

Registered at G.P.O., Wellington, for transmission by post as a Newspaper.

*1920*  
The New Zealand  
**Beekeepers'  
Journal.**

Vol. 4.

**JUNE 1st, 1920.**

No. 6.

Subscription: **5/-** per Annum in Advance.



The Apiary of Mr. C. J. Clayton, Rangitata, Canterbury.

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# The New Zealand Beekeepers' Journal

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

No. 6

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.

Our mind is now chiefly concerned with the coming Conference and the business to be transacted thereat, and we are a little in doubt as to whether the forenoon sessions will give sufficient time for the full discussion of the weightier matters.

The chief matter to be dealt with is the appointment of more apiaary inspectors and the more vigorous enforcement of the Apiaaries Act, and we are sure there will be no division of opinion on this serious question.

On the question of apiaary boundaries there is bound to be a great deal of discussion, and as the Editor's suggestions are to be used as a basis for discussion of this matter, it would be as well to define our position, as it is rather a peculiar anomaly that the proposals of one who has been against legislation on the matter should be taken as a basis. If one is against a certain proposal, why assist in any way to get it carried?

The Editor is responsible to his readers and the industry generally for what he advocates or not, and the Journal is the medium through which all matters relating to the industry are discussed. A certain

number of beekeepers are convinced that legislation is required for their protection, and a Committee was appointed to meet the Government officials and frame clauses to meet the difficulty. These opinions, were not practicable, therefore the matter was no further advanced. But the question was still a burning one with a number of beekeepers, and the Editor's duty was to recognise this, even if his private opinion was that legislation was impracticable. It was with the idea of doing what we could to assist that we made the suggestions that are to be taken as a basis for discussion. Whether anything of value will result remains to be seen, but we learn that at least one Branch has authorised its delegate to vote for their adoption. We feel it is necessary to explain our position, as we have been accused of inconsistency on this matter.

There can be no two opinions on the question of the necessity of getting the freight on honey carried by the railways reduced. Beekeepers have too long been penalised in this matter, and we hope the deputation will make it plain to the Minister that we have a genuine case for consideration.

The Conference is open to all those interested in the industry, whether members of the National or not, and they are invited to take part in the discussions; but it must be distinctly understood that only financial members of the National and its Branches can propose any motion or vote on any question. It would be obviously unfair to those who subscribe to the funds of our Association if others who do not assist us in any way had the same power of exercising votes on matters that perhaps entail the expenditure of our funds.

We shall be very glad if those who are gifted in any way and could contribute items at the social evening would inform the Secretary, so that a programme of music could be arranged.

The Honey Producers' Association Adjourned Annual Meeting being held at the Y.M.C.A. Hall on Tuesday, the 8th inst., at 2 p.m., will no doubt attract a large number of shareholders. We believe there is a chance of Major Norton, of the Bristol and Dominions Producers' Association, being present, as he is now on his journey to New Zealand. As the marketing of our honey in England is one of vital importance, the presence of the Major would allow a full discussion, and we should be able to get first-hand information on this matter.

We note the two retiring directors are Messrs. J. Rentoul and Allan. Without in any way disparaging the other gentlemen who are seeking election, we hope

the two gentlemen named will be re-elected. There are a number of schemes that have been started whilst they have been in office, and it is only fair to them that they should see them carried through. Mr. Rentoul has done excellent work for the Association and industry, and it is a fact that at a critical period of the Association's existence he was mainly responsible for preventing shipwreck. Mr. Allan is known and respected from one end of the Dominion to the other—keen on the industry, and keen on getting the very best return for the beekeepers.

It takes some time for a newly elected man to get a thorough grasp of the matters in hand, and as far as we can see, unless the meeting discloses any matter that indicates a change of directors should be made, we hope the present directorate will stand.

We have received a sample of beeswax that was purchased by a firm, which, on being subjected to the usual alcohol test, proved to be adulterated. The wax looks very like the genuine article, but has rather a shiny appearance. We understand the firm is prosecuting the vendors.

Last year we were shown a sample of a large purchase made in the Waikato. This was beautifully moulded, and to the ordinary person would appear as a splendid sample. But to an experienced beekeeper it looked a little too shiny. This was tested in our presence at the Ruakura Apiary, and was decidedly adulterated. The wax was returned to the purchaser, who demanded his money back, and, of course, got it.

We would warn our readers to be very careful in buying wax from other than beekeepers, because if a man bought a quantity of this adulterated stuff and mixed it with his genuine wax for foundation making, it would mean serious loss. We suggest prosecution as the best means of stopping this stuff getting on the market.

The Editor will be away from home from the 1st to about the 19th inst. Any letters relating to the Conference to be addressed c/o Y.M.C.A., Christchurch.

We very much regret to inform our readers that as the printers have had to agree to a considerable advance on the wages of their compositors, the cost of producing the Journal has increased to such an extent that it will be necessary to increase the cost to our subscribers; and the matter will be submitted to Conference for consideration.

---

Each inspiration flows divine,  
Like liquid gold from heavenly mine;  
Genius may then its soul impart,  
But patience is the source of art,  
Persistent effort linked with skill  
Commands success and always will—  
When septic forms of cold mature,  
Persist with Woods' Great Peppermint Cure.

## Market Reports.

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

**Auckland.**—The weather in April has been somewhat cold, indicating an early winter. There is nothing further to report in regard to prices, which remain unchanged. Large quantities of honey are now arriving at the grading store for export.—G. V. Westbrooke.

**Christchurch and Dunedin.**—There is little fresh to report. Extracting is finished, and consignments for export are now coming forward. The returns have varied considerably throughout the district. Prices are firm. Bulk honey is quoted at 8d. to 10d.; sections, to 12/6 per dozen. Beeswax is in strong demand, and sales are being effected at 2/6 per lb.—E. A. Earp.

The High Commissioner for New Zealand in London cabled the following on 17th April:—"Honey market very dull. At this week's public sale 636 packages were offered, including 50 New Zealand, and all were withdrawn. Broker's idea of value of New Zealand honey is 80- to 85/-."

Honey.	Offered.	Sold.
Australian .. .. .	477	0
Californian .. .. .	608	0
Cuban .. .. .	84	0
Honolulu .. .. .	127	0
Jamaica .. .. .	645	5
New Zealand .. .. .	320	20*
St. Lucia .. .. .	16	6
Salvador (drums) .. .. .	10	0
San Domingo .. .. .	252	0

\* Sold privately.

