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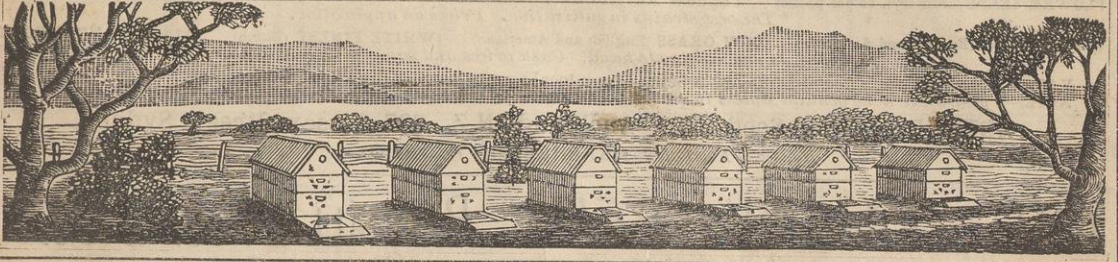
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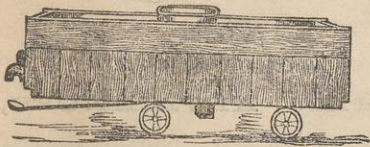
THE AUSTRALASIAN

BEE JOURNAL



No. 7. Vol. 1.] AUCKLAND, N.Z., JANUARY 2, 1888.

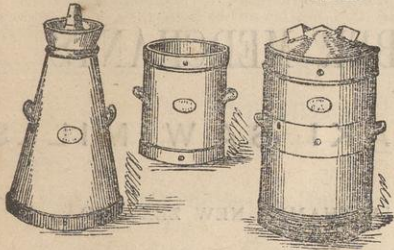
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THE AUSTRALASIAN

BEE JOURNAL

No. 7. Vol. I.]

AUCKLAND, N.Z., JANUARY 2, 1888.

[PUBLISHED MONTHLY.
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The Australasian Bee Journal.

PUBLISHED MONTHLY.

I. HOPKINS EDITOR.

HOPKINS, HAYR & CO.,

Proprietors and Publishers.

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Contents.

EDITORIAL—

Seasonable Operations for January	99
An Explanation...	100
Lecture on Bees ..	100
The Proposed Pamphlet ...	100
New South Wales Beekeepers' Association	101
Beekeepers, Please Note...	101
Revival of the New Zealand Beekeepers' Association, by R. J. Kendall ...	102
Robbing ...	103
Bee Gossip, by O. Poole ..	103
Notes from Otago, by W. C. Brown ...	104

OCCASIONAL NOTES—

No. 2.—Shakespeare on Bees and Honey (Continued), by T. J. Mulvaney...	105
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CORRESPONDENCE—

Revival of the New Zealand Beekeepers' Association ...	106
Beekeepers' Association and Foul Brood ...	107
McLain's Remedy for Foul Brood ...	107

QUERIES AND REPLIES—

Hives with Honey Boards ...	107
Can Bees Convert Syrup into Honey? ...	107
Benefits from Associations ...	108

EXTRACTS FROM FOREIGN JOURNALS, &c.

The Medicinal Value of Honey ..	108
How Close May Bees be Set to the Highway Without Being a Nuisance? ...	108
Foul Brood—Repressive Legislation in South Australia ...	108
How Many Colonies to the Square Mile ...	109
"Bagnall's Combined Smoker" ...	110

Editorial.

SEASONABLE OPERATIONS FOR JANUARY.

WHEN writing the "Hints" for last month everything appeared favourable for a spell of good bee-weather and a large yield of honey, but within a few days after a change took place that quite upset our anticipations. At present it is very doubtful as to what the results will be at the end of the season. So much depends on what is accomplished during the latter half of November and the month of December in New Zealand, that the result of the season's work in a great measure is due to the weather during that period. If it prove favourable for honey gathering, the larger half of the season's crop may be taken by the first or second week in January. On the other hand, if but little has been secured by that time, the chances are the returns for the season will be small. Complaints of discouraging prospects have been pretty general during the past month, though much of this is due to the ravages of disease. It is almost impossible, where foul-brood has got a strong hold, to get colonies in condition to store surplus honey. Every attention should be given to keeping the disease down, for unless this is done, it is useless to keep bees with the idea of getting honey from them. It is far better to make a sacrifice of badly diseased combs and thoroughly disinfect the hives and frames at once, and then follow on with the proper remedies, than to allow the disease to run rampant until the colonies have dwindled down to that degree that they become useless. We know it must be very discouraging while persevering to rid an apiary of disease to have beekeeping neighbours who are careless about the matter, and care not whether their bees are carrying the germs of disease to other apiaries or no. It is mainly due to such people that the disease has spread so alarmingly of late. Nevertheless, until we can get the power to enforce the destruction of everything tending to disseminate foul brood, progressive beekeepers should do all in their power to keep it down.

The instructions with regard to securing surplus honey and preventing swarming given last month will apply to this.

MARKETING HONEY.

This is a well-worn subject, but there seems as much necessity for referring to it every now and again as there ever was. It is very difficult to impress upon the minds of some beekeepers the importance of having their honey put up in a neat and business-like form. Either from want of business tact or carelessness the majority are content to send their honey to market without taking the least trouble to make it attractive. If they would be persuaded to try for once the difference it would make in the price and demand between putting it up attractively and otherwise, we are sure they would never think of sending it into market again in the manner that many do at present. Now let us see what it would cost to put

up say a ton of extracted honey in 2lb tins with first-class labels and cases. 1,000 tins would be required at 19s per gross, or say 20s delivered, that would be £79s 7d. First-class lithographed labels would cost 30s for a single thousand, and there would be 33 cases needed holding 30 tins each, at about 1s each. Solder for the caps, Japan for the tops and bottoms and thin paper for wrappers would cost 5s, making altogether £10 17s 7d, or a fraction over 1½d per lb. (Note—We have given the outside prices.) With a larger quantity the cost would be proportionately lower, and the honey would be put up in first-class form. Just now there is a demand for good honey in 2lb tins, and the wholesale price is about 10s per dozen tins by the case with an upward tendency for first-class honey. To put up the same quantity in 10lb tins in the same style would cost less than 3d per lb. The probability is that by putting it up in the manner described at least from 1½d to 2d per lb more could be obtained for the honey, with a ready sale, thus securing an extra profit that will more than cover the whole cost. We speak from experience, and trust that beekeepers may be led to adopt a method of marketing their honey in future that will not only be profitable to themselves but beneficial to the industry generally.

Comb honey requires just as much care and taste in the get up as extracted, and it is of the first importance to have the section boxes properly filled and all the cells capped. Nothing can look more slovenly than a section box about three parts full and a number of the cells uncapped with a leakage of honey; yet this is the way the best part of section honey reaches the Auckland market. No wonder the shopkeepers will not give more than 5s per dozen for it, and quite as much as it is worth. If beekeepers will not go to the trouble of producing a decent article, then they ought not to grumble if they cannot get a good price. Shopkeeper— I am sure will always prefer, and are ready to pay a higher price for an article that they can without scruple place before their best customers. We have often been surprised that grocers buy much of the section honey sent to market. When section honey has to be sent a distance, great care should be taken in the packing. We believe 1 doz. sections packed in a box is quite enough, and unless a show crate is required, such boxes can be obtained for about 6d each in small quantities and much cheaper in quantities of 50 or more.

Keep down grass and weeds round the hives and give ample ventilation.

AN EXPLANATION.

