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The New Zealand Beekeepers' Journal.

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Youthful Beekeepers. The children of Mr. A. J. May, Island Block, Otago.

ISSUED MONTHLY

FOR

THE NATIONAL BEEKEEPERS' ASSOCIATION OF N.Z.

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The New Zealand Beekeepers' Journal

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

No. 10 | Vol. 6 | 7/6 Per Annum.

National Beekeepers' Association of New Zealand.

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

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

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

CONTENTS.

EDITORIAL.

Beekeepers all over the country were getting a bit nervous over the absence of rain this winter; the rainfall has been particularly light, and matters were not at all promising for a good spring growth. The North Island has been favoured with some very heavy rains during the last few days, which have put us in better heart; the South Island is still short of requirements, but we hope before this is read they, too, will have had some beneficial rains.

* * * *

We commented last month on the difference in the value of New Zealand honey in England to that imported from other countries. In the July issue of the Bee World, there is published detailed statistics of the honey imported from nineteen countries for a period from January to June, which is most interesting, and as the Bee World states, it is the first time in the history of bee journalism that such a statement has appeared. The list is detailed with every month's importations

and the value; but for our purpose the total for the six months will be taken:—

U.S.A., 8,789 cwt.	value	£23,513
British West India Islands, 7,028 cwt.	„	22,167
Cuba, 4,747 cwt. ..	„	11,202
Chile, 4,274 cwt. ..	„	7,049
N.Z., 3,580 cwt. ..	„	14,787

Then follow the other countries, with lesser amounts. The Bee World goes on to say:—

> "The average price of honey from the United States, according to these statistics, is 5.7d. per lb.; from the British West Indies, 6.8d.; from Cuba, 5d.; from Chile, 3.5d.; from New Zealand, 8.9d., &c., &c."

We have not the slightest hesitation in affirming that the extra value has been created by the operations of our co-operative organisation, coupled with the grading of our produce, because before either of these was in operation our honey fetched only about 4d. per lb. It seems to us a great achievement to thus "top the score" amongst the big exporters of honey to England, but it carries with it a responsibility on every beekeeper to do everything possible to send only a first-class article to the grade store for export, and this can be done by taking reasonable care, as outlined last month. Well done, New Zealand!

• • • •

We have received from the secretary of the Apis Club, England, the bronze medal of the Club, which they have forwarded to us to offer as a prize at our next honey show. This will probably be offered for the best sample forwarded to the next Conference.

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Would those who ordered and paid for photos of the group attending Conference and have not received them, please write the Secretary at once?

IMPORTANT NOTICE.

With this issue the N.Z. Beekeepers' Journal ceases publication. In future the official organ of the National Beekeepers' Association of New Zealand will be the N.Z. Fruitgrower and Apiarist.

All subscriptions coming due must be sent to the N.Z. Fruitgrower, Box 1409, Auckland.

The new publication will be forwarded to all subscribers until expiry of subscription.

All correspondence relative to the industry must now be forwarded to the Editor N.Z. Fruitgrower, Auckland.

Those who are already subscribers to the N.Z. Fruitgrower may have the balance of the unexpired subscription to the N.Z. Beekeepers' Journal refunded on application.

Beekeeping for Beginners.

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

With October the work in the apiary starts in earnest, and the beginner should now look through the hives every ten days for certain. The examination to-day should reveal brood-rearing well advanced in every hive, some of the strongest getting a bit overcrowded, and an extra super would be acceptable to prevent the swarming fever setting in. Or, if you have any hives that are not making as much headway as desirable, a frame or two of capped and hatching brood taken from the strong and given to the weak hives will equalise matters, giving the strong hive the empty combs taken from the weak.

I advise examination every ten days, which allows one to keep abreast with the progress made, but the period should not be extended. There is very little harm done by weekly examination, and I expect a good many beginners who are engaged in other occupations during the week make a weekly examination. But do not go pulling the hive to pieces every two or three days: it is no use at all, and only disturbs and discourages the bees.

I have seen it stated that a hive that is "manipulated" takes three hours before it is in a normal condition again, and I can well believe it. If you consider before you touch a hive that the queen and every bee is doing her bit towards the economy of the hive in the natural way, first the sentinels get a fright and are disorganised; then the hive loses its cover, a most "unnatural" event; the bees get a bit more smoke, which puts them off their work and induces them to put their noses into the bare honey. The brood-nest is then broken into, the queen interrupted in her work, perhaps a bee or two crushed, etc., etc.—all most "unnatural." It must be a terrible shock to the bees.

You often hear the remark: "I suppose you don't get stung as the bees know you." I am very glad they do not know me, else they'd give me "pepper," as no

matter how gentle or swift I am at the hives, I must disorganise them badly every time I go to them. There is a happy medium between the "let alone" plan and the "always at 'em." Practise the happy!

At this time of the year the food supply is very important. Even a short spell of bad weather means a depletion of the stores, and when the bees find themselves getting short, brood rearing is curtailed—the very thing you want to avoid. If necessary, feed with good sugar syrup (equal parts sugar and water) at sundown within the hive, warm preferred.

If your apiary is not within reach of cattle, you can effectually kill the grass round the hives by using a weed-killer. In this district the farmers use the following for killing blackberry, and it will kill anything that grows:—1lb. white arsenic, 2lbs. washing soda, one gallon of water. Dissolve soda by boiling 15 min., add arsenic, and boil until clear. Use one pint of mixture to 20 of water. For killing grass only this could be considerably diluted. Care must be taken with the solution, as it is very poisonous, yet very cheap and effective. Use in dry weather only.

Look into your supplies, and see that you have everything you are likely to require, as often one is caught "napping."

Keep your weather-eye open for disease, and should any be found, the hive should be treated at once.

F. C. B.

Canterbury Tales.

By E. G. WARD.

I am glad to be able to report that some rain has fallen in Canterbury at last! Not much, but we are thankful for small mercies. Up till the 11th of September the weather was ideal, but a cold change occurred on that date, and there has been a general rainfall. The average fall seems to have been about one inch. We are still about 4 in. short of last year's record to date, and I am wondering if we are in for another season like 1915, when the total for 12 months was about 15 inches. Our local weather prophet (Mr. F. L. Wooles) has predicted cold, stormy weather for the latter part of September, and he has a habit of being right pretty consistently, so on the whole prospects are rather discouraging. There has been a heavy snowfall on the ranges, so we can look out for late frosts.

On account of the above weather conditions, the bees have forged ahead with brood rearing earlier than usual, so I would counsel keeping an eye on the food supply, and also suggest a small entrance to conserve warmth.

