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THE AUSTRALIAN BEE BULLETIN.

A MONTHLY JOURNAL, DEVOTED TO BEE-KEEPING.

VOL. 5. No 8.

NOVEMBER 24, 1896.

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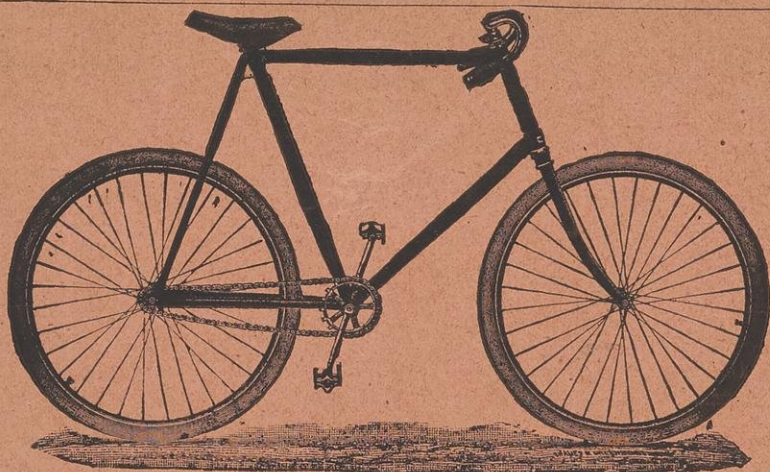
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NOVEMBER 24, 1896

The Australian Bee Bulletin.

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Untested Queens, warranted purely mated, at 1/- each extra.

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Pamphlet on how to refine your wax and get top market price. Price, 5/-, post free.

NOTE THE ADDRESS AS ABOVE.

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That Mrs. Jennie Atchley is one of the largest queen breeders in America. She will send you queens to Australia, or other foreign countries at the following prices:—Untested queens, 4/- each; tested, 8/-; and fine breeding queens of either race she breeds, \$1 each. By mail, post paid at above prices; no guarantee of safe arrival. Queens sent by Express, safe arrival guaranteed, for 10/- each extra for the purpose of prepaying Express charges. I breed the Italians, Cyprians, and Holylands, in their purity, also the Five Band Italians. Each race of bees are bred in separate yards not less than seven miles apart. My long experience in sending queens to foreign countries has enabled me to successfully land them safely, with but few losses of la e. My International Money Office is Victoria Texas, USA. Address your orders,

MRS. JENNIE ATCHLEY

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

P.S.—I will give free with each order amounting to \$1, one year's subscription to our bee-paper, *The Southland Queen*.

"The queens that we have received from Mrs. Atchley are doing well and I am well pleased with them.—E. TIPPER.

QUEENS FROM QUEENSLAND.

ONE of the prime essentials in the successful production of honey is the possession of prolific queens, and the beekeeper who ignores this fact by allowing old and unprolific queens to do duty in any of his colonies will not be in it with the wide awake apiarist who sees that each colony is presided over by a vigorous queen only. If you require queens of this latter class (the fruits of thirteen years careful breeding from the best stock obtainable from the world's most noted breeders) kindly send along your orders, and whilst thus having an eye to your own interests, also afford me an opportunity of illustrating the degree of proficiency to which I have attained in the breeding and mailing of queens. My home yard is stocked exclusively with Italian bees, and I have now available as fine a lot of young queens as were ever raised. Carniolan Queens are bred in my out-apiary from imported mothers, and are mated to Italian drones. All queens are sent post free and safe arrival guaranteed to all parts of Australasia. We have no foul brood in Queensland, and my apiaries are entirely free from disease of any type.

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Tested " " " ..	8/-	22/-	35/-	65/-
Select Tested Breeding Queens	15/-	42/-	65/-	—
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"The Queens we got from Mr. Jones, of Goodna (Q.) are turning out real beauties, and we think anyone wanting a good strain of bees couldn't do better than try Mr. Jones' queens."

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The Australian Bee Bulletin

JOURNAL DEVOTED TO BEEKEEPING.

LAITLAND, N.S.W.—NOV. 24, 1896.

There is much doubt if there is a busier month of the year for the beekeeper than this. In many districts the honey flow is now on some source or other. Swarming is the natural order of the day. If a beekeeper has his queens' wings clipped, and his hives and combs in readiness, a lot of anxiety and trouble will be saved. Still he will want to know the condition of each hive, and the probability or otherwise of swarming. For those who have a large number of hives someone in attendance constantly is indispensable. For those with small apiaries, and whose occupation precludes their keeping a regular watch, it is most important to ascertain the state of the colonies by at least a weekly inspection. Of course some bees are much less liable to swarm than others, and we have found that swarmers poor honey gatherers. We have also found queens not nearly so prolific as others, yet better honey-gatherers, and when a flow was on, the bees blocking the queen laying by filling all spare cells with honey; so that on one occasion we thought, as we saw eggs, the hive was queenless, till by checking we found her. Old queens are great breeders of drones. Many apiarists will keep a queen over two years old for reason. Here in Australia section raising is carried to the extent it is in America and England. We have heard beekeepers say it does not pay—the difference in the price of section honey extracted does not compensate for the extra trouble and the risk of greater swarming. Is it that here in Australia there is a smaller proportion of the

comfortable classes who indulge in table luxuries, or is it that beekeepers have not sufficiently made comb honey raising a specialty? As far as we can see the Heddon hive is best adapted for this purpose. By its working the bees are sooner induced to work in the sections. With the ordinary hive, with sections in supers on top, the bees will crowd the lower story, and even swarm sometimes before they will enter the sections. The Heddon hive, being a series of half supers, reversing them soon sends the bees into the sections.

A good way is said to be to get them started in the super, then remove the super and place a frame with sections on.

The simplest way to keep bees is to keep them for honey only. Give them plenty of spare combs and occasionally look out for their starting queen cells. When the one box is filled with bees and honey give them another to fill, either super or half-super. When adding a super there are several ways. If the first box contains ten frames, some give the super nine frames, the more space between the frames being a preventative of the queen laying in them, and thus securing all honey in that story, the queen with the brood remaining in the bottom story.

Queen excluders, to prevent the queen laying in the upper story, are used by many, and when the honey is ready to come off, a board with a bee-escape in centre, slipped under it over night, so that all the bees go below, and the super can be taken away to the honey-house without brushing or annoyance to bees, are a great convenience. But a feeling seems to exist with some that queen excluding zinc is detrimental and injurious to the working of the bees. Any way, we fancy queen excluders are not so much used as they were.

Another way of swarm-prevention, called the Siemens plan, consists in keeping empty frames or starters only between the flight entrance and the brood nest. This and young queens not more than two years old is a pretty sure thing.

For those who do not wish to increase the number of their hives these plans are adapted. Also if swarms should issue returning them to the hive from which they came and destroying all queen cells.

For those who wish to make beekeeping a profitable investment, moderate swarming, either natural or artificial, is advisable; hiving the swarms on the old stand and removing the old hive to a new location. The old hive being depleted of bees, the first queen that issues destroys the other queen cells. If the old hive had been left on its old stand, the other queens in cells would have led out after swarms, each one weaker than the previous, and none of them any good as honey-producers.

Of course we take it that every beekeeper with any number of hives has his extracting house ready, with extractor, uncapping tin, and uncapping knife. A comb bucket also, for carrying combs with honey from the hives to the extracting house. Commence by taking empty combs to the hives you are going to extract from, to be put in place of the full ones you take from the hive, which when extracted from will do the same for the next hive you go to.

The extracting room wants to be bee proof, and to have an escape, so that any bees that may happen to come in can get out without returning. A good way is to have a window covered with wire cloth, the wire extending several inches above the window outside, with space at top for bees to get out. They will not return to the top space to get in but will go straight for the window below where they can't get in.

If a flow of honey is on you will not be much bothered with bees. If there is not and your place is not bee proof, look out.

Re the appliances we have mentioned they are now sold very reasonable, and beekeepers should write to the various supply dealers who advertise in our pages for catalogues and prices of same.

Again, if you find some swarms doing

very poorly, it will pay you well to send to a good queen-raiser and get a laying queen to take the place of the inferior queen you have. The sooner she is at work, and filling the hive with bees, the sooner will you have surplus. Without such you might get none at all.

* * * * *

We believe some light is at last breaking on that troublesome disease Paralysis. Complaints have been made that the different governments have not caused sufficient scientific investigation to be made. We ourselves attributed it to pollen in some form or other, and as we had noticed it when the orange trees in our neighbourhood came into bloom, at one time thought it was the pollen from orange trees had produced it, but we were reminded that there were orange blossom apiaries surrounded by orange orchards. Now news comes from Germany that Mr. A. Ludwig and Dr. Dovenhoff have conducted experiments on the matter, and from other observations this sickness it seems comes soonest in the strongest colonies, which start breeding soonest, enticed by a series of warm days with opportunity for getting honey and pollen. Then follows unfavourable weather, no opportunity for flight and more or less sickness, young bees whose intestines are infested with yellow faeces. It further says that the sickness is unknown to those beekeepers who practice stimulative feeding regularly and in the right way. During fogs and dews poisonous matters accumulate on the blossom, which the strong colonies take in and from which they suffer. A shower of rain or feeding them dispels the effects of the poison.

Dr. Wm. R. Howard, the author of the well-known work on Foul Brood, contributes an article to the *American Bee Journal* entitled, "A New Bee Disease—Pickled Brood or White Fungus." The larvæ when dead have a swollen appearance, neither end touching the sides of the cell is a common position. In some cases, when left five

or six days, the brood settles down like "Foul Brood," and changes to a dark brownish mass, which on examination is found to be watery and not ropy like foul brood, entirely void of the offensive smell, in fact no odour at all.

Quibell's Sheep Dip is recommended as a certain get ridder of ants.

All communications must reach the office by the 20th of each month.

Captain Slade, a Gippsland beekeeper, is now in his 91st year. May he reach the century.

In Mr. W.E. Bagot's reply to question 72 in the October issue "Gristonia Conferta" should read "Tristania Conferta."

