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

The New Zealand Beekeepers' Journal.

JANUARY 1st, 1918.

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

PER ANNUM: **5/-** IN ADVANCE.

STONE, SON & CO., LTD., PRINTERS, DUNEDIN.

The New Zealand Beekeepers' Journal

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

No. 1 | Vol. 2 | 5/- Per Annum.

National Beekeepers' Association of New Zealand.

The object of the Association is the improvement of the Beekeeping Industry and furthering the interests and prosperity of the Beekeepers throughout the Dominion. Membership is extended to any Beekeeper who is in accord with the aims and objects of the Association, on payment of a small fee.

OFFICE-BEARERS FOR THE YEAR 1917-18.

President: Mr. W. E. BARKER Peel Forest.

Vice-President: Mr. H. W. GILLING, Hawera.

Executive: North Island—Mr. E. W. SAGE (Ohaupo), Mr. R. H. NELSON (Martinborough). South Island—Mr. J. RENTOUL (Cheviot), Mr. R. W. BRICKELL (Dunedin).

Secretary & Treasurer: Mr. FRED. C. BAINES, Kati Kati.

Editor of Journal: Mr. FRED. C. BAINES, Kati Kati.

DISTRICT ASSOCIATIONS AFFILIATED.

Waikato Beekeepers' Association.—Hon. Sec., E. W. Sage, Ohaupo.

Taranaki Beekeepers' Association.—Hon. Sec., H. W. Warcup, Hawera.

Canterbury Beekeepers' Association.—Hon. Sec., Miss MacKay, Middle Lincoln Road, Spreydon, Christchurch.

Southland Beekeepers' Association.—Hon. Sec., L. Gardiner, 119 Elles Road, Invercargill.

Wairarapa Beekeepers' Association.—Hon. Sec., Mr. Y. H. Benton, Featherston.

Cheviot Beekeepers' Association.—Hon. Sec., R. McKnight, Domett.

All communications respecting the Association and Journal to be sent to FRED. C. BAINES, Kati Kati.

CONTENTS.

EDITORIAL.

A HAPPY & PROSPEROUS NEW YEAR TO YOU ALL.

* * * *

Just as we were going to press the following cable was received from the Bristol and Dominions Producers' Association:—"Pay out ninepence First Grade when shipped."

* * * *

The Journal is now in its fourth year. Forty-two issues have been published, and all in Vol. I. We believe our Journal has come to stay; therefore, although late, we are starting Vol. II. with this issue, and will make the volumes to consist of twelve issues from January to December.

* * * *

We are also altering the size of the type, using a smaller setting, as we find we can get 10 per cent. more reading matter in 16 pages of this size than in 20 pages of the old setting for practically the same cost. Therefore, although we have gone back to the 16 pages, you have about two pages more reading matter than in the previous 20 pages.

* * * *

As we shall all be extracting soon, and sending our honey to the grading store, we shall wait with greater interest than ever before our Grade Note, as on that depends whether we are to get this splendid advance of 8d. per lb., or a penny or twopence less, so that as it is a matter of such financial importance to the beekeepers, it would be fitting that we look into the conditions governing the grading, and see if they give the beekeeper all he is entitled to. Let it be distinctly understood that we recognise the compulsory grading of honey for export has been of very great assistance to the industry; men have been compelled to drop unsatisfactory and careless methods in exporting; our honey goes out of the country in a uniform package of a standard size, properly branded, and in a state that shows that some care has been taken with it.

* * * *

The maximum number of points for flavour is 40, which is the largest factor in deciding in what grade the honey is placed. Now, what is the standard of flavour for any one particular class of honey? because this is a very important point. If you take your standard for flavour from a pure clover honey when grading medium or dark amber, you are going to put these right outside their

proper grade, and, vice versa, if you grade the former by the latter the same result occurs. We know cases where this has actually happened, so we are not going entirely on supposition. It is difficult to find an analogy, but the following will perhaps illustrate our meaning. In a competition for export butter to be without salt or artificial colouring, the judge comes across a box that has both these commodities. The butter as salted and artificially coloured is excellent, but the judge's standard is butter without these two additions; consequently the box is turned down.

* * * *

We believe the conditions of allotting points for grading honey were taken from those governing the grading of butter and cheese, but these two commodities cannot be compared with honey for the following reasons. Butter and cheese are purely manufactured products, whereas honey is absolutely and unalterably a purely natural one. Put the two side by side for grading, and see how unfair to the beekeeper they show:—

BUTTER & CHEESE.

Flavour ..	40.	Controlled by the maker
Colour ..	10.	do
Condition	15.	do
Grain ..	12.	do
Aroma ..	8.	do
Froth ..	10.	do
Packing ..	5.	do

HONEY.

Flavour.	Controlled by bees only.
Colour	do
Condition.	Man can control partly.
Grain	do
Aroma.	Bees only.
Froth.	Man, partly.
Packing.	Man.

So that with honey the present grading rules really handicap a man for circumstances right beyondd his control.

* * * *

We consider there are too many issues, and it is impossible to do justice to the beekeeper. Allotting points for colour has always appeared to us unnecessary. Our honey is one of four, which is determined by the bees. Are there different degrees of white? If it is not pure white, then it is light amber, and if the difference is so slight, why not put it in the latter and give it maximum points? The Editor's grade note of twenty-nine cases of dark amber showed 8½ points out of 10 for colour. Was it not sufficiently dark, or too dark to gain the maximum? Would a darker shade of dark or a lighter shade of dark be the perfection of dark, and would these different degrees of dark indicate that the honey was inferior or superior? We confess we are very much in the dark about it. But the point to be noted is that the loss of those 1½ points might mean the placing of our honey in a lower grade, with the loss of pounds in cash in the advance made by the H.P.A., and that on an issue that doesn't affect the quality of the honey at all.

Let us take the grade note of these twenty-nine cases as an example, not for criticism of the grader's work, but of the system of grading. It is always desirable to have an actual case to discuss. The points allotted were:—Flavour (40), 35½; colour (10), 8½; condition (15), 14; grain (12), 10½; aroma (8), 7; freedom from scum (10), 9½; packing (5), 4; total, 89 points. B grade. Grader's comment: "A remarkably mild flavour for a dark honey." Now, it seems to us that a honey to call forth a comment like that and yet lose 11 points indicates there is something wrong with the system. On colour, grain, scum, and packing, we lost 4½ points, and none of these affect the real issue at all, which is to determine the quality or grade of honey. But the grader has six issues besides the chief one, flavour, so he has only to take one and one and a-half points off each of these, and your honey is soon "way down." Condition, freedom from scum, and aroma could all easily be lumped together, because if the honey is in good condition it is free from scum, and has good aroma. To grade the cases is absurd. We know of a case where the loss of points on packing put a supplier's honey in a lower grade. The regulations indicate what cases and tins are to be used, and if these are not followed to a reasonable extent, then the grader can refuse to allow them to pass; but to put the package on the grade note and allot points for it is quite unnecessary.

* * * *

Our suggestion is that instead of the maximum points being 100, we make it 20, and instead of seven issues, we make it three, these being—Flavour, Condition, Aroma. We venture to assert that when Major Norton opens a tin of honey for sampling, he goes very little beyond these three issues. At Conference there are always samples of honey brought down by different men, and these are passed along to sample. What happens in every case? Out comes the pocket knife and a sample tasted, then up to the nose goes the jar; then it is held at a distance to judge the condition and appearance, and the decision is given. Is there really any need to go beyond this in grading for export?

* * * *

The above remarks will indicate that a lot of time and thought can be spent on this matter of grading, and we want our readers to look thoroughly into it, because it is going to be a big question for discussion at the next Conference. The President and Executive have discussed it by correspondence; but it is too difficult a matter to be dealt with in that manner, and we believe Mr. Kirk will be asked to allow the four graders to sit in committee with four experienced beekeepers, that a more satisfactory system may be framed.