In view of the position of sugar, operators in auction were strangely apathetic, many of those present apparently holding a watching brief, as bids were almost absent. A little business was done after the sales at between the limits and bids made in rooms, but the total volume of sales was almost negligible; 477 cases Australian were taken out at 75/-, at which price business has been done privately; 708 cases Californian were retired at 110/-, limit being about 105/-; 84 cases Cuban were taken out without mention of price, and the same applied to 127 cases Honolulu and 252 cases San Domingo. Of New Zealand, 320 cases offered, and 20 sold privately at 105/- for white set. Six cases amber set St. Lucia realised 87/-. Of Jamaica, 645 barrels offered, but nothing sold publicly; but we understand that subsequently sales were made at between 100/- and 110/- for yellowy sugary to pale set.—"The Chemist and Druggist," 14/2/20.

## Work for the Winter Months.

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

52. How is a nucleus worked until it becomes a colony?
53. What might lead to the balling of a queen?
54. What is the width of the passage usually left by bees—
  - (1) Between sealed brood combs; and
  - (2) Between sealed honey combs?
55. What can be done to hasten the clustering of a swarm?
56. What are the utilities of queen excluders, and the drawbacks involved in the use of them?
57. What are the advantages and disadvantages of working for extracted honey instead of section honey?
58. For what purposes is it advised that a queen's wing should be clipped, and when and how is the operation performed?
59. Show how an ordinary lever lid tin may be adopted for use as a feeder.
60. If drones are not evicted from a hive in the autumn, what is to be inferred?
61. What should be observed when examining a hive of bees with a view to purchase?

## District Reports.

### TARANAKI.

I had hoped to attend Conference and to offer myself for election to the H.P.A. directorate this year, but circumstances have arisen which make it impossible for me to do so.

Mr. Gilling asks that candidates express their views on Mr. Allan's proposed system, and as I hope to be a candidate next year, a few remarks may not be out of place.

I have already expressed an opinion on Mr. Allan's scheme in last month's notes, but I would add:—The tendency of co-operative concerns is an extravagance of staff and working expenses. Mr. Allan's scheme would be a decided step in that direction, and if I am ever elected to the Board would use my influence for the prudent management of the Company's affairs.

Re raw sugar, I wish some of those Taranaki fellows who can back me up about it boiling out of the combs, would have something to say instead of letting me stand the lot. That editorial phrase "we" seems to have a whole army corps behind it. Just as well, perhaps, Mr. Editor, that you do not have to define that "we" (it might be the better half and yourself). However, perhaps you fed your raw sugar at a drier period, and you were certainly in a drier district. When I come to think of it, it was in the yards near the mountain where I had the most trouble, and that district has a much larger rainfall than the Editor's late district.

Wishing you all a successful Conference.

H. R. PENNY.

Okaiawa, 16/5/20.

#### HAWKE'S BAY.

Box hives are anathema! With the effort to obtain a full staff of inspectors these hives and foul-brood will receive much discussion. Are box hives really as great a curse as tree hives? For one box hive we know about, we can point to several hives in trees. These "no man's bees" are as likely as box hives to harbour disease, and more likely to spread it. Anyone robs these mown honey nests and leaves comb, putrid or otherwise, scattered all around.

Some orchard insects seem to be getting immune to sprays. This past season our H.B. bees verily ate smoke up. We welcome visitors who desire an introduction to them, but must mention that local beekeepers wonder whether steel armour would not be a greater boon than metal combs. A veteran, hardened to stings and scornful of gloves, described his pets this season as "robbing like fun and stinging like fury."

Since last notes, we have had a demonstration. The weather was southerly, with scattered showers; but there was a group of interested beekeepers. The programme, however, mostly comprised of indoor items, and kept us busy with extracting and frame and box-making, and with fixing a hive for winter. Various combs with different points of interest were shown, and anything of value freely discussed. The hive was made from a benzine case, and this and the procedure leading to a finished frame was well criticised. In fixing the hive for winter, all points of practical value were explained, many of them unthought of except by long-established apiarists. Our host put the full stop to the demonstration with a box of luscious pears. The orthodox vote of thanks was at once forgotten, but the treatment the fruit received would no doubt convey the appreciation of those present.

We call this item from the annual report:—"Our Association has been interested in the proposed formation at Arataki of a small apiary for demonstration purposes. The Director of Horticulture

placed upon the Association the responsibility of running this apiary. Its establishment is delayed by the Government queen-rearing apiaries being in districts infected with fire blight. This is a germ disease, which bees may carry from one fruit tree to another."

The report tells of a full year and a successful one. The finances are satisfactory. The membership is 37, but we are told it does not stand there. Foul-brood heads one of the chapters, and leads to the hope of extra inspectors. And the general meetings and field days are mentioned in terms of enthusiasm and appreciation.

J. P. BOYLE.

#### MALVERN.

The honey season in this district has panned out somewhat below the average of the past two or three seasons, the crop being somewhere about half of last season's total, late frosts and cold wintry weather up to January being responsible for this.

One result of this dearth of white clover is that the bees travelled into the hills and gathered a large quantity of manuka honey. Much of this is unextractable, so I have just let it alone and put it back on the hives for winter stores. I do not think there will be any danger of the bees starving before next season.

I am glad to see that the National is taking up the foul-brood question in earnest, and I think it is quite time something was done about it. There is not much fun in one struggling to combat this scourge when the district is full of it, and so-called beekeepers do nothing. A diseased out-apiary has just been planted within a mile or so of me, and extracted at the end of March, everything being done in the open; robbers galore, &c! Expect something doing in the spring!

J. E. YEOMAN.

## The Depot System of Handling Honey.

(TO THE EDITOR.)

Sir,—In your last two issues appears an article by Mr. James Allan on the depot system and criticisms thereon, one correspondent suggesting that the election of directors to fill the occurring vacancies on the Board should be influenced by the attitude of candidates towards the proposals in that article. Lest the attitude of the Board on this matter should be misunderstood, I wish to briefly state the position.

First, with regard to local committee management, I must confess that so far I have seen no reason for supporting this proposal. If the fruit-growers make the system a success, the possibility of its application to our industry could then be enquired into.

Second, with regard to the depot system, the Board does not consider that the adoption of this system is a "sine qua non." They believe, however, that the great improvements which can be made in the handling of shareholders' honey by that method fully justifies a trial, especially when a trial can be made at little cost. We necessarily have a store and depot at Auckland, and it is also necessary to have one in the South Island for packing for retail and the handling of supplies. To utilise these stores for receiving is an easy matter. If a trial of the system does not prove successful, there will be no difficulty in reverting to the present methods. But the depot system promises this:—

More sanitary conditions in handling and grading honey. The present grading stores are highly objectionable.