We have received from Mr. J. Bolton, Dunkeld, Victoria, some specimens of very nice coloured drones. If all his bees are like them we would not wish for better.

Mr. A. A. Roberts of Musclebrook is not only a queen raiser, but he is also a poultry raiser. We have to thank him for a setting of eggs from some very choice birds reared by him.

Through the delay of a parcel in the post our usual leader and some other excellent correspondence including some from Mr. T. Bolton, of Dunkeld, Victoria did not appear in our last issue.

We have received copy of Messrs Hebblewhite & Co's Catalogue of Beekeepers Supplies for 1896 & 1897. In addition to its usual complete list, with prices of all kinds of bee requisites, it is illustrated by a number of views of apiaries.

We are exceedingly sorry to learn that Mr. E. J. Rien is shortly leaving the Richmond Agricultural College. We feel assured however, such a careful and painstaking beekeeper and poultry man will not be long without a good appointment elsewhere.

Mr. Brown of Parkville, has forwarded us two very nice photos, one of 19 queen cells all shapely in a row, and another also of his apiary. The hives are well arranged, and the photo in-

cludes not only himself, but his two best helps, a son and daughter, aged respectively, 10 and 12 years old.

On the Hunter River there seems every prospect of abundance of honey this year. The lucerne paddocks are luxuriously in bloom, and there is plenty of white clover. Towards Newcastle, in addition, the small leaved ti-tree are masses of white flower.

A Victorian beekeeper writes us he found a piece of comb 4 inches square that never came out of his hives—he could tell by the wires in it—and shortly afterwards one of his strongest hives developed Foul Brood. He is suspicious an evil disposed neighbour put that piece of comb there. If so the villain that did it deserves to be well punished.

A REMINISCENCE OF THE HAWKESBURY.

Mailand Mercury.

A very interesting service was conducted Ebenezer Church, Hawkesbury River, on Sunday, 26th September, by the Rev. John Ayling Minister of the charge. It appeared in the course of the sermon that Mr. Ayling, having had occasion recently to look into the old records of the church, noted that the first official report of proceedings in connection with the building was dated Sept. 25th, 1808,—hence the special character of the service—when a public meeting of those interested in "Christian worship and instruction of youth in the district" assembled in the house of Thos. Arndell, Esq., and the first formal steps were taken to accomplish the object so dear to the hearts of many of the first free settlers on the banks of the Hawkesbury. For some years meetings had been held often in the open air, when in the absence of a stated minister, someone would conduct proceedings usual in religious assemblies of that day, prayer and praise would be offered and a sermon read; and the benediction being pronounced, the meeting would quietly disperse.

It was on one of these occasions, at the time when the colony was under martial law, that Lieutenant Bell was dispatched from Windsor to see what these gatherings meant. Arriving after service had begun, he quietly observed everything, and on the worshippers separating, assured them that so long as this was their practice, they would meet with no interruption from the authorities.

A building for worship had evidently been talked of before the date above given, before the more formal meeting was called. For at

this meeting three offers of a site were made. The site now occupied was fixed on—a free gift of three or four acres—as being the most suitable. And truly it is most beautifully situated. What it must have been like then we can scarcely imagine, in the midst of the forest primeval, with the shining river gliding peacefully below. The whole forms a goodly memorial of the piety and faith of men who felt the wants of humanity and the claims of God so urgent that at any cost they must rear a house to His honour and glory.

It is worthy of remark, too, that the building is identically the same as when erected. Other churches can boast of older foundations, but Ebenezer Church foundation and superstructure remains to this day unique, the oldest ecclesiastical edifice in Australia, raised by voluntary contributions. And the contribution list is made up of money, labour, and live and dead articles of various sorts and values.

Around are the tombs of the village ancestors; and to this day the wish of their descendants is that their bones may rest beside them. Accordingly, if at all practicable, the wish is gratified. An interesting sight is a funeral procession on the river, and then climbing the steep banks to the last bourne.

Mr. Ayling had selected his text from Ps. lxxxiv. 1-2; and, while narrating the history as above, he in an earnest and affectionate appeal to all present urged them to remember the piety of their ancestors and to emulate their zeal for the House of the Lord and for the Sabbath day. He faithfully charged them to remember their privileges and responsibility, and pressed upon them their utter inability to serve God and mammon on the one hand, or on the other to successfully ignore the claims of the Almighty altogether.

Not the least interesting part of the proceedings was the baptism of a great-great granddaughter on both sides of two of these early settlers, the ancestor on the paternal side being the gentlemen in whose house the meeting referred to was held.

Altogether the service was one long to be remembered as it doubtless will be, and it is to be hoped Ebenezer may long flourish, and that a generation of true Christian worshippers may never be wanting there.

VICTORIAN NOTES.

R. BEUHNE, TOOBORAC, VICTORIA.

The first thing that struck me in your last number was that little sentimental plea for the wood swallow (we call them martin swallow). There is truth in what H.R. says, and Mr. Gale thinks, but it is not the whole truth. Woodswallows eat drones, perhaps prefer them but they also eat workers; well, a hundred or so from each colony does not make much difference to some people. I have never held post mortems

on them and do not intend to, although I have shot 50 in one day. The fact that they kill workers is enough for me. I have seen them in early spring in scores perched on the fence darting after the passing workers, flying back to the top of the fence, knocking off the abdomen of the bee, and swallowing the rest. There are not only no drones flying, but none in the hives, and I could pick up the back halves of bees by the hundred.

It is just in early spring that every single worker is wanted, and the damage done by these birds is considerable. They are protected, so were hares and other vermin at one time. Wood swallows do some good, but the benefit to the beekeeper is indirect and infinitesimal, while the damage is direct.

Whenever I see the editorial advice "burn the combs" in cases of foul brood, I always wish I had them. I have not burned a comb since I have kept bees. Eight Langstroth combs, however old, dirty and black, give me just 2lbs of nice orange coloured wax, or in cash 2/-, with very little labour. I often carry home diseased combs from miles away. I have had quite £10 worth of wax from diseased combs during two seasons. Although I never destroy anything (but clean everything), I have had less foul brood than most bee keepers—some seasons none.

Of course brood combs should not be used again, but why should they be burned, and 2/- worth of wax with every set, when the wax may be extracted, and the refuse burned afterwards?

The prospect for the season is anything but good in this part, almost no rain since June, but high winds, heat and frost. The temperature fell from 94 in the shade down to 30 within 48 hours on Nov. 2nd, and there was another frost on the 6th Nov, the latest ever known here. Swarms are few and bees cross. The result of transferring diseased colonies to other combs, I must leave over for next number.

(All persons who keep bees, it would not be safe to advise to melt the wax as you do. It might be right enough for an experienced hand, but to an inexperienced hand among inexperienced hands, it would be liable to spread the disease, and if used to make foundation it would be very dangerous.)

QUESTIONS THIS MONTH.

W. E. BAGOT.

81.—Have you ever tried blending honey?

JOHN HAYWOOD.

81.—Can you tell me how to clarify beeswax? I have about 80 lbs of wax and some of it is very dark.

B. DAVIS, JUNR.

82.—Does it make any difference to the bees working if the sun never shines in the entrance, or the entrance facing S.W?

83.—Would tree lucerne clipped and made dense be too heavy a shade for winter?

84.—When a second swarm leaves a hive with the young queen at swarming time, is she fertilised before going out with the swarm or while on wing with the swarm, or when they start for their new home.

W. BAILEY.

82.—Yes, as the bees from the hives that have the sun shining on the entrance would be at work at least half an hour before the others, and I think that half hour is better than an hour in the day time.

84.—My experience is after they are hived as I have proved them by cutting their wings after they have clustered.

SCHUMACK BROS.

81.—The best way we find is to remelt it with combs containing large quantities of pollen, you will find this will improve the color.

82.—We do not see that it makes any difference whether the entrances face S. W. or not.

83.—Do not think so.

84.—In our opinion she is not fertilised before leaving but is fertilised after they start working in a new hive.

F. SWAIN.

82.—I believe it will make a difference because the sun is wanted to melt the frost and ice in cold weather and to warm the entrance on cool summer mornings. The early bird gets the worm and the early bee gets more honey, and I consider south east is the best way to face them in most places. The sun then has not so much power on the hives in the afternoon which is generally the hottest part of the day.

JOHN ANDERSON, VICTORIA.

81.—No.

81.—Run the wax through a Swiss extractor with boiling water in the receiving vessel and allow to cool slowly.

82.—I believe in having the entrances facing east.

83.—Let the bees have all the sunshine possible in winter, but protect from cold winds if possible, that is have a break wind on the windy quarter.

84.—After they start their new home.

G. H. ARKINSTALL.

77.—I use a bottom bar $\frac{1}{4} \times \frac{3}{8}$ on edge, which the bees build down on to readily, but it is imperative to use queen-excluder on account of burr combs in the upper story.

82.—My experience is that it is a decided advantage to have the entrances as much in the sun as possible. Those with a shady entrance I find cluster round the entrance a great deal more than if exposed to the sun's rays.

84.—My opinion is that when a virgin queen issues with an after swarms fertilisation does not take place until they are settled in their new home.

LOYALSTONE.

82.—I do not see that it makes much difference, as one hive I have under the shade of an acacia tree on the entrance of which the sun shines for about an hour in the morning is doing better than some without much shade, and this was the first hive to swarm this season.

83.—Tree lucerne is a splendid shade for summer, but I like my hives to have as much sun as possible in the winter, and would prefer cherry trees planted between the rows.

84.—This may be the case with some second swarms, but a second swarm came under my notice this month and seeing your question about it found that the young queen was not fertilised until she had been two days in her new home and started laying on the fifth day.

R. BEUHNE, VICTORIA.

81.—Yes, have often blended white gum and ti-tree and gained from $\frac{1}{2}$ d to $\frac{3}{4}$ d per pound.

81.—Beeswax is best clarified and lightened in colour by keeping in liquid (not boiling) for four to twelve hours.

82.—Have never noticed any difference (regarding the aspect) in results, but from experiments made, I found that bees prefer the entrance facing north first, east next, then west, and least south, other conditions being equal.