* * * *

We publish elsewhere a letter from Mr. Hooper Teed on the matter of granting certificates to those who prove themselves competent to grade honey for the local market, and both Waikato and Canterbury

Branches are considering having the examination of aspirants to the position on their field days. We understand the grader for the district will be the judge, and, this being so, we remember a little incident where a grader's grading was not at all satisfactory, and we hardly like the idea of his judging candidates. We do not know whether the Department has sanctioned these proposed examinations, but if they are held at all, we consider they should be carried out in a proper and systematic manner. The candidates, to prove they have a theoretical as well as a practical knowledge of honey, should be required to answer a few questions on the subject, also be able to use the hydrometer for testing density. Samples of honey from different parts of the Dominion should be arranged for grading, not only that from the district in which the examination is held. But as it is generally conceded that the present system of allotting points is unsatisfactory, we feel it would be advisable to let these minor appointments stand over until the whole grading question has been discussed as indicated in the previous paragraph.

* * * *

Our gift book to new subscribers is "A Year's Work in an Out-Apiary," by G. M. Doolittle. There are a lot of very useful tips in this work, and it is not necessary to have an out-apiary to use them. We are still waiting the name of that new subscriber you were going to send.

* * * *

We very much regret to have to insert "Killed in action" against H. W. McCall, also to add Alex. Maitland (killed in action) on our Roll of Honour. We desire to express our deep sympathy to the parents of these brave boys, who have died to enable us to live our quiet and peaceable life here, and we recognise our indebtedness to them.

* * * *

We received the following letter, which was addressed to the Editor privately:—

Wellington, Dec. 13, 1917.

Dear Sir,—We understand you are interested in honey, and as we are particularly desirous of securing supplies for our English houses, we take this opportunity of addressing you.

Our London office cabled to-day that they can sell first-grade honey on the market at equal to 10½d. per lb., hence if you are open to export we are prepared to attend to all shipments from this centre, and we would make you an advance f.o.b. Home steamer of 8½d. per lb. for first-grade honey suitably packed for export.

Kindly advise.

Yours faithfully,

Whilst the Editor is absolutely loyal to the H.P.A., the fact must not and will not prevent him from giving publicity to offers of a similar nature to the above. The knowledge that a rival firm is offering more than they will give them an opportunity of proving to the shareholders that loyalty to them does not mean less returns in cash. Now, B. & D., we have here a test case. If a firm can sell on the open market at a price that allows them to pay 8½d. per lb. f.o.b., show us what you can do by selling to the retailers, and let the best man win.

* * * *

Just as we are going to press we learn of a most serious situation. Two of the graders are called up for active service—Messrs. Earp and Jacobsen, the latter gentleman due in camp on 2nd April. We understand that Mr. Kirk, of the Department of Agriculture, has been asked to appeal for extension of time, as neither of the gentlemen intend doing so. We think these gentlemen are absolutely indispensable for grading this season's crop, and should be granted leave until the end of June, when it will be pretty well all in. Grading is not a matter that can be picked up in a day, and we cannot trust the work to any new chum that may be appointed. Would not the Chief Apiarist come in just now if we had him?

* * * *

There is also a rumour that "something is happening" with regard to another grader, so matters in the grading line do not look too rosy.

Beekeeping for Beginners.

MONTHLY INSTRUCTIONS.—JANUARY.

[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.]

PRESENT PROSPECTS.

The prospects for a pretty good season in the North here just now are very encouraging, and from what I can gather the same applies to most of the Dominion. Clover nectar is being stored freely, and the little rain lately, although not very much, freshened the blossoms up nicely.

SWARMING.

My recent instructions on this matter apply particularly to this month. Do everything possible to keep swarming down, for in such a season as this, when breeding and storing is at its best, it requires every effort to prevent an attack of swarming fever in January.

EXTRACTING.

Keep the extractor going, and give plenty of ventilation. These are the two principal factors to prevent swarming. Give more room in the shape of top boxes if necessary. If, however, the extractor is kept going, it is not often that more than two top boxes are needed; have others on hand in case more are required.

YOUNG QUEENS.

Beginners should understand that colonies with young queens at their head are less inclined to swarm than others. On this account some beekeepers in America

advocate and practise re-queening every season. I think, however, this is carrying the re-queening to extremes, for a healthy queen is undoubtedly at her best in her second season. There is occasionally some misunderstanding as to what is meant by the second season. Beginners may accept the following as the usual explanation.

Suppose a case where a queen was bred at the latter part of October or early in November this year (1917), then her second season would end in February, 1919, when she should be superseded. In the case of one bred, say, in late January, 1918, her second season would close early in 1920.

NOTE-BOOK AND REGISTER.

No beginner who desires to make a success of his venture should try to get along without keeping records of the doings of each colony, good, bad, or indifferent. If he does, the time will come when he will be in a complete fog, and will lose the opportunity of improving his strain of bees. Select queen-breeding must form part of his work if he looks for success, and unless he has pretty full notes season after season he will be unable to select his best for breeders. A rough note-book to carry round with you, and a register with, say, an openmg or less for each colony to transfer the notes to as opportunity offers.

DISEASE.

It is rather difficult to detect disease in its early attack when honey is coming in freely, especially by beginners. Be always on the watch for it, and treat as soon as found to prevent it spreading.

Keep down weeds and grass around the years) before a final settling. Never- hives, and see that the honey-house is made bee-tight.

TEST YOUR HONEY.

Get into the habit of making hydrometrical tests of each lot of honey before tinning it, and keep samples in small glass jars, with the date, temperature and specific gravity pasted on each jar. Hermetically seal the jars, and on no account open them.

"BEES."

Comments on Passing Bee Events.

By CRITIC.

Opening Page (December Number)—

[These Comments, be it understood, are not to be accepted in the light that "Critic" thinks he knows everything about bees, because he knows he does not, and never can. They are simply intended to help in some small way the development of our industry.]

Editorial.—Do not get flurried, Mr. Editor, over a bit of scorching; it is the privilege of Editorship to receive onslaughts from those who imagine they have been slighted, and unless you can develop the hide of a rhinoceros and so become physically insensible to these attacks, they will leave you badly scarred.

Page 370—**Second-hand Containers.**—I am certainly with you, Mr. Editor, over the use of these, and only in the extreme case of the impossibility of obtaining new containers should the substitutes be tolerated. In the hands of very careful men there might not be much danger of using unclean tins, but such men are usually in the minority; hence the danger.

Page 732—**Non-Foundation Frame.**—I really cannot grasp the idea that induced Mr. Allardyce to go to the expense of patenting an empty frame and naming it a "non-foundation frame." What is the meaning of it? And what, for goodness sake, is the use of a frame without foundation in modern bee culture? The only useful feature I see about the frame is the spacing projections on the end bars, but even these are inferior to the metal spacers. Mr. Allardyce in his advertisement says:—"The main feature is the top bar being bevelled on the underside, requires no foundation." If this is the "main feature" upon wihch he secured letters patent, then I can assure him the patent is not worth the paper his rights (?) are printed on. If he will turn to page 172 of the fourth edition of Langstroth's "Hive and Honey Bee," published forty years ago (1878), he will see the following:—"The great point to be gained is to secure a single comb on each frame, and this is effected by the use of the triangular [bevelled] comb-guides." Such frames were largely in use some years ago in America, not as "non-foundation" frames, but to stiffen the top bars before the thick bars came into use, and the edge of the sheets of foundation was rolled on the bevels to fasten them. What we want is an assurance of all worker comb in the frames, and that we cannot get without worker foundation. I am afraid the illustration of comb built in the frame does not enhance the value of it.

