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**Beekeepers'
Journal.**

Vol. 4.

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The New Zealand Beekeepers' Journal

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

No. 4

VOL. 4

5/- PER ANNUM.

National Beekeepers' Association of New Zealand.

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

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All communications respecting the Association and Journal to be sent to

FRED C. BAINES, Kati Kati.

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EDITORIAL.

The first matter to write on this month is the date of the Conference, which is fixed for June 9th, 10th, and 11th, to be held in the Y.M.C.A. Hall at Christchurch. Please make a special note of the date.

In the report of the meeting of the Executive, you will notice that a departure from the usual procedure is being made, the morning and afternoon sessions being set apart for different business. We have

often heard the remark "too much Conference" at these meetings, and think the division of business will be appreciated. If you are not interested in the administrative work of the National, you can easily avoid being compelled to listen whilst it is being discussed, as it will occur in the morning sessions only, the afternoons being taken up with matters dealing entirely with the apiary.

The idea of sending the remits framed by the Executive to the Branches for discussion we think is good, as by so doing every Branch can debate them from the point as they affect the particular dis-

trict, and thus we shall be able to go to the Government with practically a mandate from the whole of the country.

There can be no doubt that the chief call in the industry to-day is for more inspectors and the more rigorous administration of the Apiaries Act. All the Government instructors will admit they do far less inspection to-day than when they were first appointed, notwithstanding the fact that there are thousands more people keeping bees than at the time they first took office. It is also admitted that even to-day there are some districts that have never been visited at all since the Apiaries Act was passed. What an absurd state of affairs, when an Act is on the State Book for the protection of those engaged in an industry and is allowed to be practically a dead-letter—not because it is a useless, unsatisfactory measure (because it is as good an Act as possible for the purpose intended), but simply because the Government will not, cannot, or at least do not recognise that to administer the Act properly it is necessary to have the requisite number of officers. Mr. Reutou spoke truly when he said whatever check the disease has had has been brought about by the efforts of the commercial beekeepers themselves. How many of us could have "carried on" had we not taken up the positions of local inspectors to keep our own districts clean? How many of us are successful in keeping our apiaries clean in spite of time spent on this work, which is clearly the Government's? In how many cases do the same losses apply as those cited by Messrs. Allan and Sage, who compute theirs at not less than £1,000 each? We hope when the Branches discuss the remits, facts and figures will be tabulated to show the various losses estimated by members on account of foul-brood, so that we can prove to the Government we have a right to demand immediate assistance.

In how many districts do the same conditions apply to that cited by Mr. C. F. Ryland, where, in the Blenheim district, it is computed that a loss of about 200 tons of honey has been sustained this year through the ravages of the disease? The f.o.b. value of honey to the sum of £12,000 lost because the Government will not spend a paltry £300 a year on an inspector! And the unfortunate part of the whole business is that what is true of Blenheim is true, more or less, of the whole of the Dominion.

The Government in their reports will state what is being done at the State Apiary in the matter of training returned soldiers, nurses, and cadets in the industry, but they do not state that after they have received the necessary instruction they are turned out into the cold, cold world, where disease lurks in almost every district, and the chief thing they have to contend with is foul-brood, which is still rampant owing in the greater part, to their (the Government's) own negligence in not appointing

sufficient men to keep it in check. We believe we are correct in stating that it would be impossible for any of the inspectors to advise a district where the menace is not present. We quite agree that instruction on the industry is necessary and right; but we submit that to encourage any person, either cadet, nurse or soldier, to sink their capital in an industry which, through the negligence of the Government, is an absolute gamble whether they win out or fall out, is not right. Those of us who have been in the industry many years know that with the variable seasons our incomes fluctuate from great prosperity to absolute poverty, and it has needed a stout heart at times to keep in the industry. Is it right to add anything further in the shape of a handicap to those to whom the industry appeals as a means for a living? Emphatically No! And yet the inspectors' time is taken up to a very large extent in giving instructions to those who probably will never own a hive of bees.

We state emphatically that the better way would be to give those who have already sunk their capital in the industry a fair chance of getting the full return for their labours by getting every district as clean as is reasonably possible. We learned recently of a case of an ex-Ruakura cadet who could not keep her apiary clean, so bought up every hive (box and otherwise) she could find in her district. She has now a fine crop of disease right through her apiary, which will cost her a considerable sum to get rid of. Why should she and others be put to the expense of having to buy disease and lose a crop because the Government will not carry out its obligations?

How much longer is this state of affairs to continue? We will tell you—just as long as we in the industry put up with it. As long as we are content with nothing or very little being done will the present state of affairs continue. But something IS going to be done, and the commencement of the doing is in the remits now in the hands of the Branch secretaries. The outcome of this will be the unanimous voice of the beekeepers assembled in conference. This will probably take the form of a deputation to the Prime Minister: there's nothing like going to the captain of the ship if you want something done. If a move in our favour is not forthcoming, then we propose that the whole of the members of Parliament be circularised drawing attention to the actual grievances we are working under, which must and will be admitted by the Apiaries Division. We have some excellent friends in the House, and can rely on the services of Mr. J. A. Young, whom many will remember was present at the 1918 Conference, and helped us so well with our deputation to the Minister. He has promised again and again to give all the help he can—and he will!

How are we shareholders in the H.P.A. to view the expenses that are now being

incurred so that a large crop can be handled with ease, when there is a possibility of instead of our crops increasing they will decrease?