Better and quicker grading.—The necessity of grading every tin as at present is making it very difficult to get grading done in anything like reasonable time, and affects the Association's finance and payments to suppliers.

Opportunities for blending and getting a uniform grade.

Better all-round packing, and thus avoid losses that are occurring in shipment.

Prompt payments to suppliers, and the convenience it means to producers to get their product away promptly.

The cost of the Company packing as against the producer doing it in his spare time has been mentioned, but this remains to be seen. It is a fact, however, that the heavy charges occurring in the grading stores under the present system will be avoided.

The use of cream cans and their cost is mentioned; but while some may find them most suitable, it is not necessary to make their use compulsory. Personally, I consider converted benzine tins in a strong rough case sufficient. Indeed, by the use of these, if blending becomes advisable, the whole of the honey at one depot for a season could, if desired, be blended. This could be done by suppliers using sufficient of these tins for a season's crop, when they could be stored in a warm room at the depot until dealt with, the tins being returned for the next season. Also, in the event of the general adoption of the system, I think after trial that the number of depots required would be few. For example, probably one only for the East Coast of the South Island would be required.

In conclusion I would like to suggest to shareholders that their choice of directors should not be solely influenced by the depot system. It is not the largest of the problems that the Association has to face.—I am, &c.,

JOHN RENTOUL.

Cheviot, May 14th, 1920.

(TO THE EDITOR.)

Sir,—Mr. Gilling, in the last issue of the Journal (page 87), asks for the views of those of our members who have put themselves forward for election on the directorate of the H.P.A. in June next with respect to the innovation of receiving liquid honey at a central depot in instalments, in stead of in a granulated state put up for export.

As one of those seeking a seat on the directorate of the H.P.A., I am glad of the opportunity thus offered to state my views.

First, it should be tried in a limited way, say, in Auckland for one season before going into it largely for the whole Dominion, and the experience gained would be an indication as to its further adoption.

Second, it should be optional with some beekeepers, for the reason they may be so situated, it would be a great expense to get the return of empties in time for the extracting, whereas tins and cases could always be provided some time beforehand for the possible crop in remote places.

Third, locked cream cans containing 225 pounds of honey might be used by those who could afford them; but it should also be permissible to use screw-cap 60 lb. tins—two to a case. These could be returned as emptied, and used again and again, and, if necessary, employed finally for export honey.

Whilst dealing with the subject of liquid honey for packing depots, and admitting that every effort is now being made to bring about a larger Dominion demand for our produce at enhanced prices. I think some steps should be taken to inquire more closely as to how our export honey is dealt with, so that we should reap the benefit of the high English prices. It is common knowledge that members of the H.P.A. are only receiving a small advance on honey supplied, whilst H.P.A. and other honeys in England are fetching from 2/6 to 3/- per pound retail. Now, how is this difference accounted for? I think members are entitled to know the costs per ton of honey from the time it leaves New Zealand until it reaches the retailer's hands in England per medium of the B. and D.

Briefly stated, the producers here receive an advance of £56 per ton, and the same honey is sold over the counter in England at 3/- per lb., or £336 per ton—six times the amount of the advance received by us. What is the remedy? I

would suggest (and if elected press) that an investigation be made by a firm of accountants in England on behalf of our organisation as to how our honey is being dealt with, and reported fully to the directors for consideration, and then placed before all the members of our Association.

Some years ago I urged upon the then directors the advisability of appointing someone in England to watch our interests, and which our agreement with the B. and D. provides for, but it did not meet with their approval.

The time will come—and I hope shortly—when we can have our own branch depot in England to deal with export honey, for the purpose of securing full market values, for it must be obvious that the commissions now paid for the sale of export honey would go a long way to pay expenses in connection therewith.

Europe before the war, and England in particular, drew the bulk of its sugar supplies from France, Germany, Russia and Austria in the form of beet sugar, but now, owing to the ravages of war, sugar beets have greatly gone out of cultivation, and for years to come sugar will be dear and in demand, hence the price of honey will be maintained as long as there is a sugar shortage.

The question is, are we as producers of one of the finest honeys in the world, getting the full market price for our produce, and this, if elected, I intend to make it my business to find out.—I am, &c.,

J. S. COTTERELL.

Manawaru, Te Aroha, 17/5/20.

(TO THE EDITOR.)

Sir,—On the matter of a new system of grading being adopted, there can be no doubt that if the dairy factory system could be adopted, it would simplify matters very much; but in the light of our experience when this was tried, even just for a district receiving depot, the result was not satisfactory. Just one failure of a delivery of tins either for export or local markets would cripple any receiving store for a season, as the tank holding, say, ten tons, could not be emptied, the suppliers' cans could not be emptied and returned, the honey in them would be granulating all the while, necessitating handling and heating before they are ready for return, all of which adds to the expense. This is no conjecture, but actual experience gained in the Normanby Receiving Depot. There is a further obstacle—that of catering for the men who are "way back," where there are difficulties of either carting or shipping. The depot system would be of very little use to me, as I am twenty miles from the milhead, and my honey is sent by boat, and has to be transhipped. I should be very chary of sending my crop in returnable cream cans, as I would never know when they would arrive home again. There are others that are quite as badly situated as myself, to whom the factory

system would not be of the slightest use, even if it were practicable. I should very much like to see a scheme evolved whereby the graders could, instead of opening 200 cases testing and grading each tin, simply test and grade the 10-ton vat, and the whole of the tinning and packing done by the depot. On paper it seems not a very difficult problem, but judging from my experience, when dealing with the crop of under twenty suppliers, the thing is not practicable. With a depot receiving the crop of a hundred suppliers, the difficulty of handling it as it arrives would be enormous, even with a large staff. We tried once to "beat the clock" in filling and packing 2-lb. tins for the local trade by having two tanks, each containing close on two tons, one man filling, the other pressing the lids, filling the cases, nailing, and branding ready for market. We were successful in completing 25 cases (just 1½ tons), working from 8 a.m. to 5 p.m. Before starting the next day it was necessary to fill the tanks again with the honey from the heating chamber, and refill the latter. Then all the emptied tins had to be cleaned and made ready for further use, and in the meanwhile honey from suppliers was being received, necessitating checking and weighing, and whilst that was being done other work was standing still.

