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**Beekeepers'
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Mr. F. A. Johnson's Apiary on the famous Hauraki Plains.

ISSUED MONTHLY
FOR
THE NATIONAL BEEKEEPERS'
ASSOCIATION OF N.Z.

May 1, 1920.]

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The New Zealand Beekeepers' Journal

The Official Organ of the
National Beekeepers' Association of N.Z.

No. 5

VOL. 4

5/- PER ANNUM.

National Beekeepers' Association of New Zealand.

The object of the Association is the improvement of the Beekeeping Industry and furthering the interests and prosperity of the Beekeepers throughout the Dominion. Membership is extended to any Beekeeper who is in accord with the aims and objects of the Association on payment of fees as follows:—1 to 15 Hives, 5/-; 16 to 50 Hives, 10/-; 51 to 100 Hives, 15/-; 100 to 200 Hives, 20/-; every additional 100, 5/- extra.

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All communications respecting the Association and Journal to be sent to

FRED C. BAINES, Kati Kati.

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EDITORIAL.

We want to draw the particular attention of our readers and friends to the fact that this Journal is the official organ of the National Beekeepers' Association of N.Z. What is the Association and what does it stand for? This is briefly set out under the heading of this page, and we want to emphasise the claim the Association has for the support of all those engaged in the industry.

The beekeepers of the country have been organised for about ten years, but the

National under its present constitution was started in 1912.

Every year since then a conference has been held in Wellington, where the beekeepers have discussed the various questions relative to the well-being of the industry.

It was in 1914 that our marketing problem was just being tackled by the formation of the Honey Producers' Association, and although this Association is quite separate from the National, there can be no question that had the latter not been in existence, the former could not have made the headway it has. Therefore the National is primarily responsible for the solution of the satisfactory marketing of our honey.

The National was instrumental in getting ten-acre sites set apart for apiaries on all new lands thrown open for settlement.

The National recommended certain amendments to the Apiaries Act, which were accepted and became law.

The National in 1914 passed a resolution calling upon the Government to establish a queen-rearing apiary on commercial lines. This eventuated last year.

The National in 1914 secured a reduction in freight on Section Honey, saving the beekeepers 33½ per cent., and a deputation waited upon the general manager asking for a reduction on extracted honey.

The National in 1915 urged that the registration of apiaries be brought into force. This has been done.

The General Manager of Railways was again approached on the question of freight on honey.

The Government was urged to appoint two more inspectors, etc.

There is no need for us to further enumerate the many efforts made by the National to protect and further the interests of all those engaged in the industry, and we just want to ask whether you are a member?

If not, we hope our showing of a small part of our work for your good will prompt you to become one of us. In these days of organisation and co-operation, the individual element is practically lost; if reforms on any matter appertaining to trade, farming, and other branches of industry are required, they can only be secured by organisation.

When the National Executive goes to the Government with any request, it goes as representing the beekeeping industry, and as such the proposals are listened to and the recommendations often given effect to. Were these made by an individual, be he the finest beekeeper in the land, we venture to assert he would get very little help.

Therefore we hope that all those who are not members will join up at once, as the financial year ends on May 31, and we particularly want to be able to lift the whole of the Government subsidy of £100, which is £ for £ on all monies subscribed by members. We have a long way to go yet to make up the amount. So please help.

The Conference.—As stated last month, this annual event will be held at the Y.M.C.A. Hall, Christchurch, on June 9, 10, and 11. We shall be very pleased to receive offers to read papers of interest.

There seems to be an idea that the Executive run the conference. This is quite wrong. The conference is arranged for the benefit of the whole industry, and it is the business of everyone to help to make this function a success. If those who are capable of assisting do not come forward, then the Executive cannot be blamed. Therefore we appeal for papers on matters of interest.

Will those intending to assist please let the secretary know before the 20th inst., as

the programme of the conference will be printed in next month's Journal.

We have received a number of requests for badges of the Association from those who are not members.

It must be understood that these are badges of membership of the National, and can only be supplied to bona fide members.

The crop report cards have started to come in, but the majority of those who received them either have not finished extracting, or else have not troubled to fill them up. We shall appreciate the early return of these cards.

Will all the members who subscribe direct to the general secretary please send their subscriptions immediately they read this. We must collect that £100 from the Government, and the amounts must go through our books before the 31st inst. The slogan "Do it now" applies here very well.

Our esteemed correspondent, Mr. E. G. Ward, is taking a brief spell after a strenuous time, which accounts for the absence of the welcome "Canterbury Tales." These will appear again shortly.

It is always interesting to see ourselves as others see us, therefore Mr. W. S. Pender's impressions of New Zealand beekeeping will be read with interest. This article is taken from the Australasian Beekeeper.

Market Reports.

The Director of the Horticulture Division has received from the Apiary Instructors the following reports concerning the honey crop prospects:—

Auckland.—There is little to report since last month. Crops are light on the whole, and the honey somewhat darker than usual. Prices remain unchanged, bulk honey from 7d to 8d, and wax 2s 3d per lb.—G. V. Westbrooke.

Wellington.—Extracting operations are now almost completed, and granulated lines are arriving at the various grading stores. Generally, the crop is up to the average and the quality is equal to any previous crop of high standard New Zealand honey. My last month's report indicated the districts of supply. Beeswax, 2s to 2s 6d per lb, according to the quality. Sections scarce.—F. A. Jacobsen.

Christchurch and Dunedin.—The season is practically finished. Extracting is in progress in most districts, and beekeepers are busy putting bees into winter quarters.

A few consignments of honey have come forward for export. Prices are firm. Bulk honey is quoted at 8d sections 10s to 12s. pat honey, none forward.—E. A. Earp.

During the past month the honey market has been very slow, only retail sales being made. One hundred and thirty barrels Chilean Pile 1 at 92s 6d per cwt, Pile 2 at 85s per cwt, no Pile at 70s. Other kinds are retailing at late rates.

Beeswax.—This market is also quiet. Forty bags Chilean have been sold at £10 12s 6d to £11 15s per cwt. African is selling at £8 10s to £9 10s per cwt.—Taylor and Co.

Work for the Winter Months.

Note.—These questions are intended to form a programme for discussion at the winter meetings of the Branches.

The answers will be published later.

42. What is the approximate total number of cells in the comb of a well-filled frame, assuming all to be worker cells?

43. Should excluders be placed with the openings at right angles to or parallel with the frames?

44. What should be done when the presence of a laying worker in a hive is detected?

45. What may cause a hive to abscond after living?

46. How can the economy of supplying bees with comb instead of foundation be shown?

47. To what is the varying colour of beeswax ascribed?

48. Describe the wax-moth and the harm it does in a hive.

49. When in each year may drones first be found in a hive?

50. How does a newly emerged queen first employ herself?

51. From what sources do bees obtain pollen?

R: Excludes.—To our Hastings friend I would say: Don't feel equal to it at present; but instead of answering his question I feel inclined to ask him one: "What use are they?"

They would need to be a heap of good to me to justify keeping 400 of them in repair and carting them about.

To my mind honey is the best excluder. You cannot get your bees too strong before the flow starts, and when it does, if it does not shut down those queens, well it doesn't "start," that's all.

I would like to introduce myself to those bees that defy brushing, provided I had a good veil and smoker. Still, that may be a difference of opinion, as to how many stings are a fair thing.

Sugar.—I wish the beekeepers who advised the company that brown sugar was all right for bees had to feed it in large quantities in Taranaki.

I fed two tons in one season, but never again, unless it is positive starvation.

It is quite all right fed to strong colonies in small quantities, but weak colonies are not keen on it, and if it comes wet and cold weather it boils out of the combs. I speak of No. 3 Raw, which, I believe, is the article termed brown sugar.

Seems to me as if the shortage was labour and not sugar if we can have the unrefined article.

H. R. PENNER.

Okaiawa, April 17, 1920.