The following "ad." appeared in a local paper recently:—"Wanted sell, bees; strong colonies; pure Italian hybrids; lessons to beginners."—Can anyone tell me what is a "pure Italian hybrid"? It is the first time I have come across the term, and to tell the truth there seems to be a suggestion of 'the blind leading the blind' here. Another paper has the following:—"We have a good demand for eggs, honey, and all other lines of vegetables." A person who has never heard of honey might be excused for thinking honey belonged to the vegetable tribe!

If anyone wants a "talking-point" when asking for a location for bees, the following should be useful:—

> "The value of bees as seed fertilisers has been thoroughly demonstrated to a Wairarapa farmer. Desiring to obtain a crop of lucerne seed, the farmer shut up a paddock of lucerne to allow the seed to mature, but was disappointed with the results. He was told the crop was unfertilised, and was advised to run a few colonies of bees near the lucerne. He got a friend to run about 100 colonies near the spot, with the result that the next time he grew for seed he succeeded far beyond his expectations."

For some months past the Canterbury Branch of the National has held meetings once a fortnight when addresses have been given by various apiarists on subjects of interest to beekeepers generally. I have reported most of them in the Journal, and on August 31st, Mr. W. A. Sillifant was the lecturer. He dealt with "Bees and Beekeeping." The subject, of course, is a very wide one and includes everything connected with the industry; but Mr. Sillifant contented himself and interested his hearers by quoting from his own experience, and dealt with the general conditions necessary to insure success as an apiarist. He particularly stressed and enlarged on the following four points:—First—A good honey-producing district. Second—Freedom from disease. Third—Young and vigorous queens. Fourth—Plenty of winter stores. These points are universally accepted and we all do our best to regulate our activities along the lines indicated, but I wonder how many of us occasionally fall short of the ideal.

In the course of his address Mr. Sillifant made the definite statement that the queen determines the sex when depositing the egg in the cell, and "yours truly" had a little to say in the discussion following the lecture.

The question as to whether the queen decides the sex voluntarily has been debated by societies often, but I do not remember ever having read that it is definitely decided. We all know that a fertile queen can, and does lay two kinds of eggs, and that a virgin can lay only drone eggs. Cheshire says that the size of the cell has an influence, but when we reflect that a queen cell is larger than a drone cell, we must agree that the argument is weak, if not altogether erroneous. It is well known that a queen does not

lay drone eggs in a weak nucleus even if there is only drone comb present, and it is also a fact that a failing queen lays drone eggs in worker cells. The subject interests me a good deal and it would be interesting if any readers of the Journal could throw a little light on the matter.

On September 14th, Mr. H. Johnstone gave a paper on "Beekeeping from an Orchardist's Point of View." He considered that the two industries made a profitable and pleasant way of making a living. He thought that a ten-acre piece of land could be divided in such a way as to provide for homestead, apiary, and orchard, and drew a picture (in words, of course), showing how a man and his wife could become landed proprietors in a small way in a few years. The value of bees in the fertilization of the blossoms was touched on, and quite a pleasant discussion took place at the close of the paper.

That letter by Mr. E. E. Tatam last month is particularly interesting to me. If those plants bloom nine months out of twelve and yield honey all the time, I'd just love to have a few acres of them near my bees. How about "swapping" some seed for Hubam, Mr. Tatam? But, there, I suppose Hubam will have to take a back seat now.

LOCAL INDUSTRIES.

THE COMING EXHIBITION.

ITS AIMS AND OBJECTS.

> "This exhibition, for the display of New Zealand-made goods only, will be conducted on a scale not hitherto attempted in the Dominion, and its main purpose is to secure the support of the public for the goods produced in their own country."

This statement, taken from a booklet recently issued by the Industrial Corporation of New Zealand, gives the chief object of the exhibition of New Zealand manufactures which is to be held in Christchurch from Nov. 18th to Dec. 9th, 1922. This Exhibition will be the first of a series of All N.Z. Exhibitions to be held in Christchurch, Dunedin, Auckland, and Wellington in an order of rotation yet to be determined.

Here is a splendid opportunity for the H.P.A. to get honey under the eyes and noses of large numbers of people, and I trust that the management will get together a really comprehensive exhibit illustrating the whole industry. To date, thirty-eight Christchurch firms have applied for space and from what has appeared in the newspapers, it is evident that the idea has been taken up enthusiastically. American honey producers go to a lot of trouble in making a display at agricultural shows, fairs and similar functions, and find it pays well. Sometimes an exhibition of handling bees is given (inside a wire screen cage). This draws a crowd, and the man in charge gets to work and often does a roaring trade. If I remember rightly, a recommendation was made at a Conference some years ago that the executive of the National get together a comprehensive exhibit, but there the matter ended I think. Be that as it may, no opportunity should be lost of boosting honey if we expect the public to buy it. The illustration on the front page of last month's Journal shows that our goods are well represented in London. Let us hope the demand will increase and multiply exceedingly.

The following extract from the "Bee World" is of great interest:—

"Eggs as a Commercial Proposition."

"This brings us to another point which, as far as I know, has not been raised in any bee literature, and that is the sale of pedigree eggs for queen-rearing as an adjunct to the sale of queens. Last season I removed combs of freshly laid eggs from several stocks, and left them in empty hives and other places for periods varying from five days to a fortnight; they were then given to queenless bees, and in all cases were converted into queen cells and sealed brood. I am writing to several American friends for eggs, and hope to report results in due time. It is a generally known fact that the bees can delay the hatching of eggs by withholding the royal jelly, and no egg will ever hatch unless and until food is added. How long hatching may be retarded is not known, but from the experiment above-mentioned it appears that **eggs may be kept at least a fortnight without losing their fertility.**"

We all know that hen eggs, duck eggs and goose eggs are kept for considerable lengths of time before they are put under the birds to be hatched, so if birds' eggs can be kept on hand or sent to a distance, I see no reason why bees' eggs should not be amenable to similar treatment. Now that the importation of queen bees is prohibited, this discovery should solve the difficulty of getting queens from outside New Zealand. If we can get the eggs, it is an easy matter to do the rest. At any rate I am going to find out whether it can be done within the Dominion, and will be pleased to exchange eggs with anyone who cares to take a hand in the experiment.

In the July issue of "Gleanings" a devise for filling queen mailing cages is illustrated, which strikes me as being one of the best ideas I have seen for many a day. It consists of a box, the lid of which is bored with holes to correspond with the holes in mailing cages. There are four rows of holes, ten in a row, and the side of the box is bored with a hole which can be filled with a cork. When it is desired to fill cages with bees for mailing queens, a good shake of young bees is put into the box (the lid with the 40 holes is removable), the cage being in place ready. After the bees are shaken into the box, it is given a bump to jar the bees to the bottom, and the lid is re-

placed. A couple of puffs of smoke are blown in through the hole in the side and the cork put in. The bees immediately make for the light and enter the cages. If there are too many, some are allowed to escape. This part of the business is done in the forenoon. Towards evening a queen is run into each cage, and is mailed next day. Compare this with the usual method of picking up bees one by one and putting them into cages, and then tell me if it's not worth a year's subscription. The inventor is a Frenchman (Skipwith Cannell), who sent the description to Dr. E. F. Phillips. Dr. Phillips considers the idea such a valuable one that he forwarded the account to the editor of "Gleanings." I think the queen breeders of every country where "Gleanings" circulate ought to pass a unanimous vote of thanks to the inventor.