I just give this as an illustration of what work is entailed in a receiving depot, not with the idea of throwing cold water on the scheme, but that actual experience on similar lines to those proposed may be given. One might argue that with a larger staff the difficulties shown would not occur, but a large staff would very soon eat up all the benefits obtained by co-operative organisation; and in any case there would not be sufficient work for a large staff during quite six months of the year. However, if those who are advocating the change can put forward a workable scheme, I shall be pleased to see it tried.—I am, &c.,

FRED C. BAINES.

(TO THE EDITOR.)

Sir,—I am not in favour of Mr. Allan's depot plan of packing honey, but believe that every beekeeper should pack his own honey for export.

If it is necessary to blend a number of honeys, the place where it is packed for the retail trade is the place to do it.—I am, &c.,

L. C. HOBBS.

Palmerston Nth., 17/5/20.

(TO THE EDITOR.)

Sir,—As I will not be present at the annual meeting of shareholders to take part in the discussion, kindly insert the following in your next:—

The natural inference, from a perusal of Mr. Allan's letter, is that the H.P.A. has so far done nothing in the way of blend-



ing. That is by no means the case. We have been packing for the local market more or less for six years, and at times have had consignments of honey in the depot from all parts of New Zealand to work in to the best advantage. Experience is at all times the best teacher, though the lessons are sometimes costly. We have learned from experience that much could be done to advantage in the way of blending. We sometimes receive an insipid white honey, which could be improved by blending it with a honey possessing more flavour. Medium amber could often be lifted into light amber; A grade into B grade. Honey blending would, however, have to be reduced to an exact science to obtain uniformly good results. We have found to our cost that some flavours and aromas will not blend, and that the clash in the aroma is not always evident at once. It is, therefore, evident that some responsible person must make it a study; the blending could not be entrusted to the tyro. I would, however, make blending the exception and not the rule. Most of our honeys deteriorate both in aroma and colour, if they have to be reliquified; the first set, if the honey is properly handled, is the best. I quite agree with Mr. Allan that the sight presented in some of our grading stores is not pleasing. The shipment would look much better were the packages all clean and uniform in every respect; but the honey is mostly going to, shall I say, our own bottling depots at Bristol and Liverpool, not on to the open market; and Major Norton has told us repeatedly that as far as he is concerned the appearance of the case is immaterial. I hold no brief for the slovenly, careless beekeeper, nor would I discount the greater satisfaction derived from turning out an article always pleasing in appearance; but if the H.P.A. involves its shareholders in the expense the adoption of the factory system would entail, another Company run on more economical lines could soon replace it. The success of the Waikato Co-op. Dairy Company against the N.Z. Dairy Association is an illustration of the danger in this direction. I am not advocating a policy of stagnation; there is room for great development, but it is in the direction of profit-earning, money-saving enterprises, and under present conditions the general adoption of a factory system could not be included in this category.—I am, &c.,

H. W. GILLING.

(TO THE EDITOR.)

Sir,—Our Journal is issued on 1st May, and I have to-day (11th May) just received it. Why it should take eleven days to come from Dunedin I do not know. Other mail matter comes in one-third of the time. The point is that to catch next month's Journal I have to write at once. I suppose others are in the same dilemma, and if so it is not satisfactory. We would like sometimes time to read, mark, and inwardly digest before replying. That is

how I feel to-night in replying to Mr. Gilling's letter. He (Mr. Gilling) says that the factory system has serious drawbacks, and he takes them seriatim. No. 1 is the difficulty of dealing with the scum; No. 2 is that in a good flow congestion at the depot is likely to occur, hence delay in the return of empties. No. 3 is the waste of labour. It seems that labour in the honey house does not count. No. 4 is an unjustifiable wastage in freight railing long distances; and No. 5 is that the increase in fixed overhead charge would not be justified. Do I need to reply to these so-called drawbacks? Take No. 1. If the scum is there, surely it will get a good thing to get rid of it. Major Norton sometimes tells us of the bees' corpses that he gets under the present system. Mr. Earp once in grading got a number of these out of the writer's own honey. Mistakes will happen in the best regulated families, but no such mistake could take place at the depot. Take No. 2. We must secure that the plant is sufficient to do the work without congestion, and I think that no one knows better than Mr. Gilling that when the honey is just newly extracted is the time that it can be handled most quickly and with least labour. Then as to No. 3, will it waste labour? Does the dairy factory waste labour? And yet I suppose we could save it by doing it at home. Does the packing shed save labour for the fruit-grower? Ask those who have tried packing and grading at the orchard. If I am not mistaken, there are many like myself who would gladly run off their honey tank into carriers and send the honey to a factory and be done with it. Then as to railage, if we concentrate at Timaru, it certainly will mean longer railage; but is there not, seeing we are delivering a raw product to a factory, a claim to be placed on exactly the same footing as milk? This drawback is only a tiny wee one. As to No. 5, I take issue with Mr. Gilling, and I say that to the nett price to the producer it will add nothing. The costs of handling to the producer as they are at present are not economical—far from it. I believe that our factory work can be run at less than the present cost of handling charges and storage under the present system.

Now, I have to ask Mr. Gilling a question or two. Mr. Gilling, as manager of the H.P.A., was fostering a local trade. What chance would that local trade have had without blending? Mr. Rylands is going one better on the same lines, and our balance sheet for the past year shows that £15,000 worth of honey has been placed on the local market. Could that have been done without blending? Can it be maintained without blending? What would be the value to the manager of the H.P.A. if, when a buyer comes along, he could show a sample of light amber honey and say that is our standard; we can sell you 5, 10, or 100 tons just like that? Is there no advantage in having a standardised article and a standard pack? If there is

then I think we can climb over those five drawbacks all right and get there.

Now just another word. Mr. Gilling thinks Mr. Allan should be taken seriously and in view of the approaching election the candidates should state their views I suppose with a view to nipping these radical notions in the bud. I care nothing about election to the directorate of the H.P.A. I would retire most willingly, but do not let Mr. Gilling or anyone else think that the tide of progress can be hindered by any such action.

Allow me a further word in reply to Mr. Penny. Mr. Penny says that he is sure that accepting honey in a liquid form would be a retrograde step; that we could extract an article that would defy the hydrometer and all liquid form tests, and which it would not be a fair thing to pass on to the Company. We look on Mr. Penny as a level-headed and straight man, and we ask him for chapter and verse. We would also ask him will this honey that defies the hydrometer not granulate? And if it does granulate, what better is it to receive it in that state?—I am, &c.,

JAMES ALLAN.

[The reason the Journals arrived so late last month was that the parcel of postal addressed wrappers was held up for a week by the railway strike.—Ed.]