The matter is real, urgent, and important, and we want to stir up every beekeeper into a fighting mood, and, having done that, to urge them to fight until we get justice done to those of us who have had a continual fight against odds, and protection for those who contemplate entering the ranks as commercial beekeepers.

WE ARE OUT TO FIGHT FOUL-BROOD DISEASE. WILL YOU HELP?

In writing this we are not inferring that Mr. T. W. Kirk has not done all that he possibly could to help us. He has put forward our claims again and again, but only meagre results have been obtained. It is an absolute fact that the matter dealing with prohibiting the importation of queens, etc., was placed by him before the Government now five years, and yet nothing has been done. Australian honey is being imported into this country, and the containers when emptied are thrown out for the bees to clear up. Isle of Wight disease, or something very near it, plays havoc in the Australian apiaries at certain seasons. Are we going to wait until this disease gets a hold before we get the Government to move? We have every right to make the biggest row ever heard in beedom on this matter. Will those who are not attached to a Branch please send their complaints along for publication? We dare not allow the present state of affairs to continue, unless we are prepared to jeopardise every penny sunk in the industry. Foul-brood and Isle of Wight disease, once allowed to get a certain strength, will ruin us in a twelvemonth. Are you prepared to risk it when, by the Apiaries Act being properly enforced, the Department efficiently staffed, and our recommendations carried out, there need be no risk at all?

Foul-brood is at present your biggest enemy, and is the greatest robber of your just returns from your hives. As serious a disease is just over the water. Are you going to wait for it to come here in the same way as the dreaded Fireblight has come amongst the orchardists? We are fools to dabble with this matter any longer when we have an Apiaries Act on the Statute Book that can meet the case if properly applied.

Although we suggested that the matter of attempting to regulate apiary boundaries be dropped, the Executive of course had to consider the proposals suggested by the Committee appointed by the Conference to meet the officers of the Department of Agriculture for the purpose of drafting a workable scheme. The Executive decided that the solution of the difficulty was best met in the suggested addition of two clauses to the Apiaries Act, as set out in our editorial remarks in the

December (1919) issue of the N.Z. Beekeepers' Journal, and the Conference should pass resolutions to have them embodied.

As these suggestions did not cause any comment, pro or con, we concluded they were not wanted. However, as the matter will have to be settled one way or the other at the next Conference, we hope the beekeepers will look the clauses up, find out any weak points, and bring them forward during the discussion at Conference. No good will be gained by further discussion of the matter in the Journal.

Whilst in Auckland recently we paid a visit to the H.P.A. Depot, and were exceedingly pleased to see our own business on such a good standing. Mr. C. P. Ryland appears to have a splendid staff round him, and there seemed a hum of prosperity about the place. The new warehouse just built is a grand one, giving over 10,000 feet of floor space. "Imperial Bee Honey" was being packed by the ton, and as one saw in the tram-cars, shops, and picture-show screens, the advantages of eating honey and the particular brand advertised we felt "good." Our outlook as an industry is particularly bright as regards marketing.

The Association badges are now available at 2/9 each, post free. The Branch secretaries are asked to write the general secretary as to the number required. Members not attached to a Branch can obtain them direct from Kati Kati.

We are again inserting a card asking for crop reports. Last year the replies were a considerable advance on the previous effort, and we should like this year's to be a really comprehensive return. Absolute secrecy is promised; no person other than the Editor will see the cards, which are destroyed as soon as the particulars are recorded. We solicit your co-operation in this matter.

We had hoped to have started the "Questions on Beekeeping" this month, but as these notes are being written in Wellington, we have not access to the series from which these are taken.

We are very glad to record another addition to the family of the National, as at the final meeting of the Auckland Beekeepers' Club, held on 6th March, it was unanimously decided that the next season should open as a branch of the National Association. The existing officers were to remain in office until the first meeting next season, when rules would be drawn up, the title of the Branch decided, and fresh officers appointed.

Whilst in Wellington, Mr. T. W. Kirk showed us some packages of the famous "Airline" honey, as put up by Messrs. A. I. Root Co. The glassware used by

this firm is particularly good and attractive, but judging from the general appearance of the honey, which was in a semi-granulated condition, New Zealand need have no fears as to comparison. We take it the honey was a fair sample of a first grade commercial article, and as far as appearance goes, our light amber first grade is decidedly better looking, and more "toothsome."

Market Reports.

We have very few transactions to record since our last report, owing to the dislocation caused by the Christmas and New Year holidays, and, of course, the usual stock-taking, during which period people are disinclined to offer it.

Seeing the scarcity of sugar and the high prices of it, we look forward to a better demand in the future. We cannot do better than repeat our last quotations for Chilean, from 69/- to 97/6 per cwt.

Beeswax.—A parcel of Cuban has been sold at £9 per cwt. Chilean would be worth about £10 15s.

TAYLOR & CO.

Liverpool, 23rd January, 1920.

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

Auckland.—The honey return, as anticipated, will be somewhat below the average in the Auckland district. Prices are being maintained. Bulk honey ranges from 7d. to 8½d., according to colour and quality; section honey from 8/- to 9/- per dozen; beeswax from 2/- to 2/3 per lb., but little offering.—G. V. Westbrooke.

Wellington.—In the districts where honey has been secured, extracting is now in operation. The great variation in the climatic conditions over the North Island during the last few months has been responsible for patchy crops. Poverty Bay records a dead failure, and Hawke's Bay is apparently very little better; Manawatu very good so far, as is also the lower Wairarapa; Taranaki very fair. Honey is offering at the apiaary at prices approximately 1/- per lb. Beeswax scarce.—F. A. Jacobsen.

