize takers were: J. W. Pender, Jun., comb honey and beeswax; Liquid honey—Messrs. W. G. Chaffey, Pankhurst and Douall; For best queens—Messrs. Pankhurst and F. W. Smith; Miss Irma Kelman, got first prize for yellow wax. Among the other exhibitors were C. P. Dowe and N. Paten, the former getting second prize with two large frames honey in comb.

FOUL BROOD CURE.

Shake all bees into clean hive, with frames with starters only. Close entrance so they can't swarm out. Keep them so for three days. Then feed with syrup. Destroy combs with brood in the infected hive. Melt down the others. Paint with kerosene and scorch the hive before using again.

HOW TO GET FOUL BROOD.—Open your hives a good deal in cold damp weather. In early spring, when brood-rearing is starting, leave cloth over top of frames under cover, with ends hanging down. If rain comes these ends will get wet and the wet will work into the hive. The wet and cold combining will cause the young larvæ to die, then rot. How comes typhoid fever? From decaying and rotten matter, dirty pig-styes, neglected cess-pits. The germs of typhoid fever are ever present, waiting its opportunity on suitable seed bed. Is it so with Foul Brood?

The above two articles don't occupy ten pages to tell all that is in them.

SYDNEY MEMS.

The Poultry Pavilion, newly erected, is a very great improvement, both to the exhibitors and the public.

One Sussex-street man informed us he had carefully tinned and labelled 7lb. tins with box honey and sent to England. He got as reply it did not take. The flavour was too strong.

Get Sample Labels from the *Bee Bulletin* Printing Works.

Another Sussex-street man said the expenses of sending a ton of honey to England was about £7, honey that had realised £25 there giving only £18 to the producer.

Previous to the R. A. Show Sussex-street was well fossicked to get honey or sections to sell or exhibit at same.

Men who allow their names to go as officers or in honourable positions in a society that ignores its debts and insults its creditors (men who have worked harder and spent more in the cause than any of themselves) are no better than the men who do the work they are ashamed of, if they endorse such work.

CAPPINGS.

From American and other Bee Journals.

A Mr. A. C. Miller, the inventor of the hot plate method of fastening foundation in sections, has invented an uncapping machine which is anticipated to be a great success.

Mr. W. Z. Hutchinson, has come to the conclusion that it is not always profitable to supply bees with foundation. During a good flow he claims wax is produced anyhow, and if there is no opportunity to use it somewhere a large portion of it is lost.

"HONEY LEMONADE—Lemonade sweetened with sugar has a tendency to increase thirst instead of quenching it. Fix the lemonade in the usual way, but sweeten with pure honey (extracted preferred.) This not only improves the quality of the lemonade but will quench the thirst and make the drink more refreshing."—*Canadian Bee Journal*.

On New Year's day the office and floor occupied by the *American Bee Journal*, bee-supply and honey business, was made almost a complete wreck by floods of water coming down from the upper floors where a big fire broke out about two

o'clock in the afternoon. There were something like 20 fire-engines throwing water through and on the top of the building in an endeavor to put out the fire, and of course practically all of that water came down through the floor.

Building up weak colonies for the honey-flow is not advisable in many cases. If it be done at the expense of colonies only fairly strong in a region where the honey-flow closes rather early in the season, it will be at a loss, and a reversal of practice would be advisable, that is, drawing from the weak to help the strong. But where the season is sufficiently long—possibly in any case where colonies become *very* strong—it is possible that the very strong may be made to help the weak so that the total harvest may be increased.

For shipping to foreign countries, which are not more than 3,000 to 5,000 miles away, I use a four-hole cage, while for countries from 5,000 to 11,000 miles away, like Australia and South Africa, I use a cage double the latter size, and having eight holes in it—three for the food, one for the bees to collect together in should they go over cold mountains or through a cold wave, and four which are ventilated in every direction, for them to spread out in whenever or wherever it is warm or hot. In the first large cage I use 25 bees and in the latter 40.,—G. M. DOOLITTLE.