83.—No experience.

84.—I have never come across a young queen fertilised before swarming or on the wing with the swarm. The rule is after they have started their new home.

R. H. JERVIS.

81.—Yes, heat it, and pour when hot through a fine sieve.

81.—If the wax has been in an iron vessel, I question if it can be clarified, if on the other hand only refuse let it cool slowly and cut it or scrape after cold.

84.—Not as a rule, as the queen is usually too young, no doubt if bees have been delayed through bad weather and the queen 4 or 5 days

old she may get fertilised, after hiving the same day. I have been beekeeping some years, and had as many as 70 colonies in the home yard, and have never had a second swarm. I have a great objection to second swarms.

W. S. & H. J. WILSON.

79.—Consider it a bad plan to face entrances so that they are exposed to cold driving winds. If possible they should be so placed that the entrances are towards the sun, more or less throughout the day.

80.—Yes, they will return a profit, but it stands to reason that the nearer the flow the greater the profit.

81.—Yes and successfully, but take good care as to what colors are blended.

82.—Yes, south-west and south-east are the worst aspects in these parts.

83.—Don't think so, but drainage should be good. A lot depends on having the ground about hives well drained. The tree lucerne should help this along.

84.—Don't think this can be answered positively. She may on some occasions be fertilized before swarming, on others while swarming, and again after being hived.

J. T. ADAMS, VICTORIA.

81.—Yes, but always good samples of light and dark, not inferior honey with a good.

81.—The only way I know of is bleaching after it is boiled in water, and cleaned with sulphuric acid; it is pure wax whatever colour it may be. Bleaching is a big undertaking. It is run rolled or dipped in sheets as for foundation, the thinner the better, and spread out in as strong a light and air as possible; if in the sun the heat must not be too great to melt it. The whiter you want it the longer it takes.

82.—They are not as early to work by an hour or more, nor do they work as late. I have not had real tests on it. The above are noticeable facts of hives under dense shaded trees.

83.—Would not care for it in winter, rather try to get all the sunheat I could by having it as a break wind on south or south-west side of apiary as a hedge.

84.—Too deep for me, am not much at conundrums now.

miles of this sort of country in Gippsland of no use whatever.

87.—Have any of our beekeeping brethren had any experience with formic acid for foul brood, if so, with what results and what treatment?

88.—How much honey do you mix with peameal when making food for young bees, and when making syrup for feeding?

89.—There are thousands of small black ants about here. What is best to keep them off the bees?

90.—Have any beekeepers tried spraying combs and bees with Formic Acid for foul brood? (one ounce to a pint of water.)

91.—A quick, simple, and sure introducing cage?

92.—Having a number of section frames that are soiled with propolis and dirt, what is the best way to clean them?

CAPPINGS.

From American and other Bee Journals.

The *A.B.J.* says,—Parker's foundation fastener was a pretty good little tool, but the "Daisy" came along and beat it all to pieces. Now comes the "New McCartney"—a machine which fastens the sections together, and cuts the foundation and fastens it in the sections, all complete.

Dr. Gallup says in the *A.B.J.*, Honey passes directly into the circulation from the stomach, without any digestion; therefore, it is a perfect food, and if one eats too much at any one time it acts as a gentle laxative, and never leaves any irritation behind, like drug irritants. Of course, some people cannot eat honey, as it creates distress, cramps, &c., in the stomach, but such people have diseased stomachs, caused by taking poisonous drugs, and irritating the ganglionic nerves that supply the gastric juices. The pneumogastric and ganglionic nerves are always inflamed or congested in all cases of dyspepsia or diseased stomachs.

QUESTIONS NEXT MONTH.

85.—In the event of altering the size of a Langstroth hive, which would be most advisable, to lengthen the frame or shorten, and by how much?

86.—Is the peppermint eucalyptus that grows among the heath, some *Banksia* South and other shrubs that grow on poor sandy soil any good for honey producing? There is miles upon

Those nerves can always be regulated and put in a normal condition *in time* by proper manipulation with the hands, and never with poisonous drugs. Honey never injures a normal stomach.

Dr. Gallup, in *A.B.J.*, says:—Another kink I learned is this: When you have to set hives close together, side by side, and young queens come out on their wedding flight, mark the front of the hive so the young madam cannot make a mistake. I pin a piece of newspaper, cut in a peculiar shape, over the entrance of one hive; over another I pin an old black hat; over another, a paper sack (inflated) just above the entrance, etc. Make your marks, whatever they are, as odd and prominent as possible. I have had six queens come out in one day, close side by side, and no mistake made in getting back alright; while I neglected two hives, and had both queens to go into one hive, but I discovered the mishap in time to save them both. I never had lost a queen in that manner, if I attended to "posting notices" just over the entrance. They can be removed as soon as we are done with them. I dislike painting the fronts of the hives different colours, as recommended by some.

Dr. Miller says:—All that's necessary to rear one or more queens in a strong colony is to make the colony queenless, and this should be done at the time when they are getting abundant stores. Generally the time of natural swarming is perhaps the best. As you want to rear queens and increase by nuclei, keeping the old colony at work gathering honey to extract, perhaps you may accomplish it in this way: Take from the colony two frames of brood with adhering bees, taking the queen with them and put in an empty hive, adding two or three empty combs. A week later you will find a number of sealed queen-cells in the now queenless hive. If you care to have so many, you can make a nucleus for every sealed cell. But don't have less than two brood combs with adhering bees in each nucleus. If

you haven't so many combs as you want in this one hive, you must draw from other colonies. If you take from a colony having a laying queen, most of the bees you take will go back to their old home. So take away the queen from any colony you want to draw bees and brood from. Do this a day or so before taking the brood, and return the queen as soon as you have taken what brood you want. You can now return to the old hive the queen that you took away a week before, swapping the brood of the two. That will make quite a respectable colony with the queen, to produce for you some honey. If your work is done early enough in the season, you ought to have no great difficulty in building your nuclei up to good colonies for winter.

J.S., Dubbo, Nov 4,—In reference to the honey season here. I must say it has a very gloomy out look. There was a slight flow early last month, but it stopped as suddenly as it started. There are abundance of flowers. The grey box and yellow box are blooming splendidly, but they produce a little or no honey. I am of an opinion it requires a good soaking rain to send the nectar into the flowers. I hope that it is not a general thing with most of the beemen whose prospects look so bright before the bud-break. Wishing you and your A.B.B. every success.

G.H., Inverell, Oct 31,—The bees are bringing in honey at a great rate for the last fortnight, principally from the yellow box, which is coming out in full bloom, some of the larger trees being pictures to look upon (especially if you happen to keep bees.) I have had no swarms out yet, although some of the hives are boiling over with bees, they are turning all their attention to storing the honey. There has been a good many swarms out in the district, but they have been confined principally to black or hybrid swarms. I find the purer you keep your bees the less swarms you have.

T.H., Junee, Nov. 11th,—Bees are doing splendidly here now, a good honey flow off yellow box, and we have had a beautiful fall of rain this morning, $1\frac{1}{2}$ inches.

Messrs Schumach Bros., Binnaway, say—The bees are doing well. We have extracted about a ton since the beginning of the season, and we expect to get another ton before the season ends.

G.F.H., Lubeck, Victoria, Nov. 5th—I have three hives left out of 18—died out with foul brood, although they had plenty of stores. The survivors are doing well on the grey box and white gum. Wishing the *Bulletin* and its subscribers every success.

The *Port Macquarie News* says:—From reports which have reached us, this season promises to be a record one in the district for beekeepers, as honey is being brought in rapidly and more is expected before long. Beekeeping looks as if it would be an important industry in the district, but it requires experience to work it. In this, as in every other industry, it requires skill and time before success can be assured.

C.S., Chidlow's Well, W.A., Oct. 28—The season promises fairly, I think, here. I expect to begin extracting from white gum in a few days. You asked me some time ago to let you know how I got on with the bees I brought from S.A. Well, I suppose I would have written you before if I had any good news to tell, but owing to various delays caused by rough weather, a lumpers' strike, and railway delays here, it was 19 days from the time bees were closed up till liberated. 80 or 90 per cent of the bees were dead, but most of the queens alive, but last summer set in very early and hot, and there was no honey when I got here, and though I had plenty in hives they dwindled away. Queens did not seem to lay to any extent, and eventually I think I had about a dozen left out of 111 hives brought over. I have since purchased blacks, and cut others from trees, and am now over 50 again, and hope for better luck now. However, I would never advise anyone to shift a large quantity of bees

such a distance. The anxiety and worry experienced during that three weeks was such as I don't want to undergo again.

W.R.H.S., Walcha, Nov. 18th,—must congratulate you on the marked improvement in your paper. I think the October number the best I have seen and full of valuable information. After trying several kinds of hives I agree with a writer in your last issue that the Heddon is far the best for anyone on a large scale who thoroughly understands bees, and wants a lot of honey for little labour. One can handle five times as many of them as Langstroths, and more effective. We have a good honey flow on and plenty swarms.

L. T., Gippsland, Victoria, November 9th—I must thank you for the letter you wrote re the bee moth. I looked over the hive carefully, but did not find any more grubs or eggs, but I am afraid I found what is far worse: foul brood. I am sending you a piece of the comb taken from one of the hives. I have shown it to a bee farmer who has had experience among bees for 30 years, who says it is not foul brood. I trust he is right, but I don't think he is, because from the nature of the gluey substance found in the cell, and the disagreeable smell, it looks very like it. When looking over the hives I found two queenless that had queens in a week before. I am very much disappointed about my bees, as I looked forward to a nice little return from them, and if I succeeded in keeping the few I have left I shall be pleased. What can have caused it, as they were apparently all right at the end of last autumn? I took great care of them, but we had a wet winter here, and I could not keep the wood lice out of the top of the hives, I suppose owing to the damp. Would that, do you think, have anything to do with it?

[Sample to hand, The matter does not stretch out like india-rubber, and there is not the gluey smell. It is evidently chilled brood. You have not kept your bees snug enough. Have the tops blown off with rough winds? Have you gable covers with a vacant space above the frames and no blankets on top of the frames?