District Reports.

HAWKE'S BAY.

In most cases beekeepers have been pleased with the way their hives have opened up. The last four or five weeks have been good weeks for the bees, and honey has come in steadily from the gums and the willows. The past few days, however, have put things at a standstill. A southerly has raged, and prolonged its stay past all reason, and the day of writing has been more winterly than any day of winter.

Last month the Association had a small meeting. Mr. H. Shepherd led a very interesting discussion upon the work of the next few months, and received a hearty vote of thanks.

J. P. BOYLE.

18/9/1922.

TAIERI TALK.

Believe me, gentlemen, I could gaily stiffle the man who set the precedent for writing district notices during the winter and alleged spring months! Perhaps there might be some excuse for him if he lived in one of those northern Avillons where a mid-winter honey flow is nothing to make a fuss about, but here in the sub-Antarctic —what?

There was once a poet who, growing aweary of writing verse to the daff-adown-dillies and to the blue eyes of some imagined fickle fair, composed a "chanson funebre," a dirge upon the southern parts of Otago:—

"Cows and willows and rain,
Rain and willows and cows,
O walk by the riverside,
I do not wish to complain
At meeting the willows and rain,
For after I've passed the willows and cows,
I come to the rain again."

No doubt he was suffering from weather fantods when he wrote that, for I shall admit that it is hardly fair to the locality this time. It has been a perfect winter until this week—perfect in its mildness, that is. The bees have been flying at every opportunity.

I have never before conceived that beekeeping could be used as an argument in favour of republican ideas. One never knows what is coming next. I do not know what the Italians are thinking of! From "L'Apicultura Italaiana":—

"Hello, what's wrong with your arm?"

"A bee-sting!"

"How did it happen?"

"You! The presence of you, an avowed Republican, has aroused the queen!"

"It's easily seen that I am not a beekeeper anyway."

"How?"

"Well, queens sting only those who keep them!"

I hope you see the joke. Continental wit is usually fairly deep and dark. This one is. 'Tis just as well. The last time I allowed myself a joke, persecution descended on me. Everyone wanted to know who it was! Who it was! There's one consolation—I must have told it well!

BASIL H. HOWARD.

12/9/22.

TARANAKI.

Having missed Conference this season, I seem out of touch with the bee world, and have missed my notes for a couple of months.

We have experienced a very mild winter in this district, and although the bees were left much lighter than usual in consequence of the poor season, they have wintered well in most cases.

When overhauling the bees a few weeks ago, it struck me that a plan I use for building up very weak colonies might be worth mentioning. It is very simple, and is done in one attempt. Cage the queen in the weak colony, and block the cage entrance with candy. Then from a very strong colony take two frames of bees and good brood, and transfer to weak colony, putting the caged queen between same. Then shake another couple of frames of bees in, and after putting the cover on give a few good puffs of smoke at the entrance to unite them. It is apt to cause robbing if done carelessly, but if the yard is fairly quiet, or towards evening for preference, it is quite safe.

Do not waste time trying to build up a colony with a poor queen, as it is waste of good brood and bees.

Drifting of field force is a matter that is giving some of us a lot of thought. It is a strange thing that until the last few seasons we have not noticed it to any extent, and in consequence wonder whether it did not exist, or was it our observation that was lacking? If the former, then the question arises, Is it strain? This drifting is more noticeable in yards of

uniform appearance situated with a hedge on one side only, and clear of logs, etc.

In the case of a neighbour under similar conditions: he found last season that on almost every visit the few outside colonies bubbling over with bees and the inside ones weak. I had the same experience, only not so pronounced. It appears to me as though under certain conditions one must make allowances for a queen in the middle of a yard, and likewise not mark as his breeder that corner colony that fills so many supers each year. Would someone else please testify on this subject?

H. R. PENNY.

Okaiawa, 16/9/22.

[The end hives of my four rows are the strongest in the apiary; that on the front row has to-day three supers full of bees.—Ed.]

CLUTHA VALLEY.

The bees in this district are opening up exceptionally well and strong, and I can see trouble ahead for those beekeepers who do not watch the stores too well. The winter has been cold but dry, and for some weeks we have had beautifully sunny days, with occasional showers, and things are looking good. The willows are just coming into leaf, but we do not build much on them, as there has been only twice in ten years that the bees have been able to work them, every other year has been cold and rough at that time.

At our last meeting, held at Awamangu on August 19th, it was decided to hold our field day at the apiary of the secretary, Mr. W. Richards, Pukeawa, about ten miles from Balclutha. This is almost as near as we can get to the railway, and as convenient as we can make it for visitors from down the river. The date will be fixed later.

I was pleased to see that lecture by Mr. C. A. House in the last issue of the Journal. It has been well known by the leading poultrymen for many years that to get the best results they must breed by mating blood to blood, and I cannot see why the same thing should not apply to bees. As long as we keep introducing new blood we do not know where we are or what we have; therefore, I say, keep on with what we have, and breed from the best only, and I am sure we can produce a bee that will far more than hold its own with anything that can be imported.

Re that porous plaster to lengthen the lives of the bees, how about a coat of varnish to toughen their wings! I think the bees would live long enough if their wings would only hold out.

H. N. GOODMAN.

I don't believe that harmless cheerfulness and good humour are thought greater sins in Heaven than shirt collars are.—*Dickens.*

Queen Introduction.

TWO LITTLE KINKS THAT SHOULD SAVE THE LIVES OF MANY QUEENS IN INTRODUCING.

(By JAY SMITH, in "Gleanings.")

Someone—I think it was Doolittle—gave us a sure way of queen introduction. His method was to take several frames of capped brood, brush off all bees, put the frames into a hive, close the entrance, and carry it into the house or somewhere that the temperature might be right. Then the queen is to be turned loose on the frames of brood, the cover placed on the hive, and left for four or five days. It was then to be put outside if the robbers were not too bad, and an entrance large enough for one bee to pass was given. If this is carefully done it is a very sure method, the principal feature that condemns it being the time and work it entails.