The American market for honey is eight times that of Australia; (see November issue page 169). Let the Americans ask themselves how it would be if there were eight times the number of hives and beekeepers to the same market; or to put it another way, one eighth of the population there is now to be supplied by the same number of beekeepers. How would the price of honey go there or how would they regard those who for their own gain or vanity unduly push the industry.

When left to individual marketing, honey does not follow the laws of supply and demand. When a farmer or small beekeeper, who is not dependant on honey alone for a living, finds honey harder to

sell than staples, such as wheat, in his particular locality, he sells cheaply. As there are many such persons, they seriously affect the markets, both local and distant. Yet that same honey, properly held (BOUGHT up, if necessary) and distributed, brings a higher price than the farmer's cheap selling price plus transportation and distribution, and that without any cornering or other such manipulation; for there is any amount of legitimate competition, and always will be.—C. THOMPSON, *Progressive Beekeeper*!

My honey is put up in lard-pails 3, 5, and 10 pound sizes, holding 4, 7, and 14 pounds of honey. I put that honey into the pails at the honey-house. I refuse to sell it, except to the people right by me, until it has candied solid: then I take it to the stores, and the store salesman in my town to-day don't want liquid honey, because they pick it up and tip it on one side and read the honey-label and then set it down and go off. Every customer who wants to look at it will do the same thing, directly the honey is oozing out around the rim. When it is candied, there is none of that trouble.,—Dr. MASON, in *A. B. J.*

Let me state the drone's strongest case, as it looks to me: When a young queen flies, if she comes within sight of 10 drones there is a sort of selection—the one that gets ready first is the mate—and that one is presumably the *best* one in the lot, the one that will transmit the most vigor. Now if she comes in sight of a hundred drones there is still selection, chance good for the best one out of the hundred being the parent. And to be sure of the queen's being seen by a hundred drones whenever and wherever she may fly, there needs to be lots of them.—E. E. HASTY, in *A. B. J.*

Honey in California, as a rule, does not need any ripening. It is very sweet and nice when extracted, that is, if proper precautions are taken by letting at least one-third of the comb become sealed before it is taken out. It is then put in immense tanks that will hold from four

to as high as eight tons. The apiaries I worked in had two tanks holding eight tons each. They made a cone-shaped strip up from each side of the man-hole about 18 inches across; after the tank is full, it is covered with a cap something like a tight paper cover. It stands at a proper angle to get all the heat of the sun—it gets very hot; if there be any thin honey the thin part of the honey will rise to the top, where it gets the most heat. You must remember that when one of these tanks is full—five feet deep of honey—it takes a great deal of heat to get to the bottom. This layer of thin honey, if there be one, is right at the top, and exposed to the hottest rays, and all evaporates and becomes thick and nice; you don't often see any thin honey come from California or Arizona. In Arizona they have a different method—they tie cheese-cloth over the top of the tank. They also store it in the tanks holding about 1,000 to 1,500 pounds; they tie a large cheese-cloth over the top, which catches the insects, and let it stand for a week at least, as a rule, and then skim, and put into cans.—Mr. HATCH, in *A. B. J.*

INVERELL SHOW.

The following were the apicultural prizes at the late Inverell show:—

Best collection apicultural products. J Pennington 1

Leather-colored Italian Queens and her progeny. J Pennington 1

Golden Italian Queen and progeny. J Pennington 1

12lbs of extracted liquid honey. J Pennington 1

12lbs granulated honey... J Pennington 1st and 2nd

Two large frames comb honey. J Pennington 1st

12lbs beeswax soft, clear, yellow,... J Pennington 1st and 2nd

Most attractive display of extracted honey... J Pennington 1

Fruit preserved in honey... Mrs T. P. Borthwick 1st and 2nd

Jam made with honey... Mrs T P Borthwick 1st and 2nd

What per lb of honey does the package—tin or bottle cost?

VICTORIA.