A CORRESPONDENT writes as follows:—"May I ask you to explain more fully what you mean to convey in the sentence, page 84, last number, in your article on the revival of the New Zealand Beekeepers' Association, commencing with the words 'To the first,' and ending with the word 'harness.' I am afraid you will be misunderstood here." We gladly comply with the request. Our meaning is that it would not be worth while, say for instance ourselves, to go to the trouble of communicating with and getting together officers and a good working committee and doing all the incidental work necessary to set the Association going again, unless we were sure of having sufficient support from beekeepers generally to avoid all risk of a hitch to its going straight ahead. There would be a good deal of preliminary work connected with getting the Association fairly under weigh, but this we will willingly do, and if necessary undertake the secretaryship *without fee or reward*. Perhaps the four words in italics give all the information required. There will be no paid officers and we can arrange for a meeting room free.

LECTURE ON BEES.

A VERY interesting lecture on the "Habits of Bees and their Diseases" was delivered on the evening of the 18th November, in the Hampden School-room, Hawke's Bay, by Mr. A. H. Parkinson. Considering the inclemency of the weather there was a fair attendance. Mr. J. J. Buchanan, J.P., presided, and introduced the lecturer in an enthusiastic and appropriate speech.

The lecture occupied an hour, the first part being devoted to the habits of bees, and the latter to foul-brood disease, of which the lecturer had had some experience. Mr. Parkinson quoted from the *New Zealand Bee Manual* to show the nature of the disease and the necessity for stamping it out if possible. His bees had been attacked by it, but by persevering with remedies and destroying both bees and hives, that is, those that were very badly infected, he had succeeded in getting clear of it. He had chiefly used the camphor remedy, but quoted others given in Mr. Hopkins's *Bee Manual*, and stated that he had some pamphlets coming from Hopkins, Hayr & Co., in which other treatments were described. He would gladly lend the latter to any one desirous of obtaining further information on the matter. He hoped that if any one present had bees they would give them due attention and should foul-brood overtake them that they would do all in their power to prevent it spreading and to rid their apiary of it. By so applying the proper remedies in time much could be done to eradicate the disease, but it is of such an infectious nature that if neglected it will spread through a district in a very short time.

Mr. Parkinson also touched upon the qualities of Italian bees, but as he had no experience with them he explained that he had written to Mr. Hopkins for his latest opinion which he had now the pleasure of quoting. It was received with applause. The lecture was interspersed with instrumental music, Mrs. Doar, the schoolmistress, presiding at the organ. At the conclusion the lecturer was greeted with cheers. The chairman congratulated Mr. Parkinson and stated that for one so young the lecturer had acquitted himself remarkably well. The usual votes of thanks terminated the meeting.

THE PROPOSED PAMPHLET.

SINCE our last issue several more applications for them have come in, bringing the number ordered up to 4,500. It proved as we anticipated that Mr. Brickell had overlooked the matter, and was under the impression that he had stated the number he would take when he first suggested its publication. However, we have his order now in hand.

It may be as well to state that it is quite likely, where the back covers are to be printed with special matter on anything less than a thousand copies, some little extra charge will be made by the printer, as it would involve the resetting of type for that space. However, we shall get the work done, if left to us, at the very lowest rates.

NEW SOUTH WALES BEEKEEPERS' ASSOCIATION.

Mr. T. B. DIBBS, the secretary of the above Association, has kindly sent the following in reply to a memo. asking for information re the action taken by the sub-committee appointed some time since to inquire into the matter of sales of adulterated honey:—

Your memo. of Nov. 28th to hand. We have submitted a carpet-bag full of tins and bottles of honey to Mr. Hamlet, the Government Analyst and a member of our Association, and he has promised to read a paper upon the result of his researches, which I will send you *in extenso* when read at our next meeting. I must thank you for the *Bee Journal* which has proved both interesting and instructive to me. A resolution was carried at one of our meetings that the Association should become a subscriber, and that copies should be kept in the office of the Secretary for reference.

At the last meeting it was agreed that we should be represented at the next Agricultural Show here in January next. A sub-committee accordingly waited on the Secretary of the show who courteously set to work on our behalf and obtained £20 for prizes and space for exhibits. Our Association also gives a silver cup for the best special exhibit. We have divided the £20 into several prizes comprising *inter alia* prizes for extracted honey, comb honey, frame of Italians with queen, frame of blacks with queen, honey in sections, and apicultural exhibits of implements and appliances.

A Beekeepers' Association has been started at Maitland and its members display a great amount of interest, so much so that the parent Association will have to look out for its laurels.

Mr. Abram read a paper at our last meeting on the Berlepsch hive. We had, however, too much business to transact to go into the polemics of beekeeping by entering into a discussion on the merits of the Berlepsch and Langstroth hives. I shall not fail to send you particulars of our meeting, and am sorry I have not more time to devote to beekeeping matters.

Sydney, 5th December, 1887.

BEEKEEPERS, PLEASE NOTE.

I WAS very sorry to see under your notification of the "Proposed Pamphlet" that there are yet 1,500 copies not placed. Beekeepers of New Zealand, what on earth are you thinking about? Where is your energy? where your enthusiasm? I do not wonder that the Americans can cut you out, and are lumping glucose into *your* legitimate markets. You keep bees, but you don't imitate their energy. Here is the very opportunity of advertising your wares in a direct way for practically a mere song, putting you, as it were, in direct touch with the consumer, and yet 1,500 copies going begging!! Oh, gigantic apathy, listless inactivity! oh, superb drones, all buzzle and bumble and no work! Friend

Hopkins, I don't envy you in the task you have set yourself, trying to awaken an interest in apiculture. I should have thought that every beekeeper owning even a dozen hives would have ordered a hundred copies at least. For every package of honey that he sells, he ought to put up a pamphlet with the order, and thus be the means of disseminating knowledge. If the public are not brought face to face with facts, the old, but erroneous idea, that honey cannot be pure unless it is in a liquid state, will remain, and they will still imagine that granulated honey must be adulterated. Now beekeepers of New Zealand, it rests with you to give the proprietors of this journal, as well as its energetic editor, your hearty support. They have done more than their share in introducing the latest improvements in bee-culture. They have given you the opportunity of introducing into your own apiaries the finest strains of bees. They have resuscitated our *Journal*, and yet you are backward in taking advantage of the plum that is held out to you. Come, roll up; don't let them complain of want of support. Send for a dozen or two of copies, if it is only to see how nicely your name will look in print on the cover, and especially when it is presented with *your* compliments. I'll guarantee it will bring you in more orders than you bargained for. I fancy I hear a cynic say, "Practise what you preach; have you ordered any?" Friend, I have; two hundred, though I have only thirty hives and foul-brood as well. *Do you go and do the same.*

Now "S.A.B.," I am ready for the trowel theory. When I sent my copy in I meant to raise a discussion, and to hear other people's opinions, as well as to receive sharp criticism whenever I brought forward anything that seemed far-fetched, and I hope in the course of the articles which I am writing to this journal, more advanced beekeepers than myself will be down on me whenever they think I am overstepping the bounds of reason; so don't be afraid to speak. In the first place, I am not a scientific entomologist; but I am passionately fond of studying natural history in all its branches. Being an enthusiast on the subject of bees, one is often laughed at, but being well used to that I am getting callous by now. I am the happy possessor of a microscope, wherewith to satisfy and see for myself the wonderful mechanism of insect life, and what is more wonderful than the mechanism of a bee's sting? The double gland which secretes the poison, the reservoir, the hollow barbed lancets, the sheath that protects the barbs, the tiny muscles which control the action of those barbs, all of which are minutely described, far better than I can do, in the *Australasian Bee Manual*, which I will now refer the reader to. Turn to page sixty, study the engraving thereon, and you will see the whole sting. Take particular notice of A fig. 2. Is that not a veritable trowel? Get a sting and put it under the microscope between two slips of glass, and by gently pressing the two glasses you can verify that same engraving. The sting proper is slightly flat; it is the sheath that gives it its round appearance. By alternately pressing the ends of the glasses you will see the wonderful manner in which the poison is propelled down the lancets. I have

