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The Australian Bee Bulletin
Vol. VIII No. 7
October 28, 1899

The Australian Bee Bulletin.

A JOURNAL DEVOTED TO BEEKEEPING

MAITLAND, N.S.W.—OCT. 28, 1899.

PRIOR to Mr. Taverner leaving for England a few months ago, he was asked by the conference of Ministers of Agriculture held at Hobart to inquire, while in Great Britain, into the question of establishing an agency there for the distribution of Australian perishable products, and the methods of handling and storing our products. In his latest report he says that while in the mother country he conferred with some of the largest buyers and distributors of produce, and his inquiries forced him to the conclusion that the Australian Governments should not interfere with the distribution of the products, leaving that entirely to private enterprise. They should, however, jointly erect commodious cool stores on the banks of the Lower Thames, convenient to the docks, for the storage of goods, pending their sale to the distributors. These stores should be constructed on the latest principles, with facilities for receiving meat, butter, fruit, etc., direct from the steamers, and should be connected with the railway systems of England by a short branch line.

This central receiving depot would, he remarks, be invaluable in impressing upon buyers the Australian origin of the goods. In Britain's great markets Australian produce was at present lost. In connection with these stores, there should be a colonial exchange in the city where samples of our products could be seen in the best condition, and where the distributor and the producer's representative could be brought into direct communication. It would be preferable, however, to have three such exchanges, one at Smithfield for frozen meat, rabbits, poultry, butter, &c., another in the

city for canned goods, and a third at Covent Garden for fruit. Buyers would regard these exchanges as the centres where information about Australian products would be available, and where any goods offering could be purchased. This system was largely in vogue in Manchester, Birmingham, and other centres.

Mr. Taverner points out that this proposal had the twofold advantage of not interfering with the distribution in any way, and utilising existing markets which had great reputations and large connections. Moreover, it would prevent the goods filtering through several hands, as at present, before reaching the consumer, and would thus be advantageous to both the producer and consumer, tending to lessen the expenses and increase the trade. All articles of a perishable nature would be examined at the cool stores before being marketed, so that any bad or defective goods could be rejected, and the reputation of Australian products kept unblemished. The fewer handlings, in addition to effecting a saving in the cost of marketing, would minimise the risk of damage to the articles. If a buyer did not want immediate delivery of the whole of an order, the balance could be kept in the stores till such time as it was required, a reasonable rate for storage being charged. The knowledge that it would not be compulsory to take delivery of the products within a certain time would induce distributors to purchase Australian goods, and moreover the facilities for cool storage would enable the representative of the producer to abstain from placing the articles on a glutted market. Another advantage of having a depot or exchanges in constant touch with the largest buyers would be that the requirements of the trade and the taste of consumers would become better known, and Australian producers informed from time to time how to pack or market their goods, so that they might meet with a ready sale. The Australian Governments should see that only sound goods of good quality were forwarded to Great Britain,

and no parcel should be allowed to leave the cool stores in London if there was the slightest suspicion that it would "go off" before reaching the consumer. Only a depot under Government supervision would possess sufficient authority to act in such cases.

The establishing of a Government depot for Australian products would prevent the business getting into the hands of a monopoly, such as would probably be the case if the matter were left entirely to a company or to private enterprise. If the colonies agreed to carry out his suggestion a commodious store, suitable for the requirements of our growing trade in perishable products and other articles of Australian origin, could be erected and fitted up for £250,000. It would, he adds, be a great factor in expanding our trade in food products, perishable and otherwise, and a safeguard to our reputation.—*Australasian*.

The publication that put in our remarks about Coastal honey, and Mr. Bagots' reply, without our reply to Mr. Bagot, did not do a right thing.

Wet salt is a good remedy for ants.

Salt is good to keep down grass round hives.

France produces 7,000 tons of honey in a year.

A scant honey flow was expected in Scotland in August.

£2,791 worth of honey imported into Great Britain in June.

Honey has been found a cure for small pox in Mexico.

If bees go for your horse, put a large blanket over his head.

Dryness and warmth are indispensable for keeping comb honey.

It is said borax and sugar dissolved in boiling water will destroy ants.

The American papers speak of an advance in prices of all bee goods.

Two kinds of water should be accessible to bees—one salt, the other fresh.

Honey stored in tanks or barrels, the tank or barrel should have a coating of beeswax.

Miss Gayton uses no smoke; trusts to letting in light gradually to have the bees quiet.

The Lincolnshire, (England) Beekeepers' Association numbers 500 members.

Wood ashes are said to be efficacious against small black ants, but it must be renewed occasionally.

In cold climates alsike clover is reckoned one of the very best plants for honey and feed for stock.

Uniting swarms may be successfully done by dusting the bees with flour. Others throw scent over them.

A German writer says to rear good queens there must be plenty of pollen in hives or being gathered.

Some American writers advocate the terms "lids" and "floors" instead of "hive-covers" and "bottom-boards."

Cheese cloth on the perforated bottom of the solar extractor, with the cappings, etc., on top of it, will save much messing.

We know a beekeeper whose word may be relied on, and he tells us he has been out of pocket £100 a year for five years.

Japanese are said to be overdoing beekeeping in Honolulu, having as many as 900 in one apiary, and 2000 in less than three miles.

Bees were imported into California in March 1853. In December of that year two hives were bought for 105 and 110 dollars respectively.

The Hunter River Beekeepers contemplate holding a Convention in April next. They purpose getting a consignment of 50 or 100 tons to test the English market.

Professor Cook describes honey-dew as excrements from aphids and lice. Cowan as a sweet exudation from the leaves and young shoots of plants.

Not only celluloid but also glass is said to be used in England for giving an impervious covering through which the bees can be seen working.

To clean out drone brood. Give it to young chickens, they will soon clean the larvae out without the wax being wasted. Older fowls will eat wax and all.

Mr. York, in the *American Bee Journal* says, an attempt was once made to feed 300 colonies with glucose. The result was, they all died.

Last fall, Dr. Miller put 280 colonies in cellar for wintering. Only half came out alive. Honey dew stores, was, he thought the cause.

C. Mitchell in *A. Bee Journal* says he has lost hundreds of dollars by using 8-frame hives, in 15 years. He was changing all to 10-frame hives.

The *Beekeepers' Review* say 50,000 bees in one colony will bring in more dollars to the beekeeper than the same number equally divided in two colonies.

Horses hitched dangerously near an apiary, the danger may be mitigated by a good smoke to windward, so as to blow smoke over and around the horses.

The heavy frost on October 2, over the New England and adjoining districts of N. S. Wales, did immense damage to fruit and other crops. Quite a large number of beekeepers were sufferers by it.

In 1860, 20,000 lbs honey broke down the New York market, some of it having to be left over till the next year, while last year 6,000,000 lbs was disposed of without trouble, and there is twice as much handled in Chicago.

Shall we put our surplus honey in a tank or tin it straight away? We say, put in tins. Then if it candies you can lift these tins into a boiler. To liquify in tanks you want to dig out or get special heating apparatus.

As the spring advances you will have to keep the grass down around your hives. A lawn mower comes in very handy. Geese are very useful in eating down, and their white colour is not generally repugnant to bees, though we had two stung to death by bees last year.

Dadant says ammonia is the most practical cure for bee stings, if it can be used promptly on the skin, as it will penetrate readily, and in cases of very

severe stinging it has been recommended internally in small doses mixed with water. Wet earth is a very good remedy.

Messrs Pender Bros., consigned 35 cases honey to London, per s. s. Oceana. Some in pickle bottles were nearly all smashed. Sections realised 8s per dozen. Would it be well for beekeepers to cultivate this form of raising honey more in Australia?

The Victorian beekeepers use an uncapping knife, blade 12 inches long. In New South Wales uncapping knives the blade is only 8 inches long. The former, to our thinking, is much the more handy tool. In connection with uncapping knives we may say we have the same we have used the last six years, and it has a beautiful keen edge now—we would not wish it to be better, but it has *never been dipped in hot water*.

Mr. A. I. Root, in 1873, planted ten acres of basswood, about 4000 trees. It was poor ground, and not well drained, the trees were allowed to let the shoots grow around them. He does not consider it a success, as of late years not more than one tree in a dozen would have any bloom on it. He thinks if the orchard had been planted on good well drained ground, the result would have been different.

We said on a previous occasion that Dr. Miller uses sticks instead of wires in frames. He is a comb honey raiser, and as far as we can learn not an experienced extracted honey raiser. We now find he uses sticks 1-16 inch square, and places them in the frames upright. We have made a greater specialty of extracted honey, and the sticks we use are

From an advertisement appearing elsewhere, southern beekeepers will be afforded an opportunity of introducing new blood into their colonies, from the apiary of Messrs G. & G. W. Butler, of Queensland, beekeepers of many years' experience, who have taken first prizes at the principal exhibitions in that colony. It is safe to purchase queens from Queensland, the existence of foul brood and other diseases being unknown.

the same width and thickness as the bottom bar, length to fit between the two end bars, placing it horizontal in the middle of frame. A bit of wax fixes it, and the bees do the rest. From the experience of the past season, we will not go back to wires again. There is far less trouble in placing them in, the combs are firm and strong, and no stretching of wire, and comb breaking, as under the old system when extracting. We use Langstroth frames.

Talk of the eucalyptus flavour of Australian honey. Honey sent to Great Britain from Canada has been accused of having a *minty* flavour. The editor of the *Canadian Bee Journal* inspected every can of the said honey before it was sent to England. Other officials also examined it and none could detect such minty flavour. The editor says such minty flavour is not known in Ontario where it came from. It reminds us of a ton of honey sent to an agent during the past year. They sent back saying they would get the best price they could; it was good honey but it was injured by having a slightly oily flavour! It was put up in new tins, and was almost pure yellow box honey. Those who want to run a honey down we suppose can always say something, it does not matter what, right or wrong.

QUIZ.