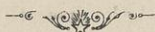
TO THE BEEKEEPING FRATERNITY.—Friends, I am still breeding and selling choice Italian queens. In fact I am devoting most of my time to this branch now. Having sold my dairy herd I intend making queen breeding a specialty. I import fresh breeding queens every season and from different places, so as not to inbreed (a great factor, I think, in preventing foul brood.) My bees have averaged me over a cwt. surplus honey each colony past 12 seasons (summer count.)

Prices as follows. Satisfaction and safe arrival guaranteed.

	One	Three	Five
Untested—	5/-;	13/-;	20/-
Tested—	8/-;	22/6;	35/-
Select Tested—	15/-;	40/-;	60/-

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Rural Co-Operation.

At a special meeting of members of the Silk and Rural Industries' Association, held in the Temperance Hall, Melbourne, Mr. W. T. C. Kelly presiding, it was resolved, on the motion of Mr. A. Brown, seconded by Mr. J. Taylor, Cheltenham, "That the association be registered under the Friendly Societies Acts 1890, for the purpose of raising funds by which to open a depot for the sale of members' products." It was explained that the association now numbered 300 and 400 members, who were engaged in raising special products, such as honey, silk, poultry, &c., and that a difficulty was experienced in finding a remunerative market. It was felt that the members had been educated by the association, and induced to produce certain products, and now it was necessary to go further, and enable them to sell those goods to the best advantage. It was proposed to issue 5000 shares, of 10/- each, in order to establish a central depot, where poultry, honey and other products produced by members could be sold. These products could also be exported through the same agency.—*Leader.*

TATURA, VICTORIA.

On the afternoon of Saturday, the 6th April, a deep gloom enveloped the town of Tatura, when news came to light recording the demise of Mr. Henry Sutton, a well-known and highly respected resident of this town, a distinguished bee-keeper, and the promoter and life of the bee industry of this district. About three years ago when on the way to a local apiary deceased met with a serious bicycle accident, and this, together with chronic heart trouble, was the cause of death at the early age of 34 years. From the beginning of his last illness, which was comparatively brief, the medical man in attendance held out no hope of his recovery, and on Saturday the unfortunate sufferer breathed his last, bringing a life of usefulness to an untimely end, leaving a

large circle of mourners to deplore his loss, and severing family bonds that were strong in the strength of warm affection. On Easter Monday a cortege over half a mile long, which bore testimony to the high esteem in which deceased was held, followed his remains to their last resting place in the Tatura cemetery, where the Rev. A. Chambers, B.A., paid a feeling tribute to the character and genuineness of the deceased gentleman, who leaves a widow and three young children, to whom he was a devoted husband and a kind and loving father.

APICULTURE.

(To the Editor of the "Australian Star.")

Sir,—In your issue of Saturday last you state: "It is well known that few industries offer such handsome profits as that of beekeeping." The writer evidently does not know what he is talking about; the fact being there are few industries that are more uncertain. And these unfortunates (as I may well term some of them) that have ventured money and time in the enterprise will most of them bear me out. In the first place there are few industries that require more careful attention. In the second place there are few localities where you can depend on getting a fair flow of honey two seasons in succession. In the third place the price is gradually and steadily declining. Again, there is great talk of the home market. After repeated trials by Government and private individuals the price of Australian honey in England—of our very best—does not exceed £25 per ton. Deduct from this expenses to and in England (about £7 per ton), expenses in Sydney, and freight from apiary where it is raised; time, trouble, tins, foundation, hives, extractors, &c., &c., where are the handsome profits left? England also allows honey from all the world, and where she don't get her soldiers from, to compete with us. Seemingly there are people who delight in stating such fairy tales. And so bee-keepers, in their own

defence, have to combine. This week such a combination is formed in the New South Wales Bee Farmers' Association, one rule of which is that no person can hold office unless he has 50 working hives. No doubt such exhibitions you speak of do a lot of good in drawing attention to this beautiful food, and so causing more consumption; but if it in addition induces people to embark in that in which there can be no certain return it is a source of mischief. I speak what I know, for few have been more among the apiaries, of New South Wales and Victoria than myself.—Yours, &c.,

E. TIPPER,
Editor "Australian Bee Bulletin."

CORRESPONDENCE.