also watched carefully, through the medium of an observatory-hive, the bees capping the cells, have seen the peculiar quivering motion of the bee over the cell when nearly finished, the bee going round and round at the same time, thus doing my best to verify Mr. Clarke's discovery; but as yet, have not seen the bee plunge its sting into the cell surface. Often when on removing the mat over the frames, have you ever noticed how some more pugnacious bee will rear up his business end, and if you note carefully you will see the sting projecting and a tiny drop of venom thereon? If they can eject the venom at will like that, does it not stand to reason it can be injected at will into the cell? With regard to formic acid, Mr. Editor, I enclose a slip of litmus paper which I have just saturated with honey and water, equal parts. The red-coloured tinge will show you a decided trace of acid, and had I left it in the solution, I have no doubt the whole of it would have become red in the course of an hour. Pass it on to "S.A.B." [We have passed it on.—Ed.] How did the acid get into the honey? This chemical body, formic acid, CH_2O_3 was known to chemists long before chloroform, and received the name formic acid because it was first prepared from a species of ant, the Latin name of which is formica. Formic acid and chloroform are believed to be compounds of a peculiar basyle called formyle C_2H of which formic acid is the teroxide, and chloroform the terchloride. With regard to the stingless bees of Australia, the "art preservative," viz., formic acid, I daresay is injected by means of the ligula. Not having ever had the chance of dissecting one, I can only hazard an opinion. How does the mason-fly of New Zealand use his "art preservative" in keeping spiders entombed alive within its mud-built cells till the young are ready to feed on them except by causing partial paralysis, through the injection of venom by means of their small stings?

I am glad to see other correspondents taking up the foul-brood question, and why do not more of our subscribers give us some of their experiences, together with their trials of the different germicides? Have any of them tried eucalyptus oil in the form of a spray? It is a powerful germicide. Or is it the same old tale, "I have not got time to try any." If such is the case, get up an hour or two earlier, and give the *Journal* a show. Don't be backward in sending in your reports. Read Kendall's first article in the *Bee Journal*, and don't hide your experience. We want the *Journal* to "boom," and if you don't "chip in" you give the Editor more to do.

A last word for the Editor. As you will get this copy just about Christmas, allow me to tender my heartiest wishes for a Merry Christmas, trusting that the *Bee Journal* will still prosper, and that its energetic proprietors will receive so hearty a support, that they may truly say, we are really on the eve of a Happy and Prosperous New Year.

LAMH DEARG ERIN.

[We must confess to feeling that it is uphill work trying to get our beekeepers interested in any movement that will benefit themselves. We keep hammering away at them on the same subjects

time after time, till sometimes we think they must be heartily tired of them. However, we do think they are beginning now to wake up a little, judging by the correspondence received, some of which appears in this number. We don't mind a little tough work so long as the end we are aiming at, viz., a prosperous honey industry, is gained, and it shall not be our fault if it is not. We thank our zealous contributor for his compliments and good wishes, and heartily tender the same from ourselves in return.—Ed.]

REVIVAL OF THE NEW ZEALAND BEEKEEPERS' ASSOCIATION.

BY R. J. KENDALL.

I SEE in the last two issues of the *Journal* the idea has been mooted of reviving the New Zealand Beekeepers' Association. So far as I am concerned, I cannot see how there can be two opinions on the matter. There can only possibly be one argument—if it can be called an argument—against it, and that is the stereotyped mossback objection, "It will do no good." That kind of talk is no good, for at best it is a do-nothing expression, a lie still and keep quiet sort of desire. Any man who is capable of using it is not a man to join either a beekeepers' association or any other society. The expression has nothing in it. It is merely a rather dogmatic and lazy opinion, and, furthermore, is dead opposed to facts. Association always does something. Association is the bundle of sticks as opposed to the isolated wand. Association means counsel, conference, consideration. Non-association means "Let things rip." But there are associations and associations, and on the character of each and the personnel of the members depends the success or failure of the object for which the association is formed. But in any case it may succeed. There is the chance. If there is no association, it cannot because there is nothing done if there is no conception of something to be aimed at. Association means every little making a muckle, and being united for some definite object. Non-association means cross purposes, incomplete and unsatisfactory effort, and more or less failure. For instance, take the question of foul-brood. An association would have an hundred chances to nil in getting a law passed to control and stamp it out. An individual would never get such a law; in fact, the idea of an individual doing so causes a smile at once, because before he would be listened to at all he would have to show that it would benefit and was desired by others, which involves association at the outset. A Beekeepers' Association means actually a Beekeepers' Trade Union, and we have all seen the mighty power in trades unions, I should think, enough to make us desire to have one. If we had a good strong Beekeepers' Union we could control the honey market without a shadow of a doubt—it would be an army more or less considerable against isolated opponents. Then, I say, let us have one. Get as many workers as you can and let the *Journal* be the vehicle as well as private letters to members in town, of

those who are too far distant to come to the meetings. Now this class of persons are those who probably will feel the most doubtful of receiving benefit; but I would point out to them that this can not only benefit but do as much good, or more good, possibly, than those in town. They would have a vote to start with, and these votes could always be sent up to some member in town with a little argument to be read by him. They could also be epitomised and reproduced in the *Journal* and so would have as much weight and more deference than the views of the present members, whose ideas could be pitched into hot and strong at the time. However, to make the thing practical at once, and without more to-do, here is a question: Shall we have a Beekeepers' Association at all? Every beekeeper in the district has a vote. Let him write to the Editor, giving replies on the following points:—(1) Shall we have a Beekeepers' Association? Vote yes or no, and send in your comments or arguments. If you vote yes, then (2) what name do you prefer—Association, Union, or what? Now as I am not jesting about this, but seriously asking every reader who is a beekeeper, or who proposed to become one as a means of making a living or part of it, to give expression to his or her desires, I hope every reader will do so. But understand me here distinctly. I am not asking this in any sense of a desire to dictate or do any "bossing," but merely to get to business, and get the opinions of beekeepers as to whether they desire to co-operate for their mutual benefit, and as to the handiest way of doing so, to have an association. I don't want to be fiddling and discussing and arguing a thing of this sort a whole year. I want to get the association formed and be ready by the winter session of Parliament to send a strongly-backed demand that the Wellington "talking shop" shall do something for us in the way of stopping foul brood. And then there are dozens of things that need ventilating and talking over in connection with the business; and the sooner we begin to do something the sooner it will be done. I don't want to see us all dilly-dallying a lifetime, and doing nothing at the finish. So, gentlemen and lady beekeepers, speak right out in meeting at once, and say what your wishes are on the matter. And I ask respectfully but earnestly for you to do this inside one month, if you will. Say something, anyway, if it is only to say you don't agree, and why you don't. Remember, God helps those who help themselves.

ROBBING.