CAPPINGS.

From American and other Bee Journals.

The honey season in America for 1896 was better than 1895.

Honey is the only food taken into the stomach that leaves no residue.

In reply to a series of questions in *Gleanings* the replies came in nearly every case that honey fetches its best price in the Autumn months.

The introduction of the Australian lady-bird into California did immense good to fruit-growers, and as a sequence to beekeepers, by destroying the scale or bark lice.

If all the cake and all the cooked sweets were utterly banished from the table, and Nature's own sweet honey substituted therefor, I believe it would add greatly to the health, happiness, and longevity of the nation.—*Gleanings*.

Commission men say that comb honey at least, is much meaner to handle than syrups. There is the breaking down, the leakage, and the tendency of the comb to deteriorate in appearance in time. As to extracted honey, it candies, while syrups do not; but taking everything into consideration, there is too great a difference.—*Gleanings*.

There is one thing I never saw mentioned until a while ago. It is about bees working by moonlight. In Iowa I had a cluster of three large basswood trees, and one large, single tree, right in the apiary, and the bees working freely on them by moonlight. I don't think my bees were crossed with lightening bugs, but still they might have been for aught I know.—Dr. E. Gallup.

Skylark in *Pickings by the Way* in *Gleanings* says:—This question of adulteration overtops all others that confronts us at the present time. Everything else dwindles into utter insignificance before it. It is the greatest enemy we have to fight. One man or a few men can do nothing; but a great organised body, cemented together by mutual interests and a common objective point, would be invincible in pleading for the right in the legislative hall or in a court of justice.—
[Is it any different in Australia?]

C. P. Dadant says:—Never give empty space for comb building to a queenless colony or to a colony that has a very old queen. When hiving a swarm give them no comb at all, but only starters, or else give them comb entirely built, but do not leave a portion only of the combs to build, as they will be sure to build a large quantity of drone comb. If you wish combs built in the natural way, let them be built by a strong vigorous colony with a prolific queen, and you will have the minimum of drone combs.

E. E. Nussle, M.D., recommends in *A.B.J.*, the using of lax sulphur instead of sulphur for bee paralysis. The remedy is non-toxic, and whatever the bees will take up of it would only relieve their bloated condition, by relieving their suffering from costiveness. Besides this, it looks very reasonable that this very remedy should have some specific action on said disease, as sulphur has long been used in the medical practice for a number of diseases of a similar nature in mankind. I refer to diseases of the scalp and the hair follicles proper, where it is caused by a fungus or bacillus. Besides, sulphur is a principal constituent of the hair.

The *A. B. Journal* says:—Reports show that the total amount of sugar consumed in the United States in the year 1892, was 3,899,488,000 pounds, or about 60 pounds for each inhabitant. Who doubts that all would have been healthier if at least 5 pounds of the 60 consumed by each individual had been honey? Suppose that could be brought about wouldn't it open up a demand for honey? Five pounds each, with an estimated population of 70 millions of people, would require 350,000,000 pounds of honey annually to feed our own people. The majority of families do not know the value of honey as a daily food. They imagine that it is mainly a medicine, or else know nothing at all about it.

Adrain Getaz in *Gleanings* says:—We did get a much higher price for honey in the '70's than we do now; but why? In the '70's there were no substitutes to

compete. All the sweets we had were sugars, mostly dark (but little white sugar was used, as it was retailed at least here, at about 20 cents a pound or more); some New Orleans molasses and sorghum molasses, made in ordinary iron kettles, both pretty nearly as black as tar, and a limited quantity of home made apple-butter and also some good but high priced New Orleans molasses. Now all this is changed. White sugar is sold at 5 cents per lb instead of 20 or more. With the invention of the evaporator, quite an amount of fairly good sorghum molasses is turned out every year. With the falling price of sugars, has also fallen the price of the New Orleans molasses; and, above all, corn or glucose syrups are sold in enormous quantities, under all sorts of fancy names such as, "Pure Golden Drops," "Golden New Orleans syrup," "Pure Californian orange honey," etc. Add to this an immense quantities of candies, jellies, more or less artificial, and other confectioneries made possible by the cheapness of sugars and glucose, and then you needn't look for anything else than the competitions on the markets of the above substitutes. We are "confronted by a condition and not by a theory," and we can not change the situation. But, on the other hand, we need not be afraid of lower prices, even if the production of honey were considerably increased; for these substitutes are sold now at the lowest possible margins, and an increase of honey production would simply displace them in part, as, at equal or somewhat higher prices (especially in the case of comb honey), the consumer will take the honey in preference.

Some four or five years ago the principal of our high school, in a lesson in entomology, requested her pupils to give her a list of the insects injurious to fruit. The bees were placed upon this list, and a discussion ensued. The attention of the president of the school board was called to the matter, and inasmuch as the principle had herself positively declared against the bee, he came to me and requested me to come

before the class and give them my experience. I did so, but although no one tried to contradict my remarks on the natural history of the bee, it was evident to me that a little actual practical experience would go much further towards convincing my hearers than all the theories in the world. So I asked the principal whether she would have any objection to a practical test. I agreed to furnish the bees, to attract them to the school-house, if the scholars would furnish the fruit. A day was set; grapes, pears and peaches were brought, and a little honey served to attract the bees. They came in numbers. Then the honey was removed and some damaged fruit given them. On this they worked, though not so readily as on the honey. After they got fairly to work, the damaged fruit were removed and sound fruits brought forward. Within 20 minutes the bees had left in disgust. This test effectually put a stop to all further complaints of bees damaging sound fruit in this vicinity, and if there are any who still believe that they do puncture grapes, they do not feel inclined to come forward and assert it openly.—C. P. Dadant, in *A.B.J.*

THE EUCALYPTUS HONEY QUESTION.

J. HOPKINS.

Had I been asked to give my opinion on this much-debated subject I should have written in just the same strain as Mr James Bennet, though I am certain I could not have put the matter so clearly and concisely as he has done. To my mind his letter in your last issue is the best that has yet appeared; his argument is incontrovertible, and therefore must commend itself to all unbiassed minds. Had I to revise it I would not alter one word. I have several times been tempted to write to your *Bulletin* after reading some of the letters that have appeared, but I have refrained, lest it might be thought that I had too little direct interest in the matter for my opin-

ion to be worth much. No one can feel a deeper interest in Australasian bee-keeping than myself, and its success is my greatest desire. On this account I am very sorry indeed that Australian honey has not met with better success on the English markets.

Now, Mr. Editor, I don't think it wise to get riled with the British honey buyers, or talk of "going for the scalp of Mr Jones," because they will not take your honey at your own valuation. Neither is it likely to be correct, as you think, that a man in Mr Jones' position—as a delegate from an insititution whose dealings amount to several millions a year—is going out of his way to run down your honey so that he may have the chance of buying it a half-penny or one penny per lb. cheaper. The idea is too absurd. Instead of getting out of temper with all and sundry, why not calmly face the facts, and see what can best be done to alter the present condition of things. My own opinion is that a great blunder was made in the way your honey was first placed upon the English market. Some three years ago I was asked on behalf of the South Australian Government to state what I considered the best plan to open the British markets to their honey. I did so, and some two years or so ago I gave through your *Bulletin* similar advice to your readers. Had my suggestions been acted upon I believe you would have had very little difficulty in getting a footing. My suggestions were the outcome of experience in opening the same markets to our N.Z. honey, which now fetches the highest price on those markets for foreign, and quite equal to the best British or Narbonne honies.

I look upon the statement of Mr Gale's friend about the prices of comb and extracted honey in England as quite misleading. For the last two years or more good comb honey in sections has been retailed in some of the large cities at from 6d to 8d a section and first class extracted at 5d in glass jars (jars included of course).

I have known our best N. Z. Honey, some I have sent home myself, sold at from 10d to 1/- per lb, but this has been but for a limited quantity only, and at a time when English honey was very scarce, just before their season commenced. Don't run away with the idea that honey is sold commonly in England at very big advances on colonial prices, because it is not so. Ponder well on Mr. Bennett's letter, Mr. Editor, and I am sure you will in your calmer movements be ready to adopt the suggestion he winds up with.

With regard to the quality, &c, of your eucalyptus honies. I may say in the first place that I have had samples of all kinds sent me from different parts of Australia. Some was very good indeed in flavour, consistency and colour; on the other hand, I have some in my office ready put up in tins for market given to me personally by the raisers which I would not offer for sale upon any consideration. I won't go so far as to say it is not eatable, but I would not offer it to anyone to eat. No matter about the particular part it come from, but it was raised in a noted eucalyptus district in a colony where there are large quantities of eucalyptus honey harvested. If any of this class has been sent on to the English markets, and I have good reason to believe there has, I am not surprised at the objections made to Australian honey generally. The smell of this is enough without tasting it, for any ordinary individual. I will send you a little if you like.

We do agree with Mr. Bennett's concluding remarks, but we also still retain our own opinion that paid buyers will not give more than they possibly can for any article, and will make them selves thoroughly acquainted with all possible defects. You are quite right, Mr. Hopkins, as to the different qualities of honey, and it is only the best should be sent to the old country, but as things are at present, who is to control what is sent, and will we this year have a surplus of good honey for export, any more than we had last? Again by the way, we shall be pleased to hear from you more often.

B E E S.

From Lubbock's 'Bees, Ants and Wasps'. (Continued)

One day when I came home in the afternoon I found that at least a hundred bees had got into my room through the postern and were on the window, yet not one was attracted by an open jar of honey which stood in a shady corner about 3 feet 6 inches from the window.

Another day (April 29, 1872) I placed a saucer of honey close to some forget-me-nots, on which bees were numerous and busy; yet from 10 a.m. till 6 only one bee went to the honey.

I put some honey in a hollow in the garden wall opposite my hives at 10.30 (this wall is about five feet high and four feet from the hives), yet the bees did not find it during the whole day.

On March 30, 1873, a fine sunshiny day, when the bees were very active, I placed a glass containing honey at 9 in the morning on the wall in front of the hives; but not a single bee went to the honey the whole day. On April 20 I tried the same experiment with the same result.