A. J. C., Kayuga, April 17th.—We have had a very bad year with our bees. The ironbark trees came out well, but no honey in the flowers. I don't think we will get any more till next summer. My bees are in good order for winter, plenty of honey on them.

W. S., Goulburn, April 18th.—Many thanks for your kind letter. It was good of you to write and answer my questions in full when you must have been very busy seeing about the Bee Farmers' Association. I hope you had a successful meeting, and that the Association will prosper. I am getting my bees packed up for the winter now; we have already had one or two slight frosts and several cold nights. My bees are still getting in some honey, and some of it is as dark as treacle and tastes as if it were burnt; I don't know what it is unless it is applewood. Wishing you and "A.B.B." every success.

W. N., Eugowra, 23 April:—In reading one of Mr. Gale's articles on Apiculture in the *Agricultural Gazette* and other papers, he appears to think the great loss of bees in this State is due to foul brood. There has been a large number of bees lost from other causes. Referring

to this district I live in County Ashburnham; there is not one third of the bees here there was seven years ago. Foul brood did not cause this decrease of bees. To my mind the worst enemy the bees have to meet is the drought, which is the cause of a total failure of proper bee food. If Mr. Gale had to manage large apiaries in the interior during a drought he might then hold different views on keeping bees to those at present.

P. M., Howlong, April 11th.—I received your P.C. and am glad to hear you had a good meeting. I was sorry that I could not come down, but it is too far from here. I will be glad to do anything I can for the movement. Our harvest is over here, it did not turn out as well as I expected, the hot winds seemed to make all the blossoms drop off the trees, and the flow stopped in a day. All my bees are in good order and I am going to winter quarters with 40 colonies. I had some of them four stories high, but I am bringing them down to one to see if they winter any better than in three or four. What do you think? Re Honey Vinegar, I have made some very good, but it took two years to make.

[Would it be less trouble leaving the supers on, but putting bees in bottom one with oilcloth or newspaper between it and the super?]

J. F. D., Bellingen.—I am sending you enclosed the subscription for this year's "A.B.B.," 5s.; also 2s. 6d. as subscription to Bee Farmers' Association. Our season here is practically over, being brought to a close sooner than otherwise, by the late rain, yet we may have a slight flow from the gums, which here and there are coming out. Bees in this locality have shown a great desire to swarm late, and every day for the last fortnight swarms have issued, the slightest gleam of sunshine out they would come. Perhaps it is on account of not swarming in the early part of the season, however, we here would sooner be without such unseasonable swarming. The season here on the whole has been fairly good, though the price might have been better. What is the

opinion of the beekeepers generally re the shipment of honey sent by the Farmers Co-operative Co. to London?

J. C., Bulli.—I am sending you a piece of sick brood, and would you be so kind as to send me word what the disease is, and the remedy for same if there is such a known remedy. I am at a loss to know what it is. I have several hives affected with it and they make no head way, some of them keep about the same strength, while others are going back. They have had it all the summer, some people tell me they think it is foul brood and yet it don't seem to extend to the other hives, and it should not be chilled brood, as I keep the number of frames reduced so the bees can cover them, and some are fairly strong with bees, but I'm afraid I shall loose them all this winter unless I can get a cure for the disease. Hoping you will be able to give me that information.

[Sample to hand. It seems a mild form of foul brood, as neither the smell, the elasticity of the diseased matter, or the coffee color is as pronounced as we have seen it. The remedy is: Put the bees in fresh hives with starters only for three days, close the entrance up or they will swarm out. The combs may be turned into wax, giving plenty of boiling. Wash and disinfect the old hives before using again, painting with, say, kerosene, and setting a light to it, so as to scorch them thoroughly is a good way. We are very sorry to hear of your trouble.]