[We do not remember anything unusual happening when feeding that raw sugar you speak of, neither can we call to mind anyone complaining of it "boiling out of the combs." We fed two of sugar to one of water, and in many cases the bees sealed it in the combs.]

Excludes.—We were at one time quite as emphatic as our correspondent is on this question, but—well come to the conference and hear.—EORON.]

District Reports.

TARANAKI NOTES.

Extracting is practically finished, and the bees are being made snug for winter. Mr. Jacobsen has been through on an inspection tour, and finds the district fairly clean.

Mr. Allan's letter contains a lot of good matter on the depot system; but I am sure that accepting honey in liquid form would be a retrograde step.

It would encourage shareholders to extract a green article.

I think the Editor will bear me out, that in our district we could extract an article that would defy the hydrometer, and all liquid form tests; but which it would not be a fair thing to pass on to the company.

Great difficulty would be experienced in getting capable men to take charge of receiving depots for a short period, and at such a busy time for honey men.

AUCKLAND PROVINCIAL BRANCH.

Thames beekeepers please note.—A special meeting will be held in the Queen's Theatre on May 6, at 1 o'clock. All interested in beekeeping are invited to attend.

The annual meeting of the Branch will take place at the Bath Buildings, Hamilton, on May 20 at 11 a.m. A full attendance is required.

A. H. DAVIES.

HAWKE'S BAY.

The budget of remits framed by the Executive of the National were discussed lately in the local committee. One remit was immediately effective in that it called out the press-gang, and the services of the secretary were commended to supply local news. *Hinc hae lacrimae!*

And our tears will fall, for our district suffered a drought, not only in rain, but also in honey. In isolated parts there was actually a flow, but those places were either low-lying country where the dampness of the soil

made up for lack of rain, or up along the mountains where passing showers are inevitable. But on the whole, as regards commercial honey, we feel this year Hawke's Bay is down and out.

True, everywhere a little came in; but the canny beekeeper is keeping it in the hive for winter feeding. Several who decided to extract a few combs have found the honey too heavy, being mostly of the quality that is obtained from the eucalypti. As to the quantity of the flow, we can only say that no foundation we have put in since the middle of December is drawn out.

We also note here a great amount of foul brood and of wax-moth. We are told by beekeepers finding infected comb lying round about trees where some adventurer has been honey gathering. Another finds a been honey gathering. Another finds a neglected apiary, and all the hives without bees are full of the moth, and he surmises, and most likely he is right, that the hives with bees are diseased.

One more tear, and we have done. The H.B.A. and P. Society's Autumn Show is now past. The honey section was a lamentable failure. This section consisted of four classes relating to the honey industry, and the competitors all told numbered five. And more dismal still, our members were out-placed by a non-member who came some 50 odd miles to exhibit. What are the members of the Association doing to let this be? Rouse up, ye beekeepers, and hide not your light under a bushel.

We draw the attention of all Hawke's Bay beekeepers to the annual meeting next month. We want a big muster.

J. P. BOYLE.

WEST COAST BRANCH.

ANNUAL REPORT.

In presenting our first annual report of the West Coast Branch of the National Beekeepers' Association of New Zealand we do so with great pleasure on the strides this Branch has made.

The first meeting, convened by Mr D. T. Cochrane, was held in Ingall's shop, with no chairs and a leaky hurricane lamp. There were 16 beekeepers present, all of whom decided to form a branch of the National and become members.

To-day our membership stands at 50, showing that we are growing in numbers.

During the year much useful work has been accomplished. A deputation to the Minister of Agriculture for assistance towards visits from the Apiary Inspectors to these parts received his approval, with the result that in September we had a lengthy visit from the inspectors, and in November another from the instructor.

We will deal with their work later in this report. During the winter months indoor demonstrations were given by Mr A. Baty and Mr G. Dixon, and papers by various members, all of which proved very helpful, and much enlightenment on various subjects of great interest to the beekeepers have resulted from our discussions.

We feel indebted to our president, Mr A. Baty, for the valuable information imparted by his lectures.

On account of the number of box hives being kept in this district, our Association considered that some steps should be taken to deal with this menace to the beekeeper. Letters were sent to the Director of Horticulture, bringing before him the urgent need for the inspectors to visit these parts.

During the month of November Mr East, Apiary Inspector, paid us a visit, remaining on the Coast for over a fortnight. His work during this period has been appreciated by every beekeeper, as the information given has been of great benefit.

His demonstration to adults was attended by a large number, and also arrangements were made to give a demonstration to the school children, which was greatly appreciated. His visit extended from Reefton to Ross, and much good has resulted in cleaning up various apiaries.

Mr Dick, Apiary Inspector, paid us two visits—one in September and another in December—and much good has been accomplished, as over 80 hives were ordered to be destroyed.

During the summer we have held three field days, and thanks are due to the various beekeepers who placed their apiaries at our disposal; also to the various members for lectures and demonstrations on these occasions.

Special mention is made of the useful work done by the ladies to make our field days such a success.

A movement has been started to get a permanent inspector appointed for this district, and we feel sure that those who may be appointed to hold office during the coming year will not leave a stone unturned to see that our district is not neglected as has been the case up till the formation of our Association.

D. T. COCHRANE.

Hon. Branch Secretary.

Lecture and Honey Show.

The Christchurch Amateur Beekeepers' Club held the first of its winter lectures, and also its annual honey show, at the Y.M.C.A. on Saturday night. Mr E. E. Patten, vice-president, in the absence of the president (Mr L. Bowman), presided over an attendance of 35.

The chairman, in introducing Mr Sillifant, the lecturer, said that it was the third occasion upon which the members had been privileged to listen to such an experienced beekeeper. Each time they had heard Mr Sillifant, members had had detailed to them a different branch of the industry with that exactness borne of lengthy experience and close observation.

Mr Sillifant spoke on "New Zealand Honey," and in his introduction he referred to the suitability of beekeeping for women, and expressed the opinion that when beekeep-

ing came into its own it would be one of the Dominion's leading industries. The native flora of New Zealand was of very little use to beekeepers, as the flavour of the honey derived from this source was so pronounced as to be, in some cases, unmarketable.

Land clearance and the sowing of English grasses, including clover, had made beekeeping much more prosperous and profitable. Referring to Canterbury, he said that its clover honey could more than hold its own in any market in the world, and always commanded a high price.

People were finding out the many uses of honey now that sugar was denied them, and he ventured to say that many preferred this substitute.

On the motion of Mr P. Jack, Mr Sillifant was accorded a very hearty vote of thanks for his interesting lecture.

Mr Sillifant, at the chairman's request, judged the honey exhibits, of which there were 31. Mr Sillifant said that he had judged honey at the Canterbury A. and P. Association's Metropolitan Show, and the quality and quantity on exhibition that evening equalled the best on the show benches, the section honey being exceptionally fine. It was very gratifying to know that the whole of the honey was devoted to the soldiers at the Sanatorium, and he felt certain that no one deserved it more. The judge complimented Mr Peter Jack on his splendid exhibit of beeswax. The results of the judging were:—Light amber: Fowler 1, Mrs Mason 2, P. Jack 3; dark amber: Mrs McFedries 1, McDonald 2, Patten 3; granulated: P. Jack 1, Bliss 2, D. Sullivan 3; sections: Brown 1, P. Jack 2, D. Sullivan 3; beeswax: P. Jack 1.

The president of the Club (Mr L. Bowman) has promised to give certificates to the first and second prize-winners.



Wandering Bees.

WHO IS THEIR OWNER?

The vexed question as to the rightful ownership of bees which quit their hives, and are found by another man some distance away, was before Judge Gwynne James in the County Court at Bath.

James Batstone, of Fairfield, Bath, claimed £9 from Herbert Rummung, a neighbour, the value of a swarm of bees, which the defendant, it was claimed, had seized. Counsel for the plaintiff claimed that the ownership of the bees remained with the original owner as long as he kept them in sight. The case for the defence was that they were not kept in sight, and so ownership was lost.