Allow me to apologise to Mr. J. Trahair concerning the questions 239 and 240, as I misunderstood what he said at the Convention. I merely asked the question to get an expression of opinion. I thought his zeal for helping beekeepers was overrunning his discretion.

Those interested should be very thankful to the committee for the handsome way in which they contributed to the prizes.

Question 240 was put in to show that if any funds were put in prizes in one show, country members may ask for a share for their Shows and dissatisfaction

result. I fully appreciate the good work the Association has done.

As for advertising honey by means of shows, I believe it to be useless while there are such large quantities of inferior honey on the market. The visitor to the show is liable to judge honey by what he has been supplied with. There are too many other things in competition with honey to increase the consumption of inferior honey. £1 worth of good honey put into the mouths of visitors at a show would do more good than £20 given in prizes. The only hope of a greater consumption in Sydney is the glutting out of the inferior honey, which has begun, as the beekeepers are increasing very rapidly in the box country and their sales are satisfactory at present compared with farming.

The consumption of honey is three or four times greater in this district than in Sydney on account of the quality.

Taking shows on the whole, for every ton of honey they are the cause of consuming they make half a dozen beekeepers to produce it.

Beekeepers in inferior districts should shift to where the honey is good, there is plenty of room. It would be better for themselves and the industry.

The department should help them by finding suitable places with descriptions of surroundings that would be likely to affect the beekeeper.

We will not be able to get good prices for our honey on the English market before all our beekeepers know what good honey is, at least know what their own honey is. Until then there is sure to be inferior honey sent home. We should all have, say a pound sample of each of the principal honeys raised in the colony.

I think it would be a good plan for all of us to take samples for exchange to the next convention, and if the convention could be held before the show, at least one sitting, as an introduction to delegates during the show.

If it is the red ironbark honey Mr. W. E. Bagot speaks of as a honey of the

first grade, I think he is mistaken. The honey has a good colour, very sweet, and not much flavour. It is very good for jam making.

QUESTIONS NEXT MONTH.

E. T.

252.—Do you use starters or full sheets in sections?

253.—O. K. query on page 156?



The above is the apiary of Mr. G. H. Arkinstall, of Inverell. Mr. Arkinstall is an up-to-date man. He is a carpenter and joiner by trade, has a Barnes saw, and makes all his hives and frames himself. His bees are all Italians. He is a careful reader, raises his own queens from the best honey gatherers, and under what he considers the best non-swarmer conditions. He has also acquired great skill in the making of foundation, of which he supplies great quantities to the neighbouring beekeepers.

For Asthmatical Coughs and Colds take Woods' Great Peppermint Cure, 1/6 and 3/6.
For Bronchial Coughs take Wood's Great Peppermint Cure, 1/6 and 2/6.

QUESTIONS.

E. T.

246.—What system of queen raising do you adopt?

247.—Does the outer hive in a row of hives get more than its share of bees and honey by accessions from the centre of the row, bees going into it on returning from forage?

248.—What are the conditions in a hive for the rearing of many or few drones?

F. D. NIXON

249.—Last season I purchased five or six untested Italian queens. Some are good ones and I think some are not, as they are very vicious when interfered

with. I want to know how to be quite sure which ones are pure?

E. T.

250.—Can you tell the condition of a hive by looking at the entrance only?

W. J. WILSON.

251.—What method might be adopted in handling Heddon hives, to prevent the killing of bees, seeing there are four or five cases to handle and put on. Would the old style of telescoping prevent it? If not, what would?

JOSEPH COOPER.

246.—I have not as yet gone in for modern modes of queen raising, but supply my own requirements, by selecting the largest and best looking capped queen cell from my best colonies either just before or after swarming, and destroying any queen cells not required. The cells I select I insert into a frame of comb in any colony I wish to requeen, having first rendered them queenless.

247.—No. Some of my strongest colonies are in the middle of my rows, I had as good a return from my centre hives as from the outside ones, and in many cases better. Every bee knows its own hive and will not be allowed to enter a strange one.

249.—I should be inclined to think the vicious ones were not pure, as hybridised Italians are generally vicious, but good honey gatherers.

250.—Yes, as far as health and strength are concerned. Unhealthy or sickly colonies are dross and hang about the entrance. Strong healthy bees goes straight off to work, no loafing about them.

251.—Change them for the Langstroth model. I have tried the Heddon hive and would not recommend it to any one, it is not a good or profitable hive.

ALEX PARKER.

246.—I make no hard and fast rule on this matter. As I think the best cells are to be had at swarming time, and always like to keep as many as possible of such cells, providing the parents are all that are required, and that I am not making use of the same hives for drones, and if not swarming time prefer the Doolittle System.

247.—No. I have not found such to be the case.

248.—Must be prosperous for rearing many, but if there is plenty of pollen to be had a few drones may be seen in a weak hive.

249.—Look up page 193 in "A. B. C. of Bee Culture", where I think the best answer will be found.

F. W. PENBERTHY.

246.—The Doolittle system for raising queen

cells, which I have used for the last four and half years. Several others do also in this district.

247.—The outer hive in a row keeps most of its own bees, being so conspicuous. The inner ones get more or less mixed.

248.—Strong colony, an elderly queen, drone combs, honey and pollen coming in freely from plants in a drooping season. The reverse for a few drones.

249.—The darkest of the workers should have the third band from the head half yellow.

250.—A rough guess to their strength, and hopelessly queenless often.

O. K.

246.—Select a strong colony and remove the queen, when all the larvae is sealed, pull off all queen cells, and give a frame of eggs, cut about an inch off bottom of comb to allow cells to stick down; you will get properly matured queens this way. Queens raised in full colonies with queen below are never fed properly in my opinion.

247.—Bees do enter different hives.

248.—Too much drone comb and old queens.

249.—Look up "A. B. C. in Bee Culture."

250.—Yes. If bees are not loitering about the entrance, and working actively, things may be taken for all right.

251.—Get Langstroth hives; you will reduce killing bees by four cases, or perhaps you might try Long Idea.

J. KELLY.

DESTRUCTION OF ANTS.—Dig their nest up in very cold wet weather, look out you dig it deep enough to hold water and you can perish them all. Winter is the best time to do it. If they are the large red ant find out which nest they came from, and then destroy the ants.

S.B., Sandilands Range, Oct. 7.—We have no need to blend our honey to make the quantity uniform, and for quality with quantity we can compete against all comers. Wishing you a good season with your bees.

PROLIFIC QUEENS.

NO FOUL BROOD IN QUEENSLAND.

WE can supply Italian Queens, which for prolificness cannot be surpassed. First Prize winners International Exhibition, 1897; Queensland National, 1899. Untested, 5/-, 3 for 13/-; Tested, 8/-, 3 for 22/-; Select Tested Breeders, 15/-. Safe arrival guaranteed.

G. & G. W. BUTLER,

Red Hill, Brisbane,
Queensland.

CORRESPONDENCE.

J. J. P., Erina, Gosford:—There is every prospect of a good season here.

Very sorry to hear of your illness. Trust you are now getting better.

J. E., Tewantin—I would like to know through your paper if the bee escape is a success.

A bee escape is a very useful tool in an apiary. Its success or otherwise depends on the operator. Put one in centre of brood chamber, above brood chamber and below sections, for a few hours, the sections can be taken off with very little trouble or stinging.

E. C., Seymour, Vic., Sept 5th:—One of your correspondents was going to write on extracting in cold weather. I should have liked very much to have seen his method. One cannot help noticing how much lower are the prices of bee goods in N. S. W.; it makes us Victorians quite envious of your advantages.

W. J. W., Canterbury, Victoria:—In regard to using wood strips instead of wires. Would you write an article in next *Bulletin*, explaining the whole process, size of sticks, how fixed in frames, and so on.

The stick is same width and thickness as bottom bars, length to fit in between end bars, in centre. Fitted in with a little wax, the bees build it in the combs.

F. W. P., Elsmore, Oct. 17:—The frost did a great deal of damage, spoilt most of the wheat and fruit. Bees gave up breeding for a time; they have only half the brood they could cover, for the want of honey and pollen. I think it is just as well they should be backward as there will be a very light flow if any; less chance of swarming.

D. N. McL., Baan Baa, 11 Oct.:—Am well pleased with your little paper and although my enthusiasm has had a wet blanket put on it in the shape of bad seasons, bush fires and inexperience, still I look for the A. B. B. and read it with deep interest. I have removed the remains of my apiary over into the Wellington district.

R. S., Wheeo, Oct. 9:—Ke honey. I had about five tons last season from 43 colonies, spring count, sold all at 3d per lb. My bees have up to the present

this year suffered terribly from spring dwindling, some with last year's queens have died right out. I think the sudden changes from extreme heat to extreme cold in the latter end of winter are accountable for it.

P. M., Howlong, Sept 22nd:—I received the A. B. B. alright and am very pleased with it; looking forward every month for it. I see Loyalstone states that if tar felt is placed over hives it will keep away foul brood. Will the tar felt that comes on corrugated iron do or what kind does he mean. As some of the people round here have got foul brood in gin cases and will do nothing with it, so I suppose I will get it shortly; so you might inform me of above.

That tar felt will do.

C. U. T. B., Lyndhurst:—We have just had a splendid fall of rain, 190 points, and not before it was needed. We had two frosts lately which destroyed the whole of my fruit crops for this year. They were the most disastrous frosts I have ever experienced. Being severe owing to the dry weather. It even cut young native gum suckers, also killed right out some of my strawberry plants, a thing I never knew to occur before. I am up to my eyes at the present time among the bees. Trusting you are O K. and with kind regards:

TRANSFERRING.—Mr. R. H. Jervis writes:—In most localities this is the best month. Wait till your beehive is nearly full and bees getting honey. If you have no frame hives for colonies, get one. Lift up your box hive, place the frame hive with one sheet of brood and rest full sheets of foundation underneath, letting the bees go in the entrance of new hive and up into box hive. Look in frame hive, and when you find queen laying in same shut her off from returning to the top box with queen, exclude them in three weeks. After all brood has hatched out remove top box.

