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*S.A. Fair*

The New Zealand  
**Beekeepers'  
Journal.**

VOL. 6.

**APRIL 1st, 1922.**

No. 4.

Subscription: 7/6 per Annum in Advance.



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ISSUED MONTHLY

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# The New Zealand Beekeepers' Journal

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

No. 4

VOL. 6

7/6 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 matter for publication must be in the Editor's hands NOT LATER than the 20th of the month previous to publication. Address

FRED C. BAINES, Kati Kati, Bay of Plenty.

### CONTENTS.

	Page.	Page.	
Editorial	53	The Honey Industry	60
Market Reports	54	New Observations on the Natural History of Bees	60
Beekeeping for Beginners	55	Address Given to Canterbury Branch	
Conference Items	55	N.B.A.	61
Canterbury Tales	55	Correspondence	62
District Reports	57	Answers to Correspondents	64
European Foul Brood	58		

## EDITORIAL.

We want to make a special appeal to our readers in this issue on behalf of the National Association, which is in existence wholly and solely for the benefit of those engaged in the industry. The Executive would like to do many things that are both necessary and desirable, but is hampered by the want of funds. It must be remembered that 75 per cent. of the subscriptions paid by members into the branches is refunded,

which leaves very little for the Executive to work on, and were it not for the subsidy granted by the Government, we should not be able to carry on at all unless the proportion refunded to the branches was considerably reduced.

Part of the desirable work to be carried out is the subsidy to branches in connection with field days, and to make these desirable gatherings a success it is always necessary for the branch to spend a considerable amount of money. We are convinced there is nothing helps the beekeepers, the branches,

and the members so much as these gatherings; also, they have the effect of educating the public as to what beekeeping is.

Another important item of the National's work is the matter of organisation. It should be possible for one of the members of the Executive to be at every branch field day, as well as to be able to get about the country to start fresh branches.

But the want of funds prevents either of these being done, and we now want to make an earnest appeal to all our readers for their support by becoming members. The fees are small—the scale is to be found on the front page—and if every reader would just give his help it would considerably help us. If in a district where a branch exists, send to the secretary, whose address is to be found on the front page; otherwise, send direct to the general secretary at Kati Kati. The Executive will do its part if you will do yours, and the slogan "Do it now" applies aptly.

Will the branch secretaries please send all the subscriptions in hand at present to the general secretary at once? This will facilitate matters considerably, as, if left until close on the end of the financial year, it means a big rush to get the refunds paid and a full balance sheet presented.

Every reader of beekeeping literature must have come across the name of Huber in connection with various facts established by him on matters appertaining to the generation of the honey bee queens and drones. We feel safe in saying that very few of the present generation of beekeepers have been able to learn very much about this scientist, who did so much for us 150 years ago; the books of to-day just indicate that he did certain things and made certain discoveries, that we fail to realise how much we owe to him, and fail, through ignorance, to appreciate his work.

Recently, through the kindness of Mr Robt. Gibb, of Menzies Ferry, we were loaned Huber's work, "New Observations on the Natural History of Bees," published in 1808. We found the book intensely interesting, and, speaking personally, the writer is one who has failed to recognise Francois Huber at his true worth, and that simply because he was unaware of what Huber had done so many years ago. We are sure there is a large number of beekeepers who would enjoy reading this work, of which, of course, at this date there are so few copies about the world that we intend to reprint the articles. These are in the form of letters sent to M. Bonnet, another scientist of that date.

That our readers may know who Francois Huber was, we quote the following from Dadant's "Langstroth and the Honey Bee": "The celebrated Francois Huber, of Geneva, made a number of experiments on the antennae, and ascertained that they are organs of smell and feeling. Before citing his discoveries, we must pay our tribute to this wonderful man. Huber, in early manhood, lost the use of his eyes. His opponents imagined that to state this fact would materially discredit his observations. And to make their case still stronger, they asserted that

his servant, Francis Burnens, by whose aid he conducted his experiments, was only an ignorant peasant. Now, this so-called 'ignorant peasant' was a man of strong native intellect, possessing the indefatigable energy and enthusiasm indispensable to a good observer. He was a noble specimen of a self-made man, and rose to be chief magistrate in the village where he resided. Huber has paid a worthy tribute to his intelligence, fidelity, patience, energy, and skill. A single fact will show the character of the man. It became necessary, in a certain experiment, to examine separately all the bees in two hives. Burnens spent eleven days performing this work, and during the whole time he scarcely allowed himself any relaxation but what the relief of his eyes required.

"Huber's work on bees is such an admirable specimen of the inductive system of reasoning that it might well be studied as a model of the only way of investigating Nature so as to arrive at reliable results.

"Huber was assisted in his researches not only by Burnens, but by his own wife, to whom he was betrothed before the loss of his sight, and who nobly persisted in marrying him, notwithstanding his misfortune and the strenuous dissuasions of her friends. They lived longer than the ordinary term of human life in the enjoyment of great domestic happiness, and the amiable naturalist, through her assiduous attentions, scarcely felt the loss of his sight."

We hope our friends will enjoy reading of his labours.

## Market Reports.

### HONEY REPORT.

The market is steady and there is a fair inquiry. Five hundred and three barrels Chilean arrived per s.s. "Cedar Branch" and "Oruba." The following sales of Chilean honey have been made:—120 barrels Pile X, 44s to 50s per cwt.; Pile I, 40s to 45s per cwt.

Beeswax.—The market is quiet. The value of Chilean is about £6 to £10 per cwt, as in quality. Eight bags have been sold at £8. African and other descriptions are offering at low prices. Fifty-four bags arrived per s.s. "Oruba."

TAYLOR & CO.

Liverpool, 5th January, 1922.

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

Auckland.—Since last report wet and stormy weather has been experienced, cutting short the prospects of a late flow. Parts of the Waikato show a return below the average, but other parts report a good season. The prices for honey remain unchanged. The demand for beeswax has slackened—Is 6d per lb. being now offered.—G. V. Westbrook.

Wellington.—In many apiaries of the Dominion extracting operations are going forward. The crop is not so large as expected, but the quality is up to the usual high standard. Despite the fact that pastures generally are in very much better heart than is usual at this period of the year, the nectar flow has been seriously curtailed through changeable weather conditions. The price of extracted honey has declined 1d per lb. Comb honey is scarce, but is firm. Beeswax is quoted at 1s 9d per lb.—F. A. Jacobsen.

Christchurch and Dunedin.—Present indications point to a light crop. Beekeepers are busy extracting, but generally the returns are disappointing. Prices are firm.—E. A. Earp.

## Beekeeping for Beginners.

[As these instructions conform to the seasons in the Auckland Districts, an allowance must be made for the difference in latitude North and South. Average bee-seasons in the extreme North are four weeks earlier, and in Southland three weeks later.—Ed.]

The apiary should now be put in order for the winter, and our work is to see that everything is done to ensure safe wintering. First, see that every hive is queenright, any hive without a queen should be united to one containing a young queen by the newspaper method, which is to place a sheet of newspaper over the queenright colony, placing the queenless hive on top.

Regarding stores. It is said the best time for spring feeding is in the autumn, which, of course, means that the hives should be left with plenty of stores sufficient to carry them through the spring until the early honey flow starts. It is unsafe to leave less than about 40 lbs. of stores. If you have not sufficient honey in combs to make this quantity, sugar syrup, half and half, should be used to make up the quantity. You can fill empty combs with syrup by using a perforated can and allowing the syrup to fall into the combs from a height of about three feet. Have your syrup in a bath or tub, lay the comb on top of the syrup, and dip out your can full and let it drop into the cells, doing both sides alike. Feed these at sundown, with the entrance of the hive contracted.