Page 736—**Mats.**—Different men, different ideas. I would not like to attempt to do without mats at any time, especially in winter, even with flat covers, with little space between the cover and top of the frames. Evidently R.B.'s covers do not set down close, or he would not use mats over a newly-hived swarm. Mats in winter are not only used to prevent the dissipation of heat, but those in general use are of absorbent material, and absorb much of the moisture given off by the bees (which is considerable), and helps to prevent mouldy combs. I am afraid our friend's admission that he unintentionally overlooked putting mats on 22 hives when fixing them up for winter rather reflects on his powers of observation.

Mr. R. B. objects to old propolised mats for smoker fuel on account of the bees' objection to the smell of burning propolis. Good gracious! isn't that just what we want—something the bees very strongly object to? Else why use smoke at all? Directly the bees are alarmed by smoke they begin to gorge themselves with honey and become comparatively quiet—the more pungent the smoke is the better. True, comical things do sometimes appear in the Journals.

Several Pages—**Honey Export Business.**—I think the atmosphere around this matter is much clearer than it was; we can now breathe more freely, and possibly sleep sounder. That it needed clearing there is no doubt, and as I remarked last month the discussion will have resulted in considerable benefit to producers and exporters. The returns for the first shipment from Auckland were most satisfactory, only a trifle under 9¾d. per lb. for first grade, with the prospects of bigger returns in future. It does, however, appear unconscionally long to wait in suspense (two years) before a final settling. Nevertheless, who wouldn't be a beekeeper just now? No wonder Mr. Levy wants to return to his old love!

Page 744—**Exhibiting Honey.**—Mr. Brickell condemns the suggestion of the agricultural shows being a good medium for honey exhibits as an advertisement. I feel certain he would have few to support his contention. Surely those who send industrial exhibits to the winter shows year after year find it profitable to do so, for one cannot understand their going to the expense if it were otherwise. Then again, look at the magnificent honey exhibits got up annually in England, America, and Australia. They cannot all be wrong and only Mr. Brickell right. Of course, as Mr. Brickell says, advertising honey in any form just now is not needed, but his argument is on general principles, which, to my mind, won't hold water.

Mr. Brickell says: "When prospective purchasers go to purchase honey from a near-by store they would find it in an entirely different form to the display, if they find it at all." This is labouring the point; the object of an exhibit is to draw attention to honey as a food in the first place, and in the next to educate the general public as to the conditions they should look for in the different grades of honey. As we now reckon upon the H.P.A. brand sooner or later holding most of our local markets, an exhibit displaying, for instance, that brand only, both retailers and the general public would in time look for no other. Mr. Brickell might enumerate some of the "scores of ways" he has in mind that while considering expense would save that "90 per cent. waste" he speaks of by being that much more effective.

Page 746—**Orchard Act.**—The writer on this matter draws attention to the comparison I drew between registration under the Orchard Act and under the Apiaries Act. I am well aware that the non-commercial orchardist need only register once in three years, but this provision applies to all beekeepers, commercial or not, there is no distinction. It would be interesting to know how many beekeepers are not commercially interested in honey-raising—would they be more than one per cent? I doubt it. Anyway, it is in the interests of beekeeping I advocate annual registration all round; orchardists, I presume, are capable of looking after themselves.

District Reports.

"CANTERBURY TALES."

(By E. G. WARD.)

If anyone was disappointed because there were no "Canterbury Tales" last month, I tender an apology. My contribution was posted too late, and "missed the 'bus." I find it takes nearly a week to get a letter from here to the Editor.

Our prospects of a good crop continue favourable. Up till the beginning of December the weather was somewhat erratic. We then had a week of good honey-gathering weather, and have just had a splendid general rainfall. If the weather warms up now, things will "hum."

I have now been established at the apiary a month, and the bees have built up well. The policy of giving plenty of room to discourage swarming is a demonstrated success. Some of the strongest colonies have eleven, twelve, and in one case fourteen frames well filled with brood. When the flow does set in, there should be "something doing" in these hives.

I was much interested in Mr. Barker's note in the November issue on the swarming problem. He has drawn attention to an aspect of the subject well worth investigation. There is a chance for Mr. Bartlett-Miller to assuage his thirst for scientific knowledge.

Hands up, those who are going to stick to the H.P.A! The correspondence which has lately appeared on the matter and the last cable from the B. and D. should leave no doubt as to which side our bread is buttered on. Those who subscribe to "Gleanings" will call to mind the "facts" given by the Editor in the September issue. Even so, I think we shall be wise if we stand by the B. and D. I hope, however, the management of the H.P.A. will get into touch with every producer and secure first refusal of their crop without delay. It is slow work introducing a new idea, but Co-operation is the battle-cry which will carry us on to victory. The old motto is still true: "United we stand, divided we fall," and if we do fall we need not blame our "luck."

There is an old saying, "Give some people an inch and they will take a yard." This came forcibly to my mind when I read Mr. Gilling's warning re honey tin tops. I presume every shareholder is responsible for any defect in his consignment, and that the B. and D. will see to it that the H.P.A. is notified. If No. 9 has been careless, then No. 9 must bear the brunt, and not the Company as a whole.

The Canterbury Branch of the National met on Saturday, November 10th, and although the attendance was small enthusiasm was high. The annual field day will be held early in February, so as to fit in with the meeting of the Executive of the National. Mr. Ambrose Johnstone has given a cordial invitation to hold the function at his apiary, and it has been accepted. A capital idea was suggested by

Mr. Pope—namely, a grading competition. All competitors will be asked to bring a sample, and anyone wishing to compete can do so. The final result will be decided by a small committee, which will include the Government grader. The exhibits will be presented to one of the patriotic bodies, and sold for the benefit of its funds. This will in no way affect the special appeal for contributions of honey for the troops which I mentioned in the October issue.

I noticed a short time ago that a Bee Club had been mooted in Christchurch, and attention was drawn to this. The President (Mr. H. M. Johnstone) and Secretary (Miss Mackay) have been trying to get the Club to join forces with us. The last meeting was advertised, and all interested in beekeeping were invited, but there was no response. Probably when the full advantages of unity are understood by the members of the Club, they will fall into line. Mr. Johnstone aptly put the case in a nutshell when he said that two weak colonies united would do some good, while as separate units they would just exist.

[We learn they have started the Club with seventy members.—Ed.]

The Editor's remarks on the use of benzine tins for the export of honey sounds rather alarming, but I think the grader referred to would have to be extremely keen of scent and taste to detect the slightest taint if care is taken. If everyone will take the same trouble as I do, I would undertake to say there is absolutely no risk. It is the careless ones who always cause the trouble. I should just like to say that I bought "new" tins last year for the small crop I had, and the tops and bottoms were made of benzine tins rolled out flat and made to suit. There was no smell or taste of benzine about them after treatment. If part of the vessel can be made of benzine tins, why not the whole lot? Under normal conditions I don't consider the "game is worth the candle," but as we are situated under war conditions, I think the relaxation of the regulations is justifiable.

My best wishes to all readers for a Prosperous New Year, and a sincere hope that it will see an end to this dreadful war.

* * * *

TARANAKI.

Clover flow started in earnest on 21st November, and continued during a spell of warm mild weather until the 7th December. During this period colonies of any strength gathered a surplus of from 15 to 30 lbs.

Since 7th December high winds and showers have been the order, and what good the rain has done has been undone by dry winds.

A heavy rain is necessary to freshen up the clover, otherwise a slacking of the flow will take place. The bees are in condition to get a big surplus if the weather treats us well.

H. R. PENNY,
Okaiawa.

16/12/17.

Beekeepers' Exchange.

ADVERTISEMENTS on this Page will be inserted at the rate of 2/- per 36 words per insertion.

ALL BEEKEEPERS in need of a BENTON MELTER for this season, please write for price and particulars. Only a limited number available.—Address
Y. H. BENTON,
Newstead, Featherston.

WANTED TO BUY (at end of season) SMALL APIARY; not more than 50 Colonies; Waikato District preferred. Price and particulars to
F. BOOTH,
C/o Post Office,
Frankton Junction, Waikato.