Christchurch and Dunedin.—The season on the whole is not up to expectations. Changeable weather and mild frosts have militated against nectar secretion; consequently the crop will be below average in many districts. Extracting is in progress. The quality of the honey this season is excellent, as is usual when the clover pastures are in good heart. In Southland prospects are brighter, and the latest reports indicate that a light crop will be

harvested. Prices are firm. Bulk honey in new containers is quoted at 7d. to 8d.; sections, 10/6 to 12/6 per dozen; pot honey, none forward. Beeswax is scarce, and is realising up to 2/3 per lb.—E. A. Earp.

Beekeeping for Beginners.

[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.]

Beyond seeing that all the hives have sound covers and the grass and weeds cleared away from all round, there is no further work in the apiaary for this season.

Your accumulation of beeswax should now be got into marketable shape, and if you haven't a great deal, you can do this quite easily by putting all the odds and ends of wax in a kerosene tin with about a quart of water. Place this on the stove until all is melted, but do not boil it for any length of time, as boiling tends to spoil the wax by making it brittle. When thoroughly melted take off the stove and cover it over with a sack or two, so that it will cool slowly, as this will allow the dirt to sink to the bottom, which, when the slab of wax is taken out, can be scraped off, and your wax is ready for market.

With a large quantity of wax to render, the only satisfactory method is to use a waxpress, and considering the increasing cost and scarcity of beeswax, a waxpress is really a good investment.

To render a large quantity of wax, first fill your copper half full of water (rain water preferred), and get it to the boil. Then put in your old combs, scrapings, &c., &c., and with a stick beat it all up until it is a soft mush. Now, pour a kettle of boiling water into the wax-press to heat it, so that the wax will not chill when being poured in. Quickly spread a piece of scrim inside the press, pour in three or four dippersful of the mush, being sure to get plenty of water, put the plunger on, and tilt the press so the contents can run out into a kerosene tin. Now, use a little pressure on with the screw, and tilt again, so that the wax can get away without solidifying, and so on until the full pressure is put on. Put the wax in the shed well covered up, and the blocks will shrink, and thus come easily out of the tins.

Do not sell your wax outside the industry; get it exchanged for other supplies, or get it made up into foundation.

Well clean your extractor, tanks, &c., getting them thoroughly dry. Appliances cost a great deal of money these days, and it pays to take care of them.

F. C. B.

District Reports.

AUCKLAND PROVINCIAL BRANCH.

Extracting has now practically finished, and has been rather an easier job than what we should have liked it to have been. Reports to hand indicate averages to range from 30 to 50 lbs.

Owing to the warm spring-like weather brood-rearing has kept going rather stronger than usual. Bees are going into winter in good shape.

We learn that Mr. A. Pearson, of Pearson Bros., is leaving early in April for a trip to America. We wish him a pleasant trip and safe return.

I would like to remind our members that the library is now in working order. "Gleanings," "American Bee Journal," and "Australasian Beekeeper" are now arriving, also latest edition of the A.U.C. to hand.

The annual general meeting of our Association will take place in the Bath Buildings, Hamilton, on 20th May, at 11 o'clock. I would ask members to please forward their subscriptions before that date.

Hurrah! Letter from Mr. Kirk just to hand. He states that Mr. Goodin has accepted permanent appointment in the Department at an increased rate of pay to that previously offered him. We congratulate the Department on having been able to retain Mr. Goodin's services.

A. H. DAVIES, Secretary.

Hamilton, 18th March, 1920.

CLUTHA VALLEY.

The second annual Field Day and demonstration of the Clutha Valley Branch was held at the apiary of the writer on Wednesday, 18th February. There was not the crowd present that was expected, as the very dry weather had ripened the crops, and people were busy harvesting. There were about fifty present some from a long distance. We had Mr. Earp with us in his usual form also Mr. Allan from Roslyn Bush and these two gentlemen did practically all the work of the day as far as talking and demonstrating were concerned.

Mr. Earp gave us a very instructive talk and demonstration among the bees, finishing up by taking off honey and extracting; but we got let down rather badly at this stage—could not get the knife hot, and did not find out the next day what was wrong till we had turned things blue for some hours. Say, Mr. Editor, if you ever get oil in the boiler, be sure you clean it out before you start extracting. My boiler is made of half a petrol tin, and I poured some oil into it to keep it from rusting, but had not sense enough to pour it out again, consequently no steam, so we went and had some tea instead.

Mr. Allan then gave us a speech on H.P.A. matters and the depot system of handling our honey, and was listened to with great interest.

Mr. Earp also gave us some useful information re packing honey, followed by a talk on foul-brood. This, with the usual votes of thanks, brought a very successful day to a close.

H. N. GOODMAN,

Greenfield, 12/3/20.

TAIERI.

Yes, the Taieri drew a winning ticket in the Weather lottery this year. Time enough, though; too long have we been investing our hopes in stocks that paid no dividends save disappointments. The foul weeds of jealousy which were springing up apace midst the fair blooms of rectitude and virtue now droop, withered by the blast of prosperity. Humph!

Beeists in these parts are so wholly engaged in congratulating themselves, in uttering paeans of joy and thanksgiving, that I have been able to collect practically no data, no material facts as to the crop. I suspect the morality of writing fairy tales in the statistic department; hence I refrain. Must needs stand till next time.