R. W., Inglewood, Vic.—I think a lot of the "A.B.B.," and intend to write a bit for it every month, as I get a lot of useful practical ideas from it, and it is only fair to do something in return. A N. S. W. firm sent me a copy of their paper a few months back, but I did not like it after seeing the "A.B.B.," so I don't take it or any other bee paper. I have sent 2/6 through as member's fee for the Bee Farmers' Association. Being rather deaf I am not likely to ever attend the B. A. meeting, but as the Association is for the benefit of beekeepers, so I can only give my moral support. I sold five 60lb. tins for a brother beekeeper, including the two I told you of in my last letter, they were 18s. each, and were sent up to Moe, in Gippsland, Vic., a distance of over 200

miles. This is not a good place for bee-keeping, being mostly Mallee, which is cut down wholesale in winter for firewood and roots, and as it is the biggest trees that are cut down, also the young growth for Eucalyptus Oil distilling, so you may guess that the bees don't get much of a show. Only one other man has frame hives here, and they may as well be box hives for all the good they are to him, as he only cuts the super combs to smash up and also gets a few dirty sections, the rest of them are box hive keepers, and are managed in the usual style of that class. No one else uses an extractor, and my machines are an attraction for miles around. Some time I will send you a description and plan of mine, and the extracting room and bee yard. Through the continued dry weather I am afraid I won't get much more honey, although the mallee blossoms there is no nectar in the flowers.

W. S., Goulburn, April 2nd.—I am very pleased with your paper, and have already learnt a lot from it. I am only an amateur strictly speaking. You mention having used horizontal sticks instead of wire for your frames. Would you kindly explain how you manage with them, and how many you use to a frame, either through the "A. B. B." or in answer to this letter. (1.) Is white gum a first class honey tree? (2.) We have very heavy frosts and cold winds here. Do you think it advisable when preparing for winter to place a chaff cushion on each side of the brood nest outside a division board as well as the half-storey filled with chaff on top? (3.) I always thought that the more crowded the bees were in winter the better, as they then have less space to keep warm. Do you think if I leave only six frames to a moderate colony in a single hive body with a chaff cushion in the space on each side, that it would be too much squeezing? (4.) Of course if I contract as in No. 3, I would keep plenty of combs of sealed stores to be given when needed. But do you think it would be better to leave the combs of

stores in a hive body under the brood nest?

1. Would not class white gum as a first class honey tree, as we know it is a fall bloomer and the honey is dark.

2. We don't think chaff cushions at side are necessary in Australia unless in very cold and most southerly parts. About Goulburn I should certainly have them on top.

3. As the queen ceases laying in winter the cluster becoming small, we don't think it would be too much squeezing.

4. Would not contract unless could leave some sealed combs either side of cluster. There is much warmth in a sealed comb of honey.

Re horizontal sticks, we use one in a frame. Get them a close fit, and a little bit of wax will hold them till the bees have made the comb out full.

W. T., Rylston, April 8th.—I shall be thankful if you will give me a little information with respect to some disease that has made its appearance in one of my hives of bees within the past two or three weeks. The bees in the hive are the progeny of a tested golden queen about the beginning of the year. The hive has built up remarkably well until a few weeks back, when they started robbing from other bees in the neighbourhood. About three weeks since I noticed about the entrance an occasional bee much smaller than the ordinary ones, the head and body was black and shiny and the end of the abdomen was also black; generally those bees would be dragged or hunted from the entrance by the other bees, and in many instances the bees would take them up and fly away with them, but as soon as dropped they would return to the hive only to be again rejected. This state of things has been on the increase for some time. Now, however, another development has taken place in addition to that above mentioned, viz., a great many bees in the hive have the appearance of being gorged with honey, the abdomen swollen and elongated, in this condition they fly with difficulty, and once out on the ground are unable to get back to the hive and there struggle about until they die. I have had very little experience in bee diseases, but a neighbour

of mine who has some experience, upon being asked to have a look at them to-day pronounces the diseases to be paralysis and foul brood. I will be thankful to have your advice in the matter and your suggestion as to the best way to proceed with the object of effecting a cure. The queen appears healthy, but has darkened in colour very much during the past month. At present there is very little brood in the hive, and in some of the capped brood cells there is to be found a quantity of a brown looking bad smelling substance. The bees are the best looking Italians we have in the neighbourhood, and I have felt some pride in them, and would therefore like to save them if possible.

