



The New Zealand Beekeepers' Journal.

FEBRUARY 1st, 1919

ISSUED MONTHLY
FOR
THE NATIONAL BEE-KEEPERS'
ASSOCIATION OF N.Z.



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Feb. 1st, 1919

N.Z. BEEKEEPERS' JOURNAL.



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The New Zealand Beekeepers' Journal

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

No. 2

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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
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EDITORIAL.

According to latest reports the season is going to be patchy—some districts very good, others only poor. We in the North Island do not appear to be in for an average crop, particularly those in districts where the season opens before Christmas, as up to that time the weather had been so unfavourable that the bees could not get out, and even on fine days the nights were so cold that the secretion of nectar was negligible.

Our Canterbury friends are enjoying one of the best, at which we are very pleased, as

we know one or two real good men who have been living chiefly on enthusiasm for three or four seasons.

It is, of course, particularly annoying to find your scale hive standing still day after day, when prices are soaring motor car-wards, and one ton this season worth four times pre-war prices.

There is the consolation that those who get small crops will secure a return that will represent an average crop at normal prices.

* * *

We stated last month that when you raised the question of inspection of districts you never knew where it would end, and as we

stated that we brought every complaint made to us public, we are sorry, to have to spoil friend Westbrooke's record by giving the following.

Taurarunui, December 23.—You might get the inspector to pay a visit here; foul brood is rampant.

This is the first complaint we have had from Westbrooke's district, and we look to him to see to it.

The Field Day of the Auckland Provincial Branch will be held at the State Apiary at Raakura on Wednesday, February 12, not the first Wednesday, as published in the November issue. Owing to the Government being hard up, there will be no refreshments this year. All visitors will be expected to bring their own food for the day. Tea will be supplied free.

We wonder how much it would cost the Department to give a little light refreshment to the visitors; surely not enough to make any appreciable difference to the annual expenses of the State Farm.

We understand that a good programme is being prepared, and one of the attractions will be the demonstration of the latest capping melder over previous inventions.

The Canterbury Branch Field Day will be held at Mr Ward's apiary at Lakeside on February 8. All intending visitors are requested to write the secretary, Miss Mackay, as the apiary is about 15 miles out, and the seats will have to be booked in advance for the motor conveyance, which will leave the Square at 8 a.m. sharp. We believe Mr Ward will be able to show the latest in skyscraper beekeeping, he having had to use every super of his own, and many of another beekeeper's. The directors of the H.P.A. and the president and members of the executive of the National intend to be present, so if the weather is fine a good gathering should result. It is also intended to hold a social in Christchurch on the Saturday night, where any matters that are of interest can be discussed, and (this not being a Government function) light refreshments will be supplied free. It is also intended to have musical items, and all those who are talented in music, song, and story are to come prepared to "do their bit." As there is usually a large amount of "wind" at these affairs, we are asked to state that wind instruments (particularly bagpipes) are not wanted.

We heard a new theory on the cause of honey poisoning when discussing this with a medical man, who stated the cause was, in his opinion, the pollen grains in the honey obtained from flowers growing on stagnant swamps. There are swamps in the three districts where cases of honey poisoning have been reported—Kati Kati, Opatiki, and Whakatane—so there may be something in what this doctor said.

Congratulations to the Clutha Valley Branch, our latest and youngest member of the family, that started with 26 financial members and a rousing Field Day.

We heard of a very novel and pleasant way of rendering oneself immune to the bad effects of bee stings. A lady was anxious to help her husband with the bees, but the stings punished her severely, making it necessary to take to bed for three or four days at least. Having a brother a chemist she appealed to him for assistance, and he suggested a course of the homoeopathic medicine "Apis Mellifica," which is made from bee stings, and given as a cure for bites and stings of other insects.

The lady, after being stung, always had one very marked inconvenience such as one experiences with a very bad cold in the head, the nose and the back of the throat choked up, evidently caused by the membranes swelling.

A more or less regular course of this medicine was taken for six weeks, and after taking each dose a similar sensation was caused, only, of course, in a very much milder form.

Then the lady again got accidentally stung on the leg, and although the effect of this was painful it was not at all necessary to go to bed, and the choking sensation nothing like so severe as previous to taking the medicine.

It seems to us there is something to be said for the treatment, and by gradually increasing the doses it might be possible to render oneself completely immune to the stinging poison in exactly the same way as persons addicted to the drug habit, who, after a time, can take sufficient at one dose to kill anyone else.

Our esteemed medical friend who wrote such an excellent article on bee stings under the nom de plume of "Uomo Salvatico" might give us his opinion on the above; and we invite him, in his own language, to "Up an' gie us a blaw."

The editor expects to be away from home from about the 3rd to the 18th February. Any delay in answers to correspondence will be accounted for by this fact.

Taranaki District Report.

Each season has something new in store for us. Since last notes we have had consistent weather or consistent winds right up to this week. From December 15 until January 11 the bees only a little more than half held their own.

The country was a mass of white clover in full bloom, and it was annoying to see it there and the bees unable to work it on account of the cold winds.

This week, however, we have had four warm days, and the bees took good advantage of them, and brought in quite a lot of honey, and have made it quite possible to get a fair season.

The thistles are very late this season, and so I anticipate a good autumn flow.

The high winds have been right up against successful queen rearing, which is now in full swing.

There has been no extracting done yet in our district, but should the weather (which at the time of writing is rough again) take up and become warmer we hope to take off a little next week.

H. R. PENNY.

Okaiawa, January 1, 1919.

Taieri Talk.

Good morning, all, and how d'ye do? Have you a welcome for the Taieri? We have arrived at last, and, we trust, have come to stay. Now full three years an heroic, if tiny, band of agitators bearing the banner Exelsior has been striving upwards through the shades of oblivion to win a glory akin to that enjoyed by the Taieri in happy days gone by. The goal is in sight, for at last those many hesitating whispers and vague suggestions of association have been concentrated and condensed into a single voice. It speaks to tell the world that the Taieri Beekeepers' Association, though yet unborn, has fixed on the 15th of February as the first of its many birthdays.

Our first Field Day was quashed by the arrival of a wretched rain and sunshine day (abset omen). It is now to be held on February 15, when we expect to be visited by a guiding spirit from the National, who shall preside at the inauguration of the Association, and set its toddling footsteps on the road to success. But perhaps this happy day will be past when these lines reach your eyes, for it is a long, long way to Kati Kati.

The tale of the Taieri is a tale of woe. Just listen: In November we had 13 days' rain; in December 21 days; in January, up to date (19th), 13 days. We shall all be crabbed pessimists if winter's mantle hangs much longer over us. Still, there is a dash of optimism in our make-up which retards the steady elongation of our visages. We may smile, too, for rumour says that the hope of a honey crop died an early and painful death in Southland. May our northern friends have better fortune, and may we a more cheerful tale unfold next time you hear from us.

ANISTAËUS.

I wish to express my appreciation of our little Journal and your success with it.—J. G., Edendale.

Wairarapa Branch.

The sixth meeting of the Wairarapa Beekeepers' Association was held in Masterton on December 18. Only a small number were present.

The president, Mr R. H. Nelson, in his opening address, touched on the question of apiary boundaries, and a lively discussion followed. Mr Nelson moved: "That this meeting endorse the suggestions of the Waikato Beekeepers' Association re apiary boundaries, as follows—That the Government be asked to devise ways and means of limiting boundaries, so as to prevent overlapping of beekeepers' territory, and would suggest that the Act be so amended to the effect that no bees shall be shifted from one locality to another unless the position in which it is proposed to place them is certified by the Government Inspector as suitable for the purpose." Seconded by J. M. Russell, and carried.