'Tis well, ye Editor does not pay me at a penny-a-line rate; else I might be tempted to tell you of the man who returned from a jaunt to find a tiny windmill fitted to his pet hives (we all have pet hives), buzzing merrily in the breeze, dealing multitudinous death to the curious bees. Quoth he, "An enemy hath done this!"—Even so!

BASIL H. HOWARD.

TARANAKI.

February has come and gone, and left us something to go on with, chiefly grass.

Brood nests have not filled up as is usual in the autumn, as the weather has been so wet.

Crops will be a little below expectations, as it will be necessary to draw on the supers for winter stores.

My scale colony only showed an increase in weight of 30 lbs. for February as against 110 lbs. last season.

Extracting is hung up all round on account of tins. One apiarist has four tons in the tanks just going candied; others are leaving it on the hives.

My scale colony is going back 1 lb. per day. Guess I won't have much honey left unless I get some tins soon!

Someone needs the blame for it. Is it the H.P.A., or did the Government bar the use of benzine tins too soon? Or still again, is it those fellows who make the tins that we want to be after?

H. R. PENNY.

Okaiawa, 7/3/20.

SOUTHLAND.

A meeting of great interest to Southland beekeepers took place in the Federal Tea Rooms, Invercargill, on Wednesday, 11th February, at 2 p.m., when twenty-four assembled to meet Mr. J. Rentoul (Chairman of Directors) and Mr. C. F. Ryland (manager of the N.Z. Honey Producers' Association). The meeting took the form of a light lunch, and was of a most cordial nature.

Mr R Gibb (President of the Southland Beekeepers' Association) was in the chair, and welcomed the visitors to Southland. Mr. Rentoul, in his remarks, spoke of the fine appearance of the country they had travelled through, and said that the weather experienced, in conjunction with the abundance of clover, would lead him to expect a good honey harvest. Mr. Ryland's address on the history, present position, aims and possibilities of the co-operative movement was listened to with the closest attention, and met with a very cordial approval from those present. He stressed particularly the danger to the movement of honey producers being approached by speculators or their agents with an offer of a higher price than the advance given by the H.P.A. Many beekeepers were apt to accept the higher price offered immediately, forgetting that, while that was the whole payment to be got from the speculator, the amount paid out by the H.P.A. was only the first of several payments which would in the aggregate amount to more than the tempting offers held out by the private dealer. In addition to the ultimate higher price obtained, there was the immense advantage accruing to all honey producers in maintaining and developing their own company, whose continued activity would ensure all producers that they would get the full market price for their honey. He also drew attention to the fact that the Association had already begun the supply of the Home market with the Association Brand of "Imperial Bee Honey," and the fact that they could guarantee to merchants and retailers a continuous supply of a high-class honey of standard quality had enabled them to place a very large quantity on the local market at a payable price. He also dealt with the supplies question, and pointed out the advantage to shareholders of obtaining their supplies through the Association, one of these being that shareholders were obtaining some goods at a considerably lower price than they could be obtained outside, and that a refund of probably 5 per cent. would be available on the supplies sold to shareholders for the year.

A number of questions were asked and satisfactorily answered.

Mr. Ryland then announced that the Company had secured the services of Mr. Jordan, an experienced beekeeper, a returned soldier, who while in England had ample opportunity of seeing and studying

the manner in which our honey is handled and sold to the consumer in Great Britain, Mr. Jordan would help to supply a need that had been felt throughout New Zealand, and (owing to our great distance from the head office), particularly in Southland, the need of some one who has a full knowledge of the facts and the necessary time to meet individual beekeepers and discuss with them their particular needs and difficulties and how the Association can help; also to supply the actual facts when misleading statements have been made about what the beekeeper could make if he sold to the private buyer. This was work that he felt sure would go far to bring about that confidence in the Association which was necessary to secure the full understanding and hearty co-operation of all beekeepers. The directors had for long realised the need of this work, but until now it had not been possible to overtake it.

At the conclusion of Mr. Ryland's remarks he was loudly applauded, and on the motion of Mr. Allan a very hearty vote of thanks was accorded Messrs. Rentoul and Ryland.

Meeting of the Executive of the National.

A meeting of the Executive was held in Wellington on 16th March, when the following gentlemen were present:—Mr. Jas. Allan (President), Mr. W. Watson (Vice-president), Messrs. McKnight, Davies and Baines. Apologies for absence were received from Messrs. Cotterell and Penny.

It was decided to ask the directors of the H.P.A. to meet in conference at their convenience to discuss a policy that would be to the advantage of the industry.

The following remits were to be sent to all the Branches for discussion, the object being that the needs of their particular districts can be emphasised by the appointed delegates to Conference:—

1. That in spite of our Apiaries Act and inspectorial staff, we are not making nearly sufficient progress in the checking of disease. In some districts it is questionable whether disease is not causing greater ravages than ever, and we think the time has arrived for a big forward movement in this connection. This assumption is supported by the resolution forwarded by the Clutha Valley Branch, whilst the recommendation by the beekeepers assembled at Ruakura indicates that increased vigilance is necessary to prevent the introduction of Isle of Wight disease into this country, and that importation of bees, queens, and honey should be immediately stopped.

2. That in order to carry this out, we ask for the immediate appointment of a Chief Apiarist and an enlarged staff.
3. That some new system of grading should be adopted in order to relieve the inspectors, and make it possible for them to concentrate on the inspection work.

Educational.—That seeing the programme of the National is limited for want of funds, and it necessarily has to depend largely on the Journal to carry out this work, the Executive asks for the sympathetic help of members and beekeepers generally, particularly in the way of discussion of questions relative to the progress of the industry, the results of any experiments or experiences of interest to beekeepers. And as the Editor is giving of his best, that he be loyally supported in every way possible. The Executive also asks for any suggestions that would make the Journal still more useful.