The Judge said it had been clear for hundreds of years, under a law laid down by the Emperor Justinian, that a swarm of bees belonged to a man as long as they were in his sight, and could easily be pursued. Otherwise they became the property of the first person who saw them. This swarm had

not been in the owner's sight when it went from the hive, or when it was on its way to the hedge, 100 yards away, where it was found.

The law to-day was just as it was hundreds of years ago. If a man did not keep the bees in sight, they became the property of anyone who found them. Judgment would be for the defendant.

Correspondence.

[The publication of any letter does not necessarily imply our agreement with the subject matter, and we do not hold ourselves responsible for the opinions expressed by correspondents.]

(TO THE EDITOR.)

Sir,—Will you please try and find out if there is any basswood or linden trees (*Tilia Americana*) growing in New Zealand in the botanical gardens or parks, as this is the time the seed will be ripe. I should like to get some, as it is one of the best trees for producing honey, and as the timber is quite white and soft like white pine, it could be grown to make timber for butter-boxes, and also the small timber would be suitable to make frames for beehives, apple cases, etc.

I want to get some seed to plant on the West Coast as an experiment. I am of opinion it would be a suitable tree to replace the white pine that is being very rapidly cut out. If the Government could be persuaded to plant a few hundred acres, what a fine crop of honey it would produce whilst it was growing. As it is an ornamental tree, the borough councils of the various cities should be asked to plant avenues; a row of trees each side of a street in the suburbs would beautify the road and supply honey also.

If anyone can supply seed, please do so. If I cannot get any in New Zealand, I intend writing to America for some.—I am, etc.,

OSMOND BUTLER.

Kahikatea, April 17, 1920.

[We believe there are basswood trees growing in Fairlie, which were planted in 1900, and have done very well indeed. We suggest you write the Officer-in-charge State Nursery, Whakarewarewa, Rotorua, where you could probably get seedlings.—EDITOR.]

(TO THE EDITOR.)

Sir,—In February last I purchased 20 pure-bred colonies from the H.P.A., and took them to Otorohanga. Finding disease prevalent, I purchased locally all the bees I could lay my hands on, and half of the 26 colonies I bought locally I had to burn, as the disease was so bad, so that cost me over £12, and even now I am not sure the disease is all stamped out, and I have to go into winter quarters with 35 colonies.—I am, etc.,

WM. HEALD.

Raetihi.

(TO THE EDITOR.)

Sir,—Journal to hand to-day. In response to your inquiry re F.B. beekeeping here this the following:—I started beekeeping here this season by purchasing an established apiary, having worked the same apiary on shares the previous season. It is unnecessary to describe the condition of the apiary when I came, circumstances made it unavoidable; but one circumstance made it unavoidable, says: "called beekeeper, who lives near, says: 'Since Martin came and put so many Italian bees over there my bees have had no chance to get any honey, and what they do get his to give and take from them. Alas! After a good honest attempt to clean up some of the F.B., the bees did get to work, when all self-respecting bees should have been quietly staying at home. In the spring I afterwards found something else besides honey in nearly every hive. That fellow does not keep bees now, the Italians made a good clean up there."

I started an out-apiary last spring with nuclei, first carefully treating each by the approved method of starters first, followed by full sheets of foundation afterwards, using foundation only as required. Was it successful? I thought so until last week, when I again found a few cells in two hives. Of course, this was probably my own fault, although I do not think so. Still, on to foundation those 40 colonies go again next spring. The combs will be used at home that are already built out. One apiary, at least, shall be clean if that is possible in this district. A little bit of F.B. like that does not matter never makes a scrap of difference to the honey crop, says another beekeeper here. Perhaps not; but my schoolmaster always said the little things do matter. I agreed with him after we had a youngster born that howler for three months. It applies to F.B. also. It does not stay a little bit very long.

One of our instructors is reported as saying "If there is any excuse for the keeping of bees in box hives, it is only the orchardists that has that excuse. The bees being necessary for pollination purposes." We are in a fruit-growing district, but Mr Instructor together with a neighbour beekeeper, we are offering to supply and place upon the property of orchardists requiring them a number of colonies of bees free of cost, the said orchardist supplying the site only. It remains to be seen how many accept this offer. Still the box hive excuse has gone from this locality. It does not need to be encouraged in any way. Keep bees just how you like in a box if you want to, was the advice of another man, given in my hearing. The inspector does not come very often, and when he does come, he only warns you to transfer and if he comes again you can promise to sulphur them and save further bother. This man knew the kindly disposition of our inspectors, and that visits were rare. This district received a visit five or six years ago the instructor. I am sure, did his best in the time at his disposal; but how did that one visit benefit beekeepers here? A demonstration was held in the apiary. The orchard instructor held a demonstration in the orchard adjoining on the same day. A good crowd attended, being interested in one or both demonstrations. Several started beekeeping as a result. We are still reaping the results in buying up these beekeepers' (?) bees. I

paid £10 last week for one lot. One box hive and five alleged frame hives, no supers, and home manufactured, natural built combs, and the nursery of all the wax-moths ever hatched, judging from the hives and wood-work of frames. Still it is worth the money to get them out of it. Two other beekeepers had been buying bees. I sent word to them of this lot, offering at the same time to present them with six queens if they bought this lot, as it was really worth something to me to get them away. They did not buy. Neither should I if an inspector had been near; but what can one do? And what can we expect when even reputable hive manufacturers issue and send out for free distribution booklets containing such extracts as the following:—"In average seasons each colony will produce upwards of 80lb of honey; average yields as high as 200lb per colony are often reported in good seasons. Never mind that you have had no previous experience with bees. They will do their work in the orchard and gather crops of honey even when put into a hive and left alone all the season. Not that we recommend this course." Recommend it. I should think not. Such information is dishonest in this district where those books are being circulated.

I do not fear the box hive nearly so much as the tinkering sidcliner, with neither wax, press or extractor, who does not own a textbook or subscribe to a journal. But he knows all about bees. No beekeeper and no instructor can ever help these fellows to be real beekeepers. Clean them up and help the man who is trying and willing to learn. Let us get the Apiaries Act strictly enforced. Some of us will get a good shaking up in the process, and no doubt it would do us good, or somebody else. Is it feasible to raise a tax of, say, 6d per colony to help to pay inspectors? We simply must have them, even if we have to pay up ourselves. We can afford to pay inspectors better than we can afford to keep foul brood.—I am, etc.,

P. MARTIN.

(TO THE EDITOR.)

Sir,—Your foot note to my article on the question of packing honey for market calls for just a word or two. You controvert my statement that each beekeeper is a law unto himself in spite of regulations by saying that each beekeeper is not a law unto himself, he is bound by the department regulations. "Surely," you say, "the present regulations are simple enough; in fact, they could hardly be improved upon." Then in another sentence you admit, "No matter what system is eventually decided upon as being best, some men will be careless." To restate it, no matter what regulations you make some men will be a law unto themselves. Didn't you get just a wee bit mixed, Mr Editor? Thank you at all events for stating that the regulations are simple, that they could hardly be improved upon, that they give a minimum of trouble. Now you, or anybody else, can pay a visit to a grading store, and all I can say is that you must be very broadly constituted—far broader than you are, Mr Editor—if you can by any effort of imagination describe what you see there as a standard pack; and if by

any chance you should see the tins opened, you will be equally struck by the want of standard in the honey itself.

You further say "we do not think any shipment is a rebuke to the system." Just think again, Sir. It is only quibbling to blame the poor unfortunate whose bump of tidiness is only partially developed. It is not him, but our system that we are up against. No, Mr Editor, in spite of your criticism I do not believe individualism will ever give us either a standard pack, or standardise our honey. We must have co-operation.