In a former number of the *Bee Journal*, I noticed a rather novel way that an old beekeeper advised Mr. Naveau to counteract robbing, viz, "to expose some honey easy of access to the bees, and that they will sooner take to that than go to the hive for it." Now I have had some experience with robber bees, and know well to my cost what damage they do, not only to a weak hive or to a nucleus, but should that hive have the least taint of foul-brood, it is carried to the other hives in

rotation, and very soon your apiary is nothing more or less than a charnel house. It was by persevering with Frank Cheshire's method that I managed to keep down the evil, but I am sorry to say, when one is surrounded by neighbours who don't care, and won't care what mischief they cause by exposing foul-broody combs after turning over their gin box hives, and finding the bees gone, take no further heed, but let the contagion spread in blissful ignorance, and then blame the bees. I must confess it is uphill work. Oh! for an Association; oh! for a little interest in beekeeping, and last but not least, oh! for common sense and enlightenment. But I am wandering from the point. The last season being a very short, hot, dry one, the bees took to robbing early; hive after hive was attacked, and I was at my wits' end. Damp cloths, water spray, seemed to have no effect, so I got some empty combs and empty hives, filled the combs with phenol syrup, 1 to 500, removed the robbed hives and put the syrup combs and empty hives in their place, and kept filling the combs as they emptied them. I could hardly believe bees could carry away such a quantity. For the first week they seemed to enjoy the sport, and no doubt thought they were doing a smart thing, but the following week they cooled down and gave it up. If you want bees to learn robbing by all means leave honey in comb exposed, if not, put it where it should be always—out of sight and out of smell. I believe a bee has as keen a scent as a blood-hound. Every one down here is complaining of their bees dying out; I only hope it will teach them a lesson; it is nothing more or less than foul-brood, and the sooner they burn the old boxes and boil down the combs the better. But no, Mr. Editor, they go on tinkering up the old coffins until they drop to pieces, and the same thing is repeated year by year. With this I'll close my growl.

LAMB DEARG ERIN.

[The above contribution was sent some time ago but was overlooked. By a little thoughtfulness an evil was turned to good account, that is, making the robbers convey medicine to their hives.—Ed.]

BEE GOSSIP.

BY O. POOLE.

For safely caging and releasing young and valuable queens, nothing excels, in my opinion, the old-fashioned wire pipe cover. I know the process is more tedious, but in the case of costly imported queens the extra trouble will be amply repaid by the knowledge that she has been accepted by the bees.

* * * * *

With home bred queens the loss of one or two during the season does not much matter. I have successfully introduced some hundreds of queens with the Raynor, Abbott and other cages. In some cases, however, the bees absolutely refuse to accept a queen and she is immediately balled on her release; hence the necessity of being certain as to the reception accorded a valuable queen.

* * * * *

The *modus operandi* is quite simple. About one hour after the removal of the old queen the new one is to be caged under the pipe cover, on a comb containing hatching brood and honey, and in about forty-eight hours the cover should be quietly removed, and it will

soon be seen if the bees peaceably accept the queen. If so the frame should be gently replaced in the hive and all will be well. Mr. Cowan, I see by the *British Bee Journal*, has recently had some of these cages of extra size imported from Germany, and they are said to give great satisfaction.

* * * * *

Speaking of Mr. Cowan, I see that gentleman has been touring amongst the American beekeepers, and has been accorded a fine reception. At the Toronto exhibition he was presented by the Ontario beekeepers with an address and handsome gold-mounted walking-stick, whilst his companion, Mr. Young, Editor of the Danish bee journal, was the recipient of a handsome meerschaut pipe.

Well, Mr. Cowan deserves the gratitude of beekeepers for no one has done more for beekeeping in England than he, both as Editor of the *British Bee Journal* and as chairman of the British Beekeepers' Association. His extractors are the best in the market, and his work on bees is admirable and has now reached the eighth edition.

* * * * *

Extracting will now be in full swing in many apiaries, and great care should be taken that the honey is fully ripened before it is tinned or bottled up. Unripened honey is apt to ferment and is then useless. Let it stand for a few days (taking care it does not granulate) in the large extracting can that the air bubbles and small pieces of wax may rise to the top and be skimmed off. It should then be run off in the smaller vessels, and may be left a few days longer in a warm room before being permanently sealed down, it should however be protected from insects, and will soon be ripe for market.

* * * * *

I recently went through the Auckland Free Library in search of some books on bees. I could only find two, viz., a manual for New Zealand Beekeepers, by W. Chas. Cotton, published in Wellington in 1848, and How to Manage the Honey Bee in New Zealand, by an old beekeeper. Both of these publications are now obsolete as regards the present system of bee management. A good collection of modern works on apiculture would be a great addition to the library. Will some generous apiarian with overstocked bookshelves take the hint and supply the need?

* * * * *

Some English beekeepers are advocating the use of carbolic cloth instead of the smoker for quieting bees. The plan is to soak a cloth in carbolic acid, glycerine and water, and then draw the same over the frames. I have not yet given this plan a trial, although many years ago I tried injecting the fumes of carbolic acid by means of a bellows. In my opinion however nothing will supersede the smoker. In manipulating a small number of colonies I find my tobacco pipe quite sufficient.

* * * * *

It really is time that New Zealand beekeepers should see if something cannot be done to resuscitate the New Zealand Beekeepers' Association. Seeing the prevalence of foul-brood in the colony and the pressing need of legislation on the subject, it is simply disgraceful that so much indifference should be shown in the matter. Surely it is time that beekeepers asserted their right and demanded some protection for this important industry. Please put my name down as a member. Surely forty-nine others will hurry up before the February number of the *Journal* is out?

* * * * *

In Germany beekeeping is taught in the public schools, and teachers have to pass an examination on this subject before they obtain their certificates. Something of the sort might be done here. A course of lessons on beekeeping would be of more service to the rising generation than many of the subjects now taught.

NOTES FROM OTAGO.

By W. C. BROWN.

OUR association now numbers some 24 members. We hold a committee meeting at the office (to cut down expenses) of Messrs. Royle, Stead & Co., on the second Monday in each month. Our membership being small, we have not been able to make a great stir yet, but intend to do so as soon as funds will warrant.

We had our agricultural show here last week, and a more miserable day for "the people's day" we could hardly have had. The adjacent hills were snow-capped when the day broke, and all day long it continued very cold, with a strong gale from the south-west, accompanied with heavy cold showers. Notwithstanding this, the association had a stand on the grounds, where modern frame hives were exhibited alongside of a primitive one, with the orthodox rotten sack on top, crowned with a sod, and the usual accompanying ventilating holes. An observatory hive attracted a deal of attention as is usual, but the cold prevented much being done by way of explaining anything in connection. Talking to the average farmer about bees is not an extra fascinating job, given all the surroundings salubrious, but with one's teeth chattering it seemed something like missionary work amongst the Esquimaux. Friend Morris also attended with his microscope, and exhibited as well as he could under the circumstances various apiarian mounts.

The December *Journal* has just arrived, and I cannot let this go without referring to "Lamb dearg Erin's" letter, and say "Them's my sentiments." Especially do I refer to his remarks about germs of disease being carried all over the country in the wax we use. That has been my impression for a long time, and as a result, in conjunction with Messrs. Brickell and Morris, I have been making some experiments with different germicides incorporated with comb-foundation, with a view to always have present surrounding the larvæ some germicide of sufficient strength to destroy all spores, and yet of a nature that will in no way hurt the bees, or prevent them drawing out the foundation as freely as without. By a strange coincidence, L.D.E. has mooted the same idea, and I see you have agreed to take it up with phenol. I hope heartily that amongst us something may be done to make our modern system of beekeeping proof against bacterial invasion. The proposed machinery of the law is far too cumbersome in one sense, and inadequate in another.

Foul-brood or some other kindred pest is rampant from the North Cape to the Bluff, and to talk about wiping it out with the Government mop is to me too much like the proverbial old lady at the seaside, and likely to be just about as successful. Our modern system has control of comb-building, swarming, queen-rearing, dampness and its attendant ills, moth, etc., etc., and so it will of disease. It's only a matter of time, and the preventive will be forthcoming. "All things are for those who wait." "And pray, W.C.B., what are we to do who have it?" Well, friend, in reply, let me say,

don't be rash and burn up everything, but cure with phenol or perchlo hydrargyri; only, for goodness sake, don't say anything about it.

Dunedin, Dec. 6, 1887.