ANTS.—Mr. Froggatt, entomologist, of the N.S.W. Agricultural Department, says that he has found the following method very efficacious in destroying these insects:—When it is a big mound

nest, pour a little bisulphide of carbon down each hole and throw a wet bag over the nest immediately afterwards. Remove it in a couple of minutes and apply a lighted stick over each opening. The fumes explode, wreck the nest, and burn all the ants beneath. Care must be taken not to put too much bisulphide near the roots of fruit trees, as it will destroy them. Also, as it is very inflammable, no light or spark should be allowed to be near the bottle, which should be kept corked. It is well to have the lighted stick 5ft. or 6ft. long, even though if the nest explodes near the hand no harm will be done.

O. K., Holmwood—This season has been the worst for the bees I have had to encounter with since I have had any thing to do with the insects. I have lost a great many swarms, they seem to dwindle away till there are only a few bees and queen left. They seemed to make a good start at brood rearing in early spring, then caught this confounded plague. I don't think it was paralysis, for I could never see any dead bees about the hives. What was still stranger, it only seemed to affect very strong colonies. Any colonies that did not swarm last season fared worst, and those that swarmed were not affected in the least. Any colony that went into winter weak came out all right. My bees were not the only ones that fared this way, but several others likewise. Mr. Editor, I would like you or any other beekeepers to give their suggestions on this, and if they have had a similar attack. Remember both strong and weak colonies had supers on and none of the queens were over two years old.

Would the stronger colonies have consumed all their stores. Have they wanted feeding.

H., Parkes:—You are to be congratulated on the still further improvement of the welcome and useful A. B. B. The late winter has been the hardest known here for a good number of years, but I brought my stock through without any loss of colonies, though I had a deal of trouble with some colonies having what I supposed to be dysentery—bees

with long swollen bodies continually crawling or being dragged out of the hive. After trying all the remedies I had heard of, I took a diseased colony and placed it on the stand of a healthy colony, and *vice versa*. Both queens were laying (mid-winter) and though I was prepared to find two instead of one diseased colony, in a week's time the disease had gone. The exchanging of the stands may not have been the cause of the disappearance of the disease, but the change of condition of health was most satisfactory, for I saw no more of the disease. The coming season is not likely to be much good, last season seems to have exhausted the blossoms. J. J. Parry in last A. B. B. was right in his remarks about the 12 and 15 ton boomers. What with a government agent advising "everybody" to keep bees and other people giving glowing accounts of an industry which has been described as "pleasant, profitable and a veritable picnic, etc.," the whole industry is being flooded with expectant fortune seekers, (unfortunately disappointed ones) and the market glutted with honey or something so called, and then those who were advised to go and make a fortune "from the tops of the trees," are invited to send their honey to be dumped and mixed in a mass so that a market may be opened at £15 or £16 a ton, and guarantee any deficiency, etc. It appears as if the "advised" are feeling the pinch, but the "advisers" are as comfortable as ever. However, I hope things will pan out better for all dependently concerned than they threaten.

At Ontario Beekeepers' Association the President said: I think by Mr. Gemmell's topic he has persuaded all here that in the use of the solar or steam extractor we are wasting 33½ degrees of the wax, a very considerable item to those who have much work to do.—*Canadian Bee Journal*. The same issue gives an account of the death of a son of Mr. Holtermann, the Editor, by sunstroke.

For Children's Hacking Cough take Wood's Great Peppermint Cure, 1/6 and 2/6.

DR. LORTET'S PAPER ON FOUL BROOD.

American Bee Journal.

We have much pleasure in giving our readers a translation from the 'Revue Internationale' of a paper by Dr. Lortet, who has for some time been making experiments and observations upon this disease. There are many points quite new, and which throw considerable light upon the subject, and the remedy proposed is simple, and, from reports, encouragingly effectual. We wish our readers to particularly note that the naphthol is that known as naphthol beta, and not the ordinary naphthaline. As it is perfectly harmless, there is no danger in its application:—

"Thanks to the publicity you were good enough to accord me in the columns of 'La Revue,' I have received from a number of your readers pieces of foul brood comb, or bees exhibiting more or less advanced stages of the disease. I have, therefore, during the last year been abundantly supplied with material for my researches, and have been enabled to clear up a good many obscure points in connection with their virulent affection, and to formulate a course of treatment based on careful laboratory experiments.

"As was demonstrated in the contributions by Mr. Cheshire ('Revue,' August, 1884) and Dr. Klamann ('Revue,' January, 1889), foul brood is in reality produced by rod-shaped bacteria which develop rapidly in the brood-cells and soon die, and produce in putrefying an odor which is altogether unmistakable.

"Before beginning my observation of foul-brood larvae, either during the disease or after death, and of adult insects already infected, I turned my attention to perfectly healthy bees, as well as various other species of hymenoptera, such as wasps, humble-bees, carpenter-bees, etc. After a patient and minute course of dissection I have arrived at the following results, which are based on an intimate acquaintance with the ætiology of the disease:

"I.—I find that various hymenoptera, besides adult bees, whether healthy or diseased, invariably present, through the whole of the lower part of the digestive tube, a very large number of bacilliform bacteria, which are probably called upon to perform important, though at present unknown, functions in connection with the chemical changes which take place in the food introduced into the digestive canal.

"In the bee, to mention only the species which immediately interest us, whether healthy or diseased, as well as in the digestive canal of the brood, whether in health, in disease, or after death, I have invariably discovered two normal bacilli, the presence of which has, without doubt, led some people astray.

"The more numerous of these bacteria are of

a large rod-like shape, broad, thick, short, and bear a striking resemblance to certain bacteria which are frequently met with in soft water. They are never arranged in chains, but propagate themselves by means of binary fission; in the early stages they are often united in couples. When fully developed they become slightly rounded at the extremities, which swell perceptibly. These bacteria retain very well the stain communicated by Fuchsin, and after staining the club-shaped ends show a much darker tint than the central space of the body. In this state the bacteria present the same appearance as may be observed in the bacteria of malignant oedema.

"This species is most easily cultivated, especially in liquid media, less easily in nutrient Agar-Agar glycerine gelatine. When injected into the cellular tissue of guinea-pigs it fails to produce any harmful effect.

"II.—Another normal bacterium is also invariably found in the digestive canal of the bee. It is smaller, thinner, and short, its length being only equal to twice its breadth; it is not rounded at the extremities, which are shaped almost at right angles. These bacilli do not form chains, but frequently remain united in pairs for a long time. In this state they nearly resemble diplococci, though perceptibly more elongated than these latter. In cultivation they often group themselves into *zooglae*, and in this case arrange themselves very regularly. These microbes multiply without difficulty in both solid and liquid media, and take a strong stain from Fuchsin, or Methyl, or Gentian violets.

"III.—Lastly, in the digestive canal of dead or diseased brood, as well as of adult bees already infected with the disease, but in the digestive canal alone, a third kind of bacterium is found, which is without doubt one of the forms that have been examined by Mr Cheshire. It is thin, and frequently extends in filaments. It thrives well in sterilized veal broth, and it is therefore comparatively easy to obtain a supply of perfectly pure specimens for purposes of inoculation. In this nutritive element filaments appear in a few days, and after staining the fine granular elements of the formation become apparent owing to the differences in coloration.

"In the digestive canal of the adult the bacteria appear to maintain their rod-like shape for a considerable period—perhaps, indeed, always; whereas in the digestive canal of the larvae, probably owing to the influence of albumenoids, which pass by osmosis through the walls of this tube, the bacteria, as in the case of cultivations affected in unsalted veal broth, are rapidly transformed into very fine, virulent granulations, which invade all the tissues, and soon bring about the disorganization and rapid putrefaction of the larvae.

"The adult bee, on the other hand, even

when the foul brood bacteria have taken possession of its digestive canal, seems to be able to live for a certain time. It is, however, none the less apparent, once the infection has taken firm hold, that the animal is diseased. The digestive canal, and especially the surrounding glands, end by being invaded by an enormous number of the rod-shaped organisms; the insect loses its vivacity, grows languid, and finally perishes after a more or less protracted interval.

Virulent granulations cultivated in salt veal broth, or on plates of glycerated Agar-Agar, produce bacillary bacteria, which, when given in food to the larvæ, undergo in their turn segmentation into virulent granulations, whereas in the case of the adult bees, they still probably retain the bacillar form for a long time, though they do not fail in the end to cause its death.

"The culture and transformations of the foul-brood bacterium cannot take place in the honey; so much is certain. Still, I may mention that in diseased hives the honey and wax are always more or less infected on the surface by bacilli, virulent granulations, excrements, etc.

"I have on several occasions succeeded in reproducing the whole series of phenomena mentioned above experimentally, and have, without difficulty, infected insects which had been perfectly healthy and vigorous up to the moment of the experiment. My mind is, therefore, quite free from doubt in the matter. It is the adult bee which is first infected in its digestive canal by a foul-brood bacterium obtained from some unknown source. In feeding the larvæ it affects in its turn the digestive tube of this latter, and here, owing to the action of the albumenoids, the bacillar bacteria are transformed into virulent granulations, which invade the tissues and finally bring about the death of the insect.

"Contaminated honey may be a cause of the propagation of foul brood in the sense that, being polluted by foul-brood bacteria, or by virulent granulations, the healthy adult bee which allows this substance to enter its digestive canal is rapidly attacked by the disease, and will even itself soon communicate the infection to the brood. Experiment in such cases gives the most convincing results. Still, in the case of foul-brood, as in the case of virulent affections which attack vertebrate animals, certain individuals seem to enjoy exceptional immunity, and resist the infection. Is this due to previous inoculations, or to some individual predisposition? This is a point which I am not at present prepared to decide.