Since writing the article we have had an H.P.A. meeting, and the further development of the depot system has been discussed. Mr Rentoul, our chairman, and to whom belongs the honour of first suggesting the depot system, is a very reliable leader. He suggests going slow and making sure of our steps. He further points out that the scattered position of our beekeepers makes the question of local control different in our case from what it is in the case of both the dairying and fruit industries, and therefore it requires both further consideration and experience. The prospect for next season is that the Auckland Depot in enlarged premises will be in a position to give co-operative blending and packing a fair trial in the north while similar premises taken in arrangement with the Timaru Harbour Board at Timaru will do the same for the south. Every commercial beekeeper in the Dominion will watch this development with great interest, and if successful, as we think it ought to be, will open up the way for still further developments in the days to come.—I am, etc.,

JAS. ALLAN.

(TO THE EDITOR.)

Sir,—I would fain submit the following bearing on Mr Allan's factory system proposals for the consideration of those interested. The system certainly looks attractive, but it has serious drawbacks, a few of which I would outline.

1. As it is impossible to tell on casual appearance what honey has been treated to eliminate the scum, all the honey received at the depots would have to be treated to some extent and allowed to remain in the tanks long enough for the scum to rise (the application of centrifugal force for this purpose has so far failed).

2. The uncertainty when the suppliers' milk cans can be returned. The heating of the honey would be most readily accomplished while it is in the suppliers' cans. In some cases it would be necessary to adopt this course on account of complete or partial granulation. This would take time. In a good district, and during a spell of fine weather, 20 tons or more may be received in a day, to be followed by a spell of bad weather when nothing would come in. Congested conditions are therefore apt to occur which it is difficult to provide against. A supplier with an average crop of 10 tons would require milk cans sufficient to hold five tons to be on the safe side.

3. The waste in labour. Most of the beekeepers can, and do, put up their honey in good exportable condition, and the only gain would be a saving of the grader's time. Are we called upon to nurse the department.

4. Pending the establishment of depots as proposed at each port, there would be an unjustifiable wastage in freight in shipping or railing honey, say, past Lyttelton to Timaru.

5. The increase in fixed overhead expenses would not be justified. A partial or complete failure of the crop would render it undesirable to keep all the depots going. I am assuming one at each port equipped with plant and staff to handle a good crop.

Our industry cannot, as you say, Sir, be fairly compared in every respect with either the dairy or fruit industries; but I think it not improbable that were Mr Allen's factories established that a situation would arise similar to what now exists in some dairying districts. In some parts of the Waikato, probably elsewhere, creameries, not butter factories, are being closed in favour of a return to home separation. Most beekeepers would, I think, prefer the present system. First, because on account of the lesser expense the net returns for their honey would be more; second, having tins and cases in hand or in sight for their whole crop there is no danger of extracting being held up owing to the non-return of milk cans.

It requires comparatively little plant or care to enable the beekeeper to place a honey on the market that will compare quite favourably and be quite undistinguishable from the best honey that could be turned out by the most elaborate factory system. The factory system would therefore make our competitors' task easier.

It appears to me, Sir, that we should take Mr Allan seriously, and that for the guidance of shareholders in recording their votes in the election of directors, the candidates for the directorate should publish their views on the matter.—I am, etc.,

H. W. GILLING.

(TO THE EDITOR.)

Sir,—I return to you herewith the crop report card received with the current number of the Journal. I don't suppose it is really intended for the record of such a small crop as I have, but as my small crop has been made still smaller by a bad attack of foul brood, and as this month you devote a lot of space to the subject, I thought that I would like to express appreciation of your remarks. I hope the powers that be can be induced to do what is useful to combat this disease which works such havoc as told in your report of what it has done to some of the leading bee men.

I destroyed two hives and "McEvoyed" my other two, and have since had some fine healthy brood hatch out, so I hope they are all right till they get another dose from wherever they got the last. I wish you every success in this "crusade" against the enemy. I would like to help, but being in so small a way, and a "beginner" at that, have little power to do so.—I am, etc.,

F. C. BAINS.

Bluff, April 11, 1920.

(TO THE EDITOR.)

Sir.—An experience I had this season may interest you. A colony threw off a swarm about mid-day. The swarm was hived and placed on its new stand about 20ft from the parent hive. About three hours afterwards I noticed what appeared to be a case of robbing at the parent hive. They were greatly excited, and were out in force to robbers, but there was no fighting. I could see no robbers, but to make sure I sprinkled a bit of flour about on the flying bees. A walk round the other hives soon located the trouble. A fair number of floured bees were entering the hive of the swarm. They were having a pretty free hand at robbing their old home, as the bees there could detect no difference between the robbers and themselves. A liberal use of carbolic and nightfall put things quiet again.

I suppose that those robbers thought they were justly entitled to a portion of the profits of their previous labours. Did you say Bolsheviki?—I am, etc.,

JAS. SMITH.

[We have frequently read of similar happenings, but have not seen that it was necessary to adopt measures to stop the robbing.—EDITOR.]

(TO THE EDITOR.)

Sir.—Kindly grant me a few lines re the suggested clauses in regard to apiary boundaries.

It appears to me that those who are so adversely criticising the clauses mooted by the committee in Wellington are doing so in a manner unworthy to themselves, and one is forced to believe that they are labouring under the delusion that it was intended to submit the said clauses to the House for confirmation as law, without revision or amendment. I take it that nothing was further from the minds of those responsible for the drawing up of the clauses, and that at most the clauses were only intended as a thesis on which to build, revise and amend. That being so, why all this useless criticism? Helpful criticism that will advance the proposition we want. When a man gets half way up a ladder with a load, don't go up and pull him down, help him up. And if you can't help him, don't hinder him by criticising the way in which he carries the load. If he gets to the top after a few blunders, well and good. If he doesn't get to the top there is no harm done, and he should be thought none the less of for having failed in his attempt. If at first we don't succeed, let us work together, and try, try, try again. We are bound to get there in the end if we apply such a proverb.

There is hope for the hopeful, and I fully believe that legislation will yet be framed that will be satisfactory to all concerned, excepting, of course, the transgressors.

Also the old adage, "Prevention is better than cure," is true, and we should not wait until legislation is actually needed; so let us not drop the matter as has been suggested by our worthy Editor. Don't forget, Sir, that you had an inspiration to air on the matter, and that it was published, even though it was the worst proposition yet put

forth. Now don't put the blue pencil through that line. You must confess that you did tie yourself in a knot, now didn't you? Never mind, your suggestions may help to solve the problem indirectly. So may other suggestions if you will agree to publish them.—I am, etc.,

KEEP ON TRYING.

April 7, 1920.

[Our correspondent pleads for helpful criticism of matters put forward with which we agree; but he hardly carries out his own argument when criticising our effort to assist with the apiary boundaries question. It is a pity we did not have the benefit of his criticism with the showing of the weak points before the Executive met, as he evidently sees in our suggestion something very different to that seen by an absent member of the Executive who wrote thus: "If the National is successful in getting these clauses embodied in the Apiaries Act, it will stand as a lasting monument of something accomplished of real benefit to established apiarists, and for the betterment and greater stability of the industry generally." We do not admit we "tied ourselves in a knot," and whether our proposals were the worst put forward is probably only a matter of opinion. We have all along been against legislation on this matter, and judging from the reception of the clauses proposed by the committee, there was no hope of getting them on the Statute Book. But altogether our private opinion is against the proposal, the Editor as such could not ignore an alleged grievance, and the proposals put forward by him were an honest attempt to help those who were trying to find a solution. However, we hope our correspondent will be at the conference, as we hope this question will be solved or shelved for all time then.—EDITOR.]

(TO THE EDITOR.)

Sir.—When giving my experiences of the Alexander method of artificial increase I promised to give final results at the end of the season. Below you will find details of the three hives operated on:—No. 1 hive, which contained the old combs and to which a new queen was introduced, yielded 29lb; No. 5, which contained the old queen from No. 1 on one comb of brood and honey with nine frames of foundation, yielded 85lb, and was the colony that swarmed out after dividing on November 14. Thus my crop from, shall we say No. 1, was 114lb honey and one new colony.