A special meeting was called for the 8th January

Y. H. BENTON,
Secretary.

Canterbury Tales.

By E. G. WARD.

It is now possible to form some idea of honey crop prospects, and I am of opinion that the "great possibilities" of last report will not materialise. A good crop, I think, is assured, but the main clover flow is drawing to a close. The weather has been cool, especially at night, and on December 3 and 11 there were frosts. Fancy frosts in mid-summer. As a matter of fact, I don't think we can truthfully say we have had any real summer weather yet. I am hoping for a good autumn flow, but when I find the bees "banging it" into the brood chamber instead of the supers I hunt up my considering cap.

In a recent issue of "Gleanings" mention was made of the bees working clover at a very low temperature. It is generally thought that a fairly high temperature is requisite for honey secretion, but my experience this season has been in line with Editor Roots' statement that the rule is not invariable. On Christmas morning I found the bees working hard on clover with the thermometer at 55 degrees, and in this district there have not been many days when 65 degrees has been exceeded.

I have noticed that the bees have been very slow to cap the honey this season. Whether the secretion has been retarded by cool nights or the ripening of the honey delayed by the same cause I don't know. I was not taking chances, however, and kept "banging on the supers." That maxim, "Don't extract unripe honey," should be printed in large capitals and pasted in every beekeeper's hat. Some

people don't like "skyscraper" hives, but plenty of gear in a season like the present will be found a good investment.

The above suggests that some people will have extracted at least a part of their crop. I have taken off a couple of tins or so, and hoped before now to have had some notices from the headquarters of the H.P.A. regarding forwarding to the grading store. None has come to hand as yet. It seems to me advisable that these instructions should be issued early, as there are many whose banking account will be getting low, and who will be anxious to "get in before the crush." Would it not also be politic for the company to give a lead respecting prices. Plenty of us have friends and old customers we have supplied in previous years, and would like to know what the market price would be. Let it be clearly understood this does not suggest disloyalty to the H.P.A., and applies to private customers only.

Mr Editor, I'm going to vote with both hands and both feet for that badge of membership idea of yours. Whether the suggested design will be unanimously agreed to I feel dubious about. A model of a nice Italian queen bee would give a jeweller scope for artistic taste, and I suggest that as an alternative design.

Up till the present I have not done any serious queen rearing except for a couple of grafts "a la Doolittle." Results—rank failure for the first time. Very few accepted, and even these torn down after feeding for a few days. Cool nights to blame, I suppose; too busy to "try, try, try again"; a job for after the honey flow.

Swarming with me has not been a serious problem this season, but it almost looks as if the bees swarmed in some cases without a queen, as a large percentage, I find, are queenless when examined a few days later. Some will say, "Did you see her run in when you hived the swarm?" No; plenty to do without watching for the queen to run in. Has anyone else had similar experience?

Readers are reminded that Field Day will be on February 8 at my apiary. Please bring lunch baskets; also veils, if you intend to go among the bees. There will be plenty of hot water, tea, and milk provided.

Market Report.

Honey.—We think it may be regarded as definite now that the Food Controller will not interfere with the price of honey. There was some talk of rationing, but the latest information is that this proposal has fallen to the ground, which we think is a very wise decision. On the other hand, there seems to be some misunderstanding between the American and the English Food Controls in reference to the export of honey from America to Europe; the result is that up to now we have been prevented from purchasing honey in America. We are agitating for this

to be straightened out, and we are in hopes of something being arranged. In the meantime the price of honey has stiffened here, and transactions have taken place at the following prices:—Chilian sold aloft at 210s to 220s per cwt (112lb); Argentine at 210s per cwt; Cuban at 205s to 210s per cwt; Jamaica at 200s per cwt.

Beeswax.—The market still remains quiet, and prices are as follow:—Chilian sold at £11 10s to £11 15s per cwt; Jamaica sold at £11 5s to £11 15s per cwt; West and East African at £9 10s to £9 15s.—Yours truly,

TAYLOR AND CO.

Liverpool, October 26, 1918.

With the signing of the armistice shipping prospects somewhat improved, and with the advent of increased numbers of ships coming to Australian ports during the ensuing months the chance of shifting some of the accumulated stocks of export honey has considerably brightened. This week a non-priority cargo boat will take a limited quantity. Latest market quotations are:—Choice, clear, liquid Western, 6d lb; odd tins to 6½d lb; good clear liquid, 5½d lb; dark and candied from 3½d to 5d lb; according to quality.—The Australian Beekeeper.

Honey.—Quiet at 4d and 4½d. Private sales a trifle higher.

Beeswax.—Still in good demand at 2s for best qualities.—Queensland Agricultural Journal, January, 1919.

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

Auckland.—The climatic conditions have not been favourable to either the secretion of nectar by the clover or the gathering in by the bees, cold nights having been the rule during the past month. Unless the season is somewhat later than usual, the crops generally will be below the average. Beeswax is quoted at from 2s to 2s 3d per lb.

G. V. WESTBROOKE.

Wellington.—I have to report that up to the date of writing the climatic conditions are still rather unfavourable for apiculturists. As indicated in my last report, however, there is still time for a good crop to be gathered should an improvement be forthcoming. The balance of last season's crop has ceased to come into the grading store for export, and will be used for local consumption, but it is anticipated that a number of new lines of this season's output will be forward shortly. There is a demand in my district for beeswax at 2s 6d per lb. Honey in pats and pound sections is not procurable.

F. A. JACOBSEN.

Dunedin.—The prospects of a good season have greatly improved. In the northern districts indications point to a good crop. Advices to hand from Canterbury indicate assured payable returns. Extracting is in progress. In Otago and Southland the weather conditions have not been so favourable. However, it is still early to forecast this season's returns. There is still time to secure a good crop if climatic conditions are favourable. Generally, clover is in good heart, more especially in Canterbury, where there has been a phenomenal growth. Prices are firm.

E. A. EARP.

The Honey Market.

(FRED C. BAINES.)

I think the following correspondence will be interesting to our readers, as it throws a little light on the selling end of the business, and it will also give those who have started commercial beekeeping the last few years an idea of the conditions ruling in 1911. Note the date of the first letter.

Liverpool, August 9, 1911.

Dear Sir,—We had the pleasure of a call from your brother, who informs us that you are desirous of making shipments of honey to this country. He also left a sample of the class of honey you are extracting, which proves to be yellow to pale, set, and a fair flavour. A rather rough valuation if sound would be about 40s per cwt ex Liverpool store, less 2½ per cent. discount.

We understand the crop of New Zealand honey to be very small, and a consignment should do very well. Needless to say, should you decide to favour us with your shipments we would do our utmost for you for a commission of 2½ per cent.

Trusting to receive favourable news from you as soon as possible.—Yours faithfully,

TAYLOR AND CO.

Whilst this correspondence was in progress I had two shipments of honey en route for England, one to Bristol, and one to London. These were shipped through different firms, and I received an advance with recourse of 3½d on the Bristol consignment, and 3d on the London. Both consignments realised 37s 6d per cwt, and in neither case was there any balance to come to me, the difference between the price realised and the advance made being swallowed up in the many charges.

Therefore it cost £9 10s a ton to get the honey to London, and £7 3s 4d to Bristol.

Cases and tins cost £3 15s for each ton of honey, freight to shipping port 23s per ton, so to get at the actual return we total the

payments received for the two tons £58 6s 8d, less expenses £21 1s 4d, leaving a net return of £37 5s 4d for the two tons, which is 2d a lb. This was the average experience of those exporting to England, prices usually running from 35s to 42s per cwt. The same honey gained first prize in the Dominion Show at Hawera, and second at Palmerston North.