Old and stiff mats should be replaced with new, so that everything is snug and warm. All leaky covers should be replaced with sound ones, and if your hives are at all exposed to high winds, it is well to put something weighty on top to prevent the covers being lifted.

All extracting appliances should be carefully cleaned and dried, else the honey remaining on them will stain badly.

All honey should be put into containers ready for sale, and section honey stored in a warm, dry atmosphere, enclosed in a box to keep insects away.

Your empty combs must be stacked in supers in tiers, and it is a preventative against moths if between each super a sheet of newspaper is put, and a naphtha ball or

two placed in each. The moths dislike the smell of the naphtha, but should they gain entrance to a super the newspaper confines them to that one, instead of getting right through the tier.

F. C. B.

## Conference Items.

We are sorry to state that up to the present we have had no response to our appeal for papers to be read at this gathering, and, as time is getting on and a rough programme is expected to be inserted in the May issue, we again ask those who are able and willing to offer their assistance.

The following suggestion from the Taieri Branch is worth carrying out:—A competition between branches for the best exhibit of honey, to contain, if necessary, the four colours. Mr D. A. McLeod, the President of the Taieri Branch, has offered a prize of £1 1s to the winner, and the suggestion is that the National subsidises the amount, which can be done.

Further, to make the competition more brisk, it is suggested that a prize be given to the individual beekeeper scoring the highest points in the exhibit. Mr R. W. Brickell has generously offered a prize of £2 2s in cash or supplies.

Will the branch secretaries please get busy and see if this can be carried through, because it is useless attempting a competition with only one or two branches competing. As soon as we know, arrangements can be made for judging, etc., and now is the time to act. Let the secretary know this month, if possible.

It is suggested, too, that all the exhibits be handed to one of the orphanages or homes in Dunedin, which is a very good idea.

As we have said before, a conference, to be a real help to those attending, must have the co-operation of all the members, and unless we can get interesting papers read it is hardly worth while assembling to pass a few amendments to the constitution, which is the only business so far advanced.

## Canterbury Tales.

By E. G. WARD.

As far as surplus honey is concerned, the season is now over, and from all accounts the beekeepers of Canterbury will not be able to retire on the profits. Most of those I have talked with report disappointing results. The average will be about half a normal crop. However, "hope springeth eternal in the human breast," so we will look for better luck next year.

I should like the article in last month's issue on "The Industry in New Zealand" to be read by all beekeepers in the Dominion, as it might be the means of strengthening

the hands of the H.P.A. If a policy of cutting prices is adopted, we shall soon be back to the old order of things, and those who have put their energy and cash into the H.P.A. will only have the experience for the money invested. I am of opinion that if the local trade is not going to pay on account of outside competition, it would be better to cut the whole business and cater for the export trade only. From my experience in trying to get outsiders to join up I despair of doing much good. I like to hear of loyalty such as quoted, and, on the other hand, I should like to know that it had been served up hot for the disloyal shareholder next mentioned.

The alteration in the honey export regulations is, I think, an improvement on the old system, but, in looking over the prices to be advanced by the H.P.A., I see that white "special" is to be paid  $\frac{1}{2}$ d per lb. more than white "prime." Now, it seems to me quite conceivable that a white "prime" could be a better flavoured honey than a white "special," and therefore ought to command a better price, if flavour is to be the determining factor. It seems as if colour and flavour have caused some confusion in the minds of those responsible for the latest rulings. Every honey producer knows that there are very fine flavoured honeys which could not get in the "white" class, and also that there are "white" honeys which have very little flavour.

The above suggests a few thoughts on prices. In the "Bee World" for November, 1921, appears an article on "The Marketing and Consumption of Honey." The writer sings the praises of English honey, and says a good word for our H.P.A., and urges British beekeepers to organise on similar lines. He says: "English honey . . . is far superior to any honey which usually comes to us from abroad," and "should make at least 1s 6d per lb. this season." Here is a bit more to think about: An advertiser in the same issue quotes "choice Scottish honey" 7 lbs. 15s., 14 lbs. 24s 6d., 28 lbs. 47s., carriage paid. Heather honey 6d per lb. extra on these prices. Yet here we are in New Zealand producing honey equal to the best produced anywhere (in spite of what appears to the contrary) trying to bring prices down to the level of treacle. To use a vulgar expression, "I'm getting fed up." The article referred to is written by the manager of a large honey-packing firm, and on another page there is an advertisement of "Colonial honey." Australian is quoted 45s. per cwt., Jamaica at 70s. per cwt., and screw-top glass jars of choice "clover" honey (nominal ones) at 15s 6d per dozen. When we reflect that the population of Great Britain is about 44 millions, and that 1000 tons of honey would give one of those millions about 2½ lbs. each per annum, I don't think we need scramble over one another in New Zealand to sell at ruinous prices.

The attached cutting in reference to troublesome bees should be of interest. This is not the first time a complaint has been made to the Ellesmere County Council, and I suppose will not be the last as long as timid people continue to complain. I don't know anything of the merits of the present complaints, but I do know (unfortunately) a good deal about the previous case. I know

another apiary in the Tai Tapu district which is close alongside the main road, and has stood there for many years, but I don't think there has ever been any trouble. I'm afraid the Irwell people are prejudiced against bees.

"Numerous complaints have been made to the Ellesmere County Council of the danger to traffic occasioned by an apiary situated close to a public road at Irwell. It was pointed out in the event of bees attacking horses passing along the road serious accidents would be likely to happen. One resident of the district who wrote to the council stated that he could not use the road owing to the danger that existed. He had experienced one accident due to bees."

Among the complaints received was the following:—

Sirs,—I wish to complain of the invasion of my house by a stout, full-grown, apparently able-bodied bee, the property of Mr Lew Czerne. I know it was his, for I distinctly saw his brand on the animal's side—a sting rampant on a field of clover, with hives couchant, supported by two blue bags versant, motto, "All or Nothing."

"Well, sirs, the animal absolutely declined to leave my home. I shot at it twice with my rifle, wounding it slightly, but it merely buzzed derisively, and stung me on the left ear. It then organised, led, and successfully carried out a raid on our Sunday joint, which it carried to the top of a tall tree in the garden and there devoured it. After this theft, it returned to the house to commit fresh depredations.

"I was just about at my wits' end when the noxious creature apparently began to weaken from the loss of its sting. Its eyelids dropped heavily, and it moved slowly and with difficulty. I was just about to slay it with a sledge-hammer when it gathered its remaining strength together and flew listlessly away."

The chairman instructed that Mr Lew Czerne be written to, recommending him to keep his bees safely chained up in future.

I wonder if we shall ever definitely find out the origin of foul brood. Mr Burrows's letter in last issue is not convincing, but anything which is out of the beaten track is always worthy of thought. In the December issue of the "Bee World" appears an article by R. Whyte on "Predisposition to Brood Infections." Mr Whyte says he has repeatedly drawn attention to the danger of spreading disease by careless manipulation of frame hives, with which all experienced beekeepers will agree. He then goes on to quote from "A Modern Bee Farm," by S. Simmins: "The origin of foul brood is found in a fermenting mass of neglected dead animal matter and excretions, combined with the presence of a weakened colony, breeding and feeding amongst and warming up to blood heat such neglected matter, which they, in a deteriorated state, are unable to remove." As evidence in support of the above, Simmins relates how he had chilled a quantity of brood by examination in the early morning. Some months afterwards he found the hives he had examined rotten with foul brood, and at a later stage a colony, which had been robbing from the diseased hives, also was found infected. It would appear from this

that it is dangerous to leave or give combs of chilled brood to a colony to clean up. I don't pose as an authority, but I can say that I have on several occasions had the misfortune to have chilled brood, but so far have not had an outbreak of disease by leaving the combs to be cleaned out by the remaining bees. It would be an interesting experiment if some of our scientific beekeepers would just get to work and see if it is possible to originate the disease by following on the lines of the above extract.