My next hive was not such a success. No. 2 yielding 60lb and its increase; No. 6, 16lb; total, 76lb. The discrepancy here is explained by the fact that No. 6 lost its queen and was queenless for three or four weeks during the honey flow, and when it was essential that breeding should be in full swing.

My third hive (No. 4) yielded me 83lb and its increase, No. 7, 44lb; total, 127lb.

So much for the Alexander method. I feel quite satisfied with results considering the season was only a fair one, and I shall stick to the method for increase.

My No. 3 hive, which I did not allow to swarm, made no increase, and yielded me 131lb.

The bulk of my honey I took off during the first week of February, and had left just 6-28s of uncompleted sections, which I put back and allowed to remain till first week in March, when they turned me in 83lb well filled sections, those remaining uncompleted I am feeding back where necessary to provide for autumn breeding and winter stores.

I am very much interested in the Journal, containing as it does such a fund of information, I often wish it was larger. I was appalled to learn from this month's issue of the estimated loss in this district through foul brood. I am not surprised at the estimate, for with the few hives around here I feel sure we are in a hot bed of it. I have seen inside one or two rounds about, and they were enough to convince me. One was absolutely rotten, and on my advice it was destroyed, and I feel sure there were others that should have gone the same way.

With the object of fighting this scourge (and seeing all that has been done for the advancement of the industry has been mainly the work of beekeepers themselves), would it not be possible, failing the Government appointing more inspectors, for local associations to appoint a man for their respective districts, have him approved by the Government, and let him make, say, two rounds of his district in a season at Government expense, which would not be such a big item, for being provided with free railway pass the only other expense would be hotel expense, his time away from home, and travelling other than by rail. If this scheme saved only 100 tons in a district it would be worth the trouble. It would also give permanent Government inspectors time to visit such districts as ours, where no Branch of the Association existed. No doubt there would be some grumbling, but the right spirited members of the Association would not be the grumblers, for it would be to their own interest to see the scourge eliminated. The man who would be hit would be the one with two or three hives in his back yard which were allowed to go from year to year without attention, who perhaps never looked into his brood chamber, and perhaps never saw or knew what foul brood was.—I am, etc.,

GEO. M. BLIZZARD.

Picton, April 7, 1920.

[Friend B., we are much interested in your experience of increasing by the Alexander method. It is a good method there's no doubt, and it is always successful when the ingredient commonsense is added to the general instructions. The local inspectors fill the conditions you are suggesting. You or any other qualified beekeeper could apply to the depot for appointment, and having obtained this, you could inspect the whole of your immediate vicinity. The depot will pay all out of pocket expenses incurred whilst doing this work.—EDITOR.]

(TO THE EDITOR)

Sir,—I was very interested in the article on fertilizing drone eggs, also your remark "Parthenogenesis is no longer a theory because it has been proved so many times over." Here I take issue. Certain facts

have been proved, on which the Parthenogenetic Theory has been built; but certain other facts, as in the aforesaid article, are often observed by bee pathologists which leads them gravely to doubt the deductions of the Parthenogenetic Theory, which is also itself so contrary to the general law of Nature. A professor once said to me never believe any statement read in text-books till you have proved it yourself. It would have saved me a lot of time in life if I had followed out his advice sooner. I like the Executive changes in the programme for the coming conference. It should prove a success, and I hope the honey exhibit will be passed to a successful issue. Why did you not add all honey exhibited to become the property of the National, and so form a meeting for a permanent honey exhibit of honeys from all parts of the Dominion.—I am, etc.,

W. E. BARBER.

[We are sorry to have misled your learned self, friend B., the editorial remark was not ours; it was by the Editor of the Western Honey Bee. We should have made that clear.—EDITOR.]

(TO THE EDITOR.)

Sir,—Mr Ward's remarks on foul brood in your February issue appear to me very timely. Having received my first lesson in beekeeping at Mr Westbrooke's class, I learned to regard foul brood as the chief enemy; but I have been surprised sometimes, in talking to men who consider themselves beekeepers, to discover their casual attitude to this disease. The prevention and cure of foul brood is undoubtedly the central problem of beekeeping; but the literature on the subject—such as I have seen—is scantier and less satisfactory than that on any other branch of the industry. Take the question of predisposing causes for example. We know that weak colonies are more susceptible to infection than strong, and blacks than Italians; but can conclusions be carried no further? A beekeeper who has suffered pretty severely by the disease told me that he considered damp hives far more likely to succumb than one with sound covers and air circulating freely under the bottom boards. Again I read in a book by an old English beekeeper that chilled brood generally led to foul brood, and that any opening of the hives in unsuitable weather weakened the resisting power of the bees to disease. One other point. What is the earliest symptom of foul brood? The common identification is theropy or sticky character of the substance remaining in the cell. If there is an earlier indication of the disease it is obviously important to know. If Mr Ward and other experienced correspondents would give us their views on these and similar points beginners in commercial beekeeping, like myself, would be in their debt.—I am, etc.,

CHAS. E. SLIGO.

"Let me pop it on your finger
Where the wedding ring will be.
Will you? Won't you? Will you?
Honey! will you marry me?"
That's what Sammie said to Sadie.
While she sighed in rapture pure;
Now she's bending over baby
Mixing Woods' Peppermint Cure.

Beekeeping in New Zealand.

(By W. S. PENDER.)

It has recently been my privilege to visit the Dominion of New Zealand, and, during a somewhat limited time, was able to visit a number of beekeepers, and, enquire into the beekeeping industry.

I travelled from Auckland, in the North Island, to Wellington, spending a few days among the hot springs of Rotorua en route, and also had a short time in the neighbourhood of Christchurch, in the South Island.

During the whole of my trip I was much struck by the absence of trees, and yet New Zealand produces a large quantity of honey, so much indeed that she is able to export hundreds of tons. The industry is so well organised that there is a ready demand from Britain for all she can produce at payable prices.

I think there are more commercial beekeepers in these small islands of the Dominion than in the whole Australian Commonwealth. From what I have said above it is quite clear that New Zealand beekeepers do not depend on trees for their honey flow, though some of the honey comes from Manuka (Ti-tree), Cabbage Tree, &c. The honey crop is gathered principally from clovers. New Zealand is essentially a dairying country, this industry being carried on as a perfect art, and is exceedingly prosperous, so much so that good dairying land runs into high figures, over £150 per acre being paid for some very favoured spots. In order to obtain the best results, white clover is encouraged and cultivated, if necessary, until it gets a stand.

Comparing New Zealand with many parts of New South Wales. I have seen a better show of clover bloom in the latter, and yet the bees storing nothing, while in the former a much worse showing was yielding splendid crops. This is a matter of climate.

The clover bloom lasts from early spring till late autumn, and with bright to warm weather there is a constant flow. A cool or cloudy day seems to reduce nectar secretion. During my visit—late January to end of February—I experienced a good many such days, and could see the weather conditions reflected in the activity of the bees. Provided warm, bright weather continued, this season's crop should be a good one—six weeks more to go—but, with indifferent weather, the crop would be below the average.

On questioning beekeepers, I find they consider they do very well if they obtain an average annual yield of 100 lbs. per colony; some do better, others not so well. One apiarist told me his worst yield was 60 lbs. per colony. Climatic conditions are more regular with them than with us. In the Auckland district they considered they

were suffering from a drought, having been without rain for two months. On several days during my stay the weather seemed ideal for honey secretion—bright, sunny, heavy sweltering conditions, under which it is impossible to feel dry, of such does their climate appear to consist.

From what I could gather there are about 7,000 beekeepers in New Zealand; there may be more—not all are registered. The industry is practically controlled by the Honey Producers' Co-operative Association, which has as members almost all of the commercial beekeepers. Lucky beekeepers! All they have to do is to produce, pack in 60 lb. tins in cases, and deliver where required. The H.P.A. does all the marketing, pays a large percentage of the price on delivery, and the balance when it has been sold. The whole of the honey is graded on delivery by a Government grader, and the beekeepers are paid according to grade. The grading is so successful that speculators and dealers buy on the graders' certificate without question.