On these returns it was out of the question looking to the export market as a payable outlet for one's crop, and we were compelled to accept what the merchants here offered that showed any improvement on these returns. The inevitable result of these conditions was that the honey market remained in a most unsatisfactory state, and until some system of organisation was made there was no chance of improvement.

Just here the H.P.A. made a start, and the following year the D.B. and D. came along with their offer of an advance of 4d per lb f.o.b., with the possibility of a further payment, which the beekeepers hailed as the finest offer that had ever been made to those engaged in the industry.

Liverpool, July 8, 1918.

Dear Sir,—Some little time ago we had some correspondence together respecting honey, and you kindly sent us a sample, which, however, does not seem to be pure, but mixed with sugar or syrup. If you can offer us pure honey we shall be glad to try and do some business together. At present there is a great demand for this article, but the Ministry of Food have intimated that they intend controlling the price, so what value they will place upon it we, of course, cannot say. Nevertheless we shall be glad to resume communications with you.—Yours truly,

TAYLOR AND CO.

Kati Kati, September 8, 1918.

Messrs Taylor and Co., Liverpool.

Dear Sirs,—Your letter dated July 8 duly to hand.

I find the last correspondence I had with you was a letter dated August 8, 1911, in which you state that the sample of honey left by my brother was 'yellow to pale, set, and a fair flavour, the valuation of which would be about 40s per cwt.'

Therefore I am not a little disgusted at the statement in your letter now being answered that "the sample does not appear to be pure, but mixed with sugar or syrup." Kindly note that that sample was absolutely pure honey as taken off the hives by the latest appliances, and the same crop secured many first prizes that year in open competition at the various shows held in this country.

We in this country have yet to learn to adulterate honey either for export or local trade, and every ounce of the former must bear the Government Grader's stamp before it can be shipped, and such is the confidence

placed on this that a number of consignments have been sold on the water to arrive, and that at the very highest market values.

As regards any business being done in the future with this country, I might inform you that practically the whole of the commercial beekeepers here are shareholders in the N.Z. Co-operative Honey Producers' Association, Ltd., and the great bulk of honey raised is controlled by that Association, which has today 350 tons waiting shipment to their agents in England.

As editor of the N.Z. Beekeepers' Journal, I am agreeable to publish quotations of the market in your city every month if you care to furnish them, which would be information to our readers, and at the same time advertise your firm as being in the market for honey in England, so that any men who are not members of the H.P.A. could get into touch with you.—Yours faithfully,

FRED C. BAINES.

Liverpool, October 26, 1918.

Dear Sir,—Thanks for yours of the 6th September.

We had no idea the sample of honey had been here seven years, which is not to be wondered at owing to the continuous depletion and change of staff. Our senior came across the sample, and thought it a recent one which had been overlooked. Time alters and mellow all things, and honey has no right to be exempted from this rule. We did not analyse the sample, but everything looks different after seven years have passed. This accounts for our having reported as we did in our letter of the 8th July.

However, no harm has been done, but, on the contrary, good, because it has drawn from you the declaration that New Zealanders have not yet, fortunately, thought it necessary or learnt to adulterate the good things of life, and we hope you will long continue to be of that opinion. We suppose that the Government Grader does not make it a part of his business to analyse every sample of honey, and that he only judges it from sight.

For your information, however, we may tell you that sometimes we get honey from foreign parts, Cuba mostly, which has a mixture of sugar in it. This causes trouble in more ways than one. In the first place the Customs place a duty on it the same as sugar, which is a small matter in normal times.

Who are the English agents of the Co-operative Association? Do they confine their shipments to one firm only? What is their address?

We shall be glad to send you our market report on or about the 25th of each month. We enclose the latest one.

Have you found a cure for Isle of Wight disease, or has it not reached you yet?—Yours faithfully,

TAYLOR AND CO.

The prices ruling at the time the above was written appear elsewhere, and I want you to particularly notice that the lowest price quoted is 200s per cwt. By the same mail I received the following:—

London, November 14, 1918.

Dear Sir,—We have been making inquiries from the Dominion of New Zealand Government Offices asking if they could furnish us with the name of a shipper of New Zealand honey, and Mr A. Crab has very kindly given us your name. We are probably the largest importers of Californian honey in this country, also large quantities of Cuban, Jamaican, and Australian, but we have not so far been able to get any direct offers from New Zealand, and would be very much obliged if you could quote us.

We would willingly take 100 to 200 tons if you could make us a reasonable offer. The quality would have to be guaranteed best grade, not darker than light amber, and packed in good strong new cans or barrels. We are in a position to pay full prices, and would be willing to make payment by letter of credit against warehouse receipts or shipping documents at port of shipment. For your information, we have just been offered a parcel of Australian honey at 7½ per lb, ex store, Sydney. We have called out accepting up to 200 tons at this figure. We presume the price of New Zealand honey would be about the same, and if you are in a position to make us offers and will quote us c.i.f. or f.o.b. please be good enough in your offer to intimate the probable rate of freight.

We have had some difficulty and losses on Australian honey, as most of it has been arriving here packed in old kerosene cans and in frail cases. The honey has also been stored on deck, with the result that many parcels have shown a loss in weight of 10 per cent. or even more. Naturally, this is not very satisfactory to the buyer who buys on shipping weights, and we should expect you to see to it that the goods were sent along only in good strong cans and cases.

Trusting we shall be able to come to some mutual satisfactory arrangements.—We are,

Yours faithfully,

BECKER, SHILLAN, AND CO.

Now, isn't that interesting. The English market rate at the lowest figure is 200s per cwt, which is a fraction under 1s 9½d per lb, yet these merchants were out to secure 200 tons at 7½d, which is 70s per cwt, and if one allows £20 per ton to get the honey to London just reckon up the profit they are going to make on this one deal. Allowing the market to drop £10 whilst the honey is in transit, the merchants will, if they secure the quantity, make a profit out of the beekeepers of £20,000.

And one cannot possibly blame the merchants; to buy in the cheapest market and sell in the dearest is keen business acumen.

The blame is wholly on the beekeepers who allow themselves to be exploited in this

fashion to their own loss. You see, the best price quoted in the December issue of the Australasian Beekeeper is 6½d, so probably our Australian friends will think they are making a good deal by selling at 7½d, ex store, Sydney, whereas the actual fact is they are selling at nearly two-thirds under market value. I do not know that I have ever come across such a case where the value and necessity of organisation is shown with such emphasis, and surely the above facts ought to impress upon every beekeeper in the land the advisability of becoming a member of our own co-operative association.

With prices like these ruling at Home, it seems to me that we should be able to reckon on getting not less than £150 per ton for this season's crop, as with the export value running up to close on 2s per lb, it is evident that the local market will not be able to take any, simply because the honey isn't worth the money here, where we have plenty of sugar, fruit, and jam.

But in England, where they have very small quantities of either, and no possibility of securing fresh supplies until next harvest, there is the value.

To put honey on the local market would mean the H.P.A. would have to ask somewhere about 4s for a 2lb tin, meaning to the purchasers about 4s 6d, which clearly puts it out of the reach of the usual purchasers. So we are in the unique position of having only one market open to us, and that at prices beyond anything we ever dreamed in our wildest dreams.

Another point that occurs to me is this, that as the H.P.A. gets the full price realised in England, less expenses, and a small commission, the ultimate price received by the shareholders must be better than competitors will pay. It probably will not be as much for a start, because it is only an advance, but I shall be disappointed if the final result doesn't beat it.