Someone—I do not know whom—thought to improve upon this method and recommended that the combs of capped brood be set over a strong colony, with a wire-screen between the hive-bodies, that the queen and brood might have the benefit of the warmth of the colony below. Now instead of improving upon the first method, he completely ruined it; for, if the combs of emerging bees are put over a colony, it is one of the poorest of all methods of queen introduction. I confess I am puzzled to know what makes the queen die when put in this upper storey, but a large percentage of queens die for some secret reason of their own or are killed by the bees on the other side of the screen. It does not seem possible that bees can sting through the wire screen; but my assistants who nail up the queen cages frequently get their fingers stung through the wire screen. This last season I had seven different parties write me stating that they lost queens when they were placed above the screen as has been recommended. I have advised that they carry the hive into the house instead of putting it over another colony, and no loss has been reported.

Dr. Miller gave us the newspaper method of uniting bees, and it works to perfection, with never a bee killed. A number of years ago I thought to improve upon this, and I had a number of screens made to fit the hives, and set the queenless hive on top. I was greatly surprised upon looking at them next day to see from one-fourth to one-half of the bees dead in the upper storey. What killed them was a puzzle. No doubt the same thing that caused the death of the bees causes the death of queens when introduced above the screen.

Kink No. 2.—When you take out the frames of brood to remove the old queen before introducing the new one, be sure to put the frames back into the hive in the same order in which you found them or you will lose some queens. This applies to any method of introducing a queen to a full colony. Now, if you do not do this, let us see what happens. You put the frames back any old way, and you put a frame of honey in the centre of brood-nest, and leave frames with brood in all stages on both sides of this frame of honey. Before the queen is released the bees start queen-cells on the frames on both sides of the comb of honey. When the queen is released, she never dreams that anyone has been monkeying with the brood-nest, and supposes it is in one part, the same as any well-behaved bees would have it. She takes a swing around the circle and orders all queen-cells to be destroyed. But she never surmises that there is another brood-nest the other side of that comb of honey, and goes on laying. Sooner or later a young queen emerges from a queen-cell on the other side of that comb of honey, and the first thing our nice laying queen knows she sees a virgin come over the top, which means her finish. It does not always happen thus, but I have lost many queens in this way before I found out the reason. Sometimes the queen would be laying for a week before the virgin could kill her. Many queens that are purchased are lost from this cause. Sometimes a beekeeper will be puzzled to know why the queen was superseded (?) soon after she began to lay. She was not superseded: she was killed. In removing frames from the hive, it is a good plan to take out the frame nearest you and set it down beside the hive. Then as you examine the others, put them back in the same place you found them. When through, put the frame that you first removed back in the place nearest you.

Vincennes, Ind.

Odds and Ends

By NEW CHUM.

I notice in the Journal of last month that a prize had been offered for the best paper on "Spring Management." I think this is a retrograde step; surely our Journal can be kept going without offering pecuniary gain to encourage beekeepers to write to its columns. I think it is up to our successful apiarists to give new chums the benefit of their knowledge without having to be paid for it.

Will someone contribute an article on "Wax Rendering"? The melting down of drone combs and pollen combs always causes me to boil them up twice, as the first rendering and straining is not just a success. I get a block of wax about two inches thick on top of the mould, and underneath there is sediment and wax all mixed up together. I can always get cappings to make good wax after boiling once.

Some time ago I read in the Journal that it was unsafe to feed back honey from an infected colony after boiling it for a while. Now, I have several times done this, and never had any misfortune with it; but if as stated in the Journal that American foul-brood spores could not be killed by boiling, I think the sooner I give up the feeding back the better. Has the American foul-brood ever made its appearance in New Zealand? If so, please let me know whereabouts.—[It is the American we have, not the European.—Ed.]

On the 16th August I went through my apiary for the first overhaul, and found the bees in a more forward condition than I have ever seen them during the last twelve years. I actually found drones in two of the most populous hives. The majority of hives had from three to five frames of brood. I think this for South Otago is exceptional, seeing that we have just come through ten weeks of continuous frost.

Can anyone tell me why some hives have a habit of keeping themselves pure? I have one particular hive near the honey shed that I Italianised six years ago, and they are absolutely pure Italians to-day, and never swarmed to my knowledge. They must have superseded the queens, as the hive in question is one of my very best, and last season was a big factor in my honey crop of six tons from seventy-two colonies.

In Defence of Her Majesty the Queen.

(Slightly abridged from "L'Apicultura Italiana.)

[I receive quite a number of these Italian periodicals from the Editor. I send very little to him from them. I don't know what he thinks: Perhaps that I am dog-gone lazy; perhaps that you are such a learned crew that I can find little to interest you. You have a choice of explanations. Choose! Only, don't let vanity influence you; I don't mind at all, really.—B.H.]

It is my intention to speak, to break a lance in favour of the queen mother—in favour of the unique, of the most singular sovereign, the most important inmate of the hive, justly given the enviable name of "Queen." Yet, alas, this is precisely why she is the most persecuted, the most sought out, the most afflicted of her kind. This is why she finds among beekeepers so many cunning and implacable enemies.

Have pity! Have pity! Truce! Let be that unfortunate reject, whom you see so afflicted, so miserable, when she is not concealed by her offspring. See her hurry away to hide herself from all, fearfully, as if she realised all that might fall to her lot—the cage, ill-usage, a horrid rubbing of her poor little body—all these!

Is she a little worn in the body? Are there imperfections in her members? Behold the beekeeper hunting her down to sacrifice her! Is she somewhat small? Is she black? Has she little brood? Away with her! Replace her! Is her colony fond of stinging? Are her offspring prone to swarm? Don't wait to find out the cause! Oh, no! Replace her, that you may restrict that swarm impulse, that your bees may be less pugnacious!

Cut her wings; plunge her into water; smear her with honey, with oil; sprinkle her with flour; suffocate her with smoke; starve her; cage her; make her crawl on glass; have her easily killed by bees not at all disposed to accept her. It makes a fine picture!

But let us put an end to this list of martyrdoms: let us try to be a little more respectful, a little less prone to regicide. It is enough to see a regular laying of eggs to do away with this searching and terrifying of the whole colony.

There are very few cases where the replacing of the queen is absolutely necessary. Further, I do not think that the periodical change of ageing queens is indispensable. Why, pray, should I replace a queen three years old when I find her in a colony populous and well provided? Many and many are the colonies which themselves naturally supersede a queen who is no longer fitted for the task. Moreover, a novice who, booby-like, is ignorant of the age, raising and introduction of queens and the many methods therefor) can easily spoil a good young queen in attempt to follow the popular rule of replacing. Further, after a heavy flow, it is no uncommon sight to see a small black queen whom you would love to supersede dragging herself slowly and painfully over the combs with a swollen body from which she is dropping eggs prolifically.

Therefore, restrain your desire to hunt out the queen; why continue and persist in visits and searchings which are practically useless? The beekeeper who has the slightest experience should see and recognise at a glance whether the colony is normal or not. It is enough to observe.