## Treatment of Unripe Honey.

### SUCCESSFUL EXPERIMENTS IN VACUUM BOILING.

By G. V. WESTBROOKE, Apiary Instructor, Auckland.

Among the difficulties that beekeepers have sometimes to contend with is that of dealing with unripe and fermented honey. It occasionally happens that honey when extracted contains an excess of moisture, and this after a few months causes fermentation to set up, thus spoiling the honey as an article of food. While in many cases this could be prevented by seeing that all honey is capped over by the bees before removing it from the hives, and by avoiding extraction or leaving the honey exposed during damp weather, yet it sometimes happens that in spite of care the honey contains too much moisture.

By the use of the hydrometer it is possible, however, to ascertain if the honey is ripe before putting it on the market. After some years of testing, it is now generally recognised that honey showing a specific gravity of not less than 1.42 is quite safe to keep for some considerable time. Therefore, as no up-to-date beekeeper should fail to test his honey before forwarding, there should be no excuse for the quantities of honey that arrive at the

grading store in an unripe condition. The greatest difficulty, however, has been to know what to do with such honey when it is found to be below the standard gravity. In the past it has been the custom to sell fermented honey to manufacturers for vinegar-making, &c., at from 1d. to 2d. per pound. This matter of fermentation thus meant a considerable loss each year to the beekeepers concerned—probably well over £500 per annum in the aggregate.

With a view to saving the class of honey in question, experiments were recently undertaken at Auckland by the writer, which gave promise of great possibilities. Small samples of honey that had slightly fermented, and which showed a specific gravity of only 1.405, were first dealt with. These were boiled for about ten minutes in a vacuum flask at a temperature of 130 deg. Fahr. This boiling at a comparatively low temperature resulted in ridding the honey of its surplus moisture, also in eliminating the froth and particles of wax, &c., leaving it very clear. After this treatment the honey showed a specific gravity of 1.425.

These small experiments were so encouraging that arrangements were made to treat a large quantity at the Colonial Sugar Refining Company's works, and in conjunction with the New Zealand Honey Producers' Association about six tons of slightly fermented honey was secured from different parts of the Dominion. This honey on being tested registered from 1.4 to 1.405, and analysis showed that the water-content was about 20 per cent. As the honey was more or less granulated, it was found necessary at the sugar works to reliquify it by adding about 25 per cent. of hot water. This also enabled it to be pumped into a large vacuum-vat. It was then boiled for over half an hour at a temperature of 120 deg. During the process of boiling several tests were made by the writer, and when a gravity of 1.425 was registered the heat was shut off and the honey run into tins. It finally registered 1.432, which indicated a very ripe honey.

This honey now shows no trace of fermentation, nor are the germs likely to again become active, as there is not sufficient moisture to allow them to do so. The honey prior to treatment had rather a strong, rank flavour and aroma, which has now disappeared, thus considerably improving its quality, although it may be slightly darker in colour.

The success of this experiment should justify the Honey Producers' Association

Proud Prussia in her anguish sings,

In throes that ne'er abate—

An eagle beating broken wings

Against the bars of fate,

While commerce fared hence far and wide

Its blessings on each ocean tide,

And those who cough and colds endure

Again have Woods' Great Peppermint Cure.

in procuring a vacuum-vat for treating all honey that does not come up to the standard required to avoid fermentation. Such honey should be treated before the ferment germs start in it, thus effecting a large saving for the industry.

The thanks of the Department, as well as those of the beekeepers, are due to the management of the Colonial Sugar Refining Company for their willing assistance in the carrying out of the experiment.

—Journal of Agriculture.

## Recognises Bees by Their Smell.

Dr. N. E. McIndoo, of the Smithsonian Institution, after a few months' practice is able to recognise the three castes of bees—queens, drones and workers—with his nose alone. He is also able to distinguish the "hive odour" (distinguishing one colony from another), the "brood odour," or smell of the larvæ, the "honey odour," and the "wax odour." He believes that the bees themselves recognise the odour of each individual bee, and that this is the way in which they tell one another apart in the dark hive.—Ladies' Home Journal, January, 1920.

[We are inclined to doubt this.—Ed.]

## A Case for Inquiry.

A question has been raised by representative New Zealand apiarists which appears to warrant an answer from the horticultural division of the Department of Agriculture. A mysterious complaint has been reported from some Australian apiaries which there is reason to suspect may be the dreaded Isle of Wight disease, the worst enemy of bees and of commercial beekeeping. The evidence is not positive, but it is sufficiently strong to warrant the Government making inquiries of the Commonwealth authorities. The Dominion has so far escaped this disease, but it has occurred in Australia in the past, and if it exists now the most stringent precautions will be necessary to save the New Zealand industry. The most obvious of these is the exclusion of all bees and queens from Australia and also of honey, because honey is the medium through which bees are commonly infected. The introduction of fire blight into the orchards of this country should have taught the Agricultural Department that it can afford to run no risks where such malignant diseases are concerned. The Isle of Wight disease is as deadly a menace to

the apiarist as fire blight is to the fruit-grower. The beekeeper is entitled to the fullest protection unless the Australian authorities can give an assurance that their apiaries are clean.

—N.Z. Herald, 27/4/20.

[We are very glad to see an influential and powerful paper such as the N.Z. Herald championing our cause, and we must during Conference make it clear to the Government that they must accede to our request to stop the importation of all bees, queens, and beeswax that are likely to introduce disease into this country.—Ed.]

## The "Hand" Bottom Board for Controlling Swarming.

(TO THE EDITOR.)

Sir,—I do not know if you have dealt with the subject before in the Journal, but seeing F. E. Stewart's article, "Hard to Beat," it has set me wondering what are switchboards, and the method of working them? I am going in for 100 per cent. increase next season, and want to catch the honey flow also, and would welcome a little information on the switchboard working.—I am, &c.,

S. C. SMITH.

—Patea, 26th April, 1920.

[The "Hand" bottom board was brought out in America some years ago, and very great things were promised of it. Messrs. A. I. Root Co. made a large quantity, which they destroyed owing to lack of demand. Mr. Trythall, of the Ruakura State Apiary, speaks well of them, and Mr. C. A. Jacobsen, of Little River, also uses them successfully; but they are not in general use, and are like other appliances—quite a success in one person's hands; an utter failure in others. We have not tried them personally, and although there were a good many men who were going to give them a trial a year or two ago, we have not had any recommendations for their use. These appliances can be obtained from the supply people; and if you are still keen on trying them, get one, and follow Mr. Trythall's system of working, which is as follows.—Ed.]