September 19.—At 9.30 I placed some honey in a glass about four feet from and just in front of the hive, but during the whole day not a bee observed it.

As it then occurred to me that it might be suggested that there was something about this honey which rendered it unattractive to the bees, on the following day, I first placed it again on the top of the wall for three hours, during which not a single bee came, and then moved it close to the alighting board of the hive. It remained unnoticed for a quarter of an hour, when two bees observed it, and others soon followed in considerable numbers.

It is generally stated not only that the bees in a hive all know one another, but also that they immediately recognize and attack any intruder from another hive. It is possible that the bees of particular hives have a particular smell. Thus Langstroth in his interesting "Treatise on the Honey Bee," says, "Members of different colonies appear to recognise

their hive companions by the sense of smell;" and I believe that if colonies are sprinkled with scented syrup they may generally be safely mixed. Moreover a bee returning to its own hive with a load of treasure is a very different creature from a hungry marauder; and it is said that a bee, if laden with honey, is allowed to enter any hive with impunity. Dr. Langstroth continues: There is an air of roguery about a thieving bee which, to the expert, is as characteristic as are the motions of a pickpocket to a skilful policeman. Its sneaking look and nervous, guilty agitation, once seen, can never be mistaken. It is at any rate natural that a bee which enters a wrong hive by accident should be much surprised and alarmed, and would thus probably betray herself.

So far as my own observations go, though bees habitually know and return to their own hive, still, if placed on the alighting board of another, they often enter it without molestation. Thus:—

On May 4 I put a strange bee into a hive at 2 o'clock. She remained in till 2.20, when she came out, but entered again directly. I was away most of the afternoon, but returned at 5.30; at 6 she came out of the hive, but soon returned; and after that I saw no more of her.

May 12.—A beautiful day, and the bees very active. I placed 12 marked bees on the alighting board of a neighbouring hive. They all went in; but before evening ten had returned home.

May 13.—Again put 12 marked bees on the alighting board of another nest; eleven went in. The following day I found that seven had returned home; the other five I could not see.

May 17.—Took a bee, and, after feeding her and making her white, put her to a hive next but one to her own at 4.18. She went in.

4.22. Came out and went in again.

4.29. Came out. I fed her and sent her back.

4.35. Came out. Took a little flight and came back.

4.45. Went in but returned.

- 4.52. Went in. 4.53. Came out
 4.56. „ 4.57. „
 4.58. „
 5. 1. Came out, took another little flight, and returned. I fed her again.
 5.25. Went in again.
 5.28. Came out again.
 5.29. Went in again.
 5.31. Came out again.
 5.33. Went in again.
 5.36. Came out again.
 5.40. Went in again.
 5.46. Shut her and the others in with a piece of note-paper.

6.36. One of the bees forced her way through. I opened the door; and several, including the white one, came out directly. Till 6.50. this bee kept on going in and out every minute or two; hardly any bees were flying, only a few standing at the doors of most of the hives. At 7.20 she was still at the hive door.

May 20.—Between 6 and 7 p.m. I marked a bee and transferred her to another hive.

May 21.—Watched from 7.30 to 8.9 in the morning without seeing her. At half-past six in the evening went down again, directly saw and fed her. She was then in her new hive; but a few minutes after I observed her on the lighting stage of her old hive; so I again fed her, and when she left my hand she returned to the new hive.

May 22.—8 o'clock. She was back in her old hive.

May 23.—About 12.30 she was again in the new hive.

Though bees which have stung and lost their sting always perish, they do not die immediately; and in the meantime they show little sign of suffering from the terrible injury. On August 25 a bee which had come several times to my honey was startled, flew to one of the windows, and had evidently lost her way. While I was putting her back she stung me, and lost her sting in doing so. I put her in through the postern, and for 20 minutes she remained on the landing stage; she then went into the

hive, and after an hour she returned to the honey and fed quietly, notwithstanding the terrible injury she had received. After this, however, I did not see her any more.

Like many other insects, bees are much affected by light. One evening, having to go down to the cellar, I lit a small covered lamp. A bee which was out came to it, and, flying round and round like a moth, followed me the whole of the way there.

I often found that if bees which were brought to honey did not return at once, still they would do so a day or two afterwards. For instance, on July 11; 1874, a hot thundry day, and when the bees were much out of humour, I brought 12 bees to some honey: only one came back, and that one only once; but on the following day several of them returned.

My bees sometimes ceased work at times when I could not account for their doing so. October 19 was a beautiful, sunshiny, warm day. All the morning the bees were fully active. At 11.25 I brought one to the honey-comb, and she returned at the usual intervals for a couple of hours; but after that she came no more, nor were there any other bees at work. Yet the weather was lovely, and the hive is so placed as to catch the afternoon sun.

I have made a few observations to ascertain, if possible, whether the bees generally go to the same part of the hive. Thus,—

October 5.—I took a bee out of the hive, fed her, and marked her. She went back to the same part.

October 9.—At 7.15 I took out two bees, fed and marked them. They returned; but I could not see them in the same part of the hive. One, however, I found not far off.

At 9.30 brought out four bees, fed and marked them. One returned to the same part of the hive. I lost sight of the others.

(To be Continued.)

INVERELL B. K. A.

G. H. ARKINSTALL.

An adjourned meeting of beekeepers was held at Inverell on Thursday Oct. 29th.—Mr. J. W. Moore in the chair. There were also present: Mr. F. W. Penberthy, B. Pennington, R. Cooper, senr., R. Cooper, junr., J. Pennington, G. H. Arkinstall, J. Brown and A. Pigott. It was decided to form a Society, to be called the "Inverell Beekeepers Union." The following officers were elected: President, Mr. J. W. Moore; vice-presidents, Mr. F. W. Penberthy, Dr. Lane, and Mr. T. Mather; secretary, Mr. G. H. Arkinstall; treasurer, Mr. J. W. Moore; general committee, those present with power to add; sub-committee, Messrs B. Pennington, R. Cooper, F. W. Penberthy, J. W. Moore, and G. H. Arkinstall. The next meeting will be held on 19th November. All beekeepers are invited to attend. A letter of encouragement was read from Mr. E. Tipper, *Australian Bee Bulletin*, West Maitland.

BACCHUS MARSH B. K. A.

GIDEON HOLLIS, Hon. Sec.

The usual monthly meeting of the Bacchus Marsh B.K.A. was held at Hollis' Tea Rooms on Wednesday, Oct 21st. The President W. Smith in the chair.

The minutes of previous meeting were read and confirmed. The President introduced the subject of making up an exhibit for the next Ballan Show, and it was decided that the members should report later what they could contribute.

Proposed by G. Hollis that a vote of thanks be accorded to Mr. T. A. Grant for the loan of his foundation mill at the last Bacchus Marsh Show, and also that his name be placed on the roll as an honorary member; seconded by W. Serjeant and carried.

Presidents hints: Look after entrances, see that they are wide, and that there is provision made in the lid for ventilation. Let the bees have free access to water. One good way is to hang up a canvas

water bag in the shade.

After a long general discussion the meeting closed.

MUSWELLBROOK B.K.A.

Mr. Roberts having taken the chair, the minutes of the previous and the last annual meeting were confirmed.

The third annual report was then read by the Secretary as follows:—

Mr. Chairman and Gentlemen: In presenting this report your committee feel that the Association is to be congratulated on the results attained during the past year.

In spite of the bad season just experienced and the inevitable falling off of members, the Association still numbers 17 names on its roll.

The number of colonies owned by the Association has, thanks to the ravages of paralysis, severe seasons, and scanty honey flows, gone back somewhat, but against this may be set off the fact that in the face of these difficulties, the Association with trifling help from one or two outside exhibitors, got together for the local show one of the finest displays of honey and other apicultural products ever shown in the colony. The Association has held 7 meetings during the year, those in the winter months having been allowed to lapse.

The funds of the Association are in a very fair condition.

Your committee wish to thank those gentlemen who donated special prizes, which enabled the Association to offer a very substantial sum for competition at the show and hope that the past efforts of the Association will be rewarded with a good season and increased support.

In moving the adoption of the report and treasurer's statement the chairman referred to the difficulties encountered by the members of the Association, and said that the position now occupied by the body was due to the energies of the members and was very creditable indeed.

Mr. Ellerton in seconding the motion spoke of the display of bee products made at the local show, and congratulated the members on their success.

The election of officers for the ensuing year resulted as follows: President, Mr. T. Ellerton (unopposed); Vice-presidents Messrs Roberts and F. Budden (unopposed); Secretary, Mr. D. G. Grant (unopposed); Treasurer, Mr. W. Hornery (unopposed). The following gentle-

men were appointed to form the committee: Messrs Paul, Gardiner, Hill, Hazelwood and McKenzie.

At the next meeting Mr. Paul will read a paper entitled "Bees and Fruit."

This paper which will bear principally on the somewhat general, though very mistaken idea, that bees injure fruit, should be interesting, especially as the fruit season is now coming on, and it is to be hoped that not only the members but any one else interested in the matter will attend the meeting.

H. R. B. K. A.

A meeting of the above was held in Science Class room, Technological Museum, on Saturday evening, October 31st.

Present:—Messrs J. W. Pender, Vice-President (in the chair), W. S. Pender, R. Patten, J. F. Munday, Coles, J. Pender, Harden, Noble, & M. Scobie, (Hon. Sec.)

The minutes of previous meeting were read and confirmed.

One new member was elected.

The reading of the balance sheet (which showed a cash balance on the right side), and election of officers were then proceeded with and resulted as follows:—*President*, Mr. R. Scobie; *Vice-Presidents*, Messrs J. W. Pender, J. Tucker, and J. F. Munday; *Hon. Sec.*, Mr. M. Scobie; *Ass. Sec.*, Mr. G. T. Pender; *Committee*, Messrs R. L. Pender, Harden, Patten, Noble, and Voegelé.

The office bearers returned thanks for the honour conferred on them.