Answers to Correspondents.

M. A. S., Christchurch.—Many thanks for kind remarks; but I did not send any humiliation—must have picked it up on the way.

J. W., Palmerston North.—Glad you like the change. You come down to Conference and propose it.

A. I., Ellesmere.—Do not think it advisable to open the question again after this lapse of time.

Helen, Drury.—Imitate Mary, and buy a little lamb.

C. F. McG., Rahotu.—It is very difficult to keep sections from granulating and becoming discoloured after a length of time. Unless you have a very large quantity, it would not pay you to go to the necessary expense of building a special room, with heating apparatus, to maintain a regular, even, dry temperature that overcomes the trouble.

H. B. M., Kihi-Kihi.—Re steam knife. The ordinary wick stove is no good at all. No. 5 Primus or Blue Flame Perfection, preferably the latter. This will keep your knife piping hot even when cutting through dense cold combs, and that without any delays such as mentioned in yours. We find the boiler needs refilling at dinner-time, and again about 4 o'clock; but Nicholas, Hawera, uses a kerosene tin, which easily lasts all day. **You did not enclose sub., as stated.**

R. H. N.—Good news! Are you going to call him Horatio?

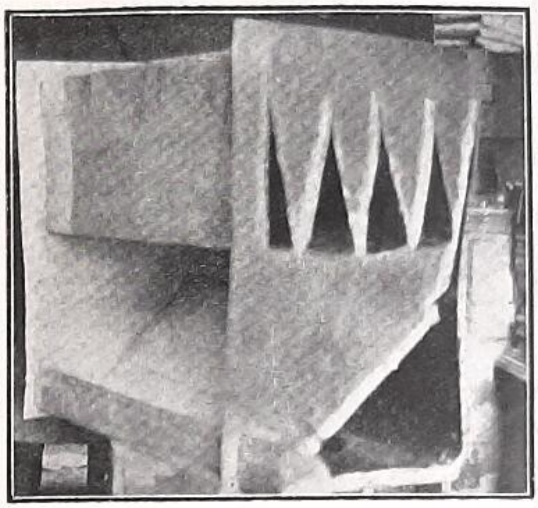
* * * *

The granular refuse on the bottom of wax-cakes, when water-rendered, is probably composed mainly of pollen and propolis. Bees are fond of it, and use it freely when they have opportunity.—"Western Honey Bee."

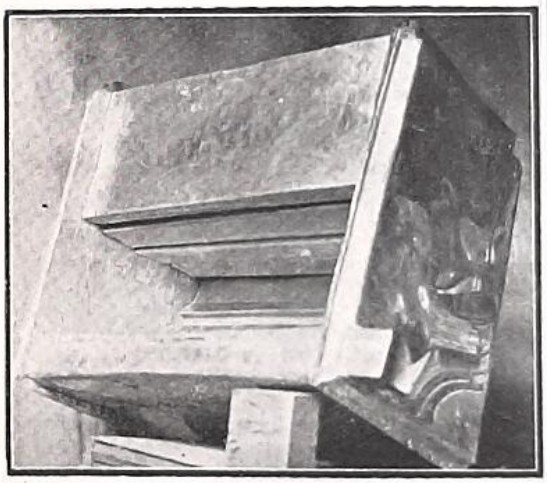
* * * *

Your Address written in Red Ink means "Subscription Due."

The Bartlett-Miller Comb Melter.



1.—Melter ready for the end to be placed on, and thus completed. Note groove at top of slope inside body of melter. The white lines are new soldering.



2.—Looking up under the tubes. 24-inch melter.

Comb Melters and Capping Melters.

In submitting an article upon the above appliances, I wish to strongly point out that until the description of the Bartlett-Miller comb melter described in "Gleanings" last year, such an appliance had never before been devised. It has proved mostly an amusing, albeit at times an aggravating, experience to learn the crude ideas upon the subject of melting honey in the comb submitted by those correspondents to whom I have sold the Bartlett-Miller melters. Ideas many and various, every one of which have been long discarded as impracticable, because of the fact that they have always calculated upon the practicability of melting the whole of whatever the combs consisted. In a word, one and all of those "better" ideas forgot the pollen problem! Combs of honey may be reducible to a liquid state; combs of pollen certainly may not.

The problem of the insoluble refuse that in every other melter of combs I ever heard of surely but by no means slowly accumulates is the one hard and fast fact that ultimately proves the "piece de resistance" of the whole invention. I can recall some thirteen different designs of comb melters which I have actually used myself, some of them very expensive, and all of them expected by their inventors (myself as one of them included) to prove veritable "Bobbie Dazzlers," but until after long trials and re-trials I evolved my own, none of them proved the successful appliance we were after.

The main points of a successful and profitable comb melter (and remember some successful melters are not profitable because too slow) are not more than five or six, but every one of them are imperative:—

First.—There must be absolutely no possibility of honey, either fully or partly melted, remaining dammed back and kept in contact with a heated surface, or you will darken your whole output.

Second.—Once started on its way to the exit as a liquid, both honey and wax must make so rapid an exit as will result in not more than half a minute's contact with a heated surface.

Third.—All solid matter must be cared for as soon as it leaves the original melting point of its enveloping liquifiable substance, and prevented from further contact with such heated surface as the melted (or partly melted) wax and honey may be in contact with, or else bad discolouration of the honey results. (This is where the Bartlett-Miller melter shines: no slum-gum runs off with the melted honey.)

Fourth.—There must absolutely be more than one compartment containing the comb to be melted, for it may be an absolute necessity to clean from the bottom of the melter large pieces of comb solid with pollen, and to have to empty the melter to get at such insoluble material is out of the question during a busy run.

Fifth.—The obstruction of solid pollen in the lower part of the melter should be get-at-able from below the melting surface rather than to have to empty any compartment to do so; although if through those accidents, which always will somehow occur, a large amount of such pollen accumulates, then the emptying of such a division into another in the same melter is advisable.

Sixth (perhaps the most important).—The melter must have a large heating surface available for the initial melting, apart from that surface which continues the heating while the honey and partly (at times) melted wax is going to the outlet. The Bartlett-Miller melter has 11 sq. feet of original melting surface.

Seventh.—The profitable melter must be worked by steam in the tubes and not boiling water, and, above all, must be sufficiently economical to manufacture, to make its price no bar to its possession by the small beekeeper, and here you have a heavy damper on any kind of melter heated by an expensive coil—always a costly and slow-working proposition.

In the illustration of the Bartlett-Miller comb melter will be seen a groove at the top of the slope the liquified honey drops down on to. This groove takes the wooden edge of a wire cloth screen, upon which all solid matter drops and receives no additional heat. All liquid matter passes through, and is in contact with the cooler slum-gum for a few seconds only, if at all. If the groove was absent, slum-gum would accumulate between the edge of the screen and the sloping surface, and baking all day would darken the honey.

The space between the lower edges of the tubes readily allows solid cells of pollen to pass, and when melting cappings only the screen is not used, but a waved piece of galvanised fencing wire is hung from the top edges of the tubes to partly occupy the space and prevent the cappings from sliding through solid.

About two inches deep of water is all that I ever used, and it needs to be impressed upon readers that no simple wick lamp is of any use to melt combs by. Melting honey and wax requires heat, and plenty of it. You must needs provide some heat to raise in one day, say, a ton of honey to 145 deg., at which wax melts, and the wax to that heat in addition, and then both of them absorb a considerable amount of latent heat, all of which is unfelt as actual heat, but has to be evolved by your lamp previous to the actual melting taking place. I use a No. 5 Primus lamp, and pump it up tight about every quarter of an hour. It burns one quart of kerosene in a little under two hours. If we want to make things "move," we use two such lamps, separating the flames with a piece of tin, or they draw each other's exhausted air, and refuse to burn properly. The quantity you can melt in a day depends upon how much pollen you have, how old your combs are, and how cold your combs are; but with manuka honey in fairly clean combs not more than four years old, one melter 30 inches long should melt about 15 cwt. of honey a day. I have done much better with new combs.