Of course, these high prices will gradually decline as matters become normal in shipping, the countries devastated by war becoming productive, and international commerce unhampered, and I also recognise that there is a possibility of there being a difference of £100 per ton between the first shipment and the final one in the financial year, in exactly the same way as it jumped up last year from £80 to £200.

But until the price gets down to about £80 I cannot see how any quantity can be sold on the local market, and even at that the retail price for a 2lb tin would be about 2s, which, I think, is not only a saleable figure, but about the intrinsic value of honey.

There is the certainty that honey for at least three years will not go below 60s per cwt, according to the terms of the contract, and, I take it, provided we stick to our part of the agreement, there is no reason why it should ever go below, because our agents in England will, by being able to put on the market a good reliable article of food, increase the sales, and when once the demand is created there is very little chance of the price dropping, but rather the reverse.

So I close this article with the feelings that this season must prove itself the most prosperous that could possibly be for all those who are fortunate enough to get a crop, and sincerely hope the number will be large, and myself among them.

Beekeeping for Beginners.

MONTHLY INSTRUCTIONS, FEB.

[As these instructions conform to the seasons in the Auckland Districts, an allowance must be made for 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 season in most districts other than Canterbury having been so unfavourable to beekeepers, it is difficult to write on the month's operations, as I learn that so many hives are in a backward state, and possibly they are fully a month behind. I can only hope that the season will lengthen out, so that, given fine weather, the bees will return a surplus.

February usually sees the close of the honey flow, the amount gathered after about the middle of the month being little more than the needs of the colony.

This month is a very favourable time to re-queen any hive that has an old or failing queen. Kill her, and introduce the new queen by the cage method, releasing her after 48 hours.

Should you be re-queening by giving ripe cells, it is advisable to wait at least 24 hours after killing the queen before putting in the cell, because there is a chance of it being torn down by the bees who haven't realised the loss of the old queen.

There is always a danger of robbing being started at the close of the honey flow, as the hives have a large number of bees with very little to do, and these are very liable to go nosing round the apiary looking for a chance to secure an easy load.

Therefore, the beekeepers should contract the entrances of all weak hives to about half-inch space, and see there are no bee spaces between the supers or cover where a robber bee could get in without having to pass the sentries at the entrance.

The indications of robbing are a very loud high-sounding note of humming amongst the bees, all the entrances of the hives having large numbers of bees on the alighting board, who challenge every newcomer. The hive being robbed is one of very great activity, bees rushing in and out, some fighting, and a general air of unrest and trouble apparent.

First contract the entrance to a size that only one bee can get in or out at the same time, then get some handfuls of wet grass, and throw these right over the entrance, so that the bees will have to get their wings

wet to pass in and out. Keep the grass wet by the use of a watering can, and if the hive is at all strong, it will be quieted down in about an hour.

Another good remedy is to cover the whole of the hive with a large cloth soaked in a solution of carbolic acid; the bees have a decided objection to the smell of this acid.

Be careful in taking off any combs of honey for extracting; do this in the forenoon as quickly as possible, keeping the hive open as little as necessary, and don't have any honey exposed; keep it all well covered up during transit to the honey-shed.

F. C. B.

Meetings of the H.P.A.

(Contributed.)

A meeting of shareholders of the New Zealand Co-operative Honey Producers' Association, Ltd., was held in the Public Bath Buildings, Hamilton, on December 20 at 10 a.m., a good number of shareholders being present. Mr A. H. Davies, who ably performed the duties of chairman, in introducing Mr H. W. Gilling, the company's manager, to the meeting, expressed the satisfaction he felt in seeing such a goodly gathering of shareholders, and expressed the hope that it was an indication of a growing interest in the company, being confident that the continued prosperity of the industry hinged on the support accorded by the beekeepers to the co-operative movement. Mr H. W. Gilling, in addressing the meeting, dwelt more particularly on the work of the company to date, indicating some of the progress made and the further advantages that would accrue to the shareholders as a whole by the removal of the headquarters of the company to the more centrally situated premises in Stanley street, Auckland. He touched also on the finances of the company, giving features indicative of the confidence in the industry manifested by the banks. Mr A. D. Trythal, in moving a vote of thanks to Mr Gilling, expressed his surprise at the confidence manifested by the bank, which, he thought, showed confidence not only in the industry, but also in the company's management. Mr Trythal also contended that the present high prices ruling for honey in New Zealand were due entirely to the company's operations. Had not the company been in existence to look after the interests of beekeepers there was no reason to think that New Zealand beekeepers would now be receiving any more than the Australian beekeepers—viz., from 4d to 4½d per lb.

A similar meeting was held at Te Aroha in the afternoon, the chair being taken by Mr C. F. Horn. The attendance of a representative gathering of shareholders was encouraging. Speaking on the growth of the company, Mr Gilling pointed out that though the company had been in existence only five years it was now firmly established, and during the past year had handled between 450

and 500 tons of honey. The number of shareholders had increased during the year to 412; the subscribed capital from £4510 to £6716; the paid up capital from £849 to £3631. The new contract with the Bristol and Dominions Producers' Association, Ltd., was very satisfactory. There was no doubt that given the loyal support of the beekeepers it could be safely said that the company's future and that of the industry was assured, and that bee-farming in New Zealand could be looked upon as probably the most flourishing of the smaller producing industries in New Zealand. Judging by the support given to the company and the beekeepers' readiness to contract with the company for their whole crops, the beekeepers of New Zealand were alive to their own best interests, and were to be congratulated on their shrewd levelheadedness. This did not apply, however, to every individual beekeeper. There were a few who seemed to be either incapable of taking a comprehensive view of the situation, or were content to be parasites, living on the good work of their fellow-craftsmen. Their number, at any time a small minority, was rapidly decreasing. Applications for shares were still coming in freely, and there was every prospect, given an average season, that the company would this year handle over 600 tons. In reply to questions, Mr Gilling said that now the company was more centrally situated it was their intention to enter thoroughly into the supply business. The company wanted honey and more honey, and anything the company could do toward keeping down the cost of production was a means to that end.

Christchurch Amateur Beekeepers' Association.

The above club held a Field Day at Mr Bowman's apiary, Wilson's Siding, 62 members being present. On arrival at the apiary the hostess provided tea, which was much appreciated. Mr Bowman then proceeded to instruct new members in the rudiments of beekeeping, and later put the more advanced members through the act of honey-extracting, and finished up with a lecture on queen rearing. This is one of a number of practical Field Days which will take place during the present season. One particular feature of the day's work was the opening and examination of a hive about six feet in height consisting of four supers and five half supers, which were practically full of sealed honey. A lot of speculation ensued as to the weight of honey which would be extracted from the skyscraper, and the average guess was between 250 and 300lb. During the afternoon a swarm issued from a very populous hive, having a queen the wings of which were clipped. Mrs Bowman went along to the hive, picked up the queen and put her in a cage, then laid it on the alighting board. It was a pretty sight to see the mass of bees which had emerged a few minutes before, returning home. This hive was eventually opened and examined, and

a number of queen cells were destroyed, but there were several young virgin queens hatching out which were distributed amongst members. The advantage of having the queen's wings clipped to prevent swarms getting away is efficient provided that the apiarist is on the spot, and can give the necessary attention at the right moment. Mr H. J. Johnston relieved Mr Bowman for a while, and took a hand in the proceedings by demonstrating the use of queen-mating hives and answering questions. The club is making wonderful studies, and the help which is given by the older members is much appreciated. A vote of thanks having been passed to Mr and Mrs Bowman, the members returned home after a very pleasant and instructive outing.

P. JACK.

Answers to Correspondents.