Mr. Patten being called upon said that some time in the year 1892 a movement was made to send some of our Australian honey to the Chicago Exhibition, and Messrs Patten and W. S. Pender, were appointed Hon. Secs. to carry out the details, the outcome of which was that 126 jars of pure Australian honey were sent to that exhibition, and after being judged and exhibited were to become the property of the Department of Agriculture, Washington, U. S. A., and in exchange for which they promised to forward to this Association samples of American honey, but time passed and

correspondence written between the different parties and no satisfactory reply could be got re the same. A few days ago, Mr. Patten received a notification from our Colonial Secretary (Hon. J. N. Brunker), that a medal and diploma which was awarded the association at the World's Fair, had arrived in Sydney. Mr. Patten received the same and at this meeting handed them over to the Association.

The medal, which was a handsome bronze one, mounted in plush, in a solid aluminium case, was handed round for inspection, along with the diploma. All the contributors to the exhibit have the right to use medal and diploma.

Mr. Patten said that the honey which had gained this award consisted of 102 jars of eucalyptus honey, and that 24 jars were pure lucerne honey.

Mr. Coles moved that a hearty vote of thanks be accorded to Messrs Patten and W. S. Pender for the part they had taken in the matter.

Seconded by Mr. Munday and carried unanimously.

Moved by Mr. Munday and seconded by Mr. Harden, that a hearty vote of thanks be accorded Mr. J. W. Pender, for valuable assistance rendered by that gentleman to the association while in America. Carried unanimously.

Mr. Patten moved that the names of the exhibitors be printed on the diploma and that it be framed, and together with the medal be made a loan exhibit to the Technological Museum. West Maitland.

Seconded by Mr. Munday.

Mr. Munday then opened a discussion on, "Is it preferable to feed with frames of honey kept over from the previous season or to make syrup." He said he did not believe in feeding, but there are occasions on which bees must be fed. The principal time for feeding is early spring. It is very handy to have comb honey in the hive for food as it does not excite the bees as syrup would. Honey will keep better in the hive.

As the hour was getting late, the discussion was adjourned till Saturday Evening, November 21st.

THE CYNIC'S LAY.

The swarming bees from softest breeze

Take dread microbe and fell disease,

The falling showers from nectared flowers

Wash all the sweets in forest trees.

The best laid plan of careful man

Was never free from nature's ban ;

He does his best till he sinks to rest,

But did ne'er succeed since the world began.

You'll find each day that the cynic lay

I'm writing now in my cynic way,

Are but the acts and solid facts

That a bee man meets with every day.

My tale I'll tell, and I'll think it well,

If these lines of mine the desire may quell

To spend your money in raising honey.

'List to the fate that to me befell.

I found it rough to buy the stuff,

I found that I needed before I'd enough ;

The latest extractor turned out a *distractor*,

But I said to myself I'll prove I'm no muff.

The coming spring reward will bring,

For all I've spent my heart did sing ;

But a burning drought put my hopes to rout,

And a shadow of doubt o'er my heart did fling.

The summer passed, rain came at last,

And cool winds followed the scorching blast ;

Spring came again, but it brought me pain,

The foul brood lowered my hopes half mast.

And one by one my swarms are gone,

And I'm sighing and sad 'midst the ruins alone

With a tear in my eye for the days gone bye

As the passing winds through the dead hives

[moan.

Their garnered store I shall see no more,

I seem to hear 'midst the tempest's roar :

For death has come 'midst their cheerful hum

'Tis too late now for the bee-man's lore.

Too many diseases are coming to tease us,

As I said before they float with the breezes ;

So take my advice, don't think of it twice,

Lest an epidemic of lunacy seize us.

And now I've done, my tale is spun ;

I think my experience collars the bun, [found.

Since man's been on the ground he always has

There's nothing worth anything under the sun.

Don't leave sections on the hive, when the flow stops, for the bees to daub with glue. If you hope there will be a fresh flow, wait till it comes and then put the sections on again.

C.E.J., Minimag, Victoria, Oct. 20th.—Prospects are very good and a little distance away the white gum is yielding well. Swarming has begun in this district and will continue for some time.

H.J.G., St. Peters, October 20th.—I have no bee news to tell you only that I took a colony of bees from a brick yard the other day after they had been taken three times by some one else. Thanks to the A.B.B. they have not left me yet, and do not appear likely. They are black.

Mr. A. J. Brown, Parkville, Oct. 20th. writes.—Enclosed please find two photos one of my apiary, and the other of a frame of queen cells. These cells (19) are as you see, on one bar of an L frame, and are the third batch from a strong colony of Ligurians that were superseding. 19 out of a possible 19 is very good, and the cells were the best lot I have ever seen. Every one hatched and are splendid queens in every way. They were all grafted, and most of them exceeded 1½ inches in length. The total for three batches by this colony was 54 or 17, 18, and 19, and not a bad cell amongst them. I am sorry I did not photograph them all. The apiary is not taken as well as should be. The side view almost hides 25 nucleus hives. However, I will have the whole lot taken again and will send you one of them. My two assistants are shown here in this photo, my boy of 11, and girl of 13, without whom I would be overrun with work. Just now bee matters generally are very encouraging. Colonies in tip top condition, honey coming in nicely and the bush around getting white with bloom. This season's queens are all turning out purely mated, not one failure reported yet.

[The photos to hand and are really excellent additions to our picture gallery.]

E.P., Fernbank, Victoria, Oct 25.—I must congratulate you on the improvement all round that you have made in your journal, and hope you are getting a good season. Things are better here this year but it will take some time to recover lost ground.

H. R. B. K. A.

The usual monthly meeting was held at Technological Museum, West Maitland, on Saturday evening November 21st. Mr. J. W. Pender, Vice-president, occupied the chair.

After the reading of the minutes and the transaction of a small quantity of business, the usual reports by members on the condition of their bees, were given. Every report was satisfactory, bees in good condition and storing honey.

Mr. Munday asked: What is to be done with combs containing too much pollen, for sometimes combs contain a large quantity to the exclusion of brood?

W. S. Pender: Give to weak colonies to build up on.

Mr. Munday: The common advice is to soak them in water and remove the pollen by extracting in the extractor, his opinion was to give to a colony of bees storing honey to fill up the cells with honey and get it capped and preserve for spring feeding.

The debate for the evening on Foul Brood and Paralysis was opened by Mr. Munday on Foul Brood. He said it is a disease he is well acquainted with, and was prepared for it when his bees got it by having read all the available literature about it. Books, bee papers, &c. made out it was a dreadful disease and recommended as so much care was necessary that the smell from it should not even come near a colony or it would be affected. He, Mr. Munday, has had reason to change his views, for in his experience it is not nearly so contagious as it is said to be. He cited a case he observed during the past year; there was a hive badly affected—a bad case—which contained a considerable quantity of honey. This hive was robbed completely by the bees in the apiary, who made a clean job of it. He watched and expected to see the disease re-appear among the other colonies, but so far has watched in vain. He asked, "How is it there is no Foul Brood in the apiary?" Previously he had Foul Brood in weak colonies and so thinks a large quantity of brood were

nursed on an insufficiency of proper food, *i.e.*, the bees were of weak constitution and were not able to resist the disease. He believed if bees are reared on plenty of good food, there being an abundance in the hive, they are not likely to take foul brood. When he first had the disease, he used to cut out the diseased portions of the brood from diseased colonies and found the disease continue; again he hived the diseased bees on foundation in the same hive, and yet the disease would re-appear, but when hiving the bees in a clean box on comb foundation it was a perfect cure, the diseased hive being simply cleaned and painted inside and out.

Mr. W. S. Pender said his experience was similar to Mr. Munday's; he had no dread of the disease as it was a simple matter to effect a cure. He spoke of a case where Mr. Scobie had a foul broody colony became deserted and afterwards a swarm took possession of the hive and the disease did not re-appear. He, Mr. Pender, said some of the books on the treatment of the disease recommended so much care that in his opinion they were likely to do more at spreading the disease than curing. How many books recommend treating the disease when other bees have ceased flying, at night. His opinion any disturbance at night to a colony of bees was not desirable, for the bees will push into all hives they crawl near. We are always told to cure the disease at once. He said don't do so, wait until there is a honey flow; if the disease shows itself in autumn or winter contract the entrance to the hive to prevent robbing. The hive can do no harm remaining there, provided it is not robbed out, but if treated when the bees cannot build combs through want of warmth and a honey flow, the bees are given an excellent cause to desert their hive and carry the disease by uniting to one or more colonies. Wait for a honey flow and then re-hive bees, as described by Mr. Munday, in a clean hive, the diseased one being scraped and painted.

Mr. M. Scobie: In Mr. Munday's case

the disease may yet appear, for if the bees were storing honey at the time, none of the diseased honey may yet have been fed to the larvæ.

Mr. W. S. Pender spoke of bee paralysis, the disease that is worse than foul brood, in that we knew a great deal about Foul Brood, but but practically nothing of paralysis. He described the two diseases and explained the differences between the diseases, foul brood was a disease attacking the brood only, paralysis attacked the mature bee or rather developed in the intestines of the pure bee. He spent much time in examining both diseases, and said both were of bacillus form, and the bacilli of both diseases resembling one another so far as the microscope he used defined the form, and while in foul brood plenty of spore could be seen in old matter, and the bacilli having the leptothrix arrangement. In paralysis he could not see the bacilli had any arrangement at all, but were scattered promiscuously about. We have not yet found a spore in examining paralysis. The disease takes three different forms, which caused him to think there were three different diseases, but microscopic examination showed that each form contained the same bacillus. The three forms seem to be due to the three different ages of the bee when attacked. In young bees just emerged, nothing seems to be wrong with the bees; they simply crawl out of are carried out of the hive, and make a heap in front, each having slight motion of legs, but not the power of crawling from the hive. In bees that are slightly older, the body is greatly distended, the bees have somewhat of a greasy appearance, and many can be observed trying to get as far from the hive as possible trying to use their wings (which have a quivering motion), and using their front legs, the hind legs seem to have lost all power; some of the bees lose the power of one wing. In the older bees the black segments of the body and the thorax become a glossy black; some of the bees look a little greasy, and their

body may be more or less distended. The shaking motion of the wings is similar to the middle aged bees. He has not yet found a satisfactory remedy for the disease; sulphur so far seems to do some good, but it has to be very carefully used. His opinion is, that "the new bee disease" now so bad in California about two years ago, was similar to the disease described by himself, as found in Mr. Donald Grant's apiary, in the *A.B. Bulletin* about two years ago, was due to the excessive use of sulphur for paralysis. If sulphur is used let it be used on the outside of hive only, and perhaps on the bottom board of hive. Mr. Munday says there was nothing to remove from him the belief that paralysis was caused by improper food; if the diseased bees are shut up for a week the disease will disappear; why try and cure bees if they can still get at the bad food which causes the disease. He had paralysis badly at one time; a week's rain came on, after which there was no sign of it—the bees were simply kept from getting the improper food through being confined by the rain. Mr. Scobie says Mr. Munday's hint is worth considering, for he read lately that the Germans have come to the conclusion that dewy mornings are the cause of the disease.