The requirements in packing are two new 60 lb. tins and strong cases, all cases to be strapped. At the present high price of material, it costs about 1d. per lb. to tin, case, grade and brand, and pay freight and cartage charges to the store. All honey is received granulated; liquid honey is not wanted, but rather a quick granulating honey.

MANUKA AND CABBAGE TREE HONEY.

In some districts, especially in the Bay of Plenty, a jelly-like honey is obtained that is almost, if not quite, unextractable. When it does leave the combs it is in lumps. I saw some aluminium combs containing some of this thick honey, and the extractor turned for a long time at a very high speed, and even then there were many cells of it left in the combs, probably quite half. Possibly those cells that did extract were mixed with clover. I tested some of the cells and found the consistency stiff like jelly and requiring some pressure to make the instrument used enter. This glutinous consistency must not be confused with density, for it has not a high reading on the hydrometer, it is simply thick and granulates fairly quickly.

In another apiary I saw the result of trying to extract this honey. Mr Luke, who was much troubled with it, had a great many combs he had put through the extractor, and it looked as though he had had more success in extracting the combs from the frame than honey from the combs. The combs came out of the extractor as heavy as when they went in. It seemed a shame to destroy such beautiful combs. Mr Luke is planning to adopt a different method next year. He hopes to harvest the bulk of this honey in shallow frames early in the season, when the flow is on. He will then cut out the comb and either melt or press the honey out, the frames having a quarter inch starter of comb left in ready for next season.

He is now making up 400 of these supers in readiness, one for each hive. He expects

that a small quantity of this honey will find its way into the future supers, but hopes to get over the bulk of the trouble.

What does this honey come from? I find beekeepers not agreed on this point. Some say it is Manuka (Ti-tree) and some Cabbage Tree, a bush tree that grows up to 15ft in height with one or more heads with thick leaves, resembling flax leaves.

I can only venture an opinion, and believe it comes from both. The Manuka shows me in the combs is a strongly flavoured honey with a greenish tinge, when looked at by reflected light, and I think the Cabbage Tree honey has a reddish colour and very little flavour. I may be wrong. Though this honey has a dark colour and strong flavour, it is as good like Scotch Heather honey that it finds a ready market at a good price in Britain. I am informed that some of it has sold as New Zealand Heather honey, and some of the New Zealand apirists have protested against the name.

ORGANISATION.

The National Beekeepers' Association of New Zealand is at the head of the industry, and the industry is so encouraged by the Government, which realises its importance, that it subsidises the Association £ for £ up to £100. The Association has branches in most of the important centres, and in many of these annual field days are held. It is realised that there is too much expense attached to travelling long distances to one centre, and there would be too much overcrowding. Each district has its own field day during the honey season at a selected apiary, where members of the craft can informally exchange ideas and see various manipulations demonstrated. On February 2 there was a field day at Mr W. Bray's apiary, Barry's Bay, near Christchurch, and on the 4th at the Government farm of instruction, Ruakura, Auckland. The latter I was able to attend, but the former, though I was there three days previously, I could not wait for, owing to the closeness of the dates and the distances to travel between the two. These field days would be an excellent idea for Australian beekeepers to adopt. No formal papers are read, a few formal speeches are made at the opening, a light lunch arranged for, and a sociable time enjoyed. Beekeepers meet beekeepers, and lasting friendships are made in a short time, added to which the exchange of ideas leads to permanent benefit to everyone.

RUAKURA MEETING.

There were probably 200 beekeepers present at Ruakura. A demonstration on queen rearing was given by Mr Rhodes, who manages the Government queen rearing apiary at Tauranga, and many others had some new appliances to demonstrate. The gathering was a very enthusiastic one.

There's gold in the rock where the miners flock.

There's gold in the sands of the sea:

There's gold in the very air we breathe.

Could science but set it free.

There's hidden gold in the pirate's hold.

And we'll find it some day, I'm sure;

There's ease worth gold for a cough or cold
In Woods' Great Peppermint Cure.

Method of Treatment of American Foul Brood.

1. Take plenty of time to treat your colony in actual condition to treat.

2. Unless shaking a whole apiary, never shake more than three or four colonies at any one time.

3. Preparation: During the middle of the day, while warm and the bees are flying freely and honey is coming in, remove all frames containing honey, empty combs, and combs with brood, except one comb containing brood and honey, placing same in the centre of hive, placing lid on so no bee can either get in or out except through entrance, which should be contracted to one or two inches, with a strip of queen-excluder zinc placed across entrance, so it will be impossible for queen to get out and thereby prevent absconding. Loosen bottom board so hive can be removed from same without jarring, and leave it undisturbed until the following evening, just before dark, after the bees in the apiary have quit flying.

4. When preparing colony to shake, all frames should be handled rapidly and placed in an empty hive body and kept covered with cloth, so no other bees can get at them: all dry combs should be melted before shaking any colonies, and all frames containing either honey or brood should be burned, and never melted, only when absolutely dry.

5. All weak colonies should be united with others until they are sufficiently strong to shake and build up afterward.

6. When your colony is ready to be treated, the following day after you have prepared them, if your hive is in a row with other hives in the apiary, with an entrance of very much the same appearance, close up absolutely the entrance of every hive on both sides of the hive being treated, for three or four hives each way. Now, without creating any commotion, gently set your colony which is to be treated to one side; place a clean bottom-board and a clean hive where the one to be treated had been sitting, containing not less than three nor more than five frames, with full sheets of foundation, placed against one side of the hive, the number of frames depending on the strength of the colony. Additional frames can be added as they may be required. New hive must have entrance contracted fully as much as was the old one, with queen excluder zinc attached. Now this is the critical moment. Gently, but not quickly, lift the old hive from bottom-board and set it upon the new hive. Remove the lid from the old hive, lift the one comb with all bees thereon and shake the bees which are on same into the bottom of new hive. Remove old hive quickly and place a clean and tight-fitting lid on new hive, jarring the bees from sides of old hive immediately in front of new hive. A few minutes after shaking the colony, with flaming torch burn every bee that is trying to gain entrance to the hives that were stopped up, on either side of the one that had been treated. After being sure that all bees have been burned that were trying to

enter the closed hives, the hives may be opened.

7. If there is no honey coming in, it will be necessary to feed colonies that have been treated. Do not feed honey from any source. Make a syrup of equal parts of granulated sugar and water. Feed not earlier than 24 hours after shaking. Following the instructions in Paragraph 6, use as little smoke as you can possibly get on with.

The first thing to be borne in mind is that American Foul Brood is very contagious. The manner of transmitting the disease is through the honey that is fed the larvae or young bees.

The next thing is to be very careful in the handling of anything that would scatter the contagion. A great deal of the scattering of foul brood is brought about by the beekeeper who carelessly handles bees, combs and other parts of the hives.

J. W. GEORGE,
Formerly County Bee Inspector of
Imperial County.

(We are pleased to give the method of treating American foul brood followed by Mr J. W. George, late inspector of Imperial County. It contains several new processes which will be found speedy and effectual.—
Editor Western Honey Bee.

The Busy Bee.

ESTABLISHING THE APIARY.

LIABILITY OF AN OWNER.

"Is there any law prohibiting persons from establishing apiaries within a stated distance from a public highway?" was a question recently submitted by the Waipa County for the opinion of counsel for the New Zealand Counties' Association.

Mr Martin in his reply stated that the Apiaries Acts of 1908 and 1915 were silent upon this subject, and he was aware of no statutory provision thereon.

The question of liability at common law to damages in consequence of stings from bees had not been decided by English or New Zealand Courts, but in the Irish case of *O'Gorman v. O'Gorman* (1903, 2Ir. R573), it was held that the defendant who kept "in an unreasonable place" (at the boundary of plaintiff's yard), and which were smoked out at an unreasonable time, "an unreasonable number of bees of a dangerous and mischievous nature and accustomed to sting mankind and animals," was liable for personal injury resulting from the plaintiff being thrown off his horse, which plunged on being stung by the bees.