One great advantage of the Hand system is that the floor-board is the only part that differs from the beekeeper's ordinary plant, so that all other appliances fall into line without any alteration whatever. This floor-board is of double width, capable of taking two hive-bodies side by side. There are entrances on all four sides; those at the front and back can be

manipulated by means of a pivoted switch or lever in such a way as to throw the flying bees into either right or left body-boxes at will, the sliding lever closing the entrance to one side as it opens the other. The entrances at each end are auxiliary only.

#### The System Explained.

To explain the system of management, we will presume that a stock of bees has been placed on the left side of the Hand floor-board, with the switches arranged so that the flight entrance is at the front. We will suppose also that the ordinary spring management has brought the hive up to full strength as early in the season as possible. By about the end of October in the Waikato district the bees should be strong enough to have fairly well filled a super in addition to their brood-chamber, and preparations for swarming might be expected at any time.

From about this time the Hand system of management really commences. It consists of four separate operations extending over the following six to eight weeks, and for ease of reference in describing these operations we will refer to the hive on the left side of the floor-board as "No. 1," and that on the right side as "No. 2"; the main entrance to either hive as "front" and "back" respectively, and the auxiliary entrances as "left" and "right." Details of the four manipulations are as follows:—

1. On a fine day when bees are flying freely and numbers will be out in the fields, remove super from No. 1 and place it on right side of floor-board (No. 2), and exchange the centre comb for a comb of brood and bees, including the queen from No. 1; put on No. 2 a queen-excluder and a super of empty combs, and close the hive. Next throw over the front switch, thus in one operation closing the entrance to No. 1 and opening one leading to No. 2. This is done without changing the appearance or position of the outside entrance, which is always open full width. The returning field bees will enter No. 2 without any hesitation and through their accustomed entrance, thus causing no disturbance, and finding there their own queen and a small brood-nest with plenty of available space, they will settle down immediately to hard work. Now throw the switch at the back to provide a new entrance to No. 1, which has been so smoothly robbed of its field bees, and which is now given a young laying queen to take the place of the one removed to No. 2.

2. In about eight to ten days' time examine No. 1, and see that the young queen has been accepted and is laying freely. If the hive is very full of bees, which it probably will be owing to the continuous hatching of young bees, again throw over the back lever, thus drafting the flying bees to No. 2, into which they will run as though nothing had happened. This will usually settle the swarming question during the honey flow. Both switch

entrances to No. 1 being now closed, we open the auxiliary entrance at the left-hand end. Both hives can now usually be left from four to six weeks without attention other than the giving of additional super accommodation if needed.

3. At the end of a month to six weeks (which in the Waikato would probably be about the middle of December, and therefore the usual time for the commencement of our honey flow) the condition of the hives would most likely be as follows:—No. 1 would have brood-nest full from side to side, with abundance of bees, and headed by young queen. No. 2 would have full brood-nest under excluder, with abundance of bees, and headed by the old queen, who would now be all the better for a little rest. Honey would probably be coming in nicely to the super or supers above. We now remove the excluder and supers from No. 2 and place them over No. 1, and on the top of all place an additional empty super, into which are placed all the frames of brood and bees from No. 2, with the exception of two with adhering bees and queen, which are left behind. Now close No. 1, and throw over both front and back switches, closing entrance to No. 2 and drafting the full force of field bees from both hives into No. 1. Now, returning to No. 2, which we left with old queen and two good frames of brood, with plenty of adhering bees, fill in the hive with eight empty combs and close up, and, as both switch entrances have been closed, open the auxiliary entrance at right end.

4. Eight days later examine the eight brood frames transferred to the top chamber of No. 1, and cut out any queen cells that may have been formed there.

In all these manipulations a careful watch must be kept to see that a supply of stores is always present in each hive, so as to provide against any possible dearth of nectar from outside.

#### Condition of the Hives Described.

The hives may now be described as follows:—No. 1, having a young queen who has laid comparatively few eggs, will not be likely to cast a swarm, especially as it has a double entrance (front and back), and an end entrance on the left, aided by a 1-inch space under the frames, making about the strongest combination imaginable for the prevention of swarming. In addition to its own brood nest under excluder, it has any number up to eight frames of brood in its top story, the bees of which, when hatched, will provide an extra army of honey-gatherers. It also has all the flying bees from both No. 1 and No. 2. Therefore, with such an enormous population just as the main honey flow is coming on, and with only one brood-nest proper to maintain and attend to, it should be able to store the maximum amount of honey obtainable, and should require no further attention during the season other than to be kept well supplied with abundance of super accommodation. No. 2 is practically a nucleus hive, which

should without difficulty build up by the end of the season into a good colony with plenty of stores to winter on. The old queen, after having had strenuous spring work, is forced to take a semi-rest, and therefore should be equal to good work another year; but should there be a spare young queen on hand at any time it would be easy to supersede the former if thought fit. This hive gives the 100 per cent. increase with little labour. When the bees are resting in winter, it can be moved to a new stand of its own. Should, however, no increase be desired, it is a simple matter, at the third manipulation, to kill the old queen and put her whole brood-nest on tip of No. 1, instead of reserving the two frames of brood for increase as before arranged. It is necessary to add that the periods given for the various manipulations are only approximate; every beekeeper must be guided by the conditions of his own district and its flora.

—Journal of Agriculture.

## 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,—As a new reader of your interesting and instructive Journal, I have read with much interest letters to the Editor on the foul-brood question. It appears to me that it is no fault of the commercial apiarist that the disease is prevalent in many districts throughout New Zealand, but it is the fault of the man who keeps bees neither as a hobby nor for commercial purposes, but for the purpose of being able to say to his visiting friends, "Try a little of our honey," whether it is from bees affected with foul-brood or not. What does he care for foul-brood, Isle of Wight disease, or any other complaint as long as his visitor appreciates his honey? From what little I have seen of the Government inspectors, I think they are not strict enough (giving them all due credit for what good they extend to the apiarist). Now, last season the Government inspector called at my home to examine my hives I had. Well, I had one complete hive and several hives without any frames in them at all, and he politely asked me to "either hive the bees in the proper manner or else destroy them." Fortunately they did not have foul-brood; but what if they had and I did not take the trouble to attend to them (no doubt like many do), how would an apiarist fare if he started a place in that district? I should say that he would have "all expense and no profit," and no doubt in the end give the idea up in disgust. I would suggest that

they go as far as destroying the hives without frames, whether they are free from disease or not, as 10 to 1 the next (!) time the inspector comes round the hives will be in a worse condition than ever. If commercial apiarists had the power of prosecuting the owners of hives who will not treat them when diseased, on the same principle as members of the Society of Prevention of Cruelty to Animals have of prosecuting people who ill-treat animals, I am sure that there would be a lot of cleaning up to do all over New Zealand, which will never be done otherwise under the present conditions, and the commercial apiarist would have a better chance of being able to "live and let live."—I am, &c.,

Waimauku.