Apiary Boundaries.—The following resolution was passed:—"We as an Executive agree that the solution of this difficulty, as put forward by Mr. F. C. Baines in the National Beekeepers' Journal for December, 1919, as the best yet given, and we suggest that the National Association in conference assembled should pass resolutions to have these clauses embodied in the Apiaries Act."

It was decided to hold the Conference at the Y.M.C.A. Hall, Christchurch, on June 9th, 10th, and 11th, the business of the morning and afternoon sessions to be quite separate; the first morning to be taken up with opening of Conference, President and Secretary's reports, and general business of the National; the afternoon to be devoted to discussion on honey and methods of handling; the evening of the first day for melter demonstrations and technical work in the apiary.

Second Day.—Forenoon: General business; afternoon, technical work in apiary continued; evening, social supper and concert.

Third Day.—General business, report of deputations, committees, etc., election of officers for ensuing year.

The conditions of the competition for honey to be as follows:—All entries to be in glass jars, not less than 2 lbs. The classes to be white, light amber, medium amber, and dark. First prize, each class. £1 1s.; second, 10/6.

Intending competitors to send their names to the General Secretary, who will forward a number, which must be written on a ticket and gummed to the bottom of the jar. No entry will be allowed to be judged that is not thus numbered.

Applications for numbers must be in the hands of the secretary before 31st May. The judges will be the Government graders.

There will be no charge made for entry, and the same competitor cannot have more than one entry in the same class.

Melter Competition.—The machine to handle 20 combs of honey cut out of the frames. Points to be judged:—Rapidity of melting; disposal of slum-gum; cleanliness in working; condition of wax rendered; condition of honey; and cost of machine. Any intending competitor wanting steam pressure to make his own arrangements for supply. First prize, gold medal value £5 (presented anonymously); 2nd, goods value £2 2s. (presented by Alliance Box Co. Ltd. No second prize unless three entries.

Amendment to Constitution.

Clause 10.—Reads "Prior to the annual meeting at which they are to be elected, every Branch Association shall nominate a representative to serve on the Executive. This shall consist of not less than seven members," &c.

Amendment.—The word "less" in above paragraph to be deleted, and the word "more" inserted.

Mr. E. W. Sage be asked to act as auditor.

The members of the Executive met the directors of the H.P.A. on Wednesday, 17th inst., when the following matters were suggested:—

That collective action would be beneficial. To insist on the necessity of more inspectors being appointed; the question of railway freights on honey; the supply of sugar for feeding bees; petrol for apiary uses; and grading.

Mr. Rentoul (Chairman of Directors) agreed that the disease has been checked mainly by the efforts of commercial beekeepers, and the directors were all willing to do their best to assist in bringing about an improvement. He also advocated a further effort being made to get some concession on the railway freights on honey. The sugar supply for beekeepers had been satisfactorily dealt with, as the Board of Trade had agreed that the H.P.A. be distributors of sugar supplies for beekeepers. It was probable that we should have to be satisfied with raw sugar, as they could not guarantee to supply 1A.

Benzine.—It was stated that beekeeping was classed as an "essential" industry, and beekeepers could demand their proportion of the available supply.

Mr. C. F. Ryland (manager) advocated the two Associations working together to insist on the reduction of freight by repeated deputations to the Prime Minister. Mr. Ryland spoke on the ravages of disease learnt by him on his recent tour, stating that in one district alone it was computed that at least 200 tons of honey were lost through this curse. He stated this particular district had not been visited for about five years, and it was one where the finest honey could be raised, there

being thousands of acres of lucerne. Mr. Ryland stated that the H.P.A. had hoped to have had a system in working order this year that would relieve the graders a very great deal; but there was more work entailed than was anticipated. It would be next season before the system would be in operation.

Mr. E. W. Sage and Mr. Jas. Allan both computed their losses in bees, combs, and crops to be well over £1,000 each, and considered it was time to put our demand for greater protection in such a way that the Government would be compelled to listen.

The meeting then adjourned.

The Question of Packing Honey for Market.

By way of introduction, let us first glance at the position as it is at present. In so far as honey for shipment is concerned, each producer has this work to do for himself, which really means that each producer is a law unto himself, notwithstanding the H.P.A. regulations, and that a neatly got up standard pack is unattainable. To make this clear, let us look at what is being done in our cheese factories. We are all well acquainted with the neatly got up pack of the cheese as put out by the factories. Would that be possible of attainment, under any regulations whatever, if the individual dairymen had to pack their own produce? We know that, no matter how good the intention of the men, under dairy farming conditions this could not be done. Neither can it, nor will it, ever be done by the individual beekeepers. There will always be a decided contrast between those who do their work neatly and those who do it carelessly, and the effect when it is grouped for shipment will always be a standing rebuke to the system. This is so plain that I need not further enlarge upon it.

There is another difficulty that we are up against in individual packing. None of us can tell what quantity of containers to stock. The results from our apiaries are so dependent on weather conditions that it is quite impossible to judge what they will be with any degree of accuracy, and thus we find ourselves either hung up in our extracting for want of containers or carrying forward a large stock of very expensive material from one season to another. Most of our beekeepers will hear me out that there is a very real difficulty here.

We are dealing with the whole question in outline, so cannot get closer to our subject. We rely on the two points we have made that so far as individual packing is concerned, we cannot get a neat

standard pack, and so far as containers are concerned the stocking of them will be expensively uncertain.