The above case was cited in *Halsbury's Laws of England* (vol. 1, p. 375), with the following note:—"Bees, unless disturbed, do not generally sting, and probably the keeping of a few ordinary hives in an ordinary place would not render the owner liable for damage

caused by their stings in the absence of negligence. If kept in unreasonable numbers, however, they may amount to a nuisance."

It would be seen, therefore, that an owner who keeps bees near a highway may, in circumstances, be held liable at common law for injury by stings or resulting therefrom.—
Waikato Times.

Bees and Beemen of Old.

By BASIL H. HOWARD.

(Continued from April issue.)

TAKING THE HONEY: SOME FOES TO BEEKEEPERS.

The ancients were quite familiar with the use of smoke as a help to those approaching a hive with burglarious intent, but they had no very clear idea of the effect of smoke on the bees. Pliny recommends its use to drive the bees away and to prevent them gorging the honey; others use it as a protection. Some of the methods of smoke introduction were crude, no doubt; biblical beekeepers, for instance, used to light a fire of cowdung (dry, I presume), the noxious fumes from which they wafted into the hive entrance. Columella, I believe, gives a detailed description of a smoke engine; but though I have bothered all the librarians of my acquaintance, explored book-shops, pestered studious friends, I have not been able to set my eyes on a single copy. Of course, it now becomes plain that all my references to Columella are second-hand, to put a low estimate on the number of handlings they have had. However, I cannot blush, for I hold that a quotation, save its original be extremely difficult to obtain is the property of you and of me and of the man outside. In addition to smoke, Vergil gives further advice; but this advice is bristling with difficulties for the translator. The text, as we have it, is not definite, for there are variant readings. However, pass for that. The text, as it stands, is open to two interpretations. No doubt there should be no hesitation in deciding which is the better rendering; but as both are interesting, I shall give them. The first is simply: "Rinse your mouth out with water." Now, it is a matter of common knowledge that bees object to strong odours—to wit, onions, leeks, garlic, wine, and therefore I suppose beer. Hence this translation receives most support. The second is, "Fill your mouth with water; retain it there, and when you have opened the hive spray it forth on the bees." This to make them gather in a bunch at the bottom of the combs. Make your choice, and may the pedants get the man who hesitates. There are two honey harvests,

says Vergil—one when the Pleiades rise; the other when the Pleiades set, or in Christian language, in spring and in autumn. Varro gives three—namely, the rising of the Pleiades, the rising of Arcturus, the setting of the Pleiades. When taking the honey, be careful, for bees have stings. I quote Setheby's translation (itself quoted by Gepp and brought to my eyes by Page. Sol)—

"The injured swarms, with rage insatiate glow,

Barb every shaft and poison every blow;
Deem life itself to vengeance well resigned,

Die on the wound, and leave their stings behind."

If you leave honey for their needs in winter, fumigate the hives with thyme. Cut away empty cells and combs, which will otherwise harbour moths and scuffling beetles. Protect, too, your bees from hornets and spiders and wasps. Yet be not too timorous about taking away honey, for the more you take the more eagerly will they strive to replace it.

The following general precepts for the beekeeper are from Butler's "Feminine Monarchie," published about 1630.—"If thou wilt have pleasure with thy bees that they sting not, thou must avoid such things as offend them. Thou must not be unchaste or cleanly; thou must not come among them smelling of sweat or having a stinking breath, caused either through eating leeks, onions, garlic, or the like, or by any other means, the noisomeness of which is corrected by a cup of beer (N.B.). Thou must not be given to surfeiting or drunkenness; thou must not come puffing or blowing into them; neither hastily stir among them nor violently defend thyself when they seem to threaten thee; but softly moving thy hand before thy face gently put them by; and lastly thou must be no stranger to them. In a word thou must be chaste, cleanly, sweet, sober, quiet and familiar, so will they love thee and know thee from all others."—(Quoted by T. F. Roys in the Quarterly Review.)

SICKNESS.

If your bees sicken—you will detect it at once by a change of colour and appearance, frequent deaths, general inactivity, clinging round the entrance, and a low continuous humming—then you must apply remedies. Burn galbanum; feed the bees with honey in troughs made from split reeds (who said feeders were modern?), with wine syrup made rich with boiling, with honey mixed with dried rose leaves, with raisins and with thyme; also take the plant "amellus," which has a flower with golden petals and a violet centre; boil it in rich wine, and give it to your bees. Give them also (I had forgotten it) the herb centaury. The "amellus" and the centaury are both astringents.

This, of course, is all very vague, for Vergil is not describing any specific disease. Foul-brood apparently did not trouble Ver-

gil's contemporaries. A few words in Pliny might well apply to foul-brood. He describes a failure of the brood in hatching; the bees do not emerge, and the cells become very hard and brittle. "The bees," he says, "do not hatch either on account of disease, slothfulness, or natural infertility; this is, as it were, abortion."

HOW TO RENEW YOUR STOCK.

(This method not recommended.)

The following are Vergil's directions embellished here and there with details from Florentinus. Should your whole stock fail, try the Egyptian method of raising a fresh swarm. In early spring build a small chamber admitting little air and light; it must be ten cubits high, four cubits square; it must have one door and four small windows, one on each side. This done, take a bullock that has passed its second year—i.e., whose horns are budding. Beat it until its carcass is almost a jelly; stop up all the holes in its skin with pitch and cloth. Then enclose it in your chamber along with aromatic herbs. Leave the bruised mass stand there until out of the fermented flesh there emerges a swarm of—well, bees. This needs no comment. It is hardly necessary to mention the threadbare commonplace in the Bible—namely, Samson's adventure with the lion. Kipling somewhere criticises this wild freak thus:—

"The farmer bids the men bring more hives

To house the profit that arrives,
Prepares on pen and key and kettle
Sweet music that shall make 'em settle;
But when to crown the work he goes—
Gods! what a stink salutes his nose!"

Here endeth Vergil's art of beekeeping; the remainder of the Fourth Georgic is taken up with a narration of the discovery of this method by one Aristaeus, son of Cyrene. As it is not here our concern to follow the details of his quest nor of the toils he performed ere he arrested the omniform and elusive Proteus, the guardian of the secret; it remains to round off this lengthy tale.

I could have wished to give the whole of Pliny on bees; but it were long, as his remarks cover the best part of twelve close octavo pages. That he is interesting, you may judge from his discussion on generation; but I would spare the Editor any unnecessary clipping with his long since blunted shears!

Taking all considerations together, there is but a short page of history from Pliny to Huber. Progress in beekeeping dates strictly from the last century. May be that I set too narrow a limit; but I instance the fact that the sex of the queen was not discovered till the seventeenth century. I quote, too, in my defence Hayward (1600).—"The bee makes honey till his sting be gone; but once that be lost, he soon becomes a drone." Therefore, it would be futile to attempt to fill in the gap. On the one side there is absence of

records, and on the other lack of knowledge. It might be bridged by a flimsy scaffolding of gossip. Exempli gratia:—The Saxon lords used to take part payment for rent of holdings in honey. An extract from Caxton:—"The poor man hadde in his gardyn many honey bees or bees." A cutting from a diary:—"Paid to — for a beeve, iiii pence." But already I feel a pang of regret for this deal of skimbly skamble stuff, written with scanty regard for ornaure or for well apperelled speech. Wherefore, lest I be accused of a damnabilitation, I shall close, cherishing the hope that as the proof of the pudding is in the nightmare, so the proof of this my work may be in the reading.

Who Suffers Most—the Stinger, the Keeper or the Eater?

It seems to me that most beekeepers have still the lesson of taking less to rural and that a great number of beekeepers "rob" their bees to excess to the detriment of themselves, the bees, and the "Imperial Bee honey-eating public."

You may perhaps milk a lean cow, but you cannot "honey" a starving stock of bees!

What a pity, now, to take the last possible ounce from the willing little workers, or robbers, just because the soaring price of honey—only a bogey—seems attractive at the time!