Let us then leave to our excellent colleagues who are careful and competent the artificial raising of queens. Let us who are plain beekeepers give up all nurseries, cages, cups, artificial cells, jelly, egg-transferring, &c. Let us try to make the task of the novice a little easier. To raise queens, let us have a queenless colony, nuclei, ordinary combs. These will act just as well. This I tell you is our only aim.

As a stand-by in case of too frequent queenlessness, let us make during the proper season 10 or 15 per cent. of nucleus hives which at all times and in any season will serve to reduce queenlessness. The number of colonies will not be diminished, and we will thus grow to respect a little more the unfortunate mamma who is hunted out by all and despised by many.

LENA ELISEO.

Casteldidone, 12/5/22.

I don't know what you think about it. It seems to me to be excellent in idea. Obviously the authoress is not a commercial beekeeper; she still has some sentiment left in her beekeeping! The appeal she sends forth is almost lyrical. It appeals to me; therefore, I pass it along to you.

(Further Extract from the Journal.)

"Is beekeeping to be taxed?"

"No," says the Minister of Finance.

It is strange that these things should be going on in Italy too. From the Journal it would appear that certain prominent beekeepers have been attempting to persuade their comrades that taxation in return for Government service would be a good investment. The Association has been fighting against it. Finally, the Minister of Agriculture put the proposal to the Minister of Finance, who refused point blank! There you are!

BASIL H. HOWARD.

Finding the Queen.

(By ALLEN LATHAM, in American Bee Journal.)

"Please tell me how to find the old queen."—Is there a queen breeder who does not have that request made with many an order for a queen bee? When an expert is sometimes nearly stumped to find the queen, the amateur has cause for such a request as this. With crooked combs and black or mongrel bees, the finding of the queen is not a pastime sought even by the expert. With well-spaced combs of high grade and with Italian bees the task of finding the queen becomes much simplified.

Queen-finding naturally divides itself into two classes:—First, locating the queen in the brood nest, and second, locating the queen on the outer combs or on the body of the hive.

Under ordinary conditions one will look for the queen in the brood nest, especially if bees are finding nectar and the danger of robbing is not to be guarded against. I will, therefore, discuss this class first, and try to make clear the various procedures which have proved most effective in my own experience.

When a colony is disturbed, nine queens out of ten immediately start moving over the combs, leaving the brood nest and even the combs if the disturbance becomes continuous. It is therefore of prime importance, if one is to find the queen in the brood nest, to be most careful in preliminary operations. Little if any smoke should be used, for one single puff of smoke sent into the hive may cause the queen to desert the brood-nest. A crinkle of smoke may be sent along the entrance just to intimidate the guards there, but the force must not be great enough to send it into the hive. The cover should be taken off most gently, and again smoking should proceed no further than to let the smoke waft along the top bars; under no consideration should the smoke be driven down between the top bars.

If one prepares a strip of dark cloth in advance, he will find it a great aid. This strip should be about 20 inches long and 8 inches wide. This is laid lengthwise over the middle of the hive as soon as the cover is removed. It serves to cover the brood nest, and prevents light from alarming the queen. With the cloth in place, remove the outer combs on one or even both sides. The queen is now practically certain to be on one of the combs beneath the cloth, and if one continues careful, will be soon found. Tip one comb back and look at once upon the outer surface of the next comb. Often the queen will be seen running down on this comb or just disappearing between the comb and the bottom bar. If the queen is not seen on the second comb, then lift out the first and look it over. If the queen is still not found, proceed with each remaining comb after the same manner. Nine out of ten queens will in this way be found within three minutes from the time the hive is opened.

If the queen is not thus found, arrange the combs in pairs, which may be left either in the hive or stood on end leaning against the hive. Wait five minutes, and then carefully split each pair, glancing down over the inner surfaces as this is done. The tenth queen is usually quickly found in that way. But if not found now, she should be left for another trial later. An hour or so later the process may be repeated.

As one becomes more expert he will soon look for where the queen is rather than for the queen, and having found where she is, proceed to search for her. An expert can usually tell upon lifting out a comb whether the queen is or is not likely to be upon that comb, and so when one becomes more expert he may then begin to cut corners. The amateur will find it well, however, to follow carefully the rules laid down. I will repeat the caution that one must proceed with great care if he is to succeed in finding quickly the queen in the brood nest, and must avoid in every way possible getting the queen frightened. Once frightened, the queen is thereafter anywhere in the hive, or even outside, and the finding of her proves a most exasperating task.

I will now discuss the finding of the queen outside the brood nest. The opportunity of variation of procedure here is very great, and space will not permit me to enter into all the possible variations. All are based upon the fact that the queen, when startled, will as a rule leave the brood nest, generally travelling upward.

Every beekeeper of much experience has noted the frequency with which he has seen a queen upon the top bars just as he removed the cover, or else seen her body just disappearing between the two top bars. Many of us have noted, too, the frequency with which the queen is on the cover of the hive itself, and some of us have found that out too late, to our grief. I have no doubt in my own mind that many a good queen is lost through this fact. How often have my customers written to me that they found everything O.K., with the queen laying nicely, but a week later found nothing but sealed brood and queen cells, but no queen. They usually blame the queen, and expect another sent to replace her. More times than most of us realise the cover is laid aside with the queen on it with a few score of workers. All are usually dumped in the grass when the cover is replaced, and the queen may or may not find her way into the hive. Sometimes the bees are not dumped off the cover, but the cover is rudely replaced, crushing the queen, which has sought the best refuge she can in a corner.

Fortunately, this habit of the queen is not a cause of loss only, for it can be made a source of real profit. Especially with nervous bees, ill-kept hives, and model colonies in times of dearth, can one use this habit of the queen to great advantage.

Many are the times that I have puffed some smoke into the entrance, given the hive a bump, and after waiting long enough to count 25 slowly, removed the cover, and discovered her ladyship on the under surface of the cover. This can be done only when there are no supers. If supers are there, one has to remove them, and it is difficult to perform this trick after that. We must, therefore, modify it.

When, because of supers, one cannot try finding the queen on the cover, he can make use of an empty super to which has been nailed an inner cover. It is also well to insert a partition in this super which will come down close to the top bars. Or one can use a full depth body with empty combs in the same. Either of these is placed on the hive after the removal of supers and excluder. Smoke is lightly blown in at the entrance, and the hive is then drummed a little with the hands. The queen almost always heads at once for this added storey to the hive, and if a few bees go with her she will stay there for some time. Usually within two minutes one can remove the super and proceed to look for the queen. If he pre-

fers, he can wait some six or eight minutes until several pounds of bees are up there with the queen.