Correspondence.

(TO THE EDITOR.)

Sir,—I was surprised at Mr. F. A. Jacobsen including the elder tree in his list of honey plants. Surely he must have been "fu' o' the good cratur." What says his papa about it? It might be a good plan for those who are fond of a visit from their inspector to plant a few trees around their apiary; then, perhaps, in a few years (four or five)——. But I had better give you my experiences.

When I first came to this district the then occupier of the property gave me a glass (or two) of elderberry wine, truly a divine drink, and when he left he presented me with a cask thereof, saying it was good for colds, coughs, or sudden chills. I found it so, and being particularly liable to these sad maladies the cask soon ran dry. Around the hut he had planted several trees; now, assisted by the birds, the whole property is overrun with them, and much of my spare time, when sober, is spent in hacking them down. They may be a success in making glad the heart of man, but as a honey plant—No, the bees will not look at them.

I would also like to correct a mistake of Mr. Ward's in your September issue. He says: "The drone can never influence the progeny of more than one queen." This is a misleading statement. A drone unfortunately influences very materially the progeny of many generations of queens. His body dies, but he leaves his inheritance in trust to the queen, who simply acts as host to nurture the same. The germ plasm of the drone very materially influences the catabolism of the queen's body when once introduced, either upwards or downwards (anabolically or katabolically). As Mr. H. Benton, in a thoughtful article in your October issue points out, she is but a perfect egg-laying machine, dependent on the food that is supplied to her. It is undoubtedly the hereditary traits of the drone which, joined to hers, make her either efficient or inefficient as an egg-layer, capable or incapable of fully utilising towards that end the foodstuffs supplied to her by the nurse bees, for the essence of the male influences the whole economy of the queen bee to a far greater extent than it does in any other creature, save wasps, ants, and the like. If there is a chance that we can standardise the virility of our drones in the same way we can standardise our queens or our stud flocks, our time is not wasted in experiments, and I for one have large hopes for the future success of A. I. Root Co. experiments.

But about that barrow so cleverly skitted by "Merri-cuss"—not much! Yet I have known tougher problems solved by man, but not by those who start out by saying they **can't be**, anent which here is a further contribution towards the Canterbury Rhymes, which used to be quoted to me by my teacher whenever she saw me near tears trying to solve a mathematical problem:—

"'Can't do it' sat him down and cried;
So long and hard he wept
That soon a rivulet of tears
Swept swiftly by his side."

Holy Writ sayeth all things in heaven and earth hath been or can be tamed by man. It is with difficulty we can make cows keep up their abnormal production of milk, and in this connection it should be remembered that this difficulty is increased in that both drones and queens have lost their power of gathering honey and secreting wax, those organs having atrophied from want of use, and are only able to transmit to their offspring those

primal inherent capacities they once had. It makes it, therefore, the more imperative that beekeepers strain every nerve to bring these strange and, as Dr. Miller says, "semi-domesticated," beasties into the captivity of man, that he may preserve and increase by careful breeding those tendencies we require. The tendency, for instance, of laying workers to appear from an embryological point of view leads one to conclude that the worker bee is already katabolizing, and unless helped back by man will in time revert to a mere egg-layer at the expense of its honey-gathering propensities. Now, I must be careful, or I shall have Mr. Allan at me. He has a great contempt for the mere theorist, except when it comes to honey-boxes, so I had better add something practical for his digestion. How can we bring them back? The same way, friend, you bring up your dairy herd—by careful breeding and stimulative feeding throughout many generations. (I hate being called a theorist, possibly because it is somewhere near the truth!)

It is a pity Mr. Jacobsen did not include some of our native trees in his list. Many trim into elegant hedges, and break into blossom all along the branches. I was much struck when passing through Kaikoura to see what neat fences the Ngaio makes. Then we have Broadleaf, Black Matapou, Golden Matapou, the small variety of Fuchsia, &c., and I would advise that here and there along the line of fence such valuable honey producers as Moe-moe, Lancewood and Panax be here and there placed and allowed to grow unhindered.

I close these random soliloquies with the dream of our apiarist poet, Miss Shepherd, The Beekeeper's Dream:—

"Come o'er and take control, and make it yield its substance,
For sweetening life the wide world o'er;
And then we learned the secret of the Universe,
And furnished tiny homes in great abundance,
Peopling them with insect life,
And bade them live and multiply.
And then we sowed in countless number,
And left the harvest to a Higher Power,
Who smiled upon our labours,
Granting to those who sowed so faithfully should reap reward;
Then as the seasons came around,
Such music rose upon the air
Which made all beemen smile,
For every little home was filled to overflowing,
And the more we sowed the vaster was the yield,
Until a fleet came flitting o'er the sky like great white-winged doves,
And actions manifold were wrought,
That o'er this troubled world of ours the sweetness might be carried,
While every corner of the earth with honey be supplied
From out this isle where righteousness doth dwell;
The vastness of New Zealand's store is yet untouched,
And wealth in great abundance lurks around for those who courage hold,
And greater things prepare in bee and flower and tree."

I am, &c.,

CAVE CANEM.

* * * *

(TO THE EDITOR.)

Sir,—Referring to the suggestion that was thrown out at the June Conference with regard to the Department of Agriculture granting certificates to those competent to act as graders of honey for the New Zealand market, I would like to point out the idea is by no means a new one, seeing a similar movement is already in vogue in England, and was inaugurated by the British Beekeepers' Association by their issuing certificates to those who by examination had proved themselves competent to act as judges at honey shows. It was notorious in the past that with the exception of the county shows, where the British Association themselves provided a judge or judges, the smaller shows were very indifferently served in this respect. I can name an instance in which a bit of a wag staged some Lyall's golden syrup, and which was awarded the first prize! I am afraid things are at present not much better in New Zealand. To give an example which came under my notice:—In 1912 I sent some liquid honey to the Te Aroha Show. This was passed over without any comment whatever. This self-same honey was afterwards entered at the Waikato Central Show at Cambridge, where it was awarded the first prize, and was again staged at the Waikato Winter Show in Hamilton, where it again obtained the first prize. The judges in both cases I understand were officers of the Department.

I contend, Sir, that it does not follow because a man is a good beekeeper he must necessarily be a good judge of honey. Taste as well as the other senses is a thing that has to be cultivated, and should anyone be under the necessity of wearing a set of artificial teeth he is very much handicapped in this respect. I know this from my own experience and what I have heard from others. I know of a case of a gentleman who had a set of teeth of this description who was invited to dine by a bon vivant, who asked him what he thought of a certain dish. "Very good potato pie," he answered. "Potato pie, indeed!" exclaimed the other; "allow me to tell you, sir, those are truffles costing a guinea a pound!"

I think from the foregoing it will be conceded that the grading of honey at the depots should be in the hands of someone who has proved himself a competent judge of honey. For this purpose may I suggest that the National Association should take the matter up and enter into negotiations with the Department for it to grant certificates to those who can prove themselves properly capable of grading honey. Many samples, no doubt, are in the hands and reach the officers of the Department, and the candidates who are able to place these in their right order should be granted certificates.

The honey industry is certainly far behind the dairying industry, who hold competitions at various shows in the grading of butter, &c., but I expect it is too much to hope for until we have more reliable judges that sufficient honey will be staged for us to be able to hold similar competitions.—I am, &c.,

W. HOOPER TEED.

* * * *

(TO THE EDITOR.)

Sir,—Your readers may find a whitebait net a handy thing in taking a swarm when it has settled on a high branch of a tree. I have found it most useful.—I am, &c.,

(Miss) L. HARDING.

* * * *

(TO THE EDITOR.)