Resolved that the subscribers to the *A. B. BULLETIN* be asked to give all the information they can about paralysis.

The debate adjourned until the January meeting; no meeting to be held in December on account of the holidays.

Mr W. S. Pender promised to exhibit germs of foul brood and paralysis under the microscope at next meeting if he could obtain suitable material.

CRIMSON CLOVER.

(*Trifolium Incarnatum*.)

H. J. RUMSEY, BARBER'S CREEK.

Australian beekeepers who read *Gleanings* will have noticed mention being made very much lately of Crimson Clover, its value as a soil improver, fodder plant, and what is most important to beekeepers as a honey yielder.

It has been tried successfully this season in various parts of the colony, and although I have not had sufficient area nor do know of anyone who has, to test it on a large scale for honey, still if the way my bees worked on the small trial plot I had in was any criterion, I know of no plant to beat it, they literally swarmed on it all day. Our American friends say the quality is next to the best, some in fact giving it first place. The best time for planting is January to March, and it is a winter grower. It sends its roots deep down into the subsoil during the cold weather, ready to make enormous growth in a few weeks in October, being in full flower by the end of that month, each plant sending up 20 to 40 stalks to a height of from 12 to 18 inches, with a beautiful crimson flower at the end of each. If cut at this time it will make a second growth, flowering this time about the middle of November.

As I am very anxious to see this plant tried in all parts of the colonies, I shall be pleased to send readers of the *Bee Bulletin* a small packet for trial on receipt of a 2d stamp for postage, and I should be glad if all who try it will send the Editor the results.

PICKLED BROOD OR FUNGUS.

Dr. Howard, whose valuable work on Foul Brood is well known to many of our readers, has contributed a valuable addition to our knowledge of bee diseases. In the *Beekeeper's Review* he publishes an account of what he calls, "Pickled brood or white fungus." He says:—

"I have recommended with successful results placing the bees on full sheets of foundation, confining them for three days (giving them plenty of water) in order to consume all of the infected material, that none of the disease might be deposited in the new combs to be covered with new pollen or honey. The disease is infectious and may be carried by robbers having access to infected combs. Pollen is a favourable medium and the warm, damp, dark, cellars, in which bees are wintered in the northern climate gives the proper conditions for the growth and mouldy combs result. When pollen is added to

the liquid food, which occurs late in larval life, there being a sweet semi-liquid mixture. the proper medium is present for the growth of the fungus, which at once starts a ferment in the alimentary canal of the larvæ, breaking through and permeating the entire liquids of the body, giving an acid re-action (chemical analysis proves the presence of acetic acid or vinegar). This growth takes place generally within three days, the brood dies slowly, keeping up for some time a wriggling motion.

When no more food (sweets) is taken, the medium is soon exhausted and the fungus ceases to grow the acid condition of the brood prevents the growth of putrefactive germs from the air, so that decomposition does not take place, hence no foul odour, the brood is pickled in its own liquids.

Below will be found the differential diagnosis of this disease and that of "foul brood."

FOUL BROOD—CAUSE, *Bacillus Alvei*.

"Introduced from without to the healthy brood; the food provided by the nurse bees being a nutrient medium (proper soil for growth), active growth at once takes place; poisonous compounds result, and death of the brood may result from these, the germs themselves or their combined action."—Author's "Foul brood," page 10.

SYMPTOMS AND COURSE.—Brood is attacked at all ages from two or three days up to after being sealed. McEvoy says, "More brood dies of foul brood at the ages of 6, 7, 8, and 9 days than at any other age." (Author's Foul Brood, page 46). As much brood dies before the feeding of pollen begins as afterward. The dead brood is attacked by the putrefactive germs from the atmosphere, causing rapid decomposition, producing a ropy, brownish-black mass, and giving off a very foul odour. The cap in sealed brood is nearly always ruptured near the centre by the accumulation of the foul gases generated within the cell; the rotten brood lies in a shapeless mass at the lower side of the cell. When the mass dries it becomes harder and tougher than the wax (Prop. IV, Author's "Foul Brood," page 18), and cannot be detached, without injury to the comb.

When *bacillus alvei* is planted on nutrient gelatine, or a cooked potato, and placed in a moist chamber, growth at once takes place, forming a viscid, ropy liquid, slightly alkaline in re-action, giving off an offensive odor resembling that of foul brood and when exposed to the air, putrefactive germs attack the culture and soon overrun it.

WHITE FUNGUS—*Aspergillus Pollini*.

A mould introduced to a healthy colony from mouldy combs or pollen, which when mixed with the liquid food composed mostly of honey and water, a ferment takes place and vinegar is formed in the stomach of the bee, the combined action of the mould and the ferment destroys the life as above mentioned.

SYMPTOMS AND COURSE.—Brood is attacked only after the pollen is mixed with the liquid food, and dies just before arriving at the pupa stage, generally; sometimes passes into this stage and is sealed. No brood dies before the age of feeding mixed food arrives. The dead brood being in an acid or pickled condition, it is not attacked by the putrefactive germs from the atmosphere. No decomposition takes place, there is a watery (not ropy) condition of the brood when broken up, sometimes of a light brown colour, generally white, giving off no odour. The cap in sealed brood is not ruptured. The dead brood has a swollen appearance, and when dry does not stick to the comb or cell and often does not lose its shape.

When *Aspergillus pollini* is planted with the combs in water, or the brood on plates partially submerged in sweetened water mixed with starch or wheat-bran, placed in a moist chamber in a dark room, growth at once takes place, and in three or four days covers the medium, converting it into an acid solution. When exposed to the air putrefactive germs do not attack the culture.

In the bottom of the cells are from two to six eggs, which wither up and leaves a little whitish substance in the bottom of the cell. You may be able to tell me privately some way out of the difficulty. It may be foul brood, but not like I have seen. I expect to lose all my bees, it is hard luck for me, as it is my only dependence; I think it is the last vial of revelations being poured upon me. I think honey will be dear next winter, as it seems such a scarcity.

[You have evidently laying workers. The following plans are recommended for getting rid of them:—Either to unite with a strong colony with a good queen, to divide them afterwards, then giving them a queen or brood. Or, caging a queen in the hive for 36 hours, and then releasing her. Or, shake the bees off the combs, some 40 or 50 feet away, and then give them a frame with eggs and larvæ, a queen cell or queen. It shows the necessity of always being certain if a hive has not a queen, it has eggs and larvæ so it can raise one.]

P.S., Trial Bay, Arkoon, Nov 14,—

Please could you or any of your correspondents inform me as to how I should go to work to obtain swarms of bees from trees? I have frequently tried to transfer them from trees to hives, but I have failed every time. The trees that I wish to obtain the bees from are nearly all tallow woods about 3 ft. 6 in. in diameter. When I fall them they come down with such a crash that I think the comb is shifted, and the queen killed; at all events the bees never stop with me, they either swarm out of the hive and fly away or else they stop in it and die.

[As soon as you have transferred them to bar-frame hives give them a frame of brood with eggs from another hive. That will surely make it right.]

H.C.W., Leadville, Nov 17,—I find "Quibell's Sheep Dip" splendid for killing ants. I pour a little down their nests, and it either kills or cleans them out at once. The little black ants gave me a lot of trouble till I tried the "dip." It costs 6/6 per gallon wholesale in Sydney, and will go a long way, and it is strong enough to kill ants mixed with equal proportions of water. My sixteen boxes of bees are full of honey.

C.C., Grassmere, Lindfield, Nov 18,—Bees are doing splendid this season up here, the best season we have had for five years, the extractor kept busy, and I hope it will continue. We had a great hail storm here yesterday, cut everything to pieces, and I am afraid it will stop the honey flow, but I hope not. I have received every one of the *A.B.B's*, never one missed.

R.H. Jervis, Moss Vale, Nov 16,—Talk about a strain of bees that are early swarmers, one colony of mine beat all the others by over twelve months. I think I hear some ask how do you make that out? Why only one colony swarmed last season. Oh! for that box country where they have an 18 months flow. Take your hats off, for its a good one. Bees in the out apiary are doing well. Will be busy extracting if the weather keeps fine. Near 200 colonies will make things hum if they have a show.

A correspondent writes:—I have lost nearly all my bees this year; I thought it was the severe winter, but I find that I have a very bad disease, all the combs are void of brood. I have put fresh queens in the hives with no result.

but I have not time to extract as shearing is on. I am afraid the season is too dry to be a very good one for honey.

Mr Thomas Bolton, Dunkeld, Victoria, writes—My bees have wintered splendidly; not a loss from disease, but lost a few surviving nuclei early this month, at the equinox, for want of a feed in time, so I face swarming, which began on the 9th October (a week earlier than usual) with 226 colonies, spring count, besides nucleus. I am making provision to run an out-apiary at my old "home" (of which I sent you a photo) for wax, no frames, no foundation, divisible handy cases, and possessing the *sine qua non* of invertibility. These hives and others available for increase, will enable me to run three apiaries, totalling 450 colonies I hope. So far from being discouraged, I have moved my residence and buildings, save one extracting room, into Dunkeld, and can now attend to post and rail matters without loss of time. This I found necessary to a growing trade. I am erecting a honey house after my own mind, 24 x 20, two-story, and built ant-proof. The famous yellow box does not grow in my district. I have only red, white, messmate and manna gums. Notwithstanding the lack of yellow box my average for six years past has been within a few pounds of 1cwt. per colony per annum (spring count) marketed, besides wax. Increase has been kept down to 200 till now every spring. Thinking these items might be of interest, though I presume you hear of better averages elsewhere from time to time, and wishing you a successful year.