Looked at from a co-operative point of view, individual packing is always going to have a disintegrating effect. As the seasons go on we will try by regulation to improve our pack, and under regulation the individual will chafe. Discontent, as we know it just now, and as under this system it will always be, gives the opportunity to our opponents to make headway and lure away those who feel that they are not being justly treated. We are always striving to prevent dissatisfaction, but if our system is such as to be continually producing it, then we will strive in vain.

I do not wish to probe our difficulties any deeper, but just enough, so that by contrast the proposal to institute the depot or factory system may show what is aimed at in that system. The proposal we make is that we should copy the dairy factory system, which has been brought to work so perfectly and so harmoniously in connection with the dairying industry, and adapt it to our honey industry. Milk is a bulky product, and consequently factories require to be numerous. This is all the more necessary because the product deteriorates rapidly, and if any attempt were made to centralise the product, it is not unlikely that a dismal failure would result. With honey it is different, and it is not improbable that a depot or factory in connection with each shipping port would, in the meantime at all events, fully serve all requirements. Honey under ordinary careful management does not deteriorate, and can be sent to any distance or wait any length of time for handling. Then again, in the case of milk, a process of manufacture has to take place: the product, butter or cheese, is eliminated from the milk by a process of manufacture. In the case of honey, we are dealing with a finished product: no process of manufacture is required; but while that is so, we are dealing with a product that has an infinite variation in colour, flavour, and texture, and this naturally constitutes our most serious difficulty in selling. It is necessary, if we are going to get and retain a market and be able to sell on grade, that we must standardise not only in package but in quality, colour, and flavour of the product. To do that will require in our honey factory a plant in many respects similar to that used in a cheese factory. Each producer's honey would be received in a receiving vat on scales, being sent to the factory in returnable containers (an ordinary eight-gallon milk-can holding 100 lbs. of honey would be very suitable for this purpose). It would be weighed and tested for colour, flavour, and specific gravity, and a docket filled up giving these particulars, a copy of which would be sent to the producer. After a sample had been taken for future reference, the honey would lose its identity and be run into a five-ton mixing vat

(1,000 gallons). In this vat the honey would be thoroughly mixed to produce an even grade throughout in colour, flavour, and texture. A sample would be taken from the vat for Government grading purposes, and then the honey would be packed in suitable containers for the market. These, after satisfying Government grading regulations, would be properly sealed, and the honey made immediately ready for market.

It is not necessary for me in this article to go minutely into the difficulties that would naturally present themselves in the carrying out of this project. Honey is a thick, sticky fluid that would be difficult to handle, and it is not improbable that a hot-air room would be required, and also a steam-heated double-jacketed vat with mechanical mixers to keep the honey moving; but there is no insuperable difficulty. A suitable plant for the work is easily attainable, and will certainly not be expensive.

Before dealing with the question of the control of the packing depot, let us take stock of the advantages to be gained through this system:—

1. As it affects the producer.—Having his supply of returnable containers (eight-gallon cans), the question of containers becomes a thing of the past. He can concentrate on the production of honey, knowing that the packing will be done cheaper and better than he could hope to do it. His returnable containers will become part of his plant, and will, with ordinary care, last a lifetime.

2. The question of granulation, like that of packing, will cease to have any terrors for the beekeeper. The honey will be delivered as quickly as possible from the extractor. I do not know that there is any set of producers in the country who have been made quite such big fools of as the beekeepers over this question of granulation. Under the factory system the honey would be packed, graded, and shipped fluid. Neither the producer nor the factory manager will want to see honey granulate, and all their efforts will be to prevent it.

3. Payment.—This will probably be made on similar lines to that adopted by the Dairy Companies. A pay-day in each month will be fixed to pay out for all honey received during the previous month. Such an advance will be made as the market seems to warrant. Honey delivered from the extractor in January will be paid in February. Contrast this with piling up the honey for granulation, then waiting for grading, and the glorious uncertainty as to when the cheque is going to make its appearance.

4. The position as it affects grading.—Perhaps nobody will welcome more the factory system than the Apiaries Department. Grading of honey will be tremendously simplified by the bringing of the honey up to a standard, and turning it out in bulk of equal colour, flavour, and weight. As

things are at present, the Apiaries Department is attempting what is well nigh impossible, and getting no satisfaction out of it. All credit is due for what has been done, but grading of individual lots will never be satisfactory.

5. As it affects the principle of co-operation.—Co-operation, as I understand it, is the joining of hands for the common weal. The honey industry is small compared to the dairy industry, but just what the factory system has done for dairying, it will do also for beekeeping. Give our H.P.A. a standardised article to sell for us, and it will have no difficulty in getting in before rival firms who are dealing only with an individual pack and an unstandardised article. Co-operation in dairying has meant joining hands in delivering to one central depot the whole of the milk produced on the farm, and having it manufactured under the best conditions, producing a uniform article of the best quality, and which can be sold long before it is produced on a grade note. Co-operation in the fruit industry means the joining hands in delivering the fruit to one central depot, but not for manufacturing purposes, but simply to grade and pack, and thus produce a standard article. In this fruit more nearly resembles honey, only in fruit it is a simple sorting out of the sizes and characteristics of more perfectly grown fruit so as to produce a standard article, while in honey it means the thorough mixing of each class, be it light amber, medium amber, or dark for the same purpose of producing a uniform article in each class.