Sir,—Excuse delay in writing, for I have been troubled with influenza and lumbago, and have felt fairly crooked at times; but it is only after getting over troubles of this sort that you think life is worth living. Being Editor of the Bee Journal does not compare with it! Do not let those fault-finding writers get you downhearted: you are doing all right, and the Journal is a credit to you. I cannot understand how you can give so much of your time to it. I wish I lived close handy to you so I could just come along and try to put a few smiles on your face. There are always a lot of fault-finders, and but few who will try to make your troubles lighter. My Journal bears the red ink address. I owe this current year. I enclose for Journal 5/-; to the Association 5/-; and subs. for three names attached. That is 25/-. I enclose a cheque for £1 10s. 6d., the balance to help.

There is one question I am asked re Journal. When does the subscriber's year commence—at the date of their subs., or the commencement of the Journal's year, which I think is either June or July? Kindly answer this, as I think if their year commences with the Journal's year, they should get the back numbers.

Now, that's three subscribers I have got you this year. Surely others, if they will, could help along by getting one or two. **It will be a standing disgrace to us if we let the Journal fall.** (Print that large, Mr. Editor; why, it's just getting interesting.) Well, I will just conclude. Wishing "all good men and true," beekeepers and others, a Happy New Year, and may all our troubles grow lighter.—I am, &c.,

J. A. MORELAND.

Weld street, Blenheim.

[Many thanks for your cheery letter, friend Moreland. We are not a bit downhearted, but are anxious to do our best for everybody. The Journal is sent from the month following the date the subscription is received. We reciprocate your good wishes.—Ed.]

Last Season's Crop in Southland.

"First Aid," in your October issue, asks that I should describe the management which produced for me a ten-ton crop last season. I shall do what I can, but first let me say that the very fine season we had was the largest contributing factor. At present I am working at this disadvantage, that my home is in Nelson, whilst my bees are still at the old home in Southland, and I had to lay my plans accordingly. Before leaving for home for the winter, I went through the apiary to see that all the colonies were in normal condition. At the same time I put each colony on the scale to find its weight, and marked the weight on the end board of the cover. This may to some seem laborious, but system will always help one out. I put the scales on the apiary barrow, and wheeled to a central position for, say, four or five colonies at one time. The cover was taken off each colony in turn, and without disturbing the mat or using smoke the brood-nest was lifted on to the scales, the weight registered, and the colony returned to its stand. To do the apiary was a day's work, but when it was done I knew what otherwise I could only have guessed, and that is the nett weight of each colony. I made 25 lbs. the minimum weight to be left, and where colonies were lighter than that they were united by simply putting one on top of the other, the union being of such as united would give sufficient stores and make strong colonies. The tare allowed for each brood-nest was 20 lbs., so that to pass muster the colony had to turn the scale at 45 lbs. The result from wintering was that, of 122 colonies, I lost two.

I went back to the apiary on the 1st December, to find that the bees had wintered well. Previous to going, about a month, I got a friend to put supers of empty combs on each colony, not using excluders, and I counted that until the beginning of December there would be little or no danger of swarming. As it turned out, two or three swarms had issued just before I reached them, and that day, as if to extend a welcome, two or three came out and plastered an apple tree from top to bottom. A hasty examination showed that the bees were in the pink of condition, and fully occupying their two storeys. My work was hampered by the impossibility to procure foundation, so I determined not to seriously oppose the issue of prime swarms, but to entirely prevent casting. This resulted in an increase during the season of about 60 colonies. My first work was to (starting with the strongest colonies) close the queen down on 10 frames with an excluder, giving her plenty of room, and then to see that all had sufficient super accommodation. In this way a good deal of brood was raised to the third storey on the lines given in my

swarming article in the October issue. I had intended re-queening in mid-season, as some of the queens were not up to the mark, but the press of work entailed by handling such an unusually large crop for me made it impossible for me to do it.

On December 1st, the day on which my work in the apiary started, I selected a scale colony. The one chosen was taken not because of strength, but the place where it stood was nicely sheltered, and I wished to protect my scales from the weather; it also was quite handy to the honey-house door. The queen in it was crossmated and a queen of the previous season. I believed it to be a fair average colony, but as swarming interferes fatally with the work of a scale colony, I took special care to secure that it would not swarm, raising the bulk of the brood to the top storey on two occasions. This proved effectual, and though the brood-nest was not examined, except on these two occasions, no swarm issued. This colony, when weighed the previous autumn to register its winter stores, weighed 45 lbs., or, deducting tare, 25 lbs. It weighed on Dec. 1st 46 lbs., so that it had already advanced 1 lb. on its autumn weight, showing that the spring had been unusually fine for Southland. I give below the record for the season, which will give a very good indication of what manner of season it was:—

Dec.	lbs.	Dec.	lbs.	Jan.	lbs.	Jan.	lbs.
1	46	18	0	1	11	18	0
2	2	19	3	2	16	19	0
3	7	20	7	3	21	20	0
4	9	21	9	4	13	21	4
5	5	22	22	5	3	22	0
6	6	23	13	6	1	23	0
7	0	24	0	7	27	24	5
8	0	25	6	8	0	25	5
9	9	26	3	9	3	26	7
10	0	27	12	10	18	27	6
11	0	28	6	11	8	28	0
12	2	29	16	12	5	29	7
13	1	30	15	13	4	30	8
14	1	31	0	14	0	31	3
15	0		—	15	0		—
16	0		210	16	0		177
17	0	Less	46	17	2	Dec.	164
			164				341

As I have frequently said before, our main honey flow in Southland, and probably this holds good in most districts, lasts only from two to three weeks. I have noted this particularly during the years I have kept a hive on the scales. As will be seen from this record, the three weeks, beginning December 21st, mark the period of the main flow, and during that time this colony put on 225 lbs., or an average of 10¾ lbs. per day, the best day giving 27 lbs. While this performance is certainly good, it is a long way from being a record. At least two other colonies in the apiary did better, but this is the only one weighed, and guess-work in this connection is worthless. During the first week of December there was a lesser flow, amounting altogether to 29 lbs., and then during the last week of January another which yielded 41 lbs. In February the scales stood still, the bees only making up shrinkage. This record gives the earliest flow that I have known in a period of over thirty years. The latest began on the 27th January, and extended to about the 20th February. This latter year was a very wet one, and all vegetation was very late.

The apiary of 120 colonies gave 8 tons 8 cwt., or an average of 156 lbs. per colony, not at all an unusual yield. The remainder of the ten tons was got in a little 25-colony apiary in which I have an interest.

Now, it may be asked why, if the scale colony put on 341 lbs., could the others not do better than to average a good deal less than half of that quantity? It is one of the lesssons of a scale hive. It points the finger and says very straight you ought to have done better. The honey was there, and if all the colonies had been as well looked after as the one on the scales and had had as good a queen—well, it is proved to a demonstration that the crop should have been 18 tons instead of 8 tons. Mr. Editor, some people think that a scale hive makes a beekeeper too big for his boots, but I can testify that after all it has a very chastening effect. Get your readers to try it.

JAMES ALLAN.

Honey Prospects.

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

Auckland.—November has been an ideal month for beekeepers, and the bees are working on the white clover that abounds this season in the Auckland districts. Prices remain unchanged.—G. V. Westbrooke.

Wellington.—At the time of writing beekeepers have been particularly favoured with regard to the weather, and everything points to a good crop being secured. The bees are in good condition generally, and clover is now in bloom.—F. A. Jacobsen.

Dunedin.—The prospects of a good season have greatly improved. Fine weather has prevailed during the greater part of the month, and this has induced a great deal of growth in the clover. Latterly there has been an excellent flow from the bluegums, and in districts where these are plentiful extracting will probably commence next month. Local merchants are making enquiries for honey, and it is anticipated that prices will rule high. Apparently there is to be keen competition for this season's crop, and beekeepers will get payable figures. The market is bare of supplies. Beeswax is scarce, and ruling rates are to 1/9 per lb.—E. A. Earp.