C. HAWLEY.

(TO THE EDITOR.)

Sir,—I noted in the April Journal the article on the administration of the Apiaries Act on the matter of foul-brood disease, and must say I approve of every word re more vigorous measures being taken to deal with the plague. I have noticed in the little I have been about this last season there is a great disposition since honey has got to a higher figure for people to capture stray swarms and stick them in any box that happens to be handy, and if you say anything or point out that it is against the law to use a box-hive, they usually say, "Oh, yes, but the inspector is not likely to trouble us here, and if he does come round and give notice, we will just kill the bees and get what honey we can from them.

I will not use any names, but the following is a fact:—A sheep farmer in a very large way about ten miles away has always kept a few bees, but could not get rid of foul-brood simply because it was too much trouble to carry out the necessary treatment thoroughly. He has removed the lot to a quiet spot three or four miles away, and goes out and takes the honey when there is any. The bees are given enough attention and treatment to keep the disease from getting the better of them. Their honey was taken a few weeks ago, and was sold at auction in 10-lb. tins to all and sundry in this district. Comment is needless. But the cream of the whole thing is that this man shifts in several clean colonies at his homestead, which are worked quite apart from the others, and if an inspector comes round he has only clean bees to show him. Nice arrangement, isn't it?

With best wishes for the Journal's continued success,—I am, &c.,

ROBERT STEWART.

Gum-nut Babies! Gum-nut Babies!  
What's your secret, little ladies?  
Is it true, what we've been told,  
That you cannot catch a cold?  
When the weather's damp and breezy,  
Are you really never wheezy?  
We kinderzarten kids are sure  
You take Woods' Great Peppermint Cure.

(TO THE EDITOR.)

Sir,—I have destroyed on account of foul-brood 33 of my own hives in Twyford district, besides others I bought. No flow on and want of sugar made it more advisable than treating.—I am, &c.,  
Hastings.

H. S.

(TO THE EDITOR.)

Sir,—Being interested in your April editorial notes concerning foul-brood, I hope you will tabulate my report as to my experience of our unwelcome visitor. I have been a beekeeper for seven years, and during the last six have suffered annual infections ranging from 50 per cent. to 100 per cent. of my colonies. For the last three seasons I have been established at Kaikoura. The district there is a disgrace to the Apiaris Act. I suffered a yearly average of 60 per cent. diseased. It was mostly spread during the "straining" season when, in spite of all my efforts to get the box hive men to burn or bury the refuse, they would throw it out for the bees to clean up. One old gentleman used to declare: "It keeps the bees well fed up for winter," and he stuck to his policy. I was the local inspector for a season, but could not afford the time to carry on with it, as it ought to have been done. I remember visiting one apiary, which was truly in a most distressing state. About one-third had been on their last legs and were robbed out; the remainder contained a handful of bees on absolutely rotten combs. I expect this apiary is still in almost the same condition. The district was visited by an instructor about six years ago, but never since. The nett result is that I have been compelled to move; except for 20 colonies, I am, lock, stock and barrel, in a new district. My loss in bees, combs, and prospective crops is at least £500; added to this has been the expenses of finding a new district, of moving and having to set up new buildings, &c. I believe my total loss, actual and prospective, is no less than £800. And all this is through the Government's lack of interest for our industry. To do the inspection work as it should be done, we need at least three times the number of instructors. They would have plenty to do enforcing the law without grading and instructing pupils, &c. The Government's petty manner of dealing with this danger to our industry is indeed ludicrous.—I am, &c.,

W. H. BROWN.

Staveley, 10th May.

(TO THE EDITOR.)

Sir,—A recent letter from Dr. Abushaly, secretary of the Apis Club and Editor of the Bee World, states that the Bee World is supplied now only to members of the Apis Club, who are doing their best, in the face of some vested interests, to develop as an international research institute, with a corresponding magazine owned by beekeepers everywhere through

the membership of the Club. The letter stresses the point that the number of members in New Zealand is quite insignificant compared with other countries.

As the beekeeping industry is in a more prosperous state in New Zealand than in any other country, this is not as it should be, and I can only presume that it is want of information and ignorance in regard to the objects of the Apis Club that has prevented a larger number of beekeepers joining up in New Zealand.

As an organisation formed to promote the interests of the industry, in New Zealand I feel that the support of the National Beekeepers' Association to such an educative and brotherly movement amongst beekeepers in different countries is warranted, and I express the hope that the National will endeavour to popularise the cause of the Apis Club through the media of its Journal, by the publication of the objects of the Club and particulars in regard to its research work, &c.

I feel very sure that readers of the N.Z. Beekeepers' Journal will appreciate all the information you can give them on the matter.—I am, &c.,

Y. H. BENTON.

St Heliers, Auckland, 24/4/20.

[We have drawn the attention of our readers to the publication of the Bee World, which we recommended as an excellent paper. As regards the membership of the Apis Club amongst the beekeepers of New Zealand being insignificant compared with other countries, we quite believe it. When you consider that we have about 6,000 names on the lists of registered beekeepers, and not one-tenth of them support any New Zealand organisation, it is rather hopeless to expect much support being given to a Club the other side of the world, however laudable the object be. We have had a number of copies of the Bee World sent us, which have been distributed.—Ed.]

(TO THE EDITOR.)

Sir,—A friend of mine informed me that some of the beemen down south have their own style of filling the honey tins. They fill them up and turn them upside down until they harden, thus allowing all the scum to settle on the bottom. This is done so as to cheat the grader. I thought it was not a very nice thing to do, and unfair to other honey suppliers.—I am, &c.,

GEO. SAVILLE.

Maheno, 21/4/20.

[This is an old dodge and not much practised now. It is quite easy to see when this method has been adopted, as the impression of the rim and lid is on the honey, and the graders are pretty keen on finding out why it was felt necessary to turn the tins upside down after filling.—Ed.]

## Fermented Honey.

(By W. S. PENDER, in the Australasian Beekeeper.)