AMATEUR.—1. Every eight or ten days. 2. Evidently you missed a cell or two. 3. Usually when the first cell is capped over, but if bad weather comes along, the first fine day. I have taken 13 fully matured queens which were eating their way out of the cells from a hive that had just swarmed. 4. Queen cell capped on eighth or ninth day from the date egg placed in cell; queen emerges fifteenth or sixteenth. 5. The bee flying out of a queen cell was probably a worker bee that was cleaning out the cell. 6. If weather is fine the young queen takes her flight about the fifth day; eggs should be seen three or four days after, but sometimes it is considerably longer. 7. It is very unusual for a swarm to issue unless there are queen cells in the hive, but your bees had evidently been allowed to get the swarming fever, and it is very difficult to check it after they have got to that state; probably a virgin was in the hive. 8. Hive the swarm on to foundation; go through parent hive, and break down cells; place swarm on old stand with super of empty combs on top, with brood on top of that. 9. Australasian Bee Manual (J. Hopkins) is a very good book, but is rather difficult to procure just now.

PUZZLED.—I can only account for this by suggesting that the lady had been using rather much scent, which the bees object to, and the fact that you were stung on the lip and check indicates—what! ! ?

Mr. F. A. Jacobsen, apiary instructor, Wellington Province, has forwarded the following clipping:—O. R. Bostock, apiarist, was charged, under the Apiaries Act, 1908, with failing to take measures to cure the disease foulbrood among his bees. Defendant pleaded guilty, but said he had been neglecting his own business in order to assist others who were in distress. This was the first charge under the Act instituted in Hawke's Bay. Everything had since been rectified. Defendant was fined £2 and costs 7/-.

Correspondence.

(TO THE EDITOR.)

Sir,—Please allow me to call your attention to the following class in the Rotorua A. and P. Show, which is to be held on March 15 next at Rotorua:—Class 163, not less than 1lb pot extracted honey, judged on Government grading points. All exhibits to be donated to the Rotorua Branch of the National Beekeepers' Association. First prize £3 3s; second prize 10s 6d; entry fee 1s.

I am sure there are lots of beekeepers who would enter a 1lb pot if they knew about it, and the Rotorua Branch of the National would thus have samples from other districts.—I am, etc.,

J. BANKS.

Whakarewarewa, December 16, 1918.

[The above first prize should attract entries from the whole Dominion.—Ed.]

(TO THE EDITOR.)

Sir,—The following extracts from a letter to hand from Trooper A. R. Bates, one of the first directors of the H.P.A., and now in England, will interest many of the readers of the Journal.—I am, etc.,

H. W. GILLING.

Box 129, Auckland, January 17, 1918.

"I went to Bristol for a couple of days, and, as you may guess, called on Major Norton, of the B. and D., and was made very welcome. He had me in the office showing me maps and books to give me an idea of how our stuff was handled at this end, and I am more than satisfied that if honest dealing goes for anything we are with the right company. Our honey has had a good reception with the grocers, and it is a pity supplies have not been shipped more regularly, as there is a likelihood of losing the connection the B. and D. have built up for us. . . . He seems to have gone to endless trouble to get our stuff and name on the market, and was very disappointed at receiving instructions to sell honey in bulk in the open market to take advantage of the temporarily inflated prices. What is the use of advertising our brand and getting it known and then abandoning the policy for what is only gambling. Some grocers, he said, would not handle our stuff again on this account. Firms like Cross and Blackwell refused to take advantage of the war to raise their prices to profiteering figures, and have kept a good name with their dealers, and Major Norton considered that had we followed a similar sound policy it would have paid us well in the end. He thought honey would keep over £100 a ton for a long time yet, and the prospects should be bright for the industry. I put in some time in the packing department, but there was none of our honey in at the time. There was honey there from Spain, South America, California, Hayti, and Cuba, and, I think, Jamaica, also

Australia. I was told the Californian was the only honey we had to fear as regards competition, as the flavour was, if anything, better than ours, and it was equally well got up. I sampled some for myself, and found it O.K. (Mr Bates is a very good judge of honey.) A lot of Australian was coming in in kerosene tins, and did not look very palatable, to say the least, and the flavour wasn't anything like our good stuff. One sees the advantage of Government grading on seeing honey coming in from all parts of the world. Some of it has quarts of dead bees, flies, and rubbish and it has to be all strained, and the packing leaves much to be desired. The tins rarely all come in covered in rust, so oiling or lacquering is advisable. I was told the B. and D. were the second largest packers of honey in England, and handled £100,000 worth last year. They have a very up-to-date packing house, and are in a position to handle any quantity we are likely to send them. I suppose some of the shareholders of the H.P.A. are tempted by the high prices to sell outside the company, but I think if they were to pay a visit to Bristol and have a chat with Major Norton they would remain loyal.—Signed,

A. R. BATES.

(TO THE EDITOR.)

Sir,—Please permit me to explain to Mr Pink that the combs of honey taken to Wellington for demonstration purposes at the Conference by me were not "white combs," as Mr Pink states in last issue. They were old brood combs spaced eight to a super, and consequently built out clean beyond the dark centre. They were also badly candied, which caused the honey when viewed in a Mason jar after the conclusion of the run to appear a little cloudy, as it ran from the reducer too rapidly for complete melting of the crystals—a very good point in the reducer's favour. That honey, everyone present admitted, had no specks of any kind in it, and the same witnesses will doubtless testify that the clean gum left in the reducer absolutely proves the facts of "white" versus old combs; so will Mr Edmonson, who disposed of it. Mr Pink is evidently unaware that a vote of condolence was passed by the Conference sympathising with me in an attack of nasal hemorrhage which put it out of my power to complete the demonstration.

The demonstration was eventually carried out in the lobby on the morning following the Conference, at which the executive of the H.P.A. were present, with a few others, and one and all expressed complete satisfaction with the results. It was begun and ended in 19 minutes from the first cutting out of the combs.

I gather from Mr Pink's remarks in his letter that he must be unaware of these facts. Thanking you in anticipation.—I am, etc.,

H BARTLETT BARTLETT-MILLER.

Kihikihī, January 18, 1919.

Enclosed please find subscription for Journal, which I very much appreciate.—W. A. W., Taumarunui.

A REPLY TO MR HOBBS.

(TO THE EDITOR.)

Sir,—The following reply to Mr Hobbs re the Department selling untested queens is intended as a general rejoinder to all who have expressed themselves in a reasonable manner as opposed to my view of the case. I bar the letter which appeared in your December number, as it carries its own condemnation.

I may, first of all, draw attention to the remarkable fact that the essence of my contention—viz., that the first and only consideration of the Government in raising stock of any kind, including agricultural seeds, for distribution should be improvement of strains, has either been overlooked or been studiously avoided. The reply to the whole question hinges upon what we collectively consider to be the first duty of the Department in this respect. If my view of the matter is believed to be the correct one—that is, improvement of strains—then the distribution of stock that cannot be guaranteed in any shape or form is decidedly wrong. If, on the other hand, "commercialism and gambling" (I repeat these words, Mr Hobbs, notwithstanding your remark that they are "very far-fetched") is to enter into the business, then what benefit, I would ask, is the industry generally to receive as the result of several years' agitation in getting a queen-rearing apiary re-established? Is the obtaining of cheap untested queens all the industry is to look for? They were already obtainable from reliable private breeders. I cannot believe the majority of our beekeepers will hold with the views expressed by the very few in the Journal. Remember, the main question has not been touched upon by your correspondents.