## District Reports.

### AUCKLAND PROVINCIAL BRANCH.

Extracting for the season in our district is mostly finished. The crop, except in a few favoured spots, has been light, the cold weather in January having spoilt a very promising season. The annual meeting of our Association will be held in Bath Hall, Hamilton, on May 16, at 11 a.m. I would like to urge all members to be present, also to forward subscriptions before that date, so as to allow us to close our books. Any business to be discussed at the forthcoming Conference will need to be brought forward.

A. H. DAVIES.

14/3/22.

### TARANAKI.

I read in the last Journal that a beekeeper's chief commodity is Hope. Well, it is ours in Taranaki, and I really do hope for better things next season.

From one-third to half crows are about the standard this season, although some yards near the mountain and north of Stratford have done fairly well.

The reason for a poor season is either very simple—viz., not sufficiently hot until too late in the season; also, too much coarse growth choked out the clover, or I give it up as a puzzle.

Our West Oxford correspondent invites some help on a foul brood subject. Well, when I read anything on that subject I am apt to get hot. Did I read it right that our friend said we had no direct proof that robbed honey carried foul brood?

One day a neighbour of mine complained that my bees had robbed all his honey that he had brought home from a bush tree. Result: 56 cases of foul brood—first and only appearance in that particular yard in 11 years. Another time 11 cases out of 30—first and only appearance in that yard for six years. Just over the fence a farmer had bought four colonies of foul brood bees, and my bees had a field day at his place.

Don't you experiment, boys, to get direct proof, because you will get it where the chicken got the axe.

Talking about lucerne, I think I will have to send to Cheviot for some educated bees. I put in a quarter of an acre of lucerne, and got a beautiful take, and a grand show of

flowers. I left about half of it until it was very little use for fodder, and, although we had some perfect weather in February, not a bee worked it. Can some one tell me why?

OKAIAWA.

15/3/22.

### HAWKE'S BAY NOTES.

From a promising spring the seasons skipped over summer and landed us into the autumn. There was no summer at all—only rain and wind and an apologetic sun where the summer should have been.

No one speaks of his honey crop now. The mention of such a thing is met with a snort of disgust. On behalf of our disappointed fraternity we should like to suggest that those cards calling for a crop report be not sent to this district.

The season, however, has not restricted swarming. Swarms, one after another, have appeared, not only from old hives, but also from new colonies with young queens. There has been good fresh pasture, but the beekeeper could not consider himself in clover.

J. P. BOYLE.

14/3/22.

[We are not sending out cards for crop reports this year.—Ed.]

### CLUTHA VALLEY.

On Saturday at Mr J. P. Rutherford's apiary at Inchclutha a number of bee enthusiasts assembled to witness the demonstration to be given by Mr H. Goodman, of Greenfield, and three local inspectors. Visitors were present from a wide expanse of country, and, the afternoon being fine, a very profitable and enjoyable time was spent. The attendance was not so large as was expected, but this was due to the shortness of notice given, the event having been only advertised the day before.

Mr Goodman was the principal speaker, and he dealt principally with foul brood, a good deal of which is prevalent in the district. He gave illustrations of how to get rid of this pest of beekeepers, and if those interested work on the lines as indicated they will very soon clean their colonies. He showed them also how to detect foul brood. His next demonstration was the opening of several colonies and showing those present how to manipulate frames, where to look for queen cells, and when to extract frames. He then opened another colony with several sections, and showed how to work the sections to obtain the best results—by placing foundations and so forth.

At this stage Mrs Rutherford called a halt to partake of afternoon tea, and this was much appreciated.

After tea, demonstrations of uncapping and extracting were given, and those present were also shown how to clarify the honey after it was extracted. A description of how to purify the wax to bring it to block form was also given.





of Apiaries of British Columbia, Mr. W. J. Sheppard, a new cure—or perhaps we should say an effective cure—for European foul-brood is given. Although this disease is not very prevalent in New Zealand, we give the full account as received:—

With the approval of the Department of Agriculture, the Apiary Inspectors of British Columbia have spent considerable time during the season of 1921 in testing the efficiency of what is known as the Lewis treatment for European foul-brood.

W. H. Lewis, of Edmonds, B.C., who made many experiments in 1920, was the first to announce that he believed he had found a new remedy for this disease. Sufficient evidence has been accumulated this year to show that if the conditions are favourable—that is, if the weather is warm enough so that the bees are flying freely—the antiseptic used (Sodium hypochlorite) may be expected to check the disease sufficiently to enable the bees to clean it up.

The first experiments the inspectors conducted this year were made in the Fraser Valley during the month of April. The weather, then, with the exception of a few days, was wet and cold and the bees inactive, so that the work was carried on under difficulties, and the results were not conclusive. Several things were found out at this time, however. The proprietary antiseptic preparations containing sodium hypochlorite that were used are known and sold as "B.K." ("Baecil-Kil") and "Fecto." The strength of the solution that was first tried was 2 oz. of B-K to the imperial gallon of water. This was subsequently increased to 4 oz. Mr. Lewis had suggested that it was possibly an advantage to add a little oil to the solution, which was also done. The plan followed was to shake the bees off the combs, which were then sprayed with a fine mist sprayer, so that the liquid would penetrate well into each cell. The combs were then replaced in the hives as quickly as possible. It was not long before it was discovered that the solution killed all the eggs, but that the larvae escaped injury; also that it did not affect the bees adversely, but, on the other hand, acted as a great stimulus. After the spraying they quickly got to work cleaning up house, and the queens very soon started laying again. There was considerable reinfection, however, at that period, which was in all probability due to the weather being too cold for the bees to fly freely, so that they were hindered in cleaning out the diseased cells and getting rid of any infection that was left. When the experiments were continued later, it was found that a solution containing 8 oz. of the antiseptic (B-K) to the imperial gallon of water gave better results, and the following may be taken as a typical example of what then occurred:—

June 28th, 1921.—Colony at Langley. European foul brood very bad; at least 60 per cent of brood dead.

Sprayed 8 oz. of "B-K" to gallon of water, to which four teaspoonfuls of "3 in 1" oil was added.

July 2nd.—Colony cleaning up well; no new infection.

July 14th.—About 5 per cent. new infection. Sprayed again, same strength as before.

July 29th.—100 per cent. clean; no trace of European foul brood. Full of brood from side to side and storing honey well.

During the time these experiments were being carried out in British Columbia, Arthur C. Miller, of Providence, Rhode Island, one of the most prominent beekeepers in the United States, who had his attention drawn to the possibilities of the Lewis treatment, made up his mind to give it a trial. His first report, which was received about the end of May, is as follows:—

"One colony I treated with "B-K" full strength, and, while it killed some brood, they are now as clean as a hound's tooth."

Mr. Miller started off by using "B-K" at full strength to find out what dilution was necessary to avoid killing larvae.

His second report arrived about the middle of June, in which he said:—

"I have treated several complete apiaries and the results are glorious. The virulent type of European foul brood is worse than the others, or than American foul brood. Combs with it are simply filthy and big colonies will not touch the job of cleaning up; but after a dose of "B-K", what a change! They clean up with feverish haste, and the queen seems to outdo herself in egg production."