[Now, friend Brown, notwithstanding your quoting the proverb, "All things, etc.," and coolly suggesting that "it's only a matter of time and the preventive will be forthcoming," you must be fully aware that if anything can be done to prevent the further spreading of foul-brood, *it should be done at once*. We must not dilly-dally with the matter, with the chance of something turning up this month, next year, or at some indefinite period, perhaps after we have sung the requiem over the last of our bees. It has become too serious. Time has proved that when left to their own resources, beekeepers do not cure the disease, or even prevent its spreading, and the chief reason for this, as is well known, is the wilful carelessness of a certain class of beekeepers themselves. True, that we have control to a certain extent over comb-building, etc., etc., if we like to exercise it, but this is not by any means sufficient in dealing with disease. What we want is control over beekeepers, so that the careful and industrious shall not be entirely at the mercy of the careless amongst them. Given one diseased apiary under the care of a person who neither knows nor cares anything about foul-brood, and all the germicides you may use, or whatever steps you may take to guard your bees from it, will not prevent them becoming infected if within a mile or two of the apiary, and all your trouble in trying to cure them will be useless under the circumstances. Since we haven't that control, and it is absolutely necessary for the general welfare of beekeepers that we should have, how shall we get it but by legislation? No rational person could expect any Government measure of itself to wipe out the disease, but such an one as we have suggested would be of great assistance, and without it we are utterly powerless to deal with foul-brood.—ED.]

Occasional Notes.

No. 2.—SHAKESPERE ON BEES AND HONEY.

(Continued.)

BY T. J. MULVANY.

TURNING from honey to the bees which produce it, we shall find many significant illustrations of the ideas prevalent in Shakespere's time concerning the economy of the hive. From the earliest ages people had observed the wonderful industry, order, and division of labour exhibited by bees, and their apparent devotion to a "leader;" and from the times of Aristotle and of Xenophon down to the end of the last century, very exaggerated ideas were entertained of the strict system of "government" of this leader, sometimes called a king, sometimes a queen, who was supposed to regulate, as it were by direct orders and supervision, all the varied operations of the workers which we now know to be guided by a still more wonderful instinct implanted in those insects themselves. The most complete exposition

of these views as held in Shakespere's time, is to be found in KING HENRY V., where the *Archbishop of Canterbury*, holding up the government of the hive as an example to be followed by men, says:

"For so work the honey-bees:
Creatures, that, by a rule in nature, teach
The art of order to a peopled kin-dom.
They have a king, and officers of sorts;
Where some, like magistrates, correct at home;
Others, like merchants, venture trade abroad;
Others, like soldiers, armed in their stings,
Make boot upon the summer's velvet buds;
While pillage they with merry march bring home
To the tent-royal of their emperor:
Who, busied in his majesties, surveys
The singing masons building roofs of gold;
The civil citizens kneading up the honey;
The poor mechanic porters crowding in
Their heavy burthens at his narrow gate;
The sad-eyed justice, with his surly hum,
Delivering o'er to executors pale
The lazy yawning drone."

Act I., Scene 2.

The description given in the last three lines, of what we so often see enacted when drones are being "executed" in front of the hives, is a delicious piece of poetical humour. It is not so easy to follow the metaphors about the "merchants," "soldiers," and "poor mechanic porters." There is indeed nothing properly analogous to "trading" in any of the operations of the bees, and here the "soldiers" are made to do the foraging and bringing home of the pillage, which they are supposed to transfer to "porters" outside of the narrow gate; while we know that the whole of this business is done by the same worker bee. The real functions of the queen, or "mother bee," are quite ignored, although they had been fully recognised even by the Greeks and Romans, and the leader is here made a "king," who, like most of the monarchs of Shakespere's day, "busied in his majesties" and surrounded by "sorts," or gradations of officers and magistrates, presents a picture of a ruler rather ornamental than useful. In another place the "leader" is made actually to conduct the foragers to the field.

"Goth.—We'll follow where thou lead'st,
Like stinging bees in hottest summer's day,
Led by their master to the flower'd fields."

TITUS ANDRONICUS—Act V., Scene 1.

And the lax discipline of the Grecian general at the siege of Troy is thus censured by *Ulysses*:—

"When that the general is not like the hive,
To whom the foragers shall all repair,
What honey is expected?"

TROILUS AND CRESSIDA—Act I., Scene 5.

One of the most prevalent errors of olden times with regard to bees, and one that continued down to the close of the last century until corrected by Huber, was the belief that they collected wax, as they did the nectar of plants, and that the loads of pollen which they were seen carrying home on their legs were, in fact, lumps of wax. In the *MIDSUMMER NIGHTS' DREAM*, that wonderful compound of exquisite poetry and irresistible humour, there are two passages which may be quoted as illustrations of those two characteristics of the play. In the first of them we may remark that even the "Queen of Shadows" was no better informed as to the origin of wax than ordinary mortals.

"*Titania*.—The honey-bags steal from the humble bees,
And, for night tapers, crop their waxen thighs,
And light them at the fiery glow-worm's eyes."

Act III., Scene 1.

In the second passage, *Bottom*, who is enjoying his fool's paradise under the fairy spell, probably has the same idea about the "red-hipped bee," but his thoughts

are chiefly set on the honey-bags when he sends the attendant sprite on his errand.

"*Bottom*.—Monsieur Cobweb, good Monsieur, get your weapon in your hand, and kill me a red-hipped humble-bee on the top of a thistle; and, good Monsieur, bring me the honey-bag. Do not fret yourself too much in the action, Monsieur, and, good Monsieur, have a care the honey-bag break not. I would be loth to have you overflowed with a honey-bag, Signor."

Act IV.

In ALL'S WELL THAT ENDS WELL, the sick king, who feels himself no longer equal to the discharge of his duties, and longs to lay down the burden of his crown, says:

"Since I nor wax nor honey can bring home,
I quickly were dissolved from my hive,
To give some labourers room."

Act I., Scene 2.

And again, in KING HENRY IV., *Part II.*, we find:

"*King Henry*—When like the bee, culling from every flower
The virtuous sweets;
Our thighs packed with wax, our mouths with honey,
We bring it to the hive, and like the bees,
Are murder'd for our pains."

Act IV., Scene 4.

(*To be continued.*)

Correspondence.

REVIVAL OF THE NEW ZEALAND BEE-KEEPERS' ASSOCIATION.

TO THE EDITOR OF THE AUSTRALASIAN BEE JOURNAL.

SIR,—The November number of your journal has just reached me, and in glancing over its pages my eye caught these words in your foot-note to "Lamh dearg Erin's" letter, "Can we not at once revive the New Zealand Beekeepers' Association?" Now this is exactly what I have been wishing lately, and I can assure you Mr. Editor, if the revival of the Association and its after success rested with me, it would rise from its ashes at once.

Provincial and other associations may be all very well for spreading a knowledge of the art of beekeeping, but to deal with questions relating to bee legislation, the adulteration of honey, putting a stop to the spread of foul-brood, etc., the united exertions of all the beekeepers in the country is needed. It seems hard that our young industry should languish for the want of being properly looked after and protected, and I believe a strong Association would do all this for us. Let New Zealand apiarists then do all in their power to remove the reproach of inaction which we certainly earn by allowing the present state of affairs to go on. For my part I think there is no one better able to set the ball rolling again than the Editor of our paper. A prospectus published in the *Journal*, showing how the Association could be worked, and calling for the assistance and opinions of beekeepers, would, I imagine, be the first step. The subject could then be thoroughly ventilated, and a list of intending members could be drawn up.

I am much obliged to "Lamh dearg Erin" for answering my query regarding poppy honey. A lady told me a few days ago that she had sown some poppies for her bees, and I asked her to let me know if there should be any evil results.

The following are a few notes relating to bee forage on the Otago Peninsula. If worthy of the room they are likely to take up pray insert them in the *Journal*.

BEE FLORA ON OTAGO PENINSULA, 1887.