I had purposed to go into the question of "depot control" in this article, but it is too big a question to tack on to what has already been written. Suffice it to say that I question if our present organisation can handle it. I am a director of a fruit company, a co-operative concern, with a nominal capital of £50,000, a large proportion of which is allotted. We have worked at this idea of handling a number of packing depots for three years, and have to admit failure; and as a result we have invited our shareholders to form groups, each of which controls its own packing depot, and is registered under the Industrial and Provident Societies Act. We have done this because the Americans, with 15 or 20 years more experience than we have got, have had to do it. Told of our company, they simply shook their heads, and said "we have come through that, and you have got to go through it too." It is the old story, "experience is excellent tuition, but the fee is very high." The H.P.A. is on a good wicket; the fact that it has a guaranteed payable price means much, but it must also have the confidence of its shareholders, and in my opinion centralisation is not likely to produce that confidence. Local control is far more likely to beget confidence and to retain it. In the dairy industry local control has done its work effectively. In the fruit industry the Americans tried centralisa-

tion, and had to retrace their steps. In Nelson the same holds good, and we are trying to get there as quickly as we can. It is my opinion that the same will be found to hold good with honey as soon as we adopt the factory system.

JAMES ALLAN.

EDITOR'S NOTE.

The above article will give all commercial beekeepers food for thought, and whilst we like some of the proposals, we do not agree with all the arguments.

Each beekeeper is not a law unto himself; he is bound by the departmental regulations which, if he breaks, he is penalised. No matter what system is eventually decided upon as being best, some men will be careless. Surely the present regulations are simple enough; in fact, they could hardly be improved upon for a minimum of trouble. Some of us remember the bad old days when, to get rid of the crop, meant putting it up in small containers. The Editor remembers one year putting up over three tons in 1-lb. glass jars, each of which had to be handled seven times before finally disposed of, for which the nett return was more than 2d. per lb. less than the advance we now get for just filling a 60-lb. tin and putting two in a case.

We hardly think it a fair comparison to place the possibilities of the individual farmers packing their own butter and cheese, the qualities of these being determined by the process of manufacture. Beekeepers in good clover localities will get a good clover honey, and with just common-sense handling will secure the top price. We do not think any shipment is a rebuke to the system, but rather the rebuke is on the man who, through carelessness, loses points and thereby money for the want of taking a little trouble.

We quite agree with Mr. Allan that the ordering of one's containers for the season presents difficulties, and it is not the most desirable arrangement that one orders their tins and cases from the H.P.A., which are returned to them filled, and the freight paid both ways. It would be a decided improvement to save this if it is possible.

The Editor has had experience with the dairy factory system in handling honey, as he was in charge of the H.P.A. receiving depot at Normanby for two years, and part of that time we were receiving honey on this system. But here again difficulties presented themselves, as some of the suppliers argued that as the honey was all going into the tanks in the liquid form, and would remain there for the seum and impurities to rise, it was not necessary for them to trouble about this at all; so the honey was sent just as it came from the extractor, which we all know contains a good bit more than honey. On the other hand, the careful man sent his honey without a speck of wax, seum, or bees.

We will not enlarge any further on the matter, as we should like our readers' opinions, but will just say this:—The H.P.A. had eliminated our marketing difficulty. The Department has framed a few simple regulations to ensure our produce arriving on overseas markets in a standard package, and these two combined have created for the commercial beekeeper a heaven compared with the chaotic conditions ruling a few years ago. The Prime Minister (Mr. W. P. Massey) a few days ago, in replying to a deputation of farmers waiting upon him, said the cry to-day is "What is the Government going to do?—looking to the Government all the time." We are afraid the beekeepers are getting to view the H.P.A. in the same light—looking to the H.P.A. to solve the difficulties, which would not exist if each individual did HIS part to the best of his ability.

Fertilizing Drone Eggs: an Experiment.

By GILBERT BARRATT.

[NOTE.—The following article is taken from the American Bee Journal, and is one of the most interesting experiments we have yet read.—Ed.]

The statement by Dieckel in Germany and Simmins in England that queens lay nothing but fertilized eggs, and that in the case of eggs laid in drone-cells the fertilizing element is removed by the workers, led the writer, in view of later investigations, to prove or disprove this theory.

A frame of drone-comb was placed in the middle of a strong colony, and the following day was examined. Fortunately the queen was found in the act of laying in this comb, and immediately she had withdrawn her abdomen the cell was closed with a pen-knife, thus preventing any worker touching the egg. Four cells were closed in this manner, the piece of comb cut out and placed in an incubating chamber running at 97 degrees. The next day a little royal jelly thinned slightly with new honey was placed on each egg with a hair pencil. These eggs duly hatched, were further fed until larvae were two days old were then transferred to artificial queen-cups; they were then given to a colony that had been deprived of its other combs being given from above an excluder. They were all accepted, and on opening were found to contain dead drones. This experiment was very carefully conducted, and not the slightest opportunity given of allowing any bee to touch the eggs until hatched and larvae two days old.

The investigation in view, providing the above theory was disproved, was to fertilize drone eggs. Freshly laid drone eggs from a pure golden Italian queen were secured, the comb containing them cut down, and pure Punic drones just arriving in the hive after a flight, were squeezed over the eggs, in the hope that a spermatozoon would enter the micropile of the egg and thus fertilize it. The reason Punic drones were chosen was to provide as great a contrast as possible, seeing that the Punic is intensely black, and possesses several distinctive features. The queen chosen for the eggs was one producing the lightest and yellowest bees. These eggs were then treated exactly as in the foregoing experiment, and produced extremely dark queens, considerably darker than leather coloured Italians. Several queens duly mated, some to yellow and some to black drones, but nearly all workers, showed unmistakable evidence of Punic blood. Drones returning from flight were selected because, the air sac being distended, the expulsion of the male sperm was facilitated.