Mr. Miller's last report arrived about the middle of August. It is brief and emphatic. Summed up in five words, he says:—

"The Lewis cure does cure."

Mr. Miller states that sodium hypochlorite can be made up as follows:—Dissolve 2 lb. of sal soda in 2 gallons of hot water and 1 lb. of chloride of lime in 1 gallon of cold water. Pour together and allow to settle. The clear solution is ready for use. Once in a while the mixed solutions fail to clear. If so, heat it and it will separate.

[By the above it would seem that at last a drug has been found that will really cure the disease. When we first published the formula, one of our readers wrote that his chemist did not know what sal soda was, and we learn it is common washing soda. However, we find "B-K" disinfectant is listed in the Farmers' Union Trading Co.'s list, so the preparation is on the N.Z. market.—Ed.]

## The Honey Industry

INCREASE IN PRODUCTION.  
RECORD FOR THE DOMINION.

THE APIARIES ACT.

(From New Zealand Herald, March 20th.)

New Zealand's bees had their busiest and most profitable year in 1921. They produced 2,807,346 lb. of honey and 51,177 lb. of beeswax. The beekeeping industry is growing rapidly in the Dominion, and there is every indication that it is going to continue to expand.

The present flourishing condition of the industry is due to the operation of the Apiaries Act, which made the use of box-hives illegal and laid compulsion on beekeepers to keep their apiaries free from disease. The Act reduced the number of beekeepers, since it abolished many of the haphazard hives that used to supply amateur owners with small quantities of honey. But it gave a great impetus to professional beekeepers, who found themselves able to extend their operations with reasonable chance of success. The industry to-day is largely controlled by co-operative societies, and Government assistance is afforded by a staff of instructors. The grading of honey intended for export is compulsory. The effect of the operation of the Act is indicated by the following figures:—

	Beekeepers.	Beehives.	Honey produced.
	No.	No.	lb.
1906 ...	15,396	74,341	1,003,940
1911 ...	11,011	71,605	1,457,429
1916 ...	8,244	57,540	1,363,334
1921 ...	8,426	85,861	2,807,346

A comparison of the figures for 1906 and for 1921 shows that the number of beekeepers has been greatly reduced, the number of beehives has been increased by 15 per cent., and the output of honey has been nearly trebled. The figures tell their own story of increased efficiency. The industry has entered upon a new phase, in which specialised knowledge is increasingly important.

Honey is a profitable product, and not merely in the familiar Biblical phrase is it linked with milk. The clover of the dairy pastures provides the bees with the material for the best honey that they can produce. The product taken by the bees, moreover, is a crop that would not be gathered in any other way. The bee-farmers use very little land of their own. There is a great unsatisfied demand for honey in the world, and the graded article sent out from New Zealand has proved that it can command a good price. The experts seem to be justified in their claim that the beekeeping industry has a great future.

Regulations under the Census and Statistics Act were gazetted on Thursday, requiring every owner of bees to furnish annually, on request, to the Government Statistician, information with regard to the quantity of honey and beeswax produced within the year. —New Zealand Herald, 21/3/22.

## New Observations on the Natural History of Bees.

By FRANCIS HUBER.

(Published in 1808.)

TRANSLATOR'S PREFACE.

The facts contained in this volume are deeply interesting to the naturalist. They not only elucidate the history of those industrious animals, whose properties are the peculiar subject of investigation, but they present some new and singular features in physiology, which have hitherto been unknown, and even unsuspected.

The industry of bees has proved a fertile source of admiration in all countries, and in every age, and mankind has unremittingly endeavoured to render it subservient either to their gratifications or emolument. Hence, innumerable theories, experiments, and observations have ensued, and uncommon patience has been displayed in prosecuting the inquiry. But although many interesting peculiarities have been discovered, they are so unaccountably interwoven with errors, that no subject has given birth to more absurdities than investigations into the history of bees; and unfortunately those treatises which are the most easily attained, and at this day the most popular, only serve to give them a wider range, and to render it infinitely more difficult for the philosophic naturalist to eradicate them. A considerable portion of the following work is devoted to this purpose; and it belongs to the reader to judge of the success which has resulted from the experiments that have been employed.

Besides the observations contained in this volume, the author has more recently communicated with others of equal interest to M. Pictet, of Geneva. The year 1804, he remarked, had been particularly productive of honey, but towards the end of autumn almost the whole had disappeared from the hives. The combs of those destroyed, to obtain their contents, were nevertheless entire; they were moist and glutinous, and although containing no honey, it was evident, both from taste and smell, that it had lately been there. It was observed on the 17th of September that those large moths, of the species called sphinx atropis, had made their way into the hives and committed ravages on their stores. During the course of this year their numbers were unusually increased, and all the hives in the surrounding country had been plundered; some were detected in a hive where honey remained only in a single cell.

But one thing unaccountable to the author was, how this insect, unprotected by any external means of defence, should venture to invade the dwelling of thousands of animals, each armed with a mortal weapon, and where the access to it is guarded day and night by the most vigilant sentinels. Although insects seem to possess certain organs which may render them sensible of sound, they are deprived of those which in other animals produce voice. But there are two exceptions to

this general rule in the queen bee and the sphynx atropos. It is not ascertained, however, whether that which in them is considered equivalent to voice is actually produced by organs which entitle it to such an appellation. The author had found by several experiments, which are afterwards detailed, that queens have the faculty of emitting a certain sound, which instantly strikes the bees motionless, and that some singular peculiarities thence ensue; and he conjectures that the moth in question, being endowed with the same property, uses it to produce a similar effect, first on the cutinels at the entrance of a hive, and then on the bees within, that it may thus be enabled to rob their cells.

Bees are sufficiently aware of the danger to which they are exposed by the attacks of this redoubtable enemy, and adopt effectual precautions against it. When the ravages of the moth had been discovered, tin plates, with openings proportioned to the size of the workers, were employed to obstruct the entrance of a number of hives, but there being too few for the whole, two were left unsecured. These the author examined the following morning, and it appeared that during the night the bees had themselves contracted the entrance of their hive, so as to render it safe from invasion. They had built it up with a wall, consisting of wax and farina, in which they had left apertures suitable to their own size, and where only one bee could pass another. These precautions had also been extended to the whole hives, even those where the tin plates had been adapted.

The author conceives that the presence of danger alone induces bees to protect themselves by this remedy. On the 9th of July, 1804, he observed several bees wounded and dying on the board of a hive. These he recognised to have come from one in the neighbourhood for the purpose of pillage, but had been destroyed in the attempt. The like was next day seen; on the 11th, however, the bees attacked built up the entrance with pure wax taken from their own combs, there being no farina in the country. Two openings through the wall were left in the part farthest above the board, which could admit no more than a single bee at a time, whence two of their own number were enough to guard it. Afterwards, on the 22nd of the same month, these apertures were so much enlarged that two or three bees could pass at once; and in the course of September they had made another, like a very flat vaulted way, in the lowest part of the wall: here they had employed farina also along with wax.

(To be continued.)