You get 6d. per lb. for your honey, from which expenses have to be deducted, and you pay 4d. per lb. for sugar at your local store for feeding purposes.

You have to carry the sugar home, mix it with the "sauce of vitality" (water), and go to all the trouble, time, and expense, &c., and ladle it out to the energetic "diggers."

Why not leave heaps on, and so ensure heaps off?

H. C. J.

Mr Butler, the enthusiastic beekeeper at Gladstone Siding (says a Westport exchange) is at present busy experimenting with an improved frame which will practically revolutionise beekeeping. We were shown to-day honey produced under the new conditions, and we have never known anything to surpass the quality exhibited. Mr Butler himself states that at the present time there is sufficient honey going to waste on the Coast because of the splendid rata season to make up for the sugar shortage and to allow tons to be exported.—(Clipping.)

Into the crowded streets I go,
Wending my way each day,
To watch the throng pass to and fro,
And hear what people say.
The sporty sort just talk of sport,
Some talk of literature;
But the principal thought of the sensible sort
Is of Woods' Great Peppermint Cure.

Mr Clayton, bee-farmer, of Mount Peel, stated recently that he had sold out his hives and plant. The season, said Mr Clayton, had been an excellent one for honey, and the yield at Mount Peel from the 500 hives this year would be about 20 tons. This could easily be disposed of at £70 per ton.—(Clipping.)

Beekkeepers' Exchange.

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B E E S W A X.

I am a Buyer in Large or Small Quantities, railed to Christchurch. Cheque on receipt of Wax. State price asked and quantity.

C. J. CLAYTON,
Peel Forest.

FOR SALE, Sixty COLONIES OF BEES; also Tank, Extractor Feeders and Supers. I would consider to part with further Colonies after next season.

Apply, H. STOCKMAR,
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WANTED, POSITION as MANAGER or ASSISTANT in Apinary, by returned soldier. Has managed 125 colonies; well up in queen rearing and general work. Will work for salary or 25 per cent. of profits.

WILFRED D. STOUT,
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WANTED, Two or Four Frame REVERSIBLE EXTRACTOR. State lowest cash price, condition, and size of baskets.

DUGALD HENDERSON,
Corbyvale, Westport.

WANTED, OLD QUEEN EXCLUDERS, either Plain Zinc Sheets or Wire Strips, in any condition. Write stating price and condition to

CHAS. F. HORN,
Eastport Rd., Waihou, Thames Line.

WANTED TO SELL, Fifteen COLONIES of BEES, with Plentiful Stores; also Two Frame Reversible Extractor. Apply

MISS MEEK,
Waterloo Rd., Lower Hutt.

GUILTY OR NOT GUILTY.

A correspondent asks if the B-M Reducer at Ruakura demonstration was the one that had all its pollen in it after we had all finished. This pollen retention is an **utter impossibility** with the B-M Machine. All solid matter drops away from the tube spaces on to the screen (unless you forget to place the screen there for the purpose), and when it has thus fallen you take away this screen, and dump its load where you keep your wax for pressing. The tubes are so close together at the lower edges, being only three-quarters of an inch apart, that all matter between them gets heated through and all wax melts whether between pollen or not. Thus every particle of wax is reduced, and the pollen falls apart, and when the **loop patent** bottoms are let down, everything is melted, and falls through. In some other so-called melters the tubes are too far apart to heat the pollen through, and of course it cannot melt its wax, and so all pollen must remain baking in the reducer, however you manipulate the bottoms. It may be taken for granted that at Ruakura each inventor did his level best for his own machine, so if any pollen was left in any of the reducers, it must have been because the machine could not get rid of it. Now it is no use for anybody to say that pollen must not be put in a reducer, for the perfect melter must be able to rid itself of whatever the owner may be compelled to put in it, with honey, and it is here that the B-M Reducer shines against all comers. No reducer is perfect that has hot bottoms, for which all the honey has run away, the remaining slumgum is of course baking on those hot bottoms until the machine is emptied by running it idle. If it should ever be necessary to empty (clean out) any tube space in our B-M Reducer it is quite easy to shovel all the unmelted comb from the tube to be cleared into one of the others, and so keep the machine going all the time. With some reducers the tubes are too shallow to do this. But we fail to see where such necessity could eventuate with the B-M Reducer, unless some solid thing more than lin thick had been dropped into the spaces. There is abundant space for all melted matter to get through without throwing down the bottoms.

REMEMBER! Our Reducers can be had Dr either boiler or lamp heat. The boiler, besides being handier, costs less than a Primus lamp. But we make them for you, so let us know your wishes when ordering.

We have for sale one set plain and one embossed foundation rollers, both used, but in perfect condition. Price on application.

Why pay two prices for an inferior invention? The B-M Reducer has no successful rival, and is cheaper than any machine sold.

Prices from £4 12s 6d to £16. This last price is for our three tons per day reducer. Boilers for 22s 6d. All f.o.r. Te Awamutu.

The Thoroughwork Apiaries Company

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SUGAR.

Owing to the existing shortage of sugar for the Dominion, Beekeepers generally are anxious in regard to their supplies for Winter and Spring Feeding.

We have approached the Board of Trade on behalf of the industry, and there is a probability that we shall be able to organise for the requirements of our Shareholders, and perhaps for Beekeepers generally.

If you are likely to require supplies, it will be absolutely necessary for you to write us at once and advise:—

1. Number of Colonies to be fed.
2. Period for which Bees require feeding.
3. Estimated quantity to be fed per hive.
4. Total estimated quantity of sugar required from April to December.

(Presumably during some months larger quantities may be required than other months.)

As far as possible the Board of Trade will provide us with White Sugar, but it is quite likely that in order to meet the position we shall have to accept a portion of brown sugar, which has been successfully fed this Winter and Spring to Bees in many districts.

Beekeepers in their own interests should communicate with us promptly, otherwise supplies may not be obtainable later on.

BEEWAX.

We are Buyers of Good, Clean Beeswax in any quantity, from anybody and from anywhere. Write us stating quantity available, and we will advise where to send it. We give highest cash prices, and can do with several tons for the coming season.

BEEKEEPERS' SUPPLIES.

Be advised by us and get in early. Prices are going up. At present we hold large stocks of Hives, Frames, Extractors, Colonial Foundation and American Foundation; also Beekeepers' General Requisites.

WRITE US EARLY TO AVOID DISAPPOINTMENT LATER ON.

New Zealand Co-op. Honey Producers' Assn., Ltd.

BEESWAX.

We want unlimited quantities of Beeswax for Comb Foundation making. If you have any for sale we will take it, and offer 2/6 per lb. on rail or steamer any part of the Dominion. Write us for forwarding instructions and address tags. We pay cash within forty-eight hours of the arrival of the wax.

ALLIANCE BOX CO., LTD.,

P.O. BOX 572 - - DUNEDIN.

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Manufacturers of Beekeepers' Supplies.

1919-1920

PRICES OF ITALIAN QUEENS.

One or Two.
7/- each.

Three or Four.
6/- each.

Five or more than Five.
5/6 each.

Colour Range of Workers Guaranteed Leather Three-banded to Golden Four-banded.

TERMS.—Nett cash with order; Cheques to have exchange added.

Any Queen arriving dead replaced free if cage is returned unopened.

NOTES.—Experience in this district shows that it is risky to introduce fertile Queens while swarming cells are general in the hives. Many are killed by the bees, and the majority are reduced to the size of virgins, not being fed by the bees or allowed to lay for many days. Some Queens during this period are ill-treated by the bees, and, though eventually accepted, may be injured. Before and after the swarming season most Queens are accepted at once, and laying freely very soon after being liberated from the cage.

In addition, Customers can rely on getting the very best of Queens after the general swarming season is over.

All Queens reared from carefully picked Breeding Queens, in hives specially selected for the building of good queen cells, no such hives being allowed to feed more than 16 cells at a time.

No Queens from indiscriminate swarming cells are sent out.

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