[Well done, friend Bolton, and may you keep on doing it for years to come, and may your wax scheme be fully equal to your best anticipations.]

W. Abrams, Beecroft, writes:—I am glad to say that the bees are still doing well in spite of the very dry weather we have had, and honey is coming in plentifully, the last from ti-tree. But the trouble now, is how to get it out! It is so dense that it will not extract at all, and in consequence the stocks get too full of honey, the bees filling almost

every cell and leaving only small space for the queen to lay. Now, Mr. Editor, can you or anyone else inform me what to do to extract that honey? I may at once mention that the cold is not the cause of the stiffness of the honey, as it has been warm enough here, too, as elsewhere, as to nearly reach the breakdown point of combs, still it will not extract even then. I have had small patches here and there in former seasons of a similar kind of honey, but nothing like this year. Having no honey at all, is bad enough, but to have it and not to be able to extract it is bad too, it seems. But I am sure some of those who have a long and varied experience in other matters, will also know what to do in this matter, and inform one of it, either by direct communication or through your journal, and accept my thanks in anticipation. My queen trade is very brisk so far, but most of them go to colonies beyond New South Wales, perhaps because the bees are doing better there, and the keeper has more pluck, or because the small cash is scarce here. Splendid rain, with a few hail stones, refreshed the vegetation, and it is possible that before long, the bees will make another start at swarming. The weather conditions are now quite in its favour, and the bees too. [There is a machine used in England, for pressing such honey out of the combs. Perhaps some of our readers can tell us more about it.]

F.S., Crows Nest, Q., Nov 11th,—I see by the *Australian Bee Bulletin* (which I get from Mr. H. L. Jones), that you ask for news at times, so perhaps a little from here will be of interest. In the summer of 1893-94 I commenced bee-keeping, with very little knowledge I must say, and with common boxes stocked with bees which I got about here, but in the spring of '94 I lost all but one, and by the end of the same summer I had half a dozen two story hives containing good swarms with Italian queens, and a few swarms in common boxes, but I did not get very much honey as they were hived too late.

The winter of '95 was very mild in this part, as one large swarm was gathering honey through it all, except for two or three days. I have seen a lot of reports about the summer of 1895-96 being a poor one for honey, but about here it was the opposite, and my bees gathered a lot of honey and swarmed wholesale, but as I hadn't boxes I didn't increase them much. At present I have thirteen 3-story 10-frame Langstroth hives, but the swarms are not very strong, as last winter was very cold, and a little snow fell here (the first known in this district) and there was very little honey till lately, when a nice lot of trees came in bloom, which has revived my hopes. I have my hives facing south-east, and they are sheltered on the east and south by a range, and on the west by a hill. The country about here is thickly timbered with a great variety of trees and shrubs. I never saw any foul brood and don't want to. I believe the objection given to clipping queens in the *A. B. B.* of October on page 174 can be managed by caging the queen, and then to fasten the cage to a swarm-catcher or pole, and stand it amongst the bees of the swarm, when I believe they would soon discover the queen and cluster upon it, and if two or more swarms came out at once they could be treated in the same way, and the poles removed that were getting more than their share of bees. I have not had a chance to test the above since I thought of it, but for an example of how quick the bees will find their queen on a small tree, refer to page 211 in the book, Langstroth on the Honey Bee, revised by Dadant.

G.S.H., Cootamundra, Nov. 11.—The bees around this district have been doing fairly well since the opening of the season, although the surroundings have been somewhat adverse. A good few cases of foul brood reported, mostly from the blacks, and where beekeepers snapped up small absconding swarms of blacks, thinking them to be genuine healthy lots. One gentleman has lost about ten good colonies through using

the extractor on a diseased colony, and then upon some healthy Italians. My experience has been with one colony this season, and soon as discovered I quarantined it about 2 miles away from all others, destroying the combs and gave starters twice, and all was well, but the bees went down in number so as to leave very few to cover the brood, thus limiting the queen's resources to a very small space. This means a considerable time to recoup, which leads me to think that the game is not worth the candle. In fact where a man has but a few colonies, and discovers it only in one hive, it will pay best to give them the burial of Sir John Moore, otherwise where a number are discovered diseased they might be united and treated by the McEvoy cure to advantage. Last week I had an experience which may interest some. I had a virgin queen reared from a swarming cell which was not mated on the 13th day, I saw her outside the hive having a short fly that day, and next day noticing an excitement outside amongst the bees I looked inside and found them balling the queen. I did not interfere, but next day she was gone. Can anyone account for this treatment? We have not had many swarms. In the early spring we had plenty brood rearing, but no honey until about three weeks ago, since then a fair supply has been coming in from yellow jacket, etc., But the weather keeps so dry that the honey yield must soon cease. I have ten colonies all working in two to three story hives, from which I have extracted about 60 fully capped frames. Should any of our apiarian friends care to have some silver wattle seeds, I can supply. This a splendid tree for blooming before the fruit trees bloom, and yields pollen in plenty for early brood rearing. You will see by the *A.B.J.*, I have sent some to Professor Cook, Pomono College, California, for which he has kindly sent me his valuable work on apiculture.

FROM VICTORIA.



BEEKEEPERS in Victoria, or any of the Colonies, Tasmania and New Zealand, I can supply you with **QUEENS THAT ARE UNSURPASSED IN QUALITY**. I GUARANTEE SAFE ARRIVAL and SATISFACTION at the following prices, viz.:—

Untested ..	one	5/-;	three	13/-;	five	20/-
Tested	8/-;	..	22/6;	..	35/-
Select-tested	15/-;	..	40/-;	..	60/-

Extra-selected-tested, THE VERY BEST, 25/- each.

I procure fresh breeding Queens every season from different places, so as not to inbreed (a great factor I think in preventing foul brood) and had two (out of a number) arrived safely from America by last mail, and another expected from Italy shortly.

A TRIAL SOLICITED.

JAS. McFARLANE, LYNDHURST, VIC.

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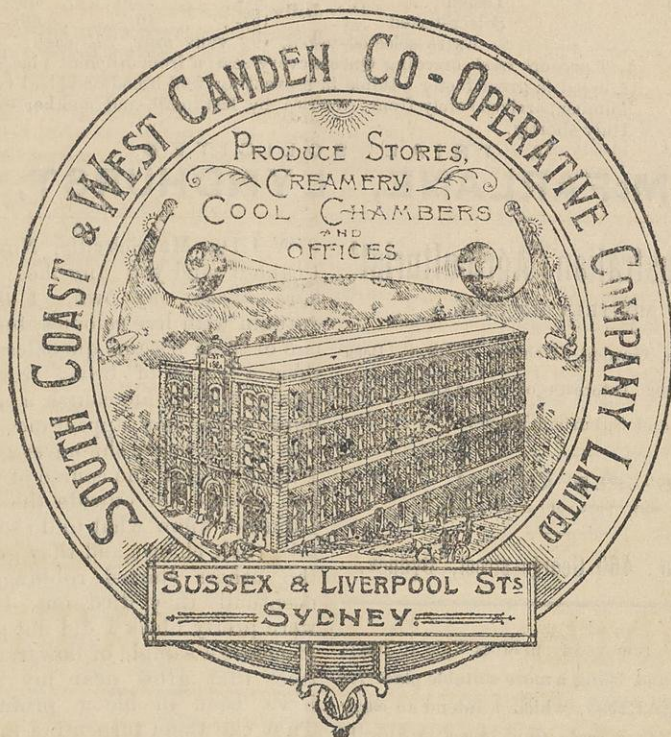
J. M. WALLACE,
FITZROY APIARY,
BINALONG.

W.J.D., Marrickville, November 1st, I cannot send you any bee news from here except my own. I finished the autumn with five colonies, but somehow one of them became queenless, so I gave them a frame of brood from my best queen, and in due course a nice yellow queen made her appearance, but being late in the season she never got fertilised I think, and in the course of a week or two I found her outside the hive dead. I did not know what to do so I let them take their chance, and they got weak and the others started robbing them and eventually they died out, but as they were pretty black I did not grieve much. I enclose a sample of flower and leaf of trees that grow near my place which have been in bloom profusely lately. They call them turpentine around here. The fresh bloom has a rather sickly smell. I never saw any bees working on them only thousands of moths at night. Could you tell me what they are and if they are of any value as honey producers. I got two swarms in October which makes me six colonies now. They are doing very well, but never make any surplus here, so I gain nothing but experience now.

We do not know the turpentine tree. Perhaps some of our readers may tell us something about it. When you found your queen dead out side if you had looked you would have seen there were no eggs or larvæ in the hive, that they could raise another queen from, and your proper course would have been to have got a laying queen from a queen seller.

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Is what all Beekeepers want, and to get it you must have good Queens. Upon no other one thing does the honey part of the apiary depend as it does upon the Queen. With a poor Queen, one that you must coax for eggs, your crop will be a failure. We all want good prolific Queens, whose bees are good workers and gentle to handle. After years of experience and constant importations I have succeeded in getting a strain of bees equal to any obtainable. The very best imported mothers only are used, and for industry, gentleness and beauty their bees are unsurpassed. I have a splendid lot of drones, and mismated queens are rare. 95 per cent. of my Queens proved purely mated last season. You can have your choice, either Leather or Golden.

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DADANT in "Langstroth (Revised)" page 289: *A slight mixture of this race with the Italians improves the latter wonderfully in colour and working qualities.*

Cyprian Italians, .. 3 for 7/6; 8 for £1. Ligurian, .. 3 for 7/6; 8 for £1.

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E. T. Yarrowonga, writes—The Cyprian Queen to hand. I prefer Cyprians, as my bees have a long way to fly, and they seem to travel further than Italians, any way they gather more.

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