## Address given to Canterbury Branch of N.B.A.

Friends, I am a materialist, a lover of God, a lover of Nature, a lover of all fair things, including the bee; I am also that which some foolish beekeepers have been throwing stones at—a member of the N.B.A.,

and a commercial member thereof. There was a time when I was an amateur, and I don't know but what that time was not the happiest time of all; but when they began to line my pockets, the altruistic side of the bee decreased somewhat; and now the happiest days of my beekeeping are those when I throw aside the cares of business and join with my fellow apiarists here, but more especially at that Chautauqua of Beedom—our annual meeting of the N.B.A., which I am glad to announce is to be held in Dunedin this year, for there, with my fellow lovers of the bee, we can renew our first loves and swap bee yarns; and it is seldom that I can not pick out from my friends' brains more than enough to cover my expenses. From what I know of our Dunedin friends, we are in for a good time, too. The last time I was there I went as a fruitgrower to a big conference of orchardists, and welcomed our King, and they treated us as if we were of the Royal party. There, also, I heard that great lover of the bee (though he has since been tempted by the apple to fall somewhat from his high degree), Mr Jas. Allan, who read a paper on "Beekeeping," which so set me on fire that I went in for it commercially. To me, friends, matter is indivisible; it differs only in degree. I often think there is a hidden truth in the Easterners' view of transmigration, and that we may be able to so impress matter in this life with our own personality that we may in a future state become one in the universe in working out its great plan of the advance of our creation and be used in the rousing of other created sentient matter to a higher plane of attainment. I suppose nothing strikes the thinking man in studying Nature than the way a one continuing purpose runs through all life, be it in the bee, in man, or in sheep, or even in the lowly grass, as Shelley so beautifully expresses it: "Birth but wakes the spirit to the sense. Life is its state of action, and the store of all events is aggregated there, that variegates the eternal universe."

There's not one atom of this earth  
But once was living man;  
Nor the minutest drop of rain,  
That hangeth in its thinnest cloud,  
But flowed in human veins:  
How strange is human pride!  
I tell thee that those living things,  
To whom the fragile blade of grass,  
That springeth in the morn  
And perisheth ere noon,  
To an unbounded world;  
I tell thee that those vicious beings  
Whose mansion is the smallest particle  
Of the impasive atmosphere;  
Think, feel, and live like man;  
That their affections and antipathies,  
Like his, produce the laws  
Ruling their moral state;  
And the minutest throb  
That through their frame diffuses  
The slightest faintest motion,  
Is fixed and indispensable  
As the magic laws  
That rule von rolling orbs.

— Shelley, "Queen Mab," page 761.

At any rate, such a belief leads one to deal very gently when smoking bees, when we think that we, too, may be thus smoked. Bees often have a very trying time when

passing through the hands of the average amateur, and, if they think much, must pray that he may soon be transmigrated into a higher sphere, and many a queen would still have her head and be progressing higher in the scale of life but for some ill-judging amateur's "off-with-her-head" plan. Which reminds me of a case in point: A certain young beekeeper could not get his bees to bring him in any honey, and, of course, blamed them when it was really the locality, and kept wasting his substance in buying new queens, which was, of course, good for the queen raisers, but not for the queens involved. Finally he sold out in disgust, and now preaches that there is no money in bees. But one of those discredited queens is now one of the champion breeders of New Zealand. Fortunately for her, she fell into the hands of someone who knew his business and gave her her chance. We are sent into this world to put our thoughts into matter and so improve it, and this may be done in many various ways.

Now, I wish to take this occasion to explain the objects of the National. They are to bring all beekeepers together in one common brotherhood; to get the small producer and the large to join hands in a union mutually advantageous to each, and by meeting together and conversing to impart to each other bee lore. The commercial side of our industry we leave to the individual or to the H.P.A. It seems to be the policy of some foolish beekeepers to try and frustrate these good intentions. Our various conferences have been to me a happy meeting ground. In Wellington I first met Mr Ward, and here later on his good wife, and man-like, enjoyed her good pastry; also Miss McKay; also our worthy host and hostess and friend Jacobson, and Ireland, and others, too many to mention, but good fellows all, and from whom I have extracted something better than pastry. I have always been an advocate of running an apiary in conjunction with some other industry, preferably fruitgrowing, as I consider it is too uncertain a producer to risk one's living to it alone, and if one industry does not pay its way one year, then the chances are the other will. In my own case, I started with fruit, but just when it was beginning to pay its way, the Lord sent me a quiver full of little B—s, all anxious to have their mouths filled and to be suitably clothed, so I added beekeeping, and it gave me that added amount of income to pay for these additional blessings. But I doubt if it would have done so had not the National and the H.P.A. helped to raise the price of honey, for till then we were getting from 2d to 3d per lb. for it. Please see you will, and remember this, that if you wish to keep the price of honey at its present rate you must stand firmly by the National and the H.P.A., for they are only fighting in your interest, and in unity is our strength.

What is velocity? asks a science journal. We always thought it was the thing with which one lets go of a bee.—Western Honey Bee.

## 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,—I have pleasure in acknowledging receipt of the New Zealand Beekeepers' Journal for December, and desire to take this opportunity of thanking you for sending copies on to me with such regularity. In the current issue (December), I find a slip enclosed reminding me that my "subscription expires with this number." Consequently, I am enclosing my subscription herewith, and, along with it, I wish to heartily reciprocate the Christmas and New Year's greetings you kindly issued to the subscribers of the Journal.

I scarcely think I need repeat what I have conveyed to you in a previous letter, but I do feel I ought to say again how much pleasure and profit I have derived from the perusal of your Journal since I first began to receive it. It has, in my opinion, not only maintained its high level of excellence, but has made further advances, and I have therefore much pleasure in paying my humble tribute of praise to all those responsible for its welfare and production.

New Zealand is some 12,000 miles from here, but, believe me, the beekeepers of New Zealand are much nearer to me. The photos of a number of apiaries, as shown each month on the cover of your Journal, have helped me considerably to realise their nearness.

One illustration was of special interest to me—viz., the one showing disabled ex-service men being trained in bee culture. Why? Because I was engaged for a considerable time in rendering similar service to two centres established in the Birmingham district. Poor, dear lads! Some of the happiest hours of my life were spent in their company! I enclose a newspaper cutting ("Bravery and Bees"), having reference to an incident in the course of their training.

### BRAVERY AND BEES.

What an indefinite thing is personal bravery—and how few of us have not an Achilles Heel in our mentality through which our vaunted courage may be desperately wounded! Take the case of the disabled ex-service men now being trained at one of the Government centres in Birmingham, where the lecturer in beekeeping was giving a practical demonstration with live bees the other day. Most of the class held discretion to be the better part of valour, and kept a very respectful distance from the hives. The lecturer appealed to them to come nearer, but still the majority hung coyly back, even as you or I would have done. Then the demonstrator began to "pull their legs," remarking gravely: "Gentlemen, I should be very sorry indeed to go away from this apiary and make it known to my friends that I had been in close contact with a body of men who, on the fields of France and Flanders, had boldly faced the enemy amidst the hail of bullets and the bursting of shrapnel without showing the slightest degree of fear, yet dare not face

the proximity of a few innocent little honey bees! But perhaps you would rather go through all your battle ordeals again than risk making the acquaintance of one of these little chaps' business end!" And the squad unanimously replied, "We would!"—Birmingham Mail.

I suppose your honey harvest will be completely over by the time you receive this, and your members will be reflecting on the results of the season. I sincerely trust it has been an all-round good one. We, in England, will be on the threshold of the coming spring, and, of course, full of anticipations, which may or may not be realised. In the meantime, our hopes will remain high.

In all probability there will be a boom in beekeeping in England this year. We get these periodically—about every ten years. As you will know, the craft is always maintained by beekeepers of knowledge and experience, but interest in beekeeping outside of these ebbs and flows. Last year the daily press took the matter up with vehemence, and showed—oh! ever so clearly!—that by the expenditure of a few shillings hundreds of pounds of honey could be easily obtained! That it is the most interesting and profitable hobby in the world, etc., etc.! Consequently, there is great excitement among would-be beekeepers, a great rush for bees, hives, and appliances, and, usually, at the beginning of the following season there are plenty of hives for sale—cheap! These periodic booms are good for the dealers in appliances, etc., but bad for the craft, as so many hives are left with combs containing disease germs, and through which other beekeepers often suffer by the contagion being carried to their hives.