"I had only once an opportunity of examining the queen of a hive infected with foul brood, the property of M. Matthey, of Bassins. The eggs of this insect were healthy, and contained neither bacilli nor virulent granulations. The queen herself was perfectly healthy, a point

which I was able to place beyond a doubt by means of a careful post mortem. I hesitate to draw any conclusion from this isolated instance, though I confess that, judging from the course the disease takes, I do not believe that, as a rule, the malady can be propagated by the rearing of larvæ produced from infected eggs.

"In my opinion, therefore, it is always the digestive canal of the nurse-bee which is infected, and it is always by the act of feeding that the adult bee infects the digestive canal of the larvæ, the death of which latter is the speedy result of such inoculation.

"Therefore, a knowledge of the above facts leads me to the following conclusions:

"1. The bacteria of the third form described, as already shown by Mr. Cheshire, are in effect the true cause of foul brood. They are the active agents of contagion and of the propagation of the disease. Numerous laboratory experiments, too long to be described here, prove this beyond the shadow of a doubt.

"2. Seeing that the foul-brood bacteria must necessarily kill all brood the digestive canal of which is inoculated by the act of feeding, it appears to be absolutely useless to endeavour to cure these larvæ, as all their tissues are rapidly invaded by the virulent granulations into which these bacteria resolve themselves. (I employ the word granulations purposely in preference to the term *spores*, which is used by several writers. I cannot bring myself to believe that true sporulation, similar to that observed under certain conditions in bacteria of anthrax, and in that of blood from spleen, really takes place in foul brood.)

"3. Adult bees, whose digestive canal is infected by the foul-brood bacteria, may frequently survive for a considerable period. Some even, owing to special circumstances, seem to resist the virulent stage of the malady. We must, therefore, direct our efforts to the digestive canal of the worker-bees, the feeders of the queen, if we desire to attack at its source the evil which may spread with lightning rapidity among the rising generation of larvæ, which is the sole hope of the colony.

"IV.—The treatment, then, ought to be internal and as energetic as our little patients are willing to allow. External treatment, by means of fumigations or sprayings of any kind, are (I do not for one moment deny) also helpful, since these methods contribute largely to the disinfection of the hives, combs, and tissues of the bees, etc. It is even possible, under certain circumstances, to succeed in diminishing the virulence possessed by the bodies of the larvæ after death during the process of desiccation. But I must repeat that such external treatment can only be useful as an auxiliary, and I greatly

Woods' Great Peppermint Cure for Coughs and Colds never fails, 1/6 and 2/6.

question whether it has ever been successful in curing of itself a colony attacked by a well-authenticated case of foul brood.

"The foul brood bacterium seems to be very fastidious with regard to the conditions of its existence. The media in which it can be developed are rendered sterile by the introduction of infinitesimal quantities of well known antiseptic substances. We are, therefore, justified in supposing that these same substances, if the bees can be made to absorb them, will prevent the invasion of the digestive canal and the surrounding parts by the bacillar bacteria, will destroy those that may have already lodged there, and will thus prevent the infection from spreading to the brood in the act of feeding.

"The space at my disposal is too limited to permit of a detailed description of the numerous experiments which led me to fix on an antiseptic of the first rank, introduced some years back as a valuable antiseptic remedy in the case of intestinal derangements in man. This substance is naphthol beta, which owes its introduction into general practice to the valuable researches of M. Bouchard, Professor to the Faculty of Medicine of Paris. This excellent antiseptic cannot injure the bees, and they take to it the more readily as it is not very soluble, and therefore is not easily absorbed by the intestinal walls. Notwithstanding this, even when administered in minute quantities—*e. g.*, in doses of 0.33 grammes to 1,000 of liquid, it effectually prevents all fermentation, decomposition, or other changes caused by the micro-organisms. The media most favourable for the development of foul brood bacteria are rendered perfectly sterile when treated with a proportional quantity of naphthol.

"Lastly, thanks to experiments made with some full colonies partly attacked by the malady, which have been kindly forwarded to me by some of my correspondents, I have ascertained that a syrup medicated by a dose of naphthol in the proportions mentioned above is amply sufficient to rid foul broody bees from the parasites contained in the digestive canal. In cases where the infection has not laid too strong a hold of the parts surrounding the intestine, the cure seems to be speedy and complete. Even in captivity and under very adverse sanitary conditions, the insects soon regain all their old activity and liveliness. The treatment which I venture to recommend to the serious attention of apiculturists is as simple and rational as possible.

"In the early spring, before eggs are laid, administer to the diseased colonies as large quantities as possible of sugar syrup containing 0.33 of a gramme of naphthol beta. The naphthol should be first dissolved in one litre of pure water, with one gramme of alcohol added to facilitate its solution. The liquid thus obtained is employed in making the syrup in the usual manner. I am quite certain that with this

dose the bees will readily take to the syrup, which is in itself a powerful antiseptic. I need scarcely add that first-rate hygienic conditions are also necessary if we desire to give the bees the vitality and recuperative power which play so important a part in enabling living organisms to resist the inroads of virulent microbes."—Dr. LORTET, in the "Beekeepers' Record."

SWARMING.

Swarming is minimised in more ways than one. Some bees are more inclined to it than others. Our experience with Carniolans was that they were great swarmers. They were great breeders, but instead of a big force of bees to gather honey, they would swarm and swarm, making a lot of weak hives, no good for gathering honey. Giving plenty of room by additional combs, and extracting when honey is coming in, so keeping the bees cool and not crowded, is a great preventive. Looking over the combs at least every ninth day and cutting out queen cells is also a good preventative. Clipping one of the queens wings is a great trouble saver. When a swarm issues, the queen, not being able to fly, may be seen on the ground, surrounded by a few bees, and may be picked up, placed in a cage near hive prepared for swarm, which will come back and gather round her. Sometimes however, she may get lost, or be attacked by ants or other insects. We have thought there may be cases, say of an out apiary, where there is an advantage in this:—The old queen being lost you are sure of a young queen being left to reign in the hive, having additional vigour, and good because raised under swarming conditions. Some say queens raised under swarming conditions are the best. Others we know, endeavour to raise queens under the greatest possible anti-swarming conditions. We would like positive information either way. However, do you want increase, or only to retain the same number of swarms you have? If the former, to a limited extent, as soon as the swarm

issues remove the old hive to a new stand, taking from it a frame with larvæ in, which put in a new hive on old stand. With it place two or three starters. The queen being placed in cage at entrance of such new hive, all the bees gather round and soon enter that hive, when the queen may be released among them. The frame of larvæ will keep them from going away again. If possible do not have tall trees around your apiary, for it is not convenient if a swarm gets out and settles on the top of such, beyond reach of ladder or swarm catcher. We keep a stone attached to a string, attached to a rope, ready (say a long clothes line); we throw the stone over the limb, drawing over it the rope. Seizing the rope by both ends we shake the limb, bringing down the bees into the prepared hive underneath. A bucket of water and a brush to sprinkle the swarm while it is in the air causes them soon to settle. When swarm comes out there may be a number of queen cells ready to come out. Often the swarm issues when the first queen cell is sealed. Left to itself a swarm will come out with each young queen, making a lot of useless weak swarms unable to gather any surplus honey. Removing the old hive to a new stand, the bulk of the old bees going to the new hive on the old location, the old hive is so depleted of bees, that instead of a succession of swarms, the first young queen that comes out destroys all the rest in their cells, and no more swarming takes place, and you have two good hives only. There is sometimes danger if a cold spell comes, the old hive will be left with insufficiency of bees to cover the brood. The chances, however, are, there are sufficient young bees coming out to take care of such larvæ. Should you not wish to increase, after you have secured the swarm, place the box you have got it in on top of parent hive, taking care to destroy all queen cells, or leaving one only after killing queen, if you prefer a young queen to the old one.

THE DEAD BEE.

Dead amid the dewy clover
Lies a bonny little rover,
Who could shape his course afar,
Without compass, without star.

Nevermore across the azure
Shall he sail in search of treasure;
Nevermore, when day is done,
Home shall hie his galleon.

From the jonquil's golden chalice,
And the lily's ivory palace,
And the violets divine,
Cups of white and purple wine.

Smile, smile on, thou faithless summer,
To forget thine early comer.
Say, if thou hadst first departed,
Had he still been merry-hearted?

On the boughs in rapture swinging,
Gleefully the birds are singing.
I, who mourn thee, little bee,
Will pronounce thine elegy.†

Be it meetness or unmeetness,
Thou didst gather up life's sweetness,
Wiser than the sages wist;
Earth has one less optimist.—*M. Mercury.*

TRANSFERRING.

Those who have been keeping hives in boxes and wish to transfer to bar frame hives may do so in several ways. Transferring should be done early in the season when there are not many bees or much honey in the hive, and at a time of day when the field bees are flying. We have transferred them successfully by the following plan. Get a level board or a flat cover, and a number of strings or tapes long enough to go over a frame from top to bottom and tie at top—or stiff wires so bent that they hitch together at top, but strings or tapes are generally more handy. Remove the box hive a distance away from its stand, and place upside down on a table so that you can work comfortably. Place bar frame hive on old stand. Smoke well. The flying bees will gather round new hive on old stand. Only the young bees will be in removed box, so you will have very little fear of stinging if you work carefully. With a hammer and chisel remove one side. Smoke there so as to drive the bees into the other parts, and with a sharp

knife begin cutting out the comb. Place a frame on the aforesaid board with the strings or tapes across underneath frame. As each piece of comb is cut out of the box hive fix them in this frame, then draw the strings or tape lying underneath over and tie at the top—say three to a frame—and as fast as they are fastened place frame thus filled in the new hive placed on the old stand and so proceed, filling frame after frame till all the comb is cut out and placed in new hive, cutting the comb so as to fill the frames. In lifting frame after strings are tied raise the board upright with it so the detached pieces of comb will not fall out. The flying bees will quickly gather round, and as you proceed cutting out, only the young nurse bees will be left in the old hive, who are very easily kept under by smoke. Be careful with the brood, to place it in the middle of the new hive. When all the comb is removed, shake the remaining bees in front of the new hive. In a few days the different pieces of comb will be all joined neatly by the bees, who will also start gnawing and tearing the pieces of tape or string away, but that labour may be saved them by the apiarist—using his judgment as the pieces of comb are joined by the bees—taking them away himself.