Kowai came into flower first week in September. Plums blossomed first week in September. I saw the first heads of clover (Dutch) on the 28th September. It did not come out at all thick, however, until the middle of November. Wild clematis first week in October. Hawthorn came in third week in October. Marsh mallow in the middle of October. I saw the first blue gum in flower on the first November, and both kowai and native

fuchsia are just beginning to fail, the latter having yielded quantities of both honey and pollen during the last two months.

Yours truly,

C. B. MORRIS.

Fernbrook Apiary, Otago Peninsula,
November 18, 1887.

[Quite correct. There should be a National Association to deal with such questions as you mention, and we shall be happy to give our time and attention to the matter, if we find beekeepers willing to give their support. We may mention that since our last issue we have received several communications in favour of it, and names of those willing to give their support. It now only remains for every one desirous of becoming members to send in their names as soon as possible, so that we may be able to form an opinion as to whether or not it is worth while to take action. The Association, we suppose, would be worked somewhat on the same lines as the old one, with a president and a committee of ten or more, and corresponding members in the various centres of beekeeping, all elected annually. Its objects, of course, would be to deal principally with questions of a national character, so to speak, and its meetings should take place at least once a month. A reference library should be got together as early as possible, and all the best bee periodicals should be filed at the office of the Association for the information of the committee or any of its members. We would suggest keeping to the old membership fee of 5s, though we should require a good roll of members at that sum before there would be sufficient funds to undertake much necessary work. Perhaps some of our readers will act on your suggestion and give their views.—ED.]

TO THE EDITOR OF THE AUSTRALASIAN BEE JOURNAL.

SIR,—I am glad to see that an effort to revive the Beekeepers' Association is talked of. It may be that it is somewhat premature to think of starting it at once, still, when there are so many and such important questions requiring the attention of beekeepers, it will be unwise to delay its operations too long. It will be necessary in any effort at establishing an Association to avoid that excess of zeal which might establish two or more where only one is required, and where there is not more than sufficient material for one.

Institutions of this kind have many drawbacks in this country. The small number of beekeepers at any given point, and the inconvenience and cost of getting a meeting together, are the chief difficulties. These must for a time, at least, lessen the benefits of such institutions to many of our best beekeepers, and cause them to ask the question, Of what advantage can an Association be to us? The answer can best be given by a consideration of those questions to which it would require to give attention. These are many, and some of them important, but there is one of special importance which is now forcing itself upon the attention of many of the beekeepers of this and adjoining colonies. I allude to foul-brood. I have received information from many parts of New Zealand of its existence, and of serious damage which it has done, and is still doing. It is a most destructive complaint, and exceedingly difficult to contend with. It is known in many parts of Otago, Canterbury, Nelson, and the North Island. I have not heard of it so much north of Auckland, as in the vicinity of Auckland and to the south of it, and it may be that it is not so severe in the warmer parts of the North as in the South. At all events, it is sufficiently distributed over the colony to show the importance of concerted action in seeking a remedy as well as providing against its spread to districts not yet affected. It seems to me that it will be necessary to resort to legislation before a satisfactory solution of the question can possibly be arrived at. If the disease makes its appearance in a district, it will be of little use one person taking steps to cure it, unless his neighbours whose hives may be affected do likewise. To legislate upon a question of this kind in such a manner as to provide the necessary authority to ensure proper

action being taken, and at the same time not inflict hardship on individuals, will not be an easy matter. It will require the combined wisdom and experience of the beekeepers of New Zealand and their friends to do it, but if an Association can assist in bringing this about, it will be worth the while of every beekeeper, however isolated, to assist in doing it. I think, Mr. Editor, that the success of an Association in the Auckland Provincial District will depend very much upon the exertions of yourself and the other beekeepers resident in and around Auckland. I shall be glad to render such assistance as I can, and I doubt not that others like myself at a distance from the centre of operations will do the same.

I am, etc.,

L. J. BAGNALL.

Turua, December 17, 1887.

[Many thanks for your offer of assistance. We have now a number of practical beekeepers in and immediately around Auckland who have promised their aid should the Association again be started, which, together with prominent beekeepers like yourself, Mr. Mulvany, and others who would only be too glad to give advice and support, there would be no difficulty in securing a strong managing committee.—Ed.]

remedy is excellent, it cannot be surpassed. But I cannot make the bees eat the burnt bone yet. Neither will I destroy frames full of pollen. Last winter when feeding, I used a good deal of flour. This the bees had not used up, but deposited in the cells, and there it became worse than useless. A few days ago I hived a swarm, and being just short of frames, I gave one of the frames full of flour to the swarm. The very next morning the floor-board was literally strewed with the white pellets which the bees had extracted in one night, and the frame was perfectly clean. The season commenced very fine with us in the beginning of October, and I thought I should be able to extract very early. But cold and showery weather came on again, and now in the middle of November the bees have less honey than they had a month ago. But the weather is improving, and as the gums are nearly all in full bloom, there is every reason to believe that we shall have a plentiful supply of honey this season.

Yours truly,

H. NAVEAU.

Hamilton, Victoria, November 18, 1887.

[Kindly let us have further reports of the result of the new treatment.—Ed.]

BEEKEEPERS' ASSOCIATIONS AND FOUL-BROOD.

TO THE EDITOR OF THE AUSTRALASIAN BEE JOURNAL.

SIR,—I am strongly in favour of your suggestion that a petition should be sent to the House on the subject of foul-brood. One of the Southern members last session asked a question on the subject, saying that it was almost impossible to go on with the industry, but nothing seems to have come of it. The petition should certainly be made by an association, and I hope no time will be lost in reviving the Beekeepers' Association. Meantime I would suggest that you publish in the *Journal* a draft of the proposed petition, which could be copied on a sheet of paper, the signatures of the beekeepers in each district obtained, and the sheet forwarded to you. I shall be glad to act for my district.

MELBOURNE EXHIBITION.

I observe it is proposed to get up a large Australasian exhibit. I have already applied for space for a small exhibit and sent to England for suitable jars and envelopes for comb honey. The objection to a general exhibit is that it does away with competition. Now, I want my New Zealand honey to be brought into comparison with the Australian article and help to maintain the credit of the country, a thing it is badly in want of.—I am, etc.,

GEORGE STEVENSON.

Tarahene Apiary, December 6, 1887.

[It would, we think, be much the best to have slips with printed headings of uniform appearance for the signatures, and as there now seems to be some prospect of the New Zealand Beekeepers' Association being revived, we would rather leave the matter to that body, otherwise we shall be glad to do all we can individually.—Ed.]

McLAIN'S REMEDY FOR FOUL-BROOD.

TO THE EDITOR OF THE AUSTRALASIAN BEE JOURNAL.

SIR,—I was waiting a long time for the fourth number, but when the *Journal* came to hand it was the fifth, so I evidently have missed one. However, it was welcome, particularly on account of the articles on foul-brood. As I had several hives affected again, I set to work at once to mix up the preparation advised by McLain, but to my taste it was far too strong to give to bees, so I reduced it considerably and then made a trial. The next morning after I had given it I passed the first hive, and oh, how sorry I was! I had killed several thousands of bees. It was too strong still. But I do not mind that now. The

Queries and Replies.

QUERY.—*Hives with Honey Boards.*—Would the following be a good plan of constructing Langstroth hives instead of rabbeting the top and bottom of hives for tiering up? Make a honey-board of slats one-eighth inches thick, making the outside rim seven-eighth inches deep, the board to be nineteen inches long and fourteen and a quarter inches wide. This is to rest on top of frames, the rim projecting three-eighths over top of hive. The inside of the bottom of the end of the hive has a rabbet taken out three-eighth inches deep by a quarter inch wide, allowing the super to fit on the honey-board, which keeps the super in position and prevents it being blown off. I find great difficulty in making hives neat enough to be entirely practical with the rabbet all round, besides making the hive very weak at top and bottom with the above plan. The hives need not necessarily be so minutely made and be at the same time stronger, but there would be some trouble and expense making honey-boards. Are they necessary or indispensable? Is the system of broad frames the best known method of raising comb-honey?—NOVICE.