To you and all the members of the New Zealand Beekeepers' Association I send hearty greetings and all good wishes for your continued success.—I am, etc.,

GEO. HANDLEY.

54 All Saints road, King's Heath,  
Birmingham, 15/1/22.

P.S.—Just now my hives are covered with snow—eight inches deep!

(TO THE EDITOR.)

Sir,—I for one entirely endorse Mr Dodd's suggestion in re the manipulating by yourse! (if the request is not too tall) of half a dozen colonies of bees. It appears to me we are all learners, if not beginners, for what the bees would do last season is somewhat different this season, and I expect next season there will be another queer trick tried out by the bees. I tried that experiment with one hive this season of keeping the brood on top, or, rather, I tried it for about four or five weeks, and my experience is, well—Kauri Kau Kapai keep the brood at the bottom as in the natural order of things. The bees did not appear to want to swarm, but, by Jove, they swarmed some, and had less honey and less brood at the end of the month than when elevated. I see quite a lot in the Journal about Bokhara and Huban clover for bees. I have tried Bokhara clover, and it is very good. This year I had plants over seven feet in height, but why not try something that will last for years and yield nectar? The *Gleditsia Triacanthos*, of North America, called there the honey tree, is a tree that will

grow almost anywhere, will make a good hedge and breakwind, the foliage is handsome, and I believe the seed pods are very fattening for cattle. I have three trees, sown last October, and the plants are now 22 inches, 27 inches, and 28 inches high—very good for five months. Probably you would make inquiries in re this tree from some North American apiarist as to the value of the tree, and in the probability of it being favourable, for the purchase of seeds for beekeepers.—I am, etc.,

E. E. TATAM.

Whakatane, 10/3/22.

(TO THE EDITOR.)

Mr F. C. Baines,  
Secretary National Beekeepers'  
Association,

Kati Kati.

Dear Sir,—I am forwarding you herewith for your information copy of the schedule of awards and entry form in connection with the Forty-fourth Annual Dairy Show of the British Dairy Farmers' Association, which is to be held in London, 17th to 20th October, 1922.

You will notice provision is made for an exhibit of colonial honey, entries closing 7th August next.—I am, etc.,

J. A. CAMPBELL,  
Director of the Horticulture  
Division.

Wellington, 15/3/22.

#### COLONIAL HONEY.

(Produced in the Overseas Dominions.)

Class E.—Three Vessels of Extracted Honey, as imported; entry fee, 20s. First prize, silver medal; second prize, bronze medal.

Vessels must all be effectively secured against leakage to the satisfaction of the judges, who will be empowered to submit them to any necessary test at owner's risk. Honey will be received up to 6 p.m. on Monday, October 16th.

Entries close Monday, August 7th, or, with an additional fee of 50 per cent., at noon on Saturday, August 12.

The official numbers and labels for entries in above classes will be forwarded to authorised British Agents of the exhibitors.

White cards only, 12 inches wide by 8 inches high, will be allowed to be placed on exhibits by agents of the exhibitors.

Particular attention is drawn to the date upon which exhibits must be delivered at the Royal Agricultural Hall, Islington, London.

Exhibitors are strongly advised to despatch their exhibits sufficiently early for these to be delivered at the times stated.

(TO THE EDITOR.)

Sir,—Many thanks for your favour in putting in your paper a few suggestions on foul brood. It is such an important question to beekeepers that I send a few more remarks. After subjecting the glass which covered the boxes where the foul brood was to a powerful microscope, I put the glass in the sun. In two hours everything on the glass

had disappeared, and put me in mind of the way massed scale blight swarms from one tree to another. In the season, if you examine with a glass the bough that is nearest the affected tree you will find any quantity of fresh scales in the form of a very fine dust; they soon get big enough to be seen with the naked eye. It may be the foul brood swarmed from the glass into the nearest hive. My bees have been in the habit of drinking from a pond a chain away. There were so many around drinking that I tested the water, and I found that it was literally alive with something. There were hundreds in a drop of water. The old bees take a lot of water to the grubs, and they must be alive when they take them out of the pond, and in appearance they were similar to those on the glass of the experiment. I put fresh water from a tank where there were no microbes, and put a tablespoonful of salt to a gallon of water. Thirty boxes consumed this stuff and left it empty by the evening, showing what a quantity of water they use. The salt had no ill effect on the bees; I put it in an iron camp oven and put a round board to float on the top. I took foul brood and let it swim in water; after a time there were microbes in that also, but not like those from the pond. These were the same shape as those from the glass.

Perhaps your readers are not aware what a blessing foul brood is to us, although it is utterly impossible to get rid of it. If we could get rid of it, what would be the result? No boxes would die, and the bees would so increase that they would not be able to gather more than sufficient for themselves. The part where I live there are plenty of hives. There are three apiaries within 20 chains either way, and plenty more further on. Were it not for the foul brood none of us would get any honey—there is very little this season. The district is a real happy hunting ground for the inspector—plenty of good cases, and we all know it. I have tried other chemical with the water, but the difficulty is to find something that will kill the microbe without destroying the bees. I am simply giving my experience that some younger man than me might give a little time to it.—I am, etc.,

ALFRED BURROWS.

West Oxford, North Canterbury.

[Thanks for your further remarks, friend B. You say the salt put in the water had no effect on the bees. I have found that bees have a decided preference for salt, and I think this is evidenced by the fact that you will often see them where cattle have been—in cowyards, for instance. I have often seen them on the moist mud there. "You took foul brood and let it swim in the water"—I can only say I'm glad I'm not a neighbour of yours. You say foul brood is a blessing! I've always reckoned it a curse, and do still, and when I see it, I don't do any experimenting—out it goes as quickly as possible. I don't think it at all possible that we should get too many bees if we got rid of foul brood. There are other causes of bees dying out besides disease.—Ed.]

## Answers to Correspondents.

Wellwisher, Palmerton North.—I'm sorry you did not put your name to your letter, although I believe I can "fix" you by your handwriting. If, as you say, you wish the H.P.A. every success, then the only action possible for you is to join up, because if you have honey for sale and sell outside the Association, you militate against the success of the concern, which is against your wishes. The advertisement sent is quite all right; it has always been allowed members to sell as much honey from the apiary as the demand calls for. The fact that the distant beekeeper has come into your district offering honey 1½d per lb. below the local man causes me no surprise. He is a "snag," and one of those people who cannot go straight. I could tell a tale of his rotten doings ever since the H.P.A. started. The following letter, taken from February Gleanings applies to him just right:—"WHO IS THIS MAN? There is a pestiferous fellow who is trying to ruin my chances for successful beekeeping (and yours, too). In every state which I have visited he has been at work before me, blasting my chances and the chances of countless others, and, never tiring, persists at his abominable work, heartlessly taking opportunity for education, travel, and all the better things of life, even bread and butter itself, from me and my family and from yours. Who is this man who skulks on the trail of every beekeeper who seeks to do well by himself, his family, his social community, his nation, and the world? Regardless of cost of production, and a fair income to the producer, though usually a producer himself, he is the man who cuts the price.—E. F. Atwater, Meridian, Idaho." If you are going to wait, as you say—until loyalty reigns supreme amongst present members, you are going to wait a long time. I believe the members are as a body very loyal; it is the outsiders who are the menace. Don't be a menace, join up and be loyal.