OUR MODE OF RENDERING WAX.

We have a copper vessel, large enough to contain two 60lb tins, and space for water around, in which we can put two tins for taking honey off candy, by placing a fire under and heating till the water boils. At bottom of one end is a tap. A frame of wooden slats $\frac{3}{4}$ inch wide by $\frac{1}{2}$ inch, $\frac{1}{2}$ inch apart, crossed with same stouter ones underneath running the length of vessel, the centre one near the top exit being shorter to allow free exit. It would be better put together with

rivets, as when pressed the bottom of copper might be injured with nails. This frame of slats is placed on bottom of vessel. A sugar bag, or one made of Hessian, is filled with the combs or capplings to be melted, and fastened at mouth, the latter having been first given time to drain honey off.

Place in vessel with water, and put on fire, and boil till all in bag is well melted. Then put in press, the platen of which fits into the vessel. Our press is formed with a waggon brake screw, the rest consisting of three stout pieces of hardwood, connected with strong iron rods, and cost 30s the lot. The vessel in the press, leave the liquid to settle for a minute or two. Then turn the tap, and the liquid will run out. When you see the wax start to follow the water out, put the screw to work gently. If you do it before the liquid will rise in the vessel, causing a lot of trouble in scraping off wax. Then put full force of screw on. The contents of bag will be all forced not except the pure slum gum, which will be a cake as thin as a shilling. The bag turned inside out, and rubbed with the hands it will all peel off, and our fowls eagerly pick it up. We should mention a cheese cloth is placed over the mouth of the vessel into which the liquid runs from the copper, to catch any sediment. Next day the cake of wax is remelted with water in the copper and run off without pressure, but through cheese cloth. From the vessel it is now run into it is dipped with a cup and emptied into moulds, from whence it is ready for market. The liquid from the first melting may have sufficient honey to enable it to be rendered into vinegar or mead. There is no waste whatever by this plan.

PHASES OF THE MOON.

NOVEMBER.

New Moon, 3rd, 8.27 p.m. Perigee, 12th, 10 p.m.
First Quarter, 10th, 11.35 p.m.
Full Moon, 17th, 8.18 p.m. Apogee, 25th, 12 p.m.
Last Quarter, 25th, 4.35 p.m.

For Children's Hacking Cough take Wood's Great Peppermint Cure, 1/6 and 2/6.

AN HONEST MAN'S THE NOBLEST WORK OF GOD.

Twenty years working on a sheep station. Then takes a farm of 50 acres at a rental of £60 a year, for four years, at the end of which time he is a poor man. Things had not been successful though he had worked his best. Now without a penny, but with a wife, several little children, a good constitution, and a character—a sober, steady, hardworking man. He had also studied market gardening, knew how to grow strawberries, and a fellow Salvationist had initiated him into the secrets of beekeeping. There being no branch of the Salvation Army in the town to which he with his broken hopes went, he joined the small Wesleyan body there. A leading member of that persuasion, a tradesman, marked him, helped him with the loan of £50, with a portion of which he paid a deposit on the purchase of 28 acres of land at £5 an acre. That is over four years ago. The land is only one mile from the post office of a rapidly rising town. In that four years the whole of it has been cleared—cleared of the thick forest timber, and cleared of debt. His bees were his first big help, hawking his honey from house to house. A five roomed house, a windmill, suitable paddocks marked off, every foot of the land ploughed and ploughed over again. Cabbages, potatoes, melons, strawberries and flowers for nosegays. One patch of couch grass was hard to conquer; he ploughed and ploughed it over and over again, sowed with melons. Result, in a dry season he had the only melons in the district, and got his own price. Such is his position to day. Seven children, the oldest not more than twelve. Work all done by himself, every inch of ground cultivated, every hour of his time well occupied. The Sunday kept strict. In a few years as the town grows, as it must do, the land will be be very valuable. His children are well brought up with no false society notions that cause the decadence of so many respectable families,

but with a right realisation of their duty and place in the commonwealth, will be valuable units in the community. His bees, however? Well, he has made his own hives out of kerosene cases. With very little manoeuvring they make good ten frame hives. He told us he had foul brood but had cured it. We looked and told him the cause. The thin sided cases were too cold, and had caused chilled brood. We told him to have the walls doubled, and he need not fear foul brood then. But there was worse than foul brood. All around him the trees were being cleared. Very little besides white box on the distant hills, was left, and that only bloomed every other winter. So his dependence on his bees must gradually cease. Every falling tree gave him a pang. When he first came to the neighbourhood no one would trust him. Now a share of his custom is clamoured for by the tradesmen who would not know him then, but he says it is his duty to stick to the man who stuck to him. Our readers will ask—Who is this successful man? Let us know him? No. To do such would be to injure him. Perhaps puff him up. Enough that he is a real character, that we know him, and have partaken of his hospitality, and our sincere wish is that he and his may continue on the goodly course they are now pursuing.

CORRESPONDENCE.

A. C., Mia Mia:—My bees are doing very well. I have 38 colonies and they are all strong.

J. P., Mount Morgan:—We had a very bad season last summer; only 120lbs from 13 hives. I cannot send you any news about the bees as I am only a beginner. They teach me sometimes.

F. M., Burringbar, Sep. 18—I think we are going to have a good year for honey this time, if we don't get too much rain. Swarming started with me on the 15th.

Unequalled and Invincible Woods' Great Peppermint Cure for Coughs and Colds, 1/6.

W. C., Gilgai, Sept. 11—Bees have done fairly well through the winter, and now the wattle is out splendid, but I don't think there will be much honey before New Year.

J.F.C., Attunga, Sept. 11—Kindly cease sending me your bee journal, having lost all my bees nearly through drought. Am considering whether I shall give up the occupation. However, if I don't I shall write for your journal at New Year.

F. G. P., Brown Low Hill, Sep. 7th—The bees have wintered well here; at least mine have. They have been gathering honey nearly all through the winter. I extracted from seven swarms a week ago, and took about 85 lbs. Wishing your paper success.

J. B., Wodonga, Oct 5:—We will have a very poor year for honey, only the red box looks well. The weather is so cold that they will fail to get it. I had my first swarm out to-day. I get my B.B. alright. Wishing you prosperity.

* J. M. J., Ramornie. :—There are some dozen apiaries about here; difficulty seems to be selling their honey. Just reminds me, I paid 10½d per 2lb. tin in Queensland lately, Travelling about this last seven months only once did I see honey on a hotel table.

W. R., Paupong, Oct. 1st—Well, Mr. Tipper, I am sorry to have to inform you and your readers that we have just passed through a terrible winter. I lost 45 hives of bees out of 65 hives. There is no honey in this district; no honey last summer. I am leaving this district to try what I can do at Berridale. I spent £15 on my bees last summer, and received but £3 worth of honey.

* P. P., York, W. A., I increased from 19 swarms to 55 last year and have not lost but five of them through the winter. I took over a ton of honey last year, and took first prize in York, W. A. I have nearly sold it all at 9/- per dozen pickle bottles and 11/- per dozen two pound tins and 60lb tins at £1, so I think I have done fairly well. The bees are doing well at present, plenty of flowers

out, so expect to have a good season. Thanking you for the BEE BULLETIN which I find very useful and a great help to me. I have shown them to a neighbour and he has promised to be a subscriber, so I hope you will hear from him soon.

J. S., near Dubbo.—In reference to my bees, they were in splendid condition up till this past month; they were gathering plenty of pollen and a little honey all winter, but there was a heavy rain a few weeks back, and there was quite a collapse. Plenty died out and left two and three frames of brood behind, and half the frames full of honey, and abundance of pollen. Although it is nice warm weather they are still disappearing. I think the whole lot will be completely demolished before it ends. I have lost just on 40, and the balance are very weak.

Have a good look under and about the hives for spiders. They are terrors on bees. Are there any dragon flies or birds eating them? Would there be anything poisonous in the bloom about?

J. B. B., Cameron's Creek:—How would you recommend shifting hives of bees the distance of 100 yards. I have some to shift yet, having shifted most of them in the following way: In the evening I nailed some strips of wire cloth over the entrances and carried them off to their new stands, left the wire on until the afternoon, when I removed it and placing some boughs in front of the entrances to prevent the bees when coming out, flying off without first marking their new situation; there was a little robbing the next two days after shifting. What is the best way to keep ants from hives of bees? I have had them hanging on wire on poles. Hives stood on poles hung by wire, but when I had three and four supers on, I found it heavy lifting so high up off the ground.

For that short distance I would simply use the lifting irons, in the evening, not bother with any particular packing. The obstructions in front after removal are alright. Re ants, the best remedy we have found is to place the hive on three rough stones of similar size, so that

the ants would have to come up them, under the bottom board and on to the alighting board. This places the bees at an advantage and they can fight them and keep them down, also a ring of tar round the hive. Wood ashes are said to keep them down, but we have found it of no advantage.