Mr Hobbs "appreciates the fact that I have the interests of the industry at heart," and I may add that it was this fact that induced me in the first place to establish a Government queen-rearing apiary for the purpose of improving our strain or strains of bees. I look back through the past 11 years since the Wairenga Queen-rearing Apiary was established with considerable satisfaction to the fact that the first and only price list issued contained these words in prominent type, "No untested queens will be sold."

Mr Hobbs, I am sorry to say, has suggested as an alternative to selling untested queens to hand them over to returned soldiers. No, decidedly no. If we are going to give them anything give them of the best; they deserve the best. Then again, Mr Hobbs says, "To destroy all mismatched queens would be a decided loss to the Department," which is to assume that there must be a large number of such queens. Have you not seen, Mr Hobbs, that Mr Stewart guarantees 95 per cent. of his untested queens are purely mated? Cannot the Department, by selection of site, raise 95 per cent. of purely mated queens when it has public revenue to aid it, and so at least be on a par with a private queen breeder? Then, where would be the "decided loss to the Department and also to the industry," when only five out of every 100 queens raised would need culling? I agree that some hybrids are excellent honey raisers,

but would you, Mr Hobbs, advocate cross-mated queens being sold in preference to purely-mated ones? And do you not realise you must have purely-mated queens to produce cross-mated ones to give you first cross Italian—black bees?

I may inform Mr Hobbs that I had previously read the article by Mr Wilson in *Gleanings* which he is so enthusiastic about, but can see nothing more in it than has appeared in hundreds, I might say thousands, of other letters on hybrids and the pure races. It conveys the opinion of one person, and may be considered serviceable as an experience to be added to that of others, but nothing more. With all due respect to Mr Hobbs, I cannot see that he has added one idea that will stand against the main question upon which my argument is based.

To sum up the position as it appears to me, the original demand of those who favoured the selling of untested queens by the Department was for early queens. Nothing was then said about cheap queens. When, however, it was shown that tested queens could be obtained more than seven weeks in advance of the others, that plea was dropped, and your correspondent became very solicitous about the problematical loss to the Department if culling of untested queens is resorted to (see R. Stewart's price list). If in your estimation, Mr Hobbs, "I haven't a leg to stand on," I must retort in a friendly measure that you seem to badly need a pair of crutches. I can only conclude that cheap queens is the chief concern of your correspondents, and that general improvement of strains is thrown to the winds.

Unless something of considerable importance turns up I am not likely to trouble you on this subject again, but, in parting, let us confine the sale of untested queens to private commercial queen breeders, and the Government to the improvement of our bees.—I am, etc.

J. HOPKINS.

(TO THE EDITOR.)

Sir,—I am only an amateur beekeeper, having started early last season, this year having five hives. I have derived a great deal of help from the columns of the *Journal*, and—as I am aware editors like to know just what their readers most want—would venture to hope that the column for beginners will be kept going in the new year. The weather in this part of the Dominion has been altogether unworthy of the name of summer, and if the bees don't get a chance soon there will not be much of a return for the summer. Mr L. Gardiner died here some few weeks ago. He was a most successful apiarist, but more than that, he was a "white man" in every sense of the word, and I and many others have benefited from a talk with him on the subject most dear to his heart.

I must congratulate you upon the way your *Journal* is conducted, and hope you will be able to give us our usual budget of good things in the coming year. I look for it each month. I must also offer you every good wish for a most successful 1919, and hope

you will see many of the ideas materialise that you have suggested and advised in the past. Editors have a notorious reputation for "using" parts of letters sent them, and if any of this screed should "land" in the columns of the *Journal* they are from.—Yours, etc.

DOON SOOTH.

Invercargill, January 5, 1919.

HONEY MISSIONARIES.

(TO THE EDITOR.)

Sir,—Let's all be honey missionaries.

Bring in free trade on our market here at home for a year or so.

Let every member of the H.P.A. be missionary for his own surroundings, selling his honey under H.P.A. labels, with a note to the effect that the honey is locally produced on his own bee farm.

Let each member make his own terms and prices for a time. We should soon capture our home market then, and the other fellow would be brought to see the meaning of fair trade.

The storekeeper is also reaping the advantage of the H.P.A.'s organisation, and as far as I can see H.P.A. honey is practically off the market to-day.

Let's all "pour in our spirit," and leave the "poor pocket to look after itself for a while.—I am, etc.,

HUGH C. JONES.

Pirongia, January 13, 1919.

[I think I've told you before, Hugh, that you're a wag.—Ed.]

(TO THE EDITOR.)

Sir,—I see you wish to find out about the effects of the bee-sting poison in the blood for the prevention of disease. That would be very interesting, it certainly must have an effect of some sort. I had the "flu" very mildly, not enough to stop me working, but whether the formic acid of the bees or the fact that I am a vegetarian helped me I do not know; anyway there were plenty of people here had more "flu" than I.

If I might make a suggestion, I think it would be of interest to beekeepers just now to discuss the weather, and you might try to find out if this most unseasonable weather is due to the 33 year cycle, which some authorities talk of. If it is, that would make it 33 years before this bad season returned, and soon enough, too. —I am, etc.

A. E. S. BOSHER.

[Daren't start a discussion on the weather, friend B.; the English language isn't expressive enough. I am afraid that if I commented on what we've had in this locality, my remarks would scorch the paper.—Ed]

(TO THE EDITOR.)

Sir,—We always read your very interesting *Journal*, and the September issue just to hand is to us especially interesting, inasmuch as we note the criticisms relative to the American hives in general and the bottom boards in particular.

It is quite a coincidence that the criticism relative to the entrance cleats should appear just at the very time when this important item is receiving our attention and we are making changes thereon.

Our November Glennings is now on the press, which issue will contain an article touching entrance cleats and the improvements we are making, but we obtained from our printing room a proof of the page which illustrates the new style cleat, which we enclose herewith, and will be glad if you will let us have your further criticisms, if any.

It is very necessary that the A. I. Root Company give every attention to the New Zealand beekeepers' requirements, inasmuch as our trade with that country is growing rapidly, and we of course want to give the beekeeper that class of goods and style which will meet local conditions as far as it is practicable for us to do so.

It is strange that the Hand bottom board is favoured in your country. We put this on the market throughout America, but the demand for same is practically nil, and as a matter of fact we had to destroy quite a lot of stock for which we had no sale whatever.

We are enclosing herewith a copy of our recent catalogue, with price list, in which possibly you may be interested.

Assuring you of our co-operation at all times, and hoping that you will not fail to let us have your further criticisms as they may occur to you, with a view of improving our service to the New Zealand beekeepers in general.—We are, &c.,

THE A. I. ROOT COMPANY.

Chas. G. Tollafeld,

Manager of Foreign Sales.

Mendina, Ohio, Oct. 16, 1918.

[The criticism re entrance cleats referred to in above letter are those made by Mr. A. B. Trythall, of the Ruakura State Apiary. The new entrance cleat is one that, instead of having the entrance cut $\frac{3}{8}$ x 6, has five $\frac{3}{8}$ holes bored. This gives one complete control over the size of the entrance, as from one upwards can be left open, according to the strength of the colony. This is of course an entrance used only in winter and early spring, and in most parts of the Dominion would be unnecessary, the ordinary cleat answering very well. It occurs to us that the ventilation of the hive would suffer with so small an entrance, favouring the growth of mould on the combs. The remarks re Hand bottom boards is interesting, and emphasises the need for caution when dealing with appliances that, although very beneficial to the experienced man, are nevertheless dangerous in the hands of those who are not very careful of detail. Our American friends are not as a rule slow to take on anything that proves itself a benefit to the user, and the fact that Messrs. Root had to destroy a lot of stock because there

was no sale indicates at least that in the hands of the majority of beekeepers the appliance was not the benefit it was thought it would be. We believe a number of our readers are trying this appliance this season for the first time, and we shall be glad to learn their opinions.—Ed.]