A bee has a right to roam at will, Judge Nelson E. Johnson ruled recently in the Circuit Court at Kansas City. Judge Johnson was hearing an appeal in the case of Lee Cooley, fined £10 in the police court some time ago on the ground that he "harboured vicious bees." The complaining witness at that time asserted that one of Cooley's bees had stung a child five times. Judge Johnson, after listening to the testimony of experts, announced he was convinced that a bee could sting but once. He held a city ordinance restricting the wanderings of bees was unconstitutional, and ordered that Cooley's fine be remitted.

## Beekkeepers' Exchange.

[Advertisements on this page will be inserted at the rate of 3/- per 30 words per insertion. Cash must accompany order or will not be inserted. Addresses care Editor 6d. extra to cover cost of postage of replies.]

### THE APIS CLUB.

Port Hill House, Benson, Oxon., England.

Two of the chief planks in the platform of the above Club are—the stimulation and conduction of research work in Bee Culture and the creation of International scholarly relations amongst progressive apiarists in all countries.

Membership fee, 10/6 per annum, which includes one year's subscription to the "Bee World," a paper that has by sheer merit come right up to the front rank of Bee literature. ENROL NOW!

Dr. A. Z. ABUSHADY,  
Secretary.

**FOR SALE** (going concern), 33 ACRES OF UNIMPROVED GOOD LAND, 60 to 70 Colonies of Bees, 1 4-Frame Power Honey Extractor, 1½ h.p. Oil Engine; all in good order. Price, £285. Terms, cash £100, balance at 6 per cent.

Apply,

G. A. HANCOX,  
Peria, North Auckland.

**FOR SALE**, 25 HIVES ITALIAN BEES, two storey, guaranteed clean; also Extractors, Wax Press, Saw Bench, and Sundries. Complete outfit for £60 cash. Vendor's address obtainable from,

N.Z. CO-OP. HONEY PRODUCERS' ASSOCIATION,  
Box 1293, Auckland.

**FOR SALE**, 30 STRONG COLONIES ITALIANS (or less), in 10-inch Frame Hives with Iron Roofs, 3 storeys complete; guaranteed no foul brood and all young queens. Will sell cheap. Apply,

H. R. PENNY,  
Okaiawa.

**FOR SALE**, BUNGALOW, 5 rooms, all conveniences, built Heart Kauri, finished Heart Rimu; 4 acres land, windmill, septic tank; adjoining Auckland suburban station; ideal place for Apiary; now carrying 30 Hives—could carry 300. Price £2200. Terms can be arranged.

Apply,

W. A. KEECH,  
Takanini.

## Subscriptions Received.

[NOTE.—Should there be found any discrepancy, please write the Editor.]

A. Davis, Greymouth, to Jan. 23.  
R. M. Walden, Greytown (6s) to Nov. 22.  
J. Campton, Feilding to Jan. 23.  
W. H. Brown, Staveley, to Dec. 22.  
J. Corrigan, Dunroon, to Feb. 23.  
J. Campbell, Rakaiia, to Feb. 23.  
H. Wall, Rotorua, to Feb. 23.  
W. A. Sillifant, Christchurch, to Jan. 23.  
J. Budds, Masterton, to Feb. 23.  
G. Nimmo, Brunner, to Feb. 23.  
J. Coulson, Paeros, to Jan. 23.  
D. Buckle, Whangarei, to Feb. 23.  
J. Anderson, Carterton, to Feb. 23.  
H. M. de Joux, Winton, to March 23.  
G. Handley, Birmingham, to Dec. 22.  
F. Karl, Pataruru, to March 23.  
J. Currie, Thames, to Feb. 23.  
R. Gibb, Southland, to Dec. 22.  
A. McDonald, Temuka, to Feb. 23.  
Dr. K. I. Woodward, Takaka, to Jan. 23.  
J. R. Anderson, Te Puke, to Dec. 22.  
G. V. Gow, Hamilton, to Sept. 23.  
G. Kilminster, Kihikihi, to March 23.  
W. Koefoed, Outram, to March 23.  
H. A. Ward, Fordell, to March 23.  
Miss Farr, Waikari, to Feb. 23.  
Mrs. Aitcheson, Heriot, to Feb. 23.  
G. A. Hancox, Peria (4s), to Sept. 22.  
A. C. A. Sexton, Auckland, to Jan. 23.  
Jas. Todd, Miranda, to Feb. 23.  
T. H. Evans, Manurewa, to Feb. 23.  
Miss E. Stirling, Waikaiia, to March 23.  
Dr. T. W. Fairman, Governor's Bay (20s), to Feb. 24.  
R. Whytock, Milton, to March 23.  
F. Wyndham, Balclutha, to Feb. 23.  
G. L. Hight, Hororata, to March 23.  
E. Hilton, Waikivi, to March 23.  
C. Neave, Haywards, to Feb. 23.  
A. C. Ward, Edendale, to Feb. 23.  
J. B. Drake, Plesant Point, to March 23.

After considerable experience the demand for our Foundation Comb has grown to such an extent all over Southland and Otago that we have decided to supply all Beekeepers with our own Foundation Comb, or make up their own Wax.

Local Foundation always in stock.  
Also Makers of Hoffman Frames, etc.  
Samples and Prices on request.

Address:

**Butler & Hemmingsen**  
83 Teviot Street, INVERCARGILL.

## End of Season Sale.

### PRICES REDUCED TO CLEAR.

We have one each Root Four-frame Automatic Extractor Nos. 25 B.F. and 27 B.F. for Power which we offer at twenty per cent. below list rates to clear.

These machines have all the latest improvements, including friction drive, ball-bearings, etc., and run as smoothly as a bicycle. Prices to clear:—

**No. 25—£26.**

**No. 27—£28.**

**MOGUL MOTORS.**—We have one each,  $1\frac{1}{2}$  and 1 h.p. Motor left. These motors are perfect and sold with a guarantee for twelve months. The  $1\frac{1}{2}$  h.p. machine is fitted with a Bosch Magneto and has, in addition to the main drive, a reducing gear. The main drive will run the extractor at high speed, and at the same time the extra gear will drive a pump, fan, or any other appliance. A special feature of these motors is the carburettor, the machine is started up on petrol and is driven with kerosene. The cost of running is less than 1d. per hour. Prices:—

**$1\frac{3}{4}$  h.p.—£35.**

**1 h.p.—£25.**

### Alliance Hives and Supplies.

The "Alliance" Dovetailed Hives and Frames, which have given universal satisfaction in the past, still maintain their excellence of quality, fit, and workmanship. The very largest Beekeepers in the Dominion year after year specify "ALLIANCE" Goods, because of their dependability. We guarantee every article sent out from our Works to be of the very best quality. We back up our guarantee with an offer to replace, free of charge, any article which proves unsatisfactory.

### Export Tins and Cases.

We are holding Large Stocks, and can deliver same day as the order is received. Prices at current rates.

### Pat Honey Boxes.

There is a big demand, particularly in the South Island, for Honey packed in pats. Honey pats return a higher price than any other retail package. Write us if you are interested.

**Alliance Box Co., Ltd.,**

**MASON STREET, DUNEDIN.**

Telegrams—"Brickell, Dunedin."  
Post Office Box 572, Dunedin.



## 1921-22 PRICES OF ITALIAN QUEENS

### UNTESTED

DELIVERY IN ROTATION OF ORDERS MID NOVEMBER TO MID MARCH.

1 or 2.	3 or 4.	5 or more.
7/6 each.	7/- each.	6/6 each.

### TESTED

DELIVERY IN ROTATION OF ORDERS FROM THIRD WEEK IN OCTOBER.

12/- each.