D. W. P., Springwood:—The bees began to wake up here about the middle of July this time and had sealed brood before the end. Then came a month or so of cold wet weather and my anticipations of an early spring got a check. Just then I thought those bees in the Berlephsh style nice and comfortable, one on the top of the other in a shed have the best of us; but the tide turned and we have had weather to perfection, fine, bright, warm and very little wind. They are coming along splendidly, healthy and strong, will be ready to swarm at our usual time for commencement, 1st October. A few ironbarks and stringys blooming which greatly assist the fruit trees and scrubs for the best results. On Saturday Sept. 16th, I was clearing out some combs that were solid (candied) to give room in the super, when I found a fine cell from which the queen had not long hatched. I knew it was a case of supersedure, and found the young and old one on the same comb. If the young queen gets back mated alright there should be no more trouble with them this season. She is of good stock and will more than probably pay her rent handsomely. I noticed in your last issue, a correspondent seemed, what I have heard some of the people in the old country would call a bit crabby over the export talk. Anyway if he will take the trouble to look through A. B. B. for August there will be no difficulty in finding the approximate value of honey exported from here at the present time, and I don't think there will be any great difficulty in finding out the exact charges and expenses attached to it. I believe Mr. H. Hall of Emu Plains is going to publish a detailed account of his experience in the matter, which consisted of five tons only. In my case it was just a feeler to see if the Britisher

in his own country would take to the stuff with the handle of Eucalyptus attached. They didn't object to the Spring honey, Fruit blossom, Orange etc., mixed with stringy bark, neither white clover, ironbark and several others, at the same time the dark strong flavour honies don't take at once. Still the poorer classes I feel sure would use a great quantity if they could get it at about 2d or 2½d per lb. The two first named would I am certain if properly placed realize from 9d to 1/- per lb. retail. If I were sending any I should grade it, name it, and send solid. The honey with a fine white soft grain and good flavour, a flavour that we out here call nice, very nice is alright, but not the dark coarse sugary kinds. Those districts that will produce the above suitable sorts in large quantities are the ones for the export business. From what I hear private enterprise is going to do or has done what the Government failed in and exportation may be a success financially yet. In reply to your correspondent I may say that what I sent was not placed on the market in the ordinary way and I only asked and got what it was worth to me here. There were other expenses besides being landed in the docks in London as it had not arrived at its journey's end.

W. F., Bungowannah, August 7th:—This has been a very good season for honey. I extracted 7500 lbs. from 60 hives, being an average of 125 lbs. per hive. Hoping your list of subscribers will continue to increase.

J. C., Armidale, Oct. 7.—There is not a very good show for the bees up here as yet; last season we had the box out for them to start on. This season as yet there is very little apart from the fruit trees. I had my first swarm out to-day. I am afraid there will be more swarms and less honey this season, or at least for the early part.

The Reliable Family Remedy Woods' Great Peppermint Cure for Coughs and Colds, 1/6 and 2/6.

VICTORIAN NOTES.

R. BEUHNE.

I have received quite a sheaf of letters in reference to my last notes, including several communications from N. S. W., all endorsing and agreeing with what I said. I hope the other side will say something in this issue as I have some reserve forces ready to bring forward.

According to German bee papers the price of honey wholesale, nett cash, was 63 shillings per cwt. for the past season, which was a good one. This slightly alters the figures of an article which appeared in N. S. W. "Agricultural Gazette," "Honey and how to get rid of it," and proved N. S. W. the best beekeeper's country in the world by fixing the price of honey at 3d for everywhere. Mr. A. Gale please note.

There are several very good suggestions in the Editorial of the September issue, the best of which is that regarding the letting of tracts of crown lands to beekeepers on payment of rent. The ordinary grazing rent would in many cases not be too much if the apiarist secured thereby the area for his bees. But at present there are hampering conditions such as fencing and the keeping down of rabbits and other vermin, and no security against crowding of others on the paid for area.

I am glad to see the editor values Australian honey at £39 19s 11d, but John Bull doesn't. Whenever Australian honey fails to sell at a profitable price, the broker, the middleman, the package or the shippers are blamed. If Australian honey is so little different from English or New Zealand honey how is it the middle-man does not buy up our honey and palm it off as European or New Zealand honey at a good profit? Is he too honest? And how is it that some speculator in Sydney or Melbourne does not make use of the glutted market, buy up all the best and make a fortune? Have they tried it and burned their fingers? Mr. O'Grady's letter on the export question is interest-

ing, "The wholesale grocers will only buy of the brokers;" they must have a reason and whatever it is we will have to reckon with it. There have been suggestions to send a man home to dispose of our honey in small packages. Where would he be when coming into competition with firms like Liptons and others. We can find a market even now at £15 to £20 a ton, but are we hankering after it?

J. D. A., Mackay, Queensland, hits the nail on the head in what he says (page 122) But then people who pretend to know tell us that increased productions will raise the industry. Perhaps it will, as honey is now recommended for horsefeed in an American paper; it has also stimulating properties on the growth of plants.

There is another export report on page 126, which reads much the same as Mr. O'Grady's. There are no doubt others, but they do not care to publish a failure. I know of two, one in particular, who would blare with trumpets even a moderate success, but keeps discreet silence over a dead failure.

Many people have no idea of the amount of water consumed by bees. During the drought of last summer there was no water accessible to our bees for a distance of at least a mile all round and I was compelled to give an artificial supply. This I did in specially constructed drinking troughs lined with galvanised iron, a raft made of slats 1-8th inch apart completely covering the surface of the water made drowning impossible. 200 colonies in 63 days drank 1500 gallons of water, or an average of 24 gallons a day. It varied greatly on different days, sometimes over 50 gallons were carried into the hives. The water was drawn from tanks and measured in kerosene tin buckets, and having ascertained the amount of evaporation I deducted it. As I had to carry all the water about 70 yards I remember it well, also the fact that I had to pay for carting it from a distance of two miles. Whenever I neglected once in a while to

keep them supplied they would come into the house after any liquid they could find and also rush the fowls' drinking dish, which in any case we had to shift to a fresh place every day to dodge them. Will some inventive genius kindly supply a device for giving poultry water in a way that bees cannot get at it.

Introducing queens is a thing I never have trouble with, although I practice direct introduction by Simmons' method, but then, I never attempt it when I know it would fail. For introducing queens from my own nuclei I simply take the queen from the nucleus with the comb and bees she is on and exchange for a comb with brood bees and queen (if there is one), from the hive she is to be introduced to. For a queen received by mail I take one frame of bees and brood from each of four or five colonies about noon (taking care to leave the queens behind) and put them in a hive with contracted entrance on a new stand and put the new queen amongst them at dusk.

Rheinische Bienenzeitung.—J. Flohe after failing to introduce a queen successfully by the methods recommended in textbooks was advised by a friend to take bees from a number of different colonies, shake them up together in a box and put the strange queen with them. He tried the method and succeeded.

Bees eggs will retain life for several weeks according to Dzierzon, in support of this assertion a correspondent states "Unsealed larvae were found on June 7th from eggs laid April 30th."

Speaking of Japanese bees they are said to be greyish yellow in colour and very gentle, their sense of smell is keener than that of Italians and they work even during rain. Attempts have been made to domesticate them in Australia and apparently with success (Where are they.—R. B.)

Practischer Wegneisher says that honey stored in new comb is less liable to crystalize than that stored in combs in which brood has been raised.

The season 1899 has been a good one in the largest part of Germany. The price was about £3 3s per cwt.

G. Sand advises as a check on increase when swarming is excessive and a means of increasing the yield of honey to de-queen swarms and unite them to swarmed stocks having a young queen.

To unite a swarm with an established colony without risk of slaughter it is recommended to shake the bees of the colony from their combs into an empty box, give the combs with brood to the swarm and when the swarm has taken full possession of them run the other bees in.

A FEW FACTS ABOUT ASSOCIATIONS.

L. T. CHAMBERS.

Little Jack Horner
Sat in the corner,
Eating his Christmas pie;
He put in his thumb
And pulled out a plum,
And said, "What a good boy am I."

This, Mr Editor, will do for a text to fall back upon in reference to the subject as presented by Mr. Beuhne. I'm not careful to deal with it upon the grounds presented by that gentleman, who brings my name so prominently forward in your last issue.

Briefly stated, he charged me with formulating an association for personal benefit. This can go for what it can fetch. No one knows better than Mr. Beuhne that this is a false presentiment and misrepresentation.

This is not the ground in question. The real ground is that Jack, while declaring his cleverness and his goodness in thumbing a plum, wants to have all the pie and all the corners, and moreover he is prepared to ask that they shall be kept for his especial benefit.

Beekeepers' Associations should properly consist of beekeepers, and exist for the benefit of beekeepers—"Mutual help" the watchword. No one can object, but when any such association invokes state aid and yet desires to hold its privileges as a close corporation, I for one object. If the State is to be called on to assist, such assistance should surely be in the direction of the development of the resources of the colony, and open to all.

Men of dwarfed reasoning, feeling for their own particular pocket, desiring to corner upon a very small local market, favour very restricted production under Government patronage, forget-

ful of the fact that a few brief years ago they themselves came upon the scene of their labours uninvited and unhindered. Had anyone at that time sought to hinder their progress, what a cry would have been heard.

"A fair field and no favour" is a good motto, and any attempt to hinder or oppose the onward march of events will usually end in disaster.

Now, what is the matter with Mr. B., and why does he so tilt against me? Simply that he found himself thwarted in his attempted proposals to the Silk Culture Association. This Association exists for the specific purpose of developing the resources of our colony and formulating methods for disseminating knowledge, and yet Mr. B. thought well to try to capture their principles and prevent the spread of knowledge which might be detrimental to his own particular pie.

Dear me! how very much concerned he is that others should know the "drawbacks and losses" before embarking effort in honey producing. It's too thin, however. You can see through it. Should not all trade associations in like manner warn off all prospective beginners.

Why, Sir, everyone knows that with a fair field and no favour the profit is in the man and his ability. It is utter nonsense to waste breath over it. Men believing in themselves take these risks every day. Most fail, but the fittest survives.

The affectation which desires to shield the ignorant by keeping them ignorant and by bogeying them off is a very old trick—nothing new about that.

My position is this, and if wrong I am open to correction. One of the assets of our colony now going largely to waste is our honey crop, the merest fraction of which is gathered. The gathering of this crop offers employment to those possessing the ability to undertake it. When gathered it has a value in the markets of the world. Producers secure recognition of their goods by offering them for sale. Value is determined by public appreciation.