Field Day at Greenfield.

A Field Day and demonstration, under the auspices of the Clutha Valley Branch of the National Beekeepers' Association, was held at the apiary of Mr H. N. Goodman, Woodleigh, Greenfield, on Thursday January 9, when some 60 members and friends were present. The weather conditions were ideal, those responsible for fixing the date being most fortunate in having such a day, as there had been practically no summer up to that time, nothing but cold winds and rain, the weather breaking again the following night, and going back to the old order of things. At 1.30 p.m., after a few words of welcome to the visitors by the president (Mr H. N. Goodman), our jovial and energetic instructor, Mr E. A. Earp gave a short address on the capabilities of the district for honey production, after which he went on to speak of hives and the necessary appliances for starting bee-keeping. From this Mr Earp opened up a full colony of bees, and explained the different manipulations, the frames of brood and bees being handed round, and although the crowd was composed of several ladies no one got stung, showing that the bees appreciated the fine day as much as the visitors. After explaining the method of spacing out the combs in the supers, the use of the excluder, etc., the hive was closed up, and Mr Earp gave a short talk on foul brood. Luckily this was only talk, as there was no specimen in the apiary to be shown, but we think the speaker fully convinced his hearers of the seriousness of this scourge to beekeepers. As though the bees knew that everything should be shown on a Field Day, a swarm came off, and Mr Earp demonstrated the ease and simplicity of having a new swarm, after which an exhibition was given of taking honey from the hive, uncapping with the steam knife, and extracting.

The next item on the programme was afternoon tea, for which the writer for one was quite ready. After tea Mr Earp explained and demonstrated the method of packing honey for export.

Votes of thanks to Mr Earp (which brought forth three hearty cheers), the ladies (who provided tea), the secretary (Mr G. Cottrell), and Mr and Mrs Goodman brought a very enjoyable and profitable afternoon, and the first Field Day of the Clutha Valley Branch of the National Beekeeper's Association, to a close.

Herewith please find sub. to Journal, which I find most interesting, and, as a newspaper man, congratulate you on your fine production—G. T. B., Dannevirke.

Swarm Impulse; is it inherited?

By Arthur C. Miller.

Queens from cells produced under swarming conditions are among the best, but, unfortunately, there is a growing tendency to destroy such cells because someone said that queens produced then inherit the swarming tendency. Each season the statement is repeated without any evidence in support of it. It is merely a part of current beliefs as to heredity, and is as erroneous as many others.

If queens produced thus were replaced with equally as good ones, no fault could be found, for the only loss would be the labour of the beekeeper; but the specially reared queens are often inferior, due either to method of production or transportation. The result of the change is a mediocre colony until the queen is superseded. "Supersature cells" and "swarm cells" are identical; the conditions which produce one are present and operative when the other is produced. It takes but little observation to see the condition of a colony superseding its queen. She is slackening her laying; there is a disproportionate number of nurses to larvae, and queen matters generally are on the down grade.

At swarming time we find the same relative conditions, only with greater numbers and more food present. In the first instance, the failing queen produces the condition. In the second, slackening of the queen is due to temporary exhaustion, or clogging of combs with brood and stores forces the slackening. In each case the result is the same—queen-cell production.

Swarming by no means follows supersature during the flow (usual swarming time). Nor does an old queen always resume her full duty in the new home. It is far from unusual for an old queen to be superseded soon after the colony is established in its new home. I have noted five such cases this season. In those instances, swarm impulse followed normal failure of the queen.

I may not have used as many thousands of cells as some of the craft, but I have used a good many since 1880; and I have never yet been able to detect any sign of inheritance of swarm impulse from use of swarm cells.

In recent years I have reduced swarming to between one and two per cent. of my colonies, and I have used many queens raised from cells produced in swarming colonies of my own and of other beekeepers.

It is folly to discard fine cells just because they were built by a swarming colony. Don't do it unless you really like to throw away time and money.

Save the cells which you cut from colonies about to swarm, but do not think that by cutting them out you are using the best method of stopping swarming. Of course, if you really enjoy digging through a big colony on a hot day and doing it at intervals for some weeks, and to many colonies, why, go ahead. Far be it for me to interrupt your amusements.

For my own part, I prefer to remove the queen, using her elsewhere, or destroying her, as I think best. Usually I then cut out or destroy all but two cells, leaving two of as nearly the same age as possible. If of the two cells left, one is ready to hatch and one just ready to seal, swarming with the virgin is not unusual. When two cells of nearly the same age are left, one is destroyed soon after the first hatches, but not so when one cell is very young or just started. Do not ask me why—I have a theory, but am busy just now, and it is of no consequence, anyway—'tis the fact only which is of importance.

Save the "swarming cells" if the stock is good. The queens will not inherit any swarm impulse.

Providence, R.I.

Beekeepers' Exchange.

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HATCH WAX PRESS.—In good order; has been used only two days. Price, £4. Carefully packed in original case. We purpose keeping very few colonies in future: this is reason for selling.

DAVID CAMPBELL,

Waiuku.

Scene: The Gate of Heaven. President Barker arrives, and knocks. St. Peter appears. P.B.: I suppose I am all right for admission, St. Peter? St. P.: What were you upon earth? P.B.: Beekeeper. St. P.: Very sorry, sir, but we have no beekeepers here. P.B.: Excuse me, St. Peter, but I think there must be some mistake, because as I was coming up the drive I saw Baines go through, and he was a beekeeper. St. P.: Baines! Baines! Oh, he was never a beekeeper; he only thought he was one! P.B. takes the first door on the left.

GOOD GRACIOUS, BOYS!

What with influenza twice and the Christmas holidays accentuating the labour shortage, and all of you trying to swamp me with orders, for a start for New Year I ought to be the happiest of mortals.

Well, so I shall be if you will only possess your souls in patience until the orders can be overtaken. Some of them were four months behind, although long before you read this those will all be filled, and some semblance of regularity will be the order of the day.

Now, see here boys. Some of you are ordering the Bartlett-Miller comb reducer to be paid for on delivery at your railway station. Well, that is all right, because I can consign by the Express Co., who will collect for me upon delivery; but when they charge 4s 6d commission you must not start a blackguarding campaign on me, as at least two have already done. If you want to see the goods before you pay up, I am perfectly willing, but if you are not to pay the collecting fee I must equalise it over all others—yourselves included—as it is not fair to those who send cash with order, as far and away most of you have done.

Again, I think you will allow that when a fellow telegraphs both for a reducer and a telegraphic money order, he should have preference over those who pay on delivery. The pay-on-delivery individual may change his mind—as one has already done—before his machine arrives, and I have to pay freight both ways for nothing. Again, at least one pay-on-delivery individual apparently does not mean to pay at all. So you will allow that the chap who sends me the cash thereby deserves the prompter treatment of the two.

I mention those facts because I have just received a complaint from a beekeeper up north of Auckland. He sent me an order for a machine, pay on delivery at ——— station. Well and good. I promptly wrote him stating I could despatch his order around such and such a date. The very next hour after replying to him brought a telegraphic message and money order from another party, for delivery same railway station. Now, in replying to number one, I had to make a guess at the time of delivery, and in acknowledging the telegraphed order I put date of delivery a couple of days ahead of the pay-on-delivery party.

Now I get a red-hot letter asking why Mr ——— is to get his machine ahead of the complainant, who states that he knows he ordered his machine first, because it was he who sent away the wire and telegraphic order for Mr ——— two days after his own.