The fermentation of some samples of honey give the New Zealand beekeepers some concern. I saw a considerable quantity that had accumulated. Steps were being taken to reduce it to a consistency that will arrest fermentation. Some six tons are to be boiled in vacuum. The question is:—(1) Will the reduction stop the development of the ferment germ? (2) Will the flavour of the ferment remain? (3) Will the process be too costly and (4) What will the value be after treatment? It will be quite possible to boil honey in a vacuum at a temperature of less than 100 deg. Fahr. Water will boil at 90 deg. Fahr. in vacuum. This process of boiling to cause evaporation is adopted in sugar boiling and condensed and dried milk manufacture, and should be a splendid means for extracting moisture from unripe honey. If the cost of the plant were not so great we might have the advocates of extracting unsealed honey erecting such plants and reducing their honey to a standard density immediately it is extracted. Have any of our Australian beekeepers been troubled with fermented honey—honey fermented in the combs, or honey fermenting after extracting what appeared to be ripe honey?

So far as I was able to find out no New Zealand beekeepers had adopted the process of warming the honey as it passed from the extractor into the honey tank. In their moist climate I should think it would be far preferable to the system of large shallow tanks, and allowing the honey time to clarify.

The larger the surface of the tank the more risk would be taken of the honey absorbing moisture from the atmosphere. Honey is more or less deliquescent. I have had dense samples that if left uncovered overnight were a thin liquid in the morning. The honey absorbed the moisture from a moist atmosphere. A warm room will not decrease this moisture; nothing short of heat will, and if that heat can be applied as soon as extracted, the honey will clarify itself in a very short time without the necessity of straining it, and can be tinned the same day without scum rising. When tinned it is free from all danger of absorbing atmospheric moisture and fermenting. I once had a case of fermented honey in two hives in an out-apiary, the cause of which I was unable to discover. It fermented in the comb, and this did not appear to be caused by want of bees to cover the combs.

## Beekeepers' Exchange.

ADVERTISEMENTS on this Page will be inserted at the rate of 3/- per 36 words per insertion.

**FOR SALE, FOUNDATION MILL, 10-inch Rollers (Pelham's); suitable manufacture own Foundation. What offers?**

R. LAWSON,

Post Office, Palmerston N.

**FOR SALE** (as a going concern or in parts), about 600 COLONIES in 15 Apiaries; all free from disease, and well provided with stores.

All Equipment, including Motor Lorry, Sheds, Factory, House (6 rooms). Situated in the best dairying district in the Dominion, producing highest grade honey.

For address apply

THE EDITOR.

### WEED PROCESS FOUNDATION AT PRICE OF LOCAL MANUFACTURE.

Send for quote and Descriptive Leaflet. EXTRACTORS equal to American at far less cost.

It will pay you to inquire.

H. W. GILLING,

Selkirk Road, Mt. Albert.

### BEESWAX WANTED.

I am offering Highest Market Prices for Good Clean BEESWAX in unlimited quantities.

Drop a card to the undermentioned address, stating quantity and quality.

A. ECROYD,

157 Cranford St., Christchurch.

**Don't Forget  
Annual Conference  
CHRISTCHURCH  
JUNE 9, 10, 11.**

National Beekeepers' Association  
of New Zealand.

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SEVENTH ANNUAL  
**Conference**

Y.M.C.A. Hall,  
Christchurch.

JUNE 9, 10 and 11.

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The President and Executive cordially  
invite you to be present.

The Conference promises to be the  
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**DON'T MISS IT.**



# Does It Pay You

## To Do Without a Bartlett-Miller Comb Reducer ?

NOBODY KNOWS BETTER THAN YOU DO THAT IN THE MATTER OF WORRY ALONE YOU ARE A LOSER ALL THE TIME YOU ARE WITHOUT ONE.

Then there is the pride that every Beekeeper takes in his Honey Room.

Yours is neither fully furnished, nor even satisfactory, without that invention which is as necessary to-day as the Extractor.

To know that whatever bits of comb you may get broken, whatever of messy running honey may be around the Honey Room, as also every bit of cappings is full money in your pocket if only you had a BARTLETT-MILLER Machine to handle it in a paying manner, is worth two Reducers. Your time, too, is a big proposition these times, when expansion of your Apiary is the order of the day, and this item alone will save you the cost of the Reducer in any one season.

## GET A REDUCER!

Melt up all those odds and ends around the place! By goodness, some of them have been messing around for weeks past!

Cut out that foul-brood honey you are keeping so closely shut up for dread of robbers, and get rid of it once and for all, and turn it into money. Do not wait until you have time to extract it after all the other work is done; for if you once extract it, you will never (without steam power) have your Extractor free of foul-brood germs again; and mark me, it takes heavy pressure—and lots of it—to sterilize a diseased Extractor. All foul honey should be reduced in a machine that keeps the extractor out of the business entirely.

Talk about the evils of Foul-brood! Why, man, without a BARTLETT-MILLER PATENT REDUCER are you doing anything else than encouraging its continuance? Oh! All that talk about burning foul combs! With Wax worth half-a-crown per pound, and all of us paying four shillings per ditto for Foundation (and hard to get at that)! don't you fash yourself about the foul comb burning problem, when a few pounds spent on a BARTLETT-MILLER COMB REDUCER will save every bit of Wax for you, as well as all that Honey in the diseased combs, which is so very risky to try to burn, for most of it runs out on the ground, and only keeps the infection in your soil.

Get, too, one of those oil-drum boilers, which are just half the price of a Primus Lamp, and twice as effective, and you will always have a source of steam on hand for any and every emergency.

**Boilers 22/6, f.o.r., and Reducers from £4 10/- to £16.**

ALL PACKED FREE ON RAIL AT TE AWAMUTU.

# The Thoroughwork Apiaries Company

## KIHIKIHI.

[ADVT.]

# Honey for Export

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## WE ARE CASH BUYERS

Of New Zealand Government Graded Honey,  
packed according to Regulations, at

## FULL CASH PRICES

equivalent to the highest values obtainable in  
the Overseas Markets.

Payments made within 48 hours of the  
time the Honey is graded.

Write, telegraph, or call on us for further  
particulars.

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# A. S. PATERSON & Co., Ltd.,

No. 1 Custom St. West, Auckland.

Telegraphic Address—'ASPASIA,' AUCKLAND.

# New Zealand Co-operative Honey Producers' Assoc., Ltd. (H.P.A.)

Head Office :                      Postal Address : Box 1293, Auckland.  
Stanley Street, AUCKLAND.

Telegraphic Address : "Bees, Auckland."

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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.

## BEESWAX.

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.

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# 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.

Telegrams : "Brickell," Dunedin.

### 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.

POSTAL ADDRESS:

### J. H. TODD, Renwicktown, MARLBOROUGH.