[There is no doubt your bees have paralysis and possibly foul brood, though we are doubtful on that point. Put them into a fresh hive with clean combs. Change the queen. Destroy all brood. Close the entrances of fresh hive or they will swarm out. In about three days give them a little clean healthy brood and honey. Kindly let us know results.]

CAPPINGS.

(Continued.)

"Some knowledge of beekeeping" might be so little that a young man might not earn his board with an experienced beekeeper; or it might be so much that he could earn \$50 or more per month taking care of an apiary whose owner had no knowledge of bees.—"American Bee Journal."

Sulphur one-half, and nitrate of soda and black oxide of manganese each one-quarter—Mr. Abbott's worm-killing compound. Burns all up with a rush, and then puts out any fire that may be left with its own fumes.—"American Bee Journal."

During a honey flow the feeble, downy-looking misses can be given the same day the laying queen is removed, with a considerable degree of safety. I have thought that it is safer to give them at once, than any time afterwards, before the bees fully realize and reconcile themselves to their queenless condition. If given to

colonies with feeble, old queens they will often be accepted and commence laying with the old queen in the hive, as is the case with supersedures.—PRIDGEN.

You said that you "helped your neighbour rob his bees." Now, look here, I never rob my bees. I always wait until they have a surplus; then I go and take that, but always leaving 40 to 50lbs. per colony. When I hear a man say "Rob" it makes me think he has not been in the bee business very long.—Frank L. Ater, in "Southland Queen."

The first and most important tool in the apiary is the smoker during the winter months. If yours is wheezy and wind-broken and generally out of repair get a big new one, paint the boards of the bellows, oil the leather and give the tin a coat of asphalt varnish, and you will be glad many times over bye and bye,—*American Beekeeper*.

In North America last year bass wood was a total failure, no frosts late in the spring to have injured the buds: if they had started, and the dry weather had nothing to do with it for there was plenty of moisture early in the season at the time the buds should have formed. No insects in the foliage, as has been the case some seasons before.—"American Bee Journal."

In baking apples, honey for sweetening is truly delicious. Wash the apples and core them, but do not peel; a bit of cinnamon may be put in the holes made by removal of the cores. Put the apples into a baking-pan, with just enough water to cover the bottom of the pan. When the apples are baked for 20 minutes, add the honey and baste them frequently until done. For very sour apples use a half gill of honey to every six apples. Eaten hot or cold, with or without cream, they are good.—"AMERICAN BEE JOURNAL."

In reference to the protection of our honey yielding timber, a writer in "Austral Cultivist" says:—I would leave two trees to the acre. The best way to my mind is to thin out the bad and worthless

timber and undergrowth. Three trees to the acre would be enough. It would keep the scorch of the hot winds off a bit, and make shelter for the sheep, horses, or cattle, and sweeten the grass; but graziers and pastoralists are wooden-headed to ring out all the timber, and leave grass, live stock, and human beings too, unprotected. When will a Government have wisdom?

It is not at all unusual to hear people speak about bees gathering honey from flowers, or mentioning various plants as "honey-producing plants." Even in botanical text-books we read about "nectaries" or "honey-glands" in flowers. These terms are certainly not correct, because honey is essentially a product of the bees, and not of flower which the insect visits. The sweet secretion which the bee gathers from the flower is called *nectar*, and consists almost entirely of cane-sugar. But after it has been collected by the bee, and before it is stored in the cells of the comb, it undergoes a change, and the cane-sugar is transformed into two other sugars called respectively grape-sugar and fruit-sugar. This transformation is brought about through the action of a secretion produced by glands situated in the head of the bee, and is similar in operation to saliva in the human being.,—Dr. MASON.

Mating Queens in Confinement.

SUCCESS WITH 100 QUEENS.

BY J. S. DAVITTE.