If it is a season of robbing, one must, as he begins to drum, lay a cloth along the entrance or otherwise stop the ingress of robbers. And in every case, as soon as the body is removed, the cover, or supers and cover, must be at once set in place. The entrance should not be fully opened at once, for the colony is demoralised and will prove an easy prey to robbers. When there seems to be a spirit of defence about the entrance, the cloth may be pulled aside a little at one end.

Now move off a rod or so with the body or super containing bees and queen and dump same upon a sheet or some smooth place where it will be easy to spot the queen. Most of the bees will return to the hive, but if the hive has been drummed over two or three minutes, many very young bees may be lost. Care must be used in getting these bees into some receptacle and returning them to the hive where they can be dumped by the entrance. Often the queen can be spotted in the super with the partition without dumping out the bees, but the body of empty combs does not offer the same ease.

The writer has two or three shallow supers, with one side covered, for use in queen-finding. While waiting for bees and queen to ascend into one, he places another in position on another hive, keeping two and three in use continuously. These are used only in time of dearth, when robbers soon stop queen-finding by the usual methods.

Sometimes, when in a hurry, this plan is followed:—All the combs are removed and stood about the hive. The body of the hive is glanced over to see if the queen may have left the combs. Then, each in turn, the combs are shaken into a box and replaced in the hive. While doing this, a sack is kept lying over the hive, and is lifted when a comb is inserted. If this is not done, the robbers may get too big a start. The box into which the bees have been shaken is tipped back and forth in a good light and the queen usually quickly seen. Bees are then dumped before the hive, the entrance of which has previously been nearly closed. In the shaking, a lot of old bees always return at once to the entrance, and generally take care of any robbers if the entrance has been contracted.

Finally, there is one method which never fails unless for the unusual case in which the queen is so small that she will pass through excluder zinc; the writer in all his experience having had it occur but once.

The hive is set aside and an empty excluder zinc fastened the length of the entrance. Every comb is now shaken in front of the hive and placed inside, an inner cover being kept on the hive during the process and being lifted only when a comb is to be inserted. This cover helps to check robbing, and also may prevent the queen from dropping into the hive when some comb is shaken, a possible and annoying occurrence. When all the combs are in the new body, the old is suspended, bottom up, in front of the new to dislodge bees clinging to the walls. All is now left for the bees to work their way into the hive. If smoked in, the queen may be forced through the zinc. It is better to scratch the bees away from the zinc once in a while, and the queen will quickly be found trying to get through the zinc. In case the queen is not soon found in that way, she is doubtless in a cluster of bees under the front end of the hive, and these bees should be dislodged and started into the hive.

One need never despair of finding the queen if there be one in a hive, and it is the hope of the writer that many an amateur may find helpful suggestions in this article.

Connecticut.

Market Reports.

Matters have not improved since our last report; still shipments keep rolling in, 2,099 barrels having arrived from Chili alone, but only 230 barrels have been sold—Pile X at 48/- to 50/-; Pile 1 at 44/- to 46/-; Pile 2 at 40/- to 42/6; and Pile 3 at 33/- to 37/6 per cwt. These prices, as compared with pre-war prices, are quite good, and when the world does arrive at a state of normality—which in time it must do—we should be very thankful if they can be maintained at this level. Of course, having been accustomed to the giddy heights of war values, one is inclined to complain, but the sooner we get rid of that mirage the sooner we shall be contented.

Beeswax.—Of course, the trend of this market is in sympathy with that for honey. Europe is in a state of flux and cannot afford to buy beeswax, although it apparently needs something of that nature to stiffen its economic conditions. There is, however, no large change to report in values; 410 bags Chilian have arrived here during the past month, whilst only 7 bags have been sold at a slight reduction—say, £7 15s. per cwt. Of course, nobody wants to buy for shipment at that price, but if consumers want it they have to pay the price named.

TAYLOR & CO.

Liverpool, August 2nd, 1922.

Sprinkle the frames of the colony you are about to "shake" for foul-brood with sugar syrup scented with peppermint. It is a great help, as the bees will fill their honey-sacs with the syrup instead of the infected honey in the combs, and carry less of the infection with them.

—Western Honey Bee.

New Observations on the Natural History of Bees.

By FRANCIS HUBER.

(Published in 1808.)

(Continued from last issue.)

LETTER III.—(Continued.)

Thus it is certain that in the natural state, when fecundation takes place at the proper time, and the queen has suffered from nothing, she is never mistaken in the choice of the cells where her eggs are to be deposited; she never fails to lay those of workers in small cells and those of males in large ones. The distinction is important, for the same certainty of instinct is no longer conspicuous in the conduct of those females whose impregnation has been deferred. I was oftener than once deceived respecting the eggs that such queens laid, for they were deposited indiscriminately in small cells and those of drones; and not aware of their instinct having suffered, I conceived that the eggs in small cells would produce workers; therefore, I was very much surprised when, at the moment they should have been hatched, the bees closed up the cells, and demonstrated by anticipation that the included worms would change into drones; they actually became males; those produced in small cells were small, those in large cells large. Thus I must warn observers who would repeat my experiments on queens that lay only the eggs of males, not to be misled by these circumstances and expect that eggs of males will be deposited in the workers' cells.

It is a singular fact that the females whose fecundation has been retarded sometimes lay the eggs of males in royal cells. I shall prove in the history of swarms that immediately when queens in the natural state begin their great laying of male eggs, the workers construct numerous royal cells. Undoubtedly there is some secret relation between the appearance of male eggs and the construction of these cells, for bees never derogate from this law of nature. It is not surprising, therefore, that such cells are constructed in hives governed by queens laying the eggs of males only. It is no longer extraordinary that these queens deposit in the royal cells, eggs of the only species they can lay, for in general their instinct seems affected. But what I cannot comprehend is why the bees take exactly the same care of the male eggs deposited in royal cells as of those that should become queens. They provide them more plentifully with food; they build up the cells as if containing a royal worm; in a word, they labour with such regularity that we have frequently been deceived. More than once, in the firm persuasion of finding royal nymphs, we have opened the cells after they were sealed, yet the nymph of a drone always appeared. Here the instinct of the workers seems defective. In the natural state, they can accurately distinguish the male worms from those of common bees, as they never fail giving a particular covering to the cells containing the former. Why, then, can they no longer distinguish the worms of drones when deposited in the royal cells? The fact deserves much attention. I am convinced that in investigating the instinct of animals, we must carefully observe where it appears to err.

Perhaps I should have begun this letter with an abstract of the observations of prior naturalists on queens laying none but the eggs of males; however, I shall here repair the omission.