Embedding with Electricity.

While some beekeepers manage without embedding the wire in the foundation, just slipping the foundation in between the wires, most find it more satisfactory to embed the wire, and, indeed, where the work has to be done some considerable time before the foundation is drawn out, it is quite necessary to get satisfactory combs. Also is it necessary where frames have to be carted to out-yards.

Although I have used all the methods for embedding I have seen advocated—viz., Spire imbedder, hot and cold, hot iron, and pressing the wires in over a lamp, none of them seemed to produce results that gave entire satisfaction, and I have always been anxious to try electricity. The want of an electrical supply was, however, always a difficulty. Then I came across the Dadant embedder, which, the makers stated, could be used with two ordinary dry cells. I procured the embedder, but as dry cells as procured here are not always reliable, and at the best would soon exhaust with the continuous current, I decided on getting primary cells—that is, cells that generate their own current. It was necessary to get as strong cells as possible, and the strongest I could get on to was the Edison Primary Battery, V type. These cells are fitted with carbon and copper oxide plates, and charged with caustic soda. Part cell is supposed to generate 4 volts. They can be re-charged with caustic soda, and the plates can be renewed when required. I find three cells connected up give sufficient current to work quickly in warm weather, but rather slow in frosty weather. As wax is difficult to handle in low temperatures, it is not likely to be used under those conditions.

The work done by the electric embedder is all that can be desired. The wire can be pressed into the centre of the foundation, so that it would be difficult to say which side it went in from. Also a small boy can use it and do good work. It is well to note that embedding cannot be done by heating the whole of the wire at once by dry or primary cells, as the current is not strong enough unless several cells were used. The Dadant embedder heats about four inches of wire at a time.

J. RENTOUL.

[If only four inches of wire are heated at a time, and the inside of a frame is seventeen, does that mean you have to apply the embedder four times to embed one wire?—Ed.]

* * * *

'Tis said that "manners makyth the man." That may be, but it is locality that makyth the beeman.—(Contributed.)

* * * *

Your Address written in Red Ink means "Subscription Due."

Swarm Control at Out-Apiaries & other Matters.

The following (dealing with swarm control) is not high-pressure beekeeping, but it suits me, as I am troubled (like Mr. Allan) with either backache or laziness.

I aim to make five trips to each out-apiary suffice for the season—that is, until extracting time—the trips distributed as follows:—The first visit is made during September or early in October, preferably on a fine day, when bees are flying, so that one can tell by outside diagnosis whether the hives are queen right or not. The hives are hefted to ascertain amount of stores, and fed where necessary. On the second trip (timed to suit locality) I kill old and defective queens, set some of the queenless hives to raising cells, and put brood above excluders on strong hives which need breaking down. The third trip (ten days later), the cells are distributed, a little increase is made by dividing the strongest of the queenless colonies and setting out the bees and brood which is above excluders (Alexander plan). The fourth trip (about a month later), I build up young queens, and with brood from over-strong colonies unite those neuclei which have not a laying queen, and build all colonies to about equal strength. The fifth trip is made when the honey flow arrives, when I go round supering.

A man who lives near one of my out-yards, who wanted a few swarms, told me that my bees were very contented, in that they never swarmed; still, I do lose a few, hanging on willow-trees sometimes too, but I do not go round each weak tilting up the hives while the good wife goes down on her knees and looks in for cells.

I used to practise the Doolittle plan of raising cells at out-yards, but found it took too much time and patience, so I dropped on to the rough and ready plan of making a hive queenless and broodless, and giving a frame of brood of the right age from the breeder. I found afterwards that the plan was no new thing, as no less a person than Dr. Millar practises it. No preparation is needed, and it can be done in any weather.

I like working with clipped queens. I find it does not cause supercedure, except only in rare cases. To my mind several advantages are gained: swarming is delayed several days; a shaken swarm cannot abscond when headed by a clipped queen. Then, again, I am sure of the age of a clipped queen. This spring I have killed quite a lot of three-year-old queens, heading strong colonies, plump and vigorous-looking, which I would have mistaken for young queens (judging by appearances) but for the clipped wing. Usually I allow only the best of queens to live to be over two years old, and I find that about two-

thirds of those allowed that privilege are superseded in the autumn following the celebration of their second birthday.

In regard to keeping track of the age of queens, the following may be of interest to some. Some years ago Mr. J. C. Hobbs called my attention to an article from the pen of the late Mr. Alexander, of Delanson, New York, dealing with this subject. His idea was to use three shapes of tin—a square, a triangle, and an oblong, for example—and all hives headed by a queen raised this year would have a square shape (shall we say) tacked on in front; next year a triangle shape, and the following year an oblong, and then start over again in the same order. One does not often want to keep a queen over three years. I believe sheep-farmers use the same plan for an age mark in ear-marking lambs. I have enlarged a little on the plan, in that I use certain positions on front of hive to tack the age mark to denote quality and condition of queen, so that with a glance at front of hive I know the age of reigning queen, whether she is clipped or otherwise, if purely mated, if a breeder, if a useful queen, or one that wants superseding.

Palmerston North. J. WALWORTH.

Honey Poison.

Some six years ago I came to this district from Taihape (where I was in business as a timber merchant, builder and contractor) to erect a residence close to where I am now living. In my contract I had to pull down an old building, and in the walls of this old place, between the lining and the weather-boards, a swarm of bees had made themselves at home. I smoked the bees out of it, and took the honey, and black-looking stuff it was, as there were no clover fields about here then. I said, "Honey for tea, boys!" as I took the dish to the cook; but the cook, an old resident here, told us yarns of honey poisoning, which appeared to me at that time very stretched, so when tea-time came no one wanted honey; but I said, "Here goes, I am going to risk it, and have some any way," and as I lived through the night and no sign of poisoning, every one had honey for breakfast.

Since that time I have heard sufficient to believe that there is such a thing as honey poisoning with bush honey. The Bay of Plenty districts seem to be affected very badly at certain times with poison. I will relate a few of the many cases which have occurred within the last few years around my district.

A party of Maoris were plucking a field of maize close to Whakatane, when the owner of the field sulphured a box of bees, took the honey, gave some to the Maoris, and had some himself. In a short time they were all taken ill, and the doctor had to be sent for. The balance of this honey and comb was then thrown into the pig's barrel, and the next day three large sows were found dead.

I know of four different cases round here last season, and some of them were very serious. I asked the doctor what he thought of it, and he said he was quite sure that the patient he was attending was poisoned through eating bush honey. There have been several victims throughout this district at different times.

It is very amusing to hear the different opinions as to why and how the honey is poisoned. I remember seeing in a Bay of Plenty paper a few years ago an article that I think was written by a priest, in which his opinion was that the poisonous honey was gathered by the bees to kill off the drones!

A Maori once assured me that the bees along the coast gathered salt water to poison the honey to keep the pakeha and the Maoris away. Very few of the Maoris here will touch honey in any form. Last year I was putting a load of honey in the wharf shed to be shipped to Auckland, and there were some Maoris looking on anxiously. At last one says, "What you got here Ruka (Luke)?" I replied, "Honey." "By golly, for the Germans, eh?" "No," said I, "for the British." "By golly!" says he, "you poison them all!"

Some time back I was out visiting with a beekeeper friend of mine of the Bay of Plenty, and on this occasion we were asked to sample some honey. I took a good spoonful, not once but twice, but I noticed my friend took only a tiny speck on the edge of his pocket-knife. He had had honey-poisoning once, he said, and was very careful about eating honey.

Last season a gentleman in Whakatane gave me a dog. As he would accept no payment, I thought I would take him some section honey, so I picked out some nice fancy white sections, and took them to his house, and said, "I have here some of the nicest honey you ever saw or tasted," and held up a good section for his inspection. "Well," he said, "it does look very nice, but really, Luke, I am very prejudiced against honey." "But," I said, "this is really good." "Well," he said, "I will call the wife; perhaps she will like it," but when she came in she shook her head, and said, "Mr. Luke, I would not risk eating that for £50." The gentleman of the house then told me he had seen eight Maoris as stiff as a post through eating honey.