REPLY.—If we understand you correctly the seven-eighth inch rim you mention is to project outside the hive, otherwise it would raise the super too high above the inside part of the honey-board unless the lower part of the frames of the super were flush with the bottom of super. There should not be more than a bee space (three-eighth inches) between the honey board and frames or between the upper and lower frames when no honey-board is used. There is nothing to prevent you making your hives flush on the bottoms, but they should be made very neat to fit close to prevent robber bees or insects entering at the joints. A couple of buttons could be screwed on to the upper parts to prevent the supers shifting. We are not in favour of using honey-boards; we have tried them and given them up for reasons we have often explained. All things considered the broad-frame system is the best for raising comb-honey. We have tried different kinds of crates, in fact, about every one that has been invented, but greatly prefer the method of tiering up half stories.

QUERY.—*Can bees convert sugar syrup into honey?*—Thanks for insertion of my query re bees making honey, or only gathering and storing it, and your reply thereto, to which I assent. But another question now arises. It being a fact that nectar and cane sugar are chemically identical, the former in addition partaking often of some of the characteristics of the flowers, how is it that bees fed on cane sugar syrup do not convert it into honey in storing it, "but simply store syrup?" Vide oft repeated

statements to this effect in our various bee literature.—
NECHTAH.

REPLY.—Nectar and cane sugar are not identical, according to Professor Cook (see page 38, October *Journal*). We have not seen it authentically stated whether sugar syrup does undergo any chemical change or not while passing through the bee's stomach. We are inclined to think it does to some extent, but even so, it would, in our opinion, be devoid of those peculiar qualities, whatever they may be, that go to make up honey.

QUERY.—*Benefits from Associations.*—Can you, or rather will you be good enough to put down in order what you consider should be the available benefits that local association should be able to offer to people at a distance? Associations in towns I am convinced can never flourish with a membership of a score or so of townspeople owning a few hives "just for pastime." What is wanted is a good roll of country members owning their 50 to 200 colonies or so apiece. Now you are a member of our Association (many thanks), but what return do you think we ought to be able to offer you for your 5s.? (Of course you'll understand I'm only using you as a case in point.)

Or to put it another way—The life of an Association consists mainly of a large roll of members keeping bees for the sake of profit. What means are best adapted to attain this end? This applies equally I think to the N.Z.B.A. So if you can unravel my question and answer it, I think some good may be done.—W.C.B.

REPLY.—There are no doubt difficulties in the way of establishing Beekeepers' Associations at the present time, but none so great, we believe, but may be overcome by tact and perseverance on the part of the management, but more particularly the Secretary. On him chiefly devolves the getting together a good roll of members, plotting out the most important business for consideration, and bringing it to a satisfactory conclusion. The chief centres of population are the only places where there are facilities for successfully carrying out many of the objects of an Association, and therefore the best places for establishing them.

With regard to the benefits that distant members should derive from an association, they should learn from time to time, through the Association, the state of the local honey markets and the prices of honey. The Association should see to reduction of freights for carriage of honey and honey empties to and from the markets and country districts to lowest possible rates, advise its members as to the most suitable packages for the local markets, and make arrangements whereby they could obtain them at the lowest prices, and this should apply also to hives, implements, &c., required by members. Arranging for the publication and distribution of leaflets on the uses of honey; arranging and conducting honey shows. In fact there are no end of ways that an association could make itself useful to distant members that would more than repay the latter many times over the small outlay in the way of membership fees. It is just this very thing, the want of a little thought over the matter, that prevents the majority of our beekeepers acting as their own good sense would otherwise dictate. We shall refer to this in our next.

FOUL-BROOD—REPRESSIVE LEGISLATION IN SOUTH AUSTRALIA.

We are glad to learn that a Foul-brood Bill of a repressive character has been introduced into the Parliament of South Australia, and is receiving influential support. At a meeting of beekeepers, held at the Chamber of Manufactures, Adelaide, in November, the Hon. Dr. Campbell, M.L.C. in the chair, it was unanimously decided to draw up a petition for presentation to the Legislative Council, in favour of the passing of the Foul-brood Bill now before that House. It was also agreed that a petition should be presented by the S.A.B.K. Association, explaining the nature of foul-brood, its effects upon the industry of beekeeping, and the unanimous desire entertained by members of the Association in favour of remedial legislation. We have already taken steps to get a copy of the Bill, which we shall publish.

Extracts from Foreign Journals, etc.

THE MEDICINAL VALUE OF HONEY.

The *New Zealand Farmer, Bee and Poultry Journal* for October contained the following:—

"In connection with Mr. Hopkins' paper on honey as food and medicine, we have received the following letter:—'I do not think you will object to a little testimony as to the value of honey which I think I can fairly afford. Prior to coming to New Zealand it, as an article of diet, was to me (and to many thousands it is so also) strange and a luxury. A friend being fond of it led me to commence its use also, and now I rarely sit down to any meal without its being on the table. For a good many years past I have suffered more or less, as most addicted to sedentary habits do, from constipated and irregularly-acting bowels, and from sub-acute rheumatism—a family failing; since taking to honey as a regular article of diet, I have found the bowel trouble disappear, and scarcely a twinge of my old rheumatic trouble, despite my paying less care in regard to damp, etc., than I have done. There is little doubt in my mind that simplification of diet and trusting to many of mother Nature's productions, would render people much more healthy and less dependent on pills and potions, the first of which containing too often aloe in some form or other tends to increase, if not directly cause, the great suffering from piles, so common a trouble here. Do not let me be misunderstood as claiming that honey cures rheumatism; but what I do attribute to it is a cleansing action and laxative, and thus clearing away much matter from the system, whilst to sweet tooth supplying that want without the great risk of too great acidity. I may also add coffee, of which I am fond I have also well nigh given up, it clearly causing me an increase of pain and uneasiness when under a rheumatic attack. This I have found the experience of a friend. Let the people have honey at a reasonable rate—pure honey—and I believe it will obtain a fast hold as a common every day diet; but don't load it with 50 or 100 per cent. cost for vending and the package.—JOHN CLARE, Analytical Chemist, Auckland."

HOW CLOSE MAY BEES BE SET TO THE HIGHWAY WITHOUT BEING A NUISANCE?

This is a question which is frequently asked, and there are some who are under the impression that it is necessary to keep bees a distance from the road in order to prevent them becoming troublesome to passers by. This depends entirely on the surroundings. Bees may be placed within five feet of the public highway without interfering with travel or troubling anybody, or, they may be one or even two hundred feet away and yet be troublesome. If there was no fence in front of the hives, and the bees could fly to and fro very low, a horse tied at the fence or passing along the road might be stung by them. A fence, say 8 feet high, or trees planted so that it would be necessary for them to rise up from the hives and pass over the obstruction, or in towns or villages, if they were placed in a yard where they would have to fly over the house-tops, they would never interfere with anything on the street, but it is only where they fly straight out from the hives and keep low that any danger is to be apprehended. We have had from one to five hundred colonies in one apiary in the centre of a village, and have run within a few feet of the street on the south and east, and though millions of bees were passing and re-passing for weeks, months, and years, yet we have never known