I built a large tent, 30 feet in diameter and 30 feet high, the covering being of mosquito netting. Colonies of bees well supplied with drones were placed close up against the wall of the tent, on the outside, each colony being allowed two entrances. One entrance opened outside of the tent, and was contracted so that neither queens nor drones could pass, but allowed the workers to pass out and in, and work in the fields in the usual manner. The other entrance opened into the tent, and was large enough for the passage of a queen or drone; but it was kept closed or darkened for about a week after the colony was placed in

position. This was done for the purpose of educating the workers to use the outside entrance. The drones were not allowed to use the outer entrance at any time, nor to enter the tent except from 11 a.m. until 1.30 p.m. After the drones had learned the bounds of the tent, they seemed contented, and made a very pretty school flying in the top of the tent. And I wish to say right here that the *drones* are the main feature of this problem. Once you get them *quiet* and *reconciled* to fly in the top of the tent, the problem is solved. Nine times out of ten the queen will not reach the top of the tent before receiving the most prompt and gushing attention. After I got the drones under control I had no difficulty. I simply turned in the queens from the hives they were in, just the same as I turned in the drones. I one year reared about 100 queens and had them mated in this tent. A queen would leave the mouth of the hive, and return in about five minutes, apparently mated: and in three or four days would be laying: and the progeny of all queens thus mated showed the same markings as the workers of the colonies from which the drones were taken.

The workers seem to be more annoyed than the drones when they find themselves confined in the tent; and I aim to keep them out of the tent as much as possible by not opening the tent-entrance until nearly noon, when most of the workers are in the field. As a further precaution, the tent-entrance is kept shaded or darkened.

The queens are not turned in until the drones appear to be well satisfied with the bounds of the tent; and when they are in this condition I believe that 500 queens a day might be mated in such a tent. Where queen rearing is carried on upon a large scale, I believe that this plan would be preferable to the open air; as I have seen a young queen leave the hive, in the open air, as many as three times, and be gone 15 minutes each trip, returning at last unmated.

My plan for queen rearing is as follows: I choose a choice colony from which I wish to rear my queens; and from this colony I remove the queen, and allow the bees to build queen cells. At the same time I make queenless such colonies as I wish to break up into nuclei. Two days before the queens will hatch I form my nuclei, cutting out and destroying all cells, and arranging the nuclei around the bottom of the mating-tent. The queen cells from the choice stock are then cut out and given to the nuclei, the outer entrances contracted so that no queen can pass, and the inner entrances closed entirely. After the young queens are two or three days old, I open the tent-entrances at 11 a.m., and leave them

open until 1.30 p.m. each day, for several days, or until the queens are mated.

Now for the drones: At the same time that I remove the queen from the choice stock for the purpose of securing queen cells, I place several hives that are strong with select drones around the walls of my tent, with the outer entrances contracted, so that no queens or drones can pass, and at 11 o'clock each day I open the inner entrance and leave it open until 1.30. With this daily exercise in the tent, for 16 days, I have my drones tamed, or accustomed to their surroundings, or under control, so to speak; and it would interest a beekeeper to take his place inside the tent at noon, and see the ladies meet the gentlemen, who, Bar-kis-like, are "willin." I have seen the mating take place before the queen could reach the top of the tent. Before they separate, the queen and drone fall nearly to the ground, and the queen goes directly to her home that she left not three minutes before.

If I were to build another mating-tent, I should build it about as follows: I would secure 12 tall poles. I would have them at least 30 feet long—40 would be better. These I would plant firmly in the ground, 12 feet apart in a circle. From pole to pole, at the top, I would stretch No. 10 wire to keep the poles true and in place. I would also brace the poles from the inside; and the braces would be allowed to go up 20 feet on the inside; as the drones use only the upper part of the tent. At the top of the poles I would also stretch No. 10 wire from each pole to its opposite neighbour, thus strengthening the structure and furnishing support for the covering that goes over the top. I strengthen every seam of my netting by stitching on a strip of bridle-rein stuff about an inch in width. This allows me to stretch the covering very even and tight without tearing it. Common boards can be used around the bottom to the height of five or six feet. At noon the tent should have the appearance of a sun-palace.—BEE-KEEPERS' REVIEW