Well, I went further down the street, and met a canny Scotsman, who had had some of my honey before. "Look, Mac," said I, "would you like a section of honey?" "Rather!" said he, holding out his hand for it. "Well," I said, "a gentleman has just refused it, and his wife said she would not eat it for £50." "Ah!" said he, " 'tis an ill wind that blows no one any good!" He was evidently not afraid of honey poisoning.

I notice all cases of honey-poisoning occur in the autumn, and undoubtedly the poison is in the green honey. There are several commercial beekeepers in the Bay

of Plenty, and no one has ever had any ill-effects through eating the honey they produce. The first season I was here I could hardly give honey away locally: last season I sold over half a ton from the apiary.

The following was in a recent issue of a Bay of Plenty paper:—"Honey. To make room for the coming season we are offering half a ton extracted honey at reduced price" This man cannot belong to the H.P.A.

Awakeri. A. L. LUKE.

Unextractable Honey.

In reply to your invitation for contributions to the Journal, I am sending a short article on thick honey, in the hope that others will give us the benefit of their experience.

As showing the importance of the subject, I may mention that a friend of mine, who started beekeeping at Waharoa, went out of the business entirely on this account.

In a back number of the Journal, a reader appealed for advice on this subject, but as far as my memory serves no direct answer has been attempted, although the subject has often been referred to in various ways. The text-books are silent on the subject, but I have been informed that the heather honey of the Old Land is of a similar consistency.

The general opinion appears to be that this unextractable honey is obtained from manuka, but there are some beekeepers here who believe that it comes from flax. Perhaps both are right.

I well remember my first experience, some eight years back, on the subject. I had read Root's A B C from cover to cover, and felt quite confident of my ability to deal with extracting. I had a brand new extractor, and my half-dozen hives were filled with beautiful heavy combs. I uncapped two, and, putting them in the extractor, whirled them round merrily. But what was wrong? The jelly-like honey refused to leave the combs. Perhaps I was not turning fast enough; so I tried again at top speed. It was no use: the combs broke into pieces, but the honey still refused to leave the cells. What was to be done? My place is within easy reach of the State Apiary at Ruakura. I visited the experts there, to see if they could solve my troubles. Alas! when I arrived at Ruakura I found the ladies in charge in the same trouble as myself. Mr. Hopkins was also present, and his advice was to store the combs for winter feed, and to extract the thin honey which would come in later. This advice seemed good at that time, but in practice it was not altogether satisfactory. In the first place, the quantity of thick honey was greater than was required for winter feed. There was probably an average of 60 lbs. per hive that year. The good honey, which came later, did not exceed 15 lbs., and later still my bees gathered about another 15 lbs. of very dark, strong-flavoured honey, which I believe to be pennyroyal. It was quite unfit for market, so I had to let the bees keep it. The quantity of thick honey varies very much from year to year. Some seasons there is very little of it; and in localities not far apart there is great variation. I know of two apiaries within ten miles of Ruakura where thick honey is almost unknown. Both are in good clover districts.

Now, as to the best means of dealing with this honey. I have tried heating by standing a benzine tin full of combs in a copper, taking care that the water did not enter the tin. I found that the honey required as much heat to melt as the wax. When the whole mass melted I took the tin out, and left it until next morning to cool. The honey settled to the bottom, and poured out without difficulty. But it had acquired a dark colour and burnt flavour, which rendered it unmarketable, although some people professed to like it. Various kinds of presses have been tried. One large beekeeper here uses a converted cheese press. Last year I used a Hatch press. But none of these methods are altogether satisfactory. At the best it is a nasty sticky job, and the ideal machine is yet to come. Of late we have heard rumours of various implements, which their inventors claim will settle the difficulty. To some extent the Baines capping melter is successful. Now we hear of the Benton melter, and I have heard that Mr. Bartlett-Miller has a machine of his own. We will await results with great interest.

At the last Ruakura field day someone—I think it was Mr. Young, M.P.—spoke of a rapidly revolving machine he had seen at the Auckland Sugar Refinery, and suggested that it might settle the matter. I am familiar with the machine mentioned, as in my younger days I was for some time employed in a Queensland sugar mill. It is called a "centrifugal." I may describe it as a revolving tub, with an outer stationary jacket. The semi-liquid sugar is placed within the tub, which revolves at a high velocity. The sides of the tub consist of fine wire gauze, through which the moisture (molasses) escapes, leaving the sugar quite dry. I am afraid that the cost of such a machine places it out of the question, even if it proved effective, which is doubtful. I think that the wax would block the gauze. To anyone with only a few combs to deal with, the following method may be worth a trial:—Cut out the combs, and wrap them singly in cheese-cloth, then place between two thin boards, and pass through a mangle. I make no charge for the suggestion, but accept no responsibility for results.

THOMAS GILLIES.

Hamilton East, 6/10/17.

Your Address written in Red Ink means "Subscription Due."

ROLL OF HONOUR.

"Our hearts, our hopes are all with thee,
Our hearts, our hopes, our prayers, our tears;
Our faith triumphant o'er our fears
Are all with thee, are all with thee."
—Longfellow.

B. G. EDWARDS, late of Geraldine. Invalided home.
L. D. CARTER late of Springfield. Invalided home.
E. A. DENNIS, Gleanoy.
W. A. HAWKE, Whitecliffs.
S. R. SMITH, Woodbury. Killed in action.
R. N. GIDLEY, Christchurch.
J. SILLIFANT, Christchurch.
P. E HOLMES, Pirongia.
T. B. PEARSON, Claudelands.
R. E. HARRIS, Te Kowhai. Wounded.
J. P. IRELAND, Te Kowhai.
G. R. WILLIS Pukekohe.
A. ECKROYD, St. Albans, Christchurch.
A. CURTIS, Porowhita.
W. G. DONALD, Brookside.
E. N. HONORE, Otakeho.
E. JEFFERY, Opotiki. Died in Egypt.
J. B. ARMSTRONG, Opotiki.
G. ROGERS, Opotiki.
C. BICKNELL, Greytown. Killed in action.
P. OTOWAY. Featherston. Killed in action.
G. NAPIER, Alfredton.
N. C. NAPIER, Alfredton.
W. J. JORDAN, Ngaruawahia.
G. SQUIRES, Fairview.
MURDO McKENZIE, Dunrobin.
W. H. BLACKIE, Ryal Bush.
JAMES IRVING, Albury.
R. M. HAMILTON, Ettrick.
A. E. CURRIE, Maungatua.
JAS. MARSHALL, Maungatua.
A. BEVAN, Waihau Downs.
D. CRAWFORD, Waikoikoi.
R. S. SUTHERLAND, Port Chalmers. Discharged; re-volunteered.
S. G. HERBERT, Ruawai.
F. W. LUNT, Addington.
J. MORGAN, Dannevirke.
H. SQUIRES, Hawera.
ALEX. MAITLAND, Orari. Killed in action.
A. R. BATES, Kaponga.
C. E. QUAIFE, Russell's Flat.
G. HARRISON, Waipahi.
H. W. McCALL. Wallacetown. Killed in action.
G. I. SHAW, Domett.

New Zealand Co-operative Honey Producers' Assoc., LTD., HAWERA.

The following Cable came to hand after the inside part of the Journal was printed :—

"Sold all First Grade Honey afloat 140/-"

"BRISTOL & DOMINION"

This is what the N.Z. Beekeepers get through Co-operation ?

—

Will you help us to still better results ?

Printed and Published by Stone, Son & Co., Ltd., Dunedin, for the N.Z. Beekeepers' Association. January 1st, 1918.