a horse to be stung. In one or two instances men have been stung on the street. We recollect on one occasion when the bees were coming in from the fields heavily laden, the wind blowing against them kept them very close to the ground, and they would rise up to surmount the fence just before flying down to the hives. One alighted on a man's face, in fact, on one of his eyes, and he, closing the optic quickly, caught the bee by the feet, and caused it to sting. In order to satisfy the party that it was his fault and not the bee's, that is, had he not shut his eye, catching the bee's feet, he would not have been stung, we stood where they were flying so thickly that one would almost fancy a swarm was coming into the yard constantly, and, being so heavily laden, many of them would alight on us. We have had several on our face at once—some on our head and some on our hands and sleeves—and they were so tired out with the heavy load that they were bringing in against a strong wind that they did not attempt to sting. After the matter was fully explained that the bees only stopped to rest on us he was satisfied, after watching them resting and passing on to their hive, that there was no danger so long as a person did not pinch or interfere with them. We have frequently had visitors in our apiary wondering if the neighbours were not stung by them, some even asking how could people live in the village where there were so many bees; but after explaining the matter fully they could readily see that they were not man's enemy but his greatest friend. Where a person intends to keep bees very close to the public highway it is advisable to have a fence, or trees, or other obstruction to their flight to cause them to rise up high in the air, and to pass above persons on the thoroughfare. It is not necessary that the fence should be absolutely tight, because they are not inclined to fly through small cracks or crevices, but always rise up until they have an unobstructed view, and although the cracks are sometimes over a foot in width, we always find them passing over the top. Where a fence is not high enough, a few four-foot laths six inches apart, and a strong strip along the top would cause them to pass over. Although keeping our apiary so close to the road for the last fifteen years, we have arranged and located our bees about fifteen rods further back in a more secluded place, but should have no hesitation at any time in placing them within a few feet of any public highway, and feel confident that they would give no trouble to any person when the surroundings were as they should be.—*Canadian Bee Journal*.

FOUL-BROOD.

OUR EXPERIENCE CONFIRMED BY E. R. ROOT.

A WEEK or two ago our readers will remember what was said about foul brood, when we expressed ourselves as satisfied that, all in all, the "fasting" plan was the "quickest, safest, cheapest, and most perfect treatment that we have been able to find," and in the last number of *Gleanings*, page 832, November 1, Ernest R. Root, who has had much experience

the past two seasons, confirms what we have said. We reproduce what he says, as follows :

D. A. JONES' ISOLATED FOUL-BROOD APIARY FOR EXPERIMENTAL PURPOSES.

"From the *Canadian Bee Journal* of October 26, we are informed that our energetic friend Jones, the past season, established an apiary in an isolated locality for the purpose of experimenting with foul-brood. The location is ten miles from his home, and a man is kept in the hospital yard the entire season, during which time it is visited frequently by friend Jones. Amongst other things, in speaking of carbolic acid in treating foul-broody colonies, he says :—'It seemed to entirely prevent the spreading of the disease, but it did not seem to cure it, although it apparently did not increase, and in many instances appeared to decrease; and from appearances we should not doubt that, commencing this treatment early in spring, and continuing it all summer, it might be cured; because where the spraying of the combs and bees was carried on and phenol given, the bees were more inclined to clean out the dead larvæ; but it does seem like a waste of time, as far as our experiments have gone, unless it is to prevent the spreading of the disease.'

"The italics are mine. The facts, as stated above, agree exactly with my experience; and at different times I have mentioned the fact that, while carbolic acid failed to cure the disease, yet it evidently prevented its spread. This is sustained from what I am able to gather from correspondence, and from both American and foreign journals. In some cases I have seen reports where it effected an absolute cure. Certain it is, out of a great many colonies I could not cure a single one by spraying with carbolic acid alone. Though repeated sprayings were administered the whole season, sooner or later it became evident we should have to go back to the Jones' plan, which we did at last. In the same article, friend Jones says further:—'The fasting plan, in our experience, is the quickest, safest, cheapest, and most perfect treatment that I have been able to find.'

"You are just right, friend Jones. The only plan which I have found that would effect an absolute cure in a short time, is your plan, or, at least, one embodying the fundamental principles of it; but if foul-brood should break out in our apiary next spring, I would use the fasting plan, or a modification of it, accompanied with the use of carbolic acid—the latter to keep the disease from spreading, and the former to wipe it out."—*Canadian Bee Journal*.

HOW MANY COLONIES TO THE SQUARE MILE.

MR. J. W. PORTER, of Charlottesville, Virginia, writing in *Gleanings*, under date October 5th, says : The season has been a remarkable one here—never so poor; though bloom in orchard, field, and forest was abundant, very little nectar was secreted till the last week in June, when the season for surplus honey usually closes; then until after July 15th we had a good flow of honey. My own average will be

40lbs. of surplus to the hive for 100 colonies, spring count. The quality is very fine, largely from blue thistle.

OVERSTOCKING.

The old question, never yet settled, and one, perhaps, like some others, never to be fully settled, will again present itself—stocking and overstocking the field. It is when we have such seasons as the present that we realise what overstocking is. How many bees may be kept profitably upon a given field is no more decided, and, we may say, no more to be decided, than the much-debated one touching the profit of deep ploughing, and for much the same reasons. Widely variant reasons so affect the secretion of nectar, that, setting aside the very important question of management, the results of the season's work are in no wise conclusive as to the point at which any given locality is overstocked.

Somewhere we have read, that in Europe as many as 6,000 colonies have been kept in one square mile of land; but no mention is made of the produce of these colonies. Who can report the largest number of bees to the square meal in America? It will be interesting in many ways to have some comparison of localities by reports from all sections.

We know of no greater number than 200 so kept in Virginia. Every observant apiarist knows that there are seasons when it seems that the supply of nectar is exhaustless; that, have as many bees as we may, all are employed from dawn till dark in ceaseless movement.

It will be a matter of interest to know if as many as 1,000 colonies are kept on any one square mile in America, with profit to their owners—this without regard to the range inside of the mile. It is true that four apiaries may be one mile apart, and on the four corners of a square mile; but even then have we any such localities? Can any reader of *Gleanings* report as many as that ever profitably worked?

Friend Manum, at Bristol, Vincent, who made such a splendid record one year, with his product of 36,000lbs., was obliged the year before to feed 6,000lbs. of sugar to winter his stocks. One year he was surely over-stocked. He had bees in five localities not many miles apart. Let us get into the statistics, and see what they will show.

"BAGNALL'S COMBINED SMOKER.

We have been presented with what we consider a perfect smoker made by Messrs. Bagnall Bros. & Co., of Turua. On page 175 of the *Australasian Bee Manual* it will be seen that after comparing the merits of Clark's cold-blast and Bingham's direct-draft smokers, we made the following remark: "Could the principles of the two be combined in one I think it would make a perfect smoker." Now, this is just what has been done in "Bagnall's combined smoker," and we do not see that anything more could be desired.

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volume of smoke the latter was kept quite cool by a rush of cold air into it with every puff of the bellows. We strongly recommend it to every one requiring a first-class smoker.

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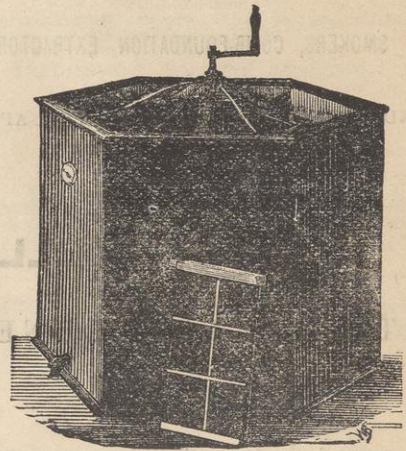
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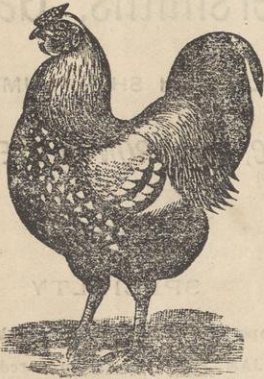
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