**TERMS.**—September to March—Cash with Order; Cheques to have exchange added. April to August—Orders for the following Season may be booked; payment at time of delivery.

Any Queen arriving dead at original address replaced Free if Cage is returned unopened.

#### REPORT OF LAST OFFICIAL INSPECTION:

Dept. of Agriculture, Industries & Commerce,  
Blenheim, Sept. 15th, 1920.

Mr. J. H. Todd, Renwicktown.

Sir,—Having examined every hive at your Apiary at Renwicktown, I have found no evidence of Foul-brood.

(Signed) A. P. YOUNG,  
Apiary Inspector.

POSTAL ADDRESS:

**J. H. TODD, Renwicktown, MARLBOROUGH.**

## 1921-22 PRICE LIST of ITALIAN QUEENS

### PRICES:

	1	2	3	4	5
Untested .. ..	7/6	14/6	21/-	28/-	35/-
Select Untested—1/- extra per Queen.					
Tested .. ..	12/-	23/-	33/-	40/-	50/-
Select Tested .. ..	17/6	34/-			
Breeders .. ..	30/-				

QUEENS GUARANTEED FREE FROM ALL DISEASE, and bred from Pure Stock, which have been selected for hardiness, disease-resisting, good-working & non-swarming qualities.

Ninety-five per cent. of Untested Queens guaranteed purely mated.

**Delivery**—Tested, from 15th October; Untested, from 20th November (as weather permits) to 20th March. All orders to be in by 1st MARCH.

**TERMS.**—Cash with order. Cheques to have exchange added.

P.O. Order Office, Heriot. Orders filled in rotation.

**NOTE.**—Owing to high cost of all materials and postage, no reductions can be allowed on list prices for larger quantities.

POSTAL ADDRESS:

**R. Stewart, Crookston, Otago.**

## Why Purchase a Bartlett-Miller Reducer?

Beekeepers need that the fact be emphasised again and again that the Honey Extractor is a boon and a blessing ONLY WHEN THINGS GO RIGHT, and even then only for healthy combs. One diseased comb in the Extractor, and—! There are several jobs around extracting time that the Extractor does not exactly make a batch of—it flatly refuses to tackle them at all! These jobs are by no means all of the same importance.

The least important of these "extractor-strike" jobs is the melting of cappings, and despite the fact that most producers imagine that job is the most important one which a Reducer is purchased to accomplish, IT IS NOT SO!

Any Reducer to be worthy the confidence and praise of its owner MUST POSITIVELY be able to reduce (both rapidly and without trouble) any old and solid waste every season to those who own one.

It is all very well to save the awful bugbear of the disposal of cappings, and for that job alone a Reducer saves its cost by the elimination of mess, worry and waste every season to those who own them.

S-T-I-L-L, many honey producers have allowed their minds to become obsessed by the idea that capping reduction is the be-all and end-all of a Reducer's existence, but it was the result of our experience over thirteen years ago that led to the advertising of our invention as distinctly a COMB REDUCER. NEVER did we describe it as a Capping Reducer without the additional word "Comb," for unless a Reducer will handle the blackest combs that ever were taken from the worst clogged brood-nest (with pollen, that is), it will prove nothing better than a deceptive fair-weather friend at just the very time when you need a friend in the shape of a utensil that will see you through the stiffest problem of all one's beekeeping experience, and that problem is the saving in marketable shape (without danger of infection) of the wax and honey in combs from the brood-nest infected with foul-brood. Otherwise they must be absolutely wasted, and the amount of good wax and honey wasted every year through the lack of a utensil to conveniently handle the diseased combs would pay twice over for a Reducer for every Beekeeper in the Dominion. We have a letter from one of our purchasers which we expect to publish in next issue if permission is given us to do so, stating that the owners saved seventeen pounds in reducing comb from box hives, purchased by two friends, the other one of whom saved the bees but burned the combs. Each party took half of the Maori-owned boxes, and our correspondent bought a "BOOSTER," and saved his £17!

Of course, the Bartlett-Miller Reducer is specially constructed to handle F.B. combs with safety. The solid matter is lifted by the operator into the front tube space as it accumulates in the other melting spaces, and here it is allowed to remain until all liquid has run from it that will run, only a little wax remaining with the slungum; then the patented fall-down bottom is tripped, when all matter drops on to whatever the operator has held there to catch it, and it is carried to the wax-supply cask utterly free from any honey to carry disease again by being robbed. By this means no amount of solid matter worth considering goes with the liquified honey to the separator, although the melted wax does, and is there separated from its liquid partner.

While the one space containing the solid matter is draining its honey, the rest of the Reducer is quietly going on with its job of melting cold combs. The fall-down bottoms are adjusted by means of screw nuts to whatever runaway space the operator desires—from wide open to quite shut.

ORDER IF YOU SO WISH BY ORDER ON THE H.P.A. AGAINST THIS COMING CROP. THE H.P.A. ARE OUR ONLY AGENTS.

The Thoroughwork Apiaries, Kihikihi

# The New Zealand Co-operative Honey Producers' Assoc., Ltd.

(H.P.A.)

Head Office :  
Stanley Street, AUCKLAND.

Postal Address :  
Box 1293, AUCKLAND.

Telegraphic Address : "Bees, Auckland."

## Beekeepers' Supplies.

BRANCH DEPOTS NOW OPENED AT :

DUNEDIN—Stock Exchange Buildings,  
Bond Street.

CHRISTCHURCH—Canterbury Orchardists'  
Buildings, Colombo Street.

Full Stocks Carried.

MAIN DEPOT : Stanley Street, AUCKLAND.

## Order Supplies Early.

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

# New Zealand Beekeepers' Journal.

## ADVERTISING RATES.

	1-Year	1/2-Year	1/4-Year	1-Issue
Whole Page	£10	£6	£3 10s.	£1 5s.
Half Page	6	3 10s.	2 2s.	15s.
Quarter Page	3 10s.	2 2s.	1 5s.	10s.
One-eighth Page	2 2s.	1 5s.	15s.	5s.
1-inch Insertion	1 10s.	16s.	9s.	3s.

## NICHOLAS' FOUNDATION FACTORY.

**BEESWAX WANTED** in Large or Small Lots. Highest Cash Price Paid.  
**Foundation Comb** at Lowest Cash Price.

The capacity of our Electric Power Plant has been greatly increased, and the adoption of the latest methods, combined with years of experience in making Foundation Comb, ensures a product unsurpassed by none.

Mr. H. C. Taylor writes:—"I am well satisfied with your Foundation. It seems to me quite as good as any imported I have seen. I fixed over 3,000 sheets without coming across a faulty sheet. You have saved the Beekeepers of the Dominion a large amount of cash."

Customers among the leading Beekeepers of the Dominion.

**NICHOLAS, 3 CALEDONIA ST., HAWERA.**

## Don't Forget

Our Store when anything is wanted in the shape of

## BEE MATERIAL.

Full supplies of all Beekeepers' Requisites kept in stock. Honey Tin Manufacturers. Agents for Alliance Box Co. and for Benton's Capping Melter.

**REMEMBER! If it's for Bees, we have it.**

**H. BEALE & CO., LTD.,** PLUMBERS, TINSMITHS  
and IRONMONGERS,

P.O. Box 129. 'Phone 62.

**MASTERTON, WAIRARAPA.**

## A. ECROYD

Manufacturer of

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A PRODUCT OF THE HIGHEST QUALITY SUPPLIED AT REASONABLE RATES.  
 CLIENTS' OWN WAX MADE UP AT SHORT NOTICE.

WRITE FOR QUOTATIONS AND SAMPLES.

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