There is nothing wrong with our Australian honey. All the clap-trap about flavour came not from consumers, but from those who were interested in bearing the market. It matters not what goods are first offered in any market, a fight for footing will ensue. Look at the persistency which was needed to establish our export butter trade, and the long maintained fight for a place for our Australian frozen meat, not to mention scores of other examples.

There is nothing which a market respects more than volume, and moreover the sure answer to low price is increase in production.

To consider merely local market, and to work for a restricted output that price in the local market may be upheld is a pettifogging way of handling our natural resources and yet call our profession an industry. Association under the plan of making the most of our natural resources

can well afford to seek Government aid, and will, moreover, get it.

Our attempt at export in 1899 was by no means a failure, but could have been well followed up had we any honey to follow up with. It is pure childishness to complain of the result. We acted in ignorance regarding the control of the market, and all interests involved, and we had to suffer, to buy our experience.

Now I note that Mr B. carefully abstains from dealing with the facts which I adduce as the result of my own experience, but seeks to publicly discredit them, but seeks to confuse his readers, by artfully confounding two distinct things. I have simply spoken of the source of supply. Mr B. would have his readers think that I referred to the amount of honey which had been gathered from such source. Logically, therefore, the beekeeper who puts say 10 hives of bees to work has gathered the crop. We all know that the limit of honey secured is the personal limit of the beekeeper, but that the supply is practically unlimited. Put 100 colonies of bees at work in a selected locality—then double the number. Has the general average been decreased? Make the tally 50 per cent more, and is it then proved that the source of supply has been exhausted? I take it that Mr B. and others of his way of thinking do not propose to restrict their own production: It is the "other fellow" who is to be restricted and bogeyed off. "It will be nothing short of cruel" to let him get a start. No, Jack is in the corner with his thumb on a plum, and he does not want to see the other corners occupied. He wants them saved for himself.

That federation business is a bad line for Jack. Twopence per pound duty kept the Victorian corner for Jack, so that he could secure 5d per pound for his honey when the other fellow could only get 2d. Jack had the plum, and winked the other eye, but in the march of progress Jack must quit pure greed and self-exaltation.

Just referring to the published letters let me say, I am quite prepared to stand by what has been published over my signature (save perhaps that the A.B.B. has misrepresented me as claiming £100 per acre when I simply claimed 2/6 to 5/- per acre) and I should at once call to the facts of Mr B.'s honey gathering for the past five years for attestation, bearing in mind that what he has done was limited in various ways, and does by no means indicate what might be done.

Mr B.'s attempted comparison of the wheat yield falls to the ground from sheer weakness. The limit of the wheat producer is the private ownership of land, and he has all his crop in sight—cannot increase it—gathers it all. Not so the beekeeper; he can increase by method—his limit is the personal limit.

In conclusion let me just say that my friend attempts a big job when he offers to prove as

sacts statements which are largely drafts upon his imagination regarding my motives. I'm not going to be disturbed on that account. I stand by what I am, and not by imputation of motive.

Perhaps it would be well also to say that, to the astonishment of at least myself, Mr B. publicly confessed that he was not the author of the letter which was published in the *Age*, and which now re-appears in the A.B.B., but that he was what has been elsewhere described as a "cats-paw." Other mighty intelligences, students of political economy and nation-builders, of singular modesty were behind him. It's a pity he forgot to mention the fact in a foot-note.

Sir,—Permit me a small space in reply to Mr. Beuhne's attack on the council of the Victorian Silk Culture and Rural Industries Association.

1. As to the general policy of Association—

This is fairly well defined in your last issue and I send herewith a copy of resolutions passed at last council meeting and I may further say that the council has always taken the broad view that beekeeping as well as other rural industries, such as silk, scent, poultry, etc., are as a rule best carried on as adjuncts to farming as very few comparatively speaking can make a living from either one of these alone, and we are therefore anxious to help and instruct the large body of struggling farmers who are trying to make homes for themselves on the land by combining these industries together.

We have to complain that Mr. Beuhne attempted to tie the hands of the council to help only those who are at present engaged in a large way in beekeeping. This he did by informing us that he had a number of subscriptions in his pocket which he could only hand over on condition that we consented to work according to his method. Some of our council resented this as a threat—hence the trouble.

2. As to the apparently long feud between Mr. Beuhne and Mr. Chambers we have nothing to do whatever. Both these gentlemen are well able to fight their own battles, and we hereby resent the insinuation that this Council is led or controlled in any way by any one person.

3. With regard to "grossly misleading statements" being published by this Association, we deny emphatically. Mr. Beuhne was asked in our office if he could disprove any of the assertions made by Mr. Chambers in his letter which we published, and he acknowledged that the results stated might be obtained—it was a matter of opinion.

What Mr. Beuhne did object to was that it was unwise to boom the bee industry, and thus lead unskilled people astray, and there we are with him completely. We have no desire to misrepresent anything, but would rather give facts.

4. The whole trouble apparently has arisen from the fact that Mr. Beuhne and Mr. Chambers have never been able to agree on a certain

policy, and aence when they met in our Council meeting there was an explosion, and as one leading gentleman said when he heard about it, "he was surprised that the rooms were large enough to contain them."

As a council we have nothing to do with these matters. We have our objects, which are clearly defined in our rules, and in resolutions printed by you on page 139 A.B.B.

In conclusion I would like to point out that Mr. B., page 137, says that we broke faith with the beekeepers and ignored the conditions they had accepted—"That any information supplied, &c." This statement is very strange, for if your readers will look at clause 8, page 139, they will see that the Council passed this very resolution which he says we rejected, and further, that our minute book shows that Mr. B. was present at the time. Further comment is unnecessary.—Yours, &c.,

M. W. BURKE,
Secretary Victorian Silk Culture and
Rural Industries Association,
366 Bourke-st., Melbourne.

NATIONAL BEEKEEPERS' COMMITTEE.

At a meeting of the National Beekeepers' Committee, Melbourne, held on the 3rd Oct., the following resolutions were adopted:—

1. That this committee recognises the importance of the bee industry in Victoria, and will assist, as far as possible, in opening up a more extensive local market, and will endeavour to create an export trade in honey.

2. That information and instruction in the most advanced modern methods will be given to all beekeepers who may desire to advance with the times, and to beginners such as village settlers and small farmers, who may desire to add beekeeping as an adjunct to their operations.

3. That full information be given to all as to the difficulties and losses attending beekeeping.

4. That encouragement be given to the planting of forage plants useful to the industry in the future.

5. That the Co-operative Society of Manchester be written to, respecting an experimental consignment of honey dealt with by them.

It was reported that samples of honey for exportation to test the London market were being received from a number of the prominent beekeepers. A very interesting letter was read from Mr. Bolton, or Dunkeld, with reference to giving bona-fide beekeepers the right of entry on Crown lands and leases, for the purpose of temporarily placing their apiaries on such lands, on payment of a license fee, in the same manner as mining prospectors and wood cutters are given entrance. A letter to this effect has been drawn up and forwarded to the Minister of Lands and to the Minister of Agriculture, and a deputation appointed to wait on these gentlemen.

VICTORIAN HONEY.

The Government statist shows the value of Victorian honey and beeswax during the past seven years to be as follows:—

	Value of Products. £	Hives.	Bee- keepers.
1892 ..	17,000	31,508	4,590
1893 ..	16,500	36,601	4,227
1894 ..	11,500	28,327	3,489
1895 ..	20,000	42,619	4,482
1896 ..	6,100	31,982	4,080
1897 ..	9,000	21,770	3,219
1898 ..	3,000	14,225	1,857

LOYALSTONE'S REPLY TO MR. BOLTON'S PICKER-UP.

I am sorry to ask you Mr. Editor, for a little room to reply to some remarks passed by a beekeeper, I presume, in your last A.B.B., page 139, 140 and 141. I always like to see such articles signed by the man who wrote it, or else under a *nom de plume*, well known like mine. I don't believe in any one hitting another in the dark. However, I reply to his remarks. I could have followed up the arguments re Long Idea hive versus Heddon hive, only I thought your readers may have got tired of reading them. Also let me tell my unknown antagonist,

that Mr. Bolton is well able to defend himself and his New Management without his assistance, that is if I am any judge of a writer. I take the article from the beginning. My argument is against the Heddon hive, not a modified Heddon, which I know nothing about, so cannot argue on the matter; evidently the Heddon hive itself does not give satisfaction without some alterations. As regards swarming, from 100 Long Idea hives in three years I have had 4 swarms. Some of these seasons very good honey flows, other seasons poor honey flows. With regard to one of my hives equalling 14 half-stories Heddon, I acknowledge I made a mistake, which we are all liable to do now and again. From here up to the equalising of hives is a matter of opinion. In equalising hives, a bad lot takes some time to go through. What does my unknown friend think of this? My son and myself, equalised 50 Long Ideal hives the other day, in $\frac{3}{4}$ of an hour. If we had 50 patchy hives to equalise, it would take half a day (4 hours). If my unknown friend can equalise Heddon hives, without examining frames, simply take a half storey of what he thinks, or is sure contains brood and plumps it on top of a weak hive, then I give in to him and acknowledge I know nothing of beekeeping. I have four out apiaries and my home apiary. Have lost two swarms of bees the last four years, since I used Long Ideals. Visit my out apiaries about once every 14 days, excepting during a honey flow, when of course I have to keep going to take the honey from them. My wife, son aged 12 years, and myself do all the work, have never employed labour yet, and do not think I will need to. I never shift my bees to catch a follow on flow. It would not pay here. I look out a good locality and place 40 or 50 Long Ideal hives there, and leave them permanent. After March, I winter up all my hives, go to work in my orchard and never open a hive till the latter end of August, or beginning of September, according to the season. I think this

about answers all questions my friend says I evaded. I will not argue about modified Heddon hives, because I have not seen one. Perhaps my unknown friend will send one along to me for a Xmas present, and I will then give my opinion about it. Our honey flows here are long and constant. White box was out all last autumn, through this winter and are still out and coming out. Yellow box was out all last year, all this year, and are out and coming out at the present time. So what need is there to shift bees from one place to another about here. As fast as one yellow box ceases flowering, another close alongside bursts into bloom and so on; at times many bloom together, then we have a heavy honey flow. When they flower patchy, we have a fair honey flow, but it is a long flow.