WANTED two copies *A.B.B.*, July, 1898.
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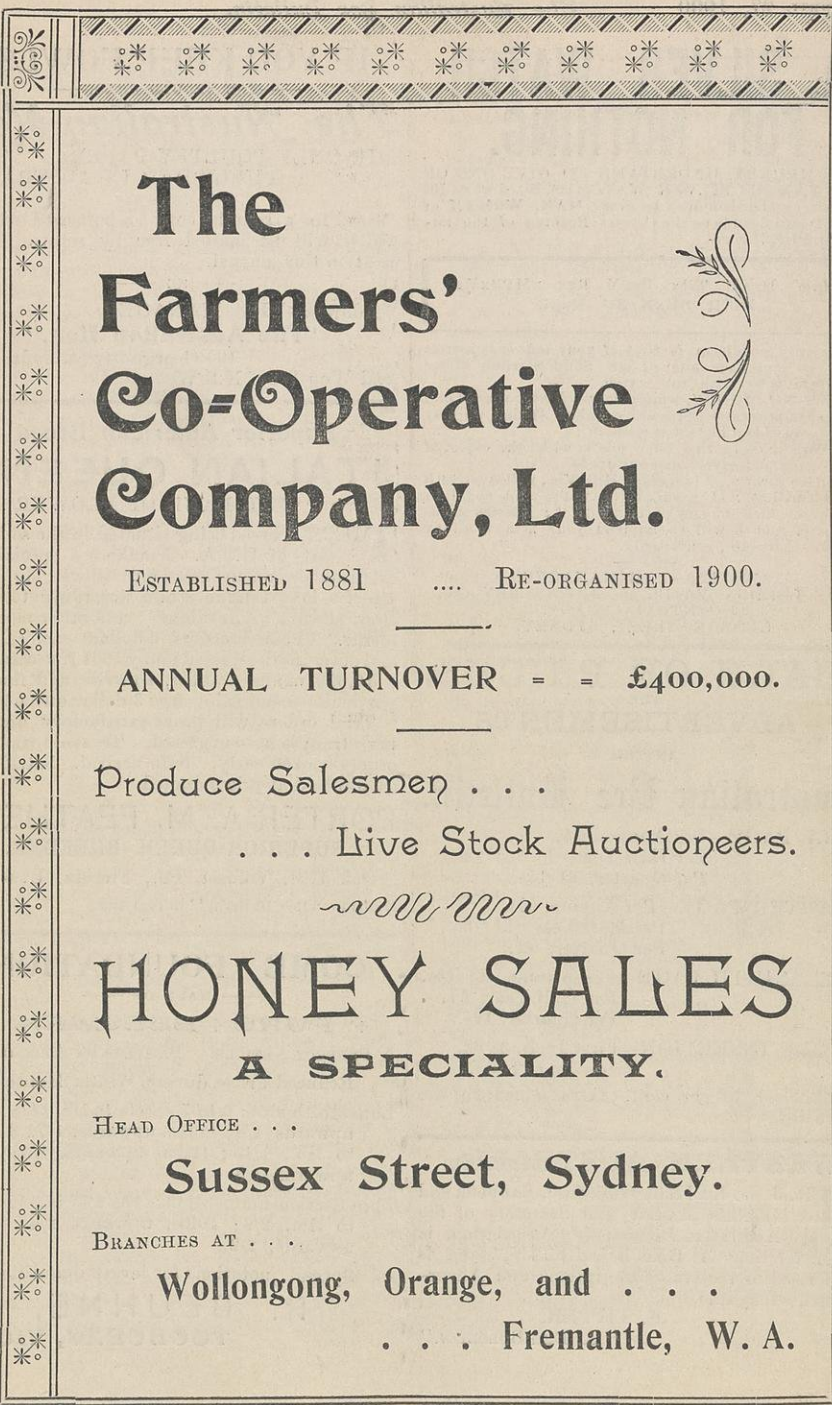
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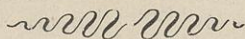


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