Now, precedence in orders is sound business sense, but so is the good old motto, "A bird in the hand is worth two in the bush." One man pays me hard cash, and there is an end of the business so far as bookkeeping goes. The other party may—I do not say he will but I have to risk it—not pay me at all, and to treat all orders, cash or credit,

in strict rotation, is to allow the energetic individual who goes to the trouble of wiring his order and his money, to absolutely lose all the reward of his better business acumen. I do not see the justice of it! I absolutely owe the cash individual a machine, but there is no legal responsibility apart from business honour in the case of the pay-on-delivery person regarding either of us.

Others are paying me with an order upon the H.P.A. against their honey. This method is also A.I. right as the bank, in fact, but they must be chased with the pay-on-delivery men, and, for a few days perhaps, wait.

THE JOYS OF A MANUFACTURER.

As an offset to the joy of lying abed with "flu," and receiving during a twelve days' confinement to bed an order every single day, and on two days two orders, and on one day three—16 orders in 12 days (and still they come)—just put these facts to the other side of the ledger.

Now, there's one thing yet. I must most heartily thank all and sundry for the kind replies to explanations of delay, and the warm sympathy expressed regarding my serious illness. Just keep sending orders along, boys, and the "flu" will be a blessing in disguise. By the time you read this we shall be about caught upon orders, and no delay will be experienced.

HERE'S COOL CHEEK.

Bartlett-Miller has the cheek to put into print the statement that no comb melter made of piping will ever prove a serious competitor to his invention, and, furthermore, that the first time a beekeeper lumps into a good crop of manuka honey or foud brood he will want (as at least four owners of pipe machines have already confessed to him) to scrap the pipe melter and buy one that does the work the fastest, and, consequently, with the least damage to the honey—that means a Bartlett-Miller comb (not merely capping) melter.

THEN WHY NOT GET IT AT FIRST.

The B.M. reducer has (smallest size) over eleven square feet of melting surface without reckoning the area of the slope on which the honey slides to the gutter. Now, what sized machine made of piping would you need to yield an area of such size. In the larger machines now being manipulated for big producers this area is enlarged to as much as 24 square feet, making a pipe constructed machine of similar area out of the question.

Another fact tried out by the inventor over nine years ago is that steam under pressure in a narrow pipe (say one-inch bore) is so hot where it enters the pipe as to considerably darken the honey, through yielding up too much of its heat, and too speedily as well, owing to the pressure. Again, steam loses its efficient heat by the mere effect of

motion consuming such heat, with no useful effect to the purpose of melting the contents of the reducer. This tells very largely against its efficacy when it has lost such heat through having to move itself through a considerable length of the piping. It was this fact that led to the making of the tubes so large in the B. M. machine, where the steam merely rises into the tubes with an absolute minimum of movement. So in 1909 I abandoned the idea of the pipe construction for honey reduction. Physical science proved its impracticability for best results.

Steam holds 960 degrees of heat over that of boiling water. This means that as it has over four and a-half times as much extra heat as boiling water that it could raise four and a-half times as much freezing water to boiling point as that volume of water from which the steam was generated, and remember that after that it would still heat boiling heat itself!

Now, suppose we had steam at 100lb pressure, that steam would be, not 212 degrees hot, which is the heat of boiling water, but 336 degrees. This is termed its sensible heat, which would be shown by a thermometer. A thermometer does not show latent heat. This steam at 100lb pressure has not as much latent heat to yield to our honeycombs as steam just generated and at, no pressure. It has only 879 degrees of latent heat, as against 966 degrees with no pressure. We therefore lose 87 degrees of latent heat to gain the difference of 125 degrees in the steam at 100lb pressure. Few would have thought that at this pressure we have in actual usable heat only 39 degrees more than from steam generated in the reducer itself with a primus lamp. The total usable heat of steam not under pressure is 212 degrees (boiling or sensible heat) and 966 degrees latent heat. At 100lb pressure we have 338 degrees sensible heat, and only 179 degrees latent heat.

Now you understand why a steam boiler does not melt honey so much faster, as you once thought it should.

But, you say, there must be more heat in, say, 30 to 70 gallons of water in a boiler under 100lb pressure than in an oil-drum or B. M.'s reducer with only about three gallons of water!

So there is, but of what use in the reducer is that extra volume (note—not temperature) of heat, when you have no area for it to spend itself upon? As Mr Pink remarked on page 11 of last issue, "The steam from the exhaust is as good as when it entered the melter." Mr Pink further remarks: "And I have never yet been able to discover a steam pipe in it that was cooler at the bottom, as described by H. B. M., page 165, *Gleanings*, 1916." Note: It is not B. M. reducer he used.

Now, I have a very high opinion of Mr Pink, and am certain he will not mind me putting him on the right track. First, I ask what means did he take to test the difference in the heat in whatever sized tubes his melter contained?

Because, if steam was not hottest the highest up, why do all boilers of any size take steam from a steam dome? The B. M. reducer tubes are eight inches deep, and so great is the difference in heat as between top and bottom that until the now patented type of tube was invented the wax solidified on the bottom corners of the tubes and im-

prisoned the liquified honey higher up between the tubes to a hurtful extent. Surely, apart from the laws of Physics, this ocular demonstration is proof enough of the truth that an 8-inch tube losing heat is hotter—much hotter—above than below.

Now, then, granted the use in a comb reducer of steam under pressure, that steam is sensibly heated above the boiling point of water and imparts an excessive heat to our honey, to its great discoloration. Latent heat is not converted into sensible heat beyond the capacity of the heated material to absorb it, and wax and honey, while they do consume some, are not thereby damaged as they are by consuming sensible heat. With steam generated in its own container we saw the bother of attending to a boiler, as a couple of gallons of water last a whole week's operations, the condensed steam (still boiling water, remember) merely flowing down from the tubes to re-absorb its 966 degrees of latent heat and yield it again to the honey. Now, in a narrow tube, steam must perforce be under some kind of pressure to move horizontally, and that pressure, be it more or be it less, means a harmful surplus of sensible heat, or it would not issue as steam at the end of the tube. No steam issues from the B. M. reducer's own boiling water until it is less than fully at work; then, of course, there is nothing to absorb it, just as a small pipe reducer cannot absorb all the heat from a boiler under pressure.

See here! The fact is that nobody not possessed of a fairly good grip of Physics will ever (except by the most miraculous of accidents) invent a practical non-deteriorating comb-honey reducer. Although further (perhaps undreamed-of) improvements may yet be made in reducing thick honey, I am strongly of opinion that B. M. will be the inventor of them. Anyhow, he should be. He has made about all kinds of patterns imaginable, and only discarded them with a very heavy heart when Science proved their impossibility of preventing the darkening of the honey or changing its chemistry through too long heating. As E. R. Root remarks, "It is impossible to imprison the honey in this kind of melter," and thus the honey is neither darker nor altered in constitution.

DEMONSTRATION AT RUAKURA.

I purpose demonstrating at Ruakura Field Day on the 12th inst. (by kind permission of the authorities there) the Bartlett-Miller wax and honey separator, which delivers the honey clear and fit for export from the B. M. reducer straight into the export can.

Mr Pink will be fully convinced as to absence of specks if he will come along.

I am not quite sure of the date, but this issue should contain the notice of the meeting elsewhere. The 23-inch reducer is the size listed as £8 15s f.o.r., The Awamutu Station, 100 miles south of Auckland, and weighing with separator less than one hundredweight cased. Price includes separator. Larger machines are made for large producers, the price increasing in exact ratio to the melting area—viz.: 16s per square foot of tube surface. Surely no pipe machine can be made of practical dimensions to include such an area?

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