HUSKS AND CHAFF.

G. R. HARRISON.

Mister *Bee Bulletin*,—You are right every time you advocate the regulating and conserving of our grand timber belts, and where timber flourishes, the beekeeper can manage to secure a little of the sweet called honey and should be able to get in return some of the commodity named to rhyme with it.

But much of our country is covered with trees whose timber value is very small, but whose flora are of value to the beekeeper. Problem: Is the country of sufficient cash value to the beekeeper to induce him to pay as high a rent for it as the mutton and wool grower does, if not,—going,—going—gone to the sheep man, and the sheepman doesn't want the trees.

I am real glad to see my friend, Mr. Geo. F. Fletcher, of Buninyong Apiary, Warwick, Queensland, starting to write up things in the B. B. He is a first class beekeeper and has had a wrestle with most of the old problems. Last year though general farming was a failure all around him and the price of honey simply shocking, he managed to make his bees keep him for the year.

Can't say I agree to believe that our

best honey is worth a single blessed brown less than N.Z.'s. best—the Maori-landers have some good honey, but, so have we.

I think we don't want those blending tanks.

Treacle is good enough to feed horses on, though I've seen honey to which I would prefer good treacle, but don't want to go deeply into honey raising again if we have to look for a market for decent honey by pushing its horse-feed value.

By the prominence given to the bee wagons by the Atchleys, (I've read so often of them) it would seem that their bees spend a large amount of time on the road; I know of one apiary which has twice been profitably moved some twenty miles to catch a flow, but it was carried there and back in both cases by water, but everyone has not a river at their door.

If Mr. Hall's returns are a fair sample of the immense prices we shall get on the London market we would do better to export to the back blocks. Some of our way back towns, where butter is not easily procurable, consume large quantities of tinned treacle, golden syrup jams, &c., but the same thing which blocks our honey on the London market constantly varying samples and difficulty of getting the same grade of color, flavour and consistency, make it to be far from a favourite with the storekeeper, and that's the man we want on our side.

Treacle! Ugh!!! Who would eat treacle while they can get good honey, yet that waste product which is thrown away by the thousands of tons in the sugar countries brings as high, aye, and sometimes a higher price than good honey. Something's out of joint.

Always the same trouble with house apiaries, losing queens; the house apiary idea is always attractive to the beekeeper at some time of his experience. The nearest approach to a house apiary that I have known to be successful was friend Abram's bee shed, furnished

with two tiers of Berlepsch hives at each side that, in his hands, was a thorough success. May he run it successfully for a long time to come.

The essential features of the Heddon hive are: a brood chamber horizontally divisible, with frames rigidly clamped with screws, so that each section is invertible at will, and with a comb area equal for the whole brood chamber to ten Langstroth frames, and it is not essential whether those frames stand or hang.

Mr. Heddon claims that with his hive swarming may be checked by inversion, but his method or system prevents the desire to swarm, therefore he doesn't need to trouble about tumbling his brood chamber over to prevent swarming.

If Doolittle had not published his method of rearing queens, our Queensland queen-man might have worked out the same plan, but I am sure he would tell you he owes much of his success to intelligently combining the essential principles discovered by others; but no successful man slavishly follows the details of any other man's system.

Queensland, below the range, is a wonderful place for raising bees, and geographically our northern rivers are Queensland.

SWARMING.

"GLENELG."

Re the new inversion of brood comb management of swarming.

Mr. Bolton tells us we are not to know this system by Mr. Heddon's name. Well, I should think not. If we thought less of Mr. Bolton we might call it the Bolton system. "Australia for the Australians," say I, too. But I hope the Australians will claim advances that really are such.

As a beginner when badly beaten by the bees at swarming time, I thought of this plan. My argument was that as queen cells always pointed downwards, that if made to point upwards they would be destroyed, therefore by periodically inverting swarming could never take place, and what colonies I would have. But on further and more mature consideration I decided that it was "too thin" as probably many others have

done, including Heddon. I also once thought I had found perpetual motion, that was too thin also. My only consolation now is I did not mention it to anyone. It's the swarming impulse we want to control. It's a well known fact that while under the influence of this fever bees do not gather honey as they do at certain other times. Therefore any system that prolongs the swarming fever (as the inversion system does) must unfavorably affect the harvest. There are two occasions in the history of a colony of bees when the honey gathering impulse is as strong as the swarming fever is at others, only more pleasant and easily managed, viz.—When a young queen commences to lay, and when a swarm is just hived, and the only admissible system of management is the one which makes the most of these two occasions, and otherwise orders the condition of the hive, such that the honey gathering impulse predominates over any other. Now then, Australians, who has the ideal system?

EXPORTING HONEY.

Mr. W. H. Hall, Emu Plains, writes:—
Re names of trees from which exported honey was derived.

No. 1, 7 cases (I. B. & C.) Grey Ironbark (*E. Paniculata*) and white clover. Clear pale yellow, white crystal.

No. 2, 14 cases (W. B., I. B., & R. G.) White Bloodwood (*E. Enimia*), Grey Ironbark, (*E. Paniculata*) and smooth barked Apple (*Angophora lanceolata*, miscalled red gum). Honey amber colour, crystal, yellow. The W. B. and Apple somewhat inferior, but bulk sample redeemed by amount of Grey Ironbark.

No. 3, 39 cases—Grey Gum, sometimes secretes Manna (*E. Punctata*) and Maize. Manna honey similar to blossom honey. Pale yellow colour, clear and good; crystal, pure white.

No. 4, 35 cases—Red Bloodwood (*E. Corymbosa*) and Maize. Golden colour, rich and clear; crystal, pure white.

Each class of even quality throughout, all sent in candied form. Quality reported satisfactory. Further consignments requested.

PRICES OF HONEY.

Gleanings, says: "This year the buyers have to hunt up the honey. The tables are turned at last."

The American Bee Journal, says:—
"Honey will be worth more money this year, if we may judge from the general poor crops that have come in."

"There is nearly a failure all over south-western Colorado, and northern new Mexico."

Chicago.—Extracted is quoted at $6\frac{1}{2}$ to 8 cents; comb honey 13 to 15 cents. San Francisco, $6\frac{1}{2}$ to $7\frac{3}{4}$ cents, for extracted.

The *Beekeepers' Record*:—"I consider that good British honey at 6d per lb. by the cwt is low enough, as are 11b sections of good quality at 8/- a dozen; and it is beekeepers' own fault if these prices are not realised."

"I have seen foreign (very second grade) honey, sold as the best, at the price of 10d per 11b jar."

H. A. R., Ponders End, Middlesex: "I sell at my business premises from 600 to 700 pounds of honey every year. My prices being 1s per pound, $6\frac{1}{2}$ d per half pound, and $3\frac{1}{2}$ d the quarter pound.

A. Counter, Totnes, Devon:—"The bulk of my honey is sold at 10d, but for a quantity of not less than 12 lbs, and in consumers' own jars, I sell at 9d, and none, to my mind should be sold under."

D. A. Purdie, Selkirkshire:—"To sell our honey at 3d, 4d, or even 6d per lb. is a perfect farce, and to suppose that honey production at that price would pay the producer is an insane delusion."

In Maitland, N. S. Wales, last week, $1\frac{1}{4}$ to $1\frac{1}{6}$ per 9 lb. tins, and $6\frac{1}{6}$ to $7\frac{1}{6}$ per 60 lb. tin; and in our last issue Mr. Stephenson, the Government secretary of the N. S. W. Export Board, spoke of honey sent to England, on which £15 had been advanced. "I have worked out the charges, etc., and it leaves considerably less than the advance promised to shippers."

We have strong political feelings—stronger than perhaps some of our readers would like us to express—so keep our words in. Perhaps when federation is in full swing, things will work out all right. It is our hope.

J. D. A., Sorrel Bank, Queensland:—

I see by your *Bee Bulletin* of Sep. 28th, that a Mr. W. H. Hall, of Emu Plains, had sent about five tons of honey to the English market and that it realised 22/6 per cwt. It would be interesting if Mr. Hall would kindly furnish you with an account of the expenses, viz.—cost of honey tins, cases, freight to London, dock charges, and several other little expenses, together with commission on sales, also the cost from his apiary to the wharf at Sydney. I am not sure but I think it will pan out nett proceeds 11½d or at most 1½d.

The price of honey in Germany is 63s per cwt.

RE THAT COASTAL HONEY.—"Smoker" writes: Under heading "Facts" of last *Bulletin* (August 28th) you say "the bulk of coastal honey, etc., not up to English market requirements, whose model is white clover honey. It is this inferior honey glutting Sydney market and bringing down prices of better grades." Now, Mr. Editor, why should the coastal honey be branded inferior? We have whips of white clover, box and all the native forest (reputed to give excellent honey) in galore; then why cannot we produce as good honey as is got in any other part of the colony. Our bees are the same breed, and our extractors the same build, and I presume we can cut cappings and whirl honey out, also handle it after extracted as well as those inland. Then why is our honey not as good? It has been said before that coastal honey is inferior, and I have before written in defence, and I must continue to do so unless convincing argument is brought forward in proof of its inferiority and reasons for such; my noddle will then take it in without the aid of a club, but it refuses to do so on the mere fact of someone having said so.

A Mr. Wardill raises queen cells in a brood nest with laying queen, by using two perforated zinc dividers, raising the cells in the middle compartment.