In a work, "Histoire de la Reine des Abeilles," translated from the German by "Blassiere," there is printed a letter from M. Schirach to you, dated April 15th, 1771, where he speaks of certain hives where the whole brood changed into drones. You will remember that he ascribes this circumstance to some unknown vice in the ovaries of the queen; but he was far from suspecting that retarded fecundation had been the cause of vitiation. He justly felicitated himself on discovering a method to prevent the destruction of hives in this situation, which was simple, for it consisted in removing the queen that laid the eggs of males only, and substituting one for her whose ovaries were not impaired. But to make the substitution effectual, it was necessary to procure queens at pleasure— a secret reserved for M. Schirach, and of which I shall speak in the following letter. You observe that the whole experiments of the German naturalist tended to the preservation of the hives whose queens laid none except male eggs, and that he did not attempt to discover the cause of the vice evident in their ovaries.

M. de Reaumur also says a few words somewhere of a hive containing many more drones than workers, but advances no conjectures on the cause. However, he adds, as a remarkable circumstance, that the males were tolerated in this hive until the subsequent spring. It is true that bees governed by a queen laying only male eggs, or by a virgin queen, preserve their drones several months after they have been massacred in other hives. I can ascribe no reason for it, but it is a fact I have several times witnessed during my long course of observations on retarded impregnation. In general, it has appeared that while the queen lays male eggs, bees do not massacre the males already perfect in the hive.

LETTER IV.

ON M. SCHIRACH'S DISCOVERY.

When you found it necessary, Sir, in the new edition of your works, to give an account of M. Schirach's beautiful experiments on the conversion of common worms into royal ones, you invited naturalists to

repeat them. Indeed, such an important discovery required the confirmation of several testimonies. For this reason I hasten to inform you that all my researches establish the reality of the discovery. During ten years that I have studied bees, I have repeated M. Schirach's experiment so often, and with such uniform success, that I can no longer have the least doubt on the subject. Therefore, I consider it an established fact that when bees lose their queen, and several worker worms are preserved in the hive, they enlarge some of their cells, and supply them not only with a different kind of food, but with a greater quantity of it, and that the worms reared in that manner, instead of changing to common bees, become real queens. I request my readers to reflect on the explanation you have given of so uncommon a fact, and the philosophical consequences you have deduced from it: "Contemplation de la Nature, Part II., Chap. 27."

In this letter I shall content myself with some account of the figure of the royal cells constructed by bees around those worms that are destined for the royal state and terminate with discussing some points wherein my observations are at variance with those of M. Schirach.

Bees soon become sensible of having lost their queen, and in a few hours commence the labour necessary to repair their loss. First, they select the young common worms which are to be converted into queens by a certain treatment, and immediately begin with enlarging the cells where they are deposited. Their mode of proceeding is curious, and the better to illustrate it I shall describe the labour bestowed on a single cell, which will apply to all the rest containing worms destined for queens. Having chosen a worm, they sacrifice three of the contiguous cells: next, they supply it with food, and raise a cylindrical inclosure around, by which the cell becomes a perfect tube, with a rhomboidal bottom; for the parts forming the bottom are left untouched. If the bees damaged it, they would lay open three corresponding cells on the opposite surface of the comb, and, consequently, destroy their worms, which would be an unnecessary sacrifice, and Nature has opposed it. Therefore, leaving the bottom rhomboidal, they are satisfied with raising a cylindrical tube around the worm which, like the other cells in the comb, is horizontal. But this habitation remains suitable to the worm called to the royal state only during the first three days of its existence; another situation is requisite for the other two days, while it is still a worm. Then, which is so small a portion of its life, it must inhabit a cell nearly of a pyramidal figure, and hanging perpendicularly; we may affirm that the workers know it; for, after the worm has completed the third day they prepare the place to be occupied by its new lodging. They gnaw away the cells surrounding the cylindrical tube, mercilessly sacrifice their worms, and use the wax in constructing a new pyramidal tube, which they solder at right angles to the first, and work it downwards. The diameter of this pyramid decreases insensibly from the base, which is very wide, down to the point. During the two days that it is inhabited by the worm, a bee constantly keeps its head more or less inserted into the cell, and when this worker quits if another comes to occupy its place. In proportion as the worm grows, the bees labour in extending the cell, and bring food, which they place before its mouth and about its body, forming a kind of cord around it. The worm, which can move only in a spiral direction, turns incessantly to take the food before its head: it insensibly descends, and at length arrives at the orifice of the cell. Now is the time of transformation to a nymph. As any farther care would be unnecessary, the bees close the cell with a peculiar substance appropriated for it, and there the worm undergoes both its metamorphoses.

Though M. Schirach supposes that none but worms three days old are selected for the royal treatment, I am certain of the contrary, and that the operation succeeds equally well on those of two days only. I must be permitted to relate at length the evidence I have of the fact, which will both demonstrate the reality of common worms being converted into queens and the little influence which their age has on the effect of the operation.

(To be continued.)

Cure for Dangerous Swelling from Stings.

The "Bulletin de la Societe Romande" gives the following statement in its June number:—

"I was lately called to examine a few colonies of bees which were thought diseased, in the mountain above Vouvry. The housekeeper kindly offered me a pair of gloves for this operation, but I politely declined taking advantage of this dainty offer. After the work was concluded, I was invited into the house, when they began discussing beekeeping; and I then understood their use of gloves for handling the bees. The owner, being already quite aged and sickly, stated to me that he was stung on the thumb a year or so ago, and quickly suffered a swelling which spread over his entire body, to such an extent that he was choking. The household was much worried over this, as no doctor could be reached readily, the nearest physician living several miles away; however, the wife had the bright thought of preparing as hot a foot bath as her husband could possibly stand. The effect of this was instantaneous, the swelling disappeared immediately from every part of the body except around the wound, where a slight swelling remained. I thought this interesting enough to be imparted to the readers."—O.V.

—American Bee Journal.

Just Nonsense.

R. H. L.: Quite a curious thing occurred in Lafayette's unpretentious zoological park to-day. One of the brown bears became worried by a bee, snapped at it, and missed it. The bee became enraged and stung the bear on the nose, but was unable to withdraw its sting. Consequently the bee was obliged to fly away with the bear, but was unfortunately unable to drag the animal through the narrow opening to its hive. The investigations of the Lafayette Journal-Courier have determined that the bee solved the difficulty by eating the bear. I thank you. Sincerely yours, Wm. E. R. Middleton.—Chicago Tribune.

That bear probably belonged to the same family as a couple of elephants which one of our sportsman beekeepers shot in a clover field. He picked up one of them, but the other one was lost in the clover. It was, perhaps, some of that new Hubam clover which grows so very tall.

—American Bee Journal.

An old negro was asking for credit at the village store. The storekeeper inquired: "How comes it, Rastus, that you are asking for credit already? Didn't you ship a carload of melons North just last week?"

"De ducks got 'bout all dose melons, sah," was the mournful reply.

"What do you mean by saying the ducks got 'em?"

"Well, you see," exclaimed the old man, "I sent dem melons up No'th and dey deducks de freight, and dey deducks de packin', and dey deducks de storage charges, and dey deducks de commission, and dey deducks de gov'ment tax. Yes, sah, de ducks got 'bout all dem melons. Dat's how comes it!"

—Western Honey Bee.

Correspondence.

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

(TO THE EDITOR.)

Sir,—I notice that Mr. I. Hopkins has reached his eighty-fourth birthday. Many of us have known him either personally or by reputation for many years. I would suggest the procuring of a biography of his life in conection with the honey industry. It is a mistake to wait till a man has departed this life before we learn how important a part he has played while here among us.

I have often looked at the picture on the front of the Journal and thought how much more interesting it would be if we had a short paragraph giving a description of it, if it only recorded number of hives, whether 10 or 12-frame, chief source of honey crop, &c.

Here is an idea which may be useful to those putting out newly painted hives, supers, bottom boards, or covers. I generally find that no matter how dry the paint, they will stick together pretty fast. Just try painting the joints with candle grease (paraffin wax) before putting them in position, and you will find the trouble reduced to a minimum.—I am, &c.,

A. A. GRINDROD.

Auckland, Sept. 18, 1922.

* * * *

(TO THE EDITOR.)

Sir,—In the September issue Mr. Smedley responds to my request for criticism. He says I am wrong in three items. I feel like carrying this friendly argument a little further, for I am far from convinced that I am wrong.

I am aware that different methods or different localities may call for variations in hive fittings, and no doubt this fact explains largely our difference of opinions.

Covers.—I would not have covers without the framework as a gift. I have used such covers, but now have them all fixed up with the framework. I have always used mats, and will continue to do so rather than have to use covers without the framework. Robber bees are troublesome here in the off-seasons, and I require a cover that will not twist and leave tempting openings; also I find open covers allow the rain to drive in and wet the mats. The bees used a lot of propolis in trying to make the open covers fit beetight, so I took the hint and made covers to satisfy their requirements.

In my previous letter I stated that I used petrol tin for covering roofs. I also have a lot of covers with flat galvanised iron on and believe in the end they will prove the best and cheapest. Petrol tin has to be kept well painted, and galvanised iron lasts for ages without paint; besides there is the saving of the labour necessary in opening and joining up petrol tins.

Bottoms.—Mr. Smedley's bottom-board is certainly more substantial than mine, and would last longer. I make mine out of cheap lumber and petrol boards, chiefly on account of cheapness, and they are quite serviceable and strong, and last for years. I have some eight years old, and they are still in good condition. I do not notice any more dampness with these bottoms than with the ordinary reversible factory bottoms.

Hives.—The main point at issue is the rabbets. I have no objection to tin rabbets, but find they are not necessary in this locality, so I do not bother with

them. My frames are just as easy to remove from unrabbeted hives as from those with tin rabbets. Take hives with tin rabbets: the Editor states in his footnote that "often the whole of the rabbet is blocked up to the height of the tin rest." This cannot be done if there is no space left there, so why give the bees all that useless work? What is the difference between your rabbeted hives filled up level with propolis and my hives with the frames setting solid on wood? It appears to me the frames would be easier to pull off wood than off propolis. With tin rabbets you are only giving the bees the extra under surface of ends of frames to stick down, and when you take out the frames lumps of propolis are under them where they project over the tin. There are no lumps on mine, as the bees cannot get under to put it there.

Mr. Smedley's plan of strengthening the hive corners with strips of tin is all right, but why put the tin inside when outside would be ever so much a stronger job. Try the difference, and see for yourself!—I am, &c.,

C. A. OLDMAN.

Waiau, Sept. 15, 1922.

* * * *

MAJOR SHALLARD.

(TO THE EDITOR.)

Sir,—Attention is directed to the very sensible article or letter of Major Shallard contained in your issue of September (page 168), and it is indeed regrettable that any resentment caused by loose statements and mismanagement in the past of the H.P.A. should lead some shareholders to adopt a cut-throat policy in the disposal of their honey.

To a certain extent this has been warranted by the repeated and unheeded warnings of those best qualified to judge of the past waste and extravagance of our excellent co-operative concern, and as one of those responsible for its formation, I very much regret that some shareholders and others outside the H.P.A. do not appear to appreciate the benefits conferred by selling their product only through one channel.

It should be patent to all intelligent apiarists that by this method the competition is amongst the buyers, and hence prices are firmed; adopt any other tactics and the market goes to pieces, or, in the language of the Stock Exchange, they are only "bearing" the market to their own and fellow apiarists' detriment, and which course, if persisted in, will eventually recoil as a boomerang upon themselves by a general and gradual lowering of prices all round, the market for honey having become demoralised.

We need more men in New Zealand of the stamp of Major Shallard, with his clearness of vision and breadth of view, to personally supervise and direct our already excellent co-operative movement, and I as a shareholder in the H.P.A. heartily extend to the gallant "Major" an invitation to settle in New Zealand, invest in one or more of the many apiaries now for sale (my own included), and I further promise to afford him both my support and influence should he elect to stand as a director of our H.P.A., to which position I feel sure he would be welcomed, and fill with credit both to himself and the Society, and serve as an object lesson to his less fortunate and short-sighted fellow-craftsmen in Australia.

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them. My frames are just as easy to remove from unrabbeted hives as from those with tin rabbets. Take hives with tin rabbets: the Editor states in his footnote that "often the whole of the rabbet is blocked up to the height of the tin rest." This cannot be done if there is no space left there, so why give the bees all that useless work? What is the difference between your rabbeted hives filled up level with propolis and my hives with the frames setting solid on wood? It appears to me the frames would be easier to pull off wood than off propolis. With tin rabbets you are only giving the bees the extra under surface of ends of frames to stick down, and when you take out the frames lumps of propolis are under them where they project over the tin. There are no lumps on mine, as the bees cannot get under to put it there.

Mr. Smedley's plan of strengthening the hive corners with strips of tin is all right, but why put the tin inside when outside would be ever so much a stronger job. Try the difference, and see for yourself!—I am, &c.,

C. A. OLDMAN.

Waiau, Sept. 15, 1922.

* * * *

MAJOR SHALLARD.

(TO THE EDITOR.)

Sir,—Attention is directed to the very sensible article or letter of Major Shallard contained in your issue of September (page 168), and it is indeed regrettable that any resentment caused by loose statements and mismanagement in the past of the H.P.A. should lead some shareholders to adopt a cut-throat policy in the disposal of their honey.

To a certain extent this has been warranted by the repeated and unheeded warnings of those best qualified to judge of the past waste and extravagance of our excellent co-operative concern, and as one of those responsible for its formation, I very much regret that some shareholders and others outside the H.P.A. do not appear to appreciate the benefits conferred by selling their product only through one channel.

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