The eggs of a mismatched pure golden queen were the subject of the next experiment, and pure golden drones used; these produced bright golden queens, and, finally, the eggs of a drone-laying virgin were tested in the same manner, these also producing queens exactly as in preceding experiments. We therefore have the anomaly of pure queens from a mismatched mother, also queens from a virgin.

The value of these investigations, apart from its entomological interest, lies in the fact that all queen breeders who are building up a high-class strain can DEFINITELY introduce any given blood into that strain, and, owing to the comparative simplicity of the process, should interest all queen breeders.

The writer was not successful in fertilizing eggs from Italian fertile workers, nor was the experiment successful when using eggs nearly due to hatch. The age of the eggs may be easily determined by their position in the cells, a newly-laid egg being stuck point downwards, and gradually leans over until the third day, when it is quite flat. It will be interesting if Dr. Phillips or Mr. Pellett will try this out, and give the results of their investigations.

Sheffield, England.

[Parthenogenesis is no longer a theory, because it has been proven so many times over. But the above experiment is interesting, nevertheless, because it gives us a new idea, something which we believe has never been tried before, or at least never recorded. Fertilizing drone eggs in this manner looks plausible, at least for the sake of experiments. We trust our investigators will give it a fair trial.—Ed.]

Honey Store for Timaru.

The Timaru Harbour Board (says the Christchurch Press), at its meeting on 27th February, decided to erect a honey store for the New Zealand Co-operative Honey Producers' Association, the Association agreeing to pay a rental equal to 6 per cent. per annum on the capital cost, and to take a lease for 21 years, if a building suitable to their requirements were erected. The Association promised not only to bring South Canterbury, North Canterbury, and North Otago honey in to it, but also to make the Timaru centre the main depot for the whole of the South Island trade in beekeepers' supplies and honey required throughout the South Island, and perhaps to some of the North Island ports.

New Zealand Honey.

AMPLE SUPPLIES IN LONDON.

LONDON, November 27.

It is good to see New Zealand honey, sold as such, once again generally procurable as put up in the very attractive one-pound cartons of the Bristol Dominions Producers' Association. Special displays of this are at present being made at quite a number of London stores and grocers' shops. When shipments first came to this country before the war, the honey was admitted by authorities to be of the finest quality in the world, and surprise was felt that so few tradespeople here knew so little at all about it. As the result of the propaganda work of the Association (of which Major A. G. M. Norton is the managing director), the honey is now obtainable in practically nearly every large centre of the United Kingdom. Of course, owing to the lack of shipping space during the war there was a break in the supplies for about a year, but since the armistice and the consequent increase in shipping facilities, it has been possible once more to obtain a sufficient supply to meet all needs.

The object of the Association, which is really comprised chiefly of New Zealand producers, is to take their produce as directly as possible to the consumer in this country, and thus eliminate all unnecessary middlemen's profits. The Bristol Company has successfully introduced under its own particular brand, not only honey, but jams, canned meats, and in fact every commodity that is shipped from New Zealand to this country.

The Bristol and Dominions Producers' Association, which is a successful concern of six years' standing, is financed by Aus-

tralian and New Zealand producers, and by commercial men interested in the port of Bristol.

In the course of a week or two one of the Strand windows of the High Commissioner's office will be filled entirely with the New Zealand honey. The original cartons—cream and green—used by the Bristol and Dominions Producers' Association—always attractive—have been made still more so by the introduction of sprays of pink clover. The "get up" will no doubt be an incentive to new purchasers, who are always more likely to be interested in a product whose containers appeal to the eye. The present retail price is 1s. 2d. per carton.—Christchurch Press.

The following clipping from the Hawera Star was sent us. It is always interesting to read how others look on our industry. The "savage Italian bee flopping about stinging in a sullen and vicious manner" is good:—"The mention of honey recalls to my mind the halcyon days when beehives were plentiful in the virgin bush and around the homes of settlers. Now one has to go well back in the heavy bush to find a colony of the busy little insects, and unless one goes in for the regulation hive and its multitudinous accessories, one dare not keep the tame bee now. So, also, one never meets now on a summer morning the cloud of swarming bees which was a regular occurrence in olden days. 'Nous avons charge tout cela.' Instead of the candle box hive, costing nothing and yielding its quota of 20 lbs. to 50 lbs. of honey without any expense, we are now obliged to keep the frame hive, with its costly outlay and little additional yield. Small wonder that the price of honey has increased from 2d. per lb. to about seven times that figure. Also, the nature of the little creatures themselves seems to have changed. Where formerly they defended themselves vigorously only when attacked, now they seem to fight at sight. Man-handled and torpid, they flop about aimlessly, and sting with a sullen, vindictive malice unknown to the clean-fighting little bee of the old colonial days. I have chopped out a hive of bees from a fallen matai and been pelted with stings from the gallant little fighters so that my hands looked as though drawn through a thistle bush—and felt no ill effects. Now if one gets stung once or twice by the savage Italian bee, 'the potent poison,' as with Hamlet, 'quite overcomes his spirit.' There appears to be no reason, in a country like this, why honey should be such a price. 'Eat of honey,' says Proverbs, 'for it is good, and the honeycomb sweet to thy throat.' We all recognise that honey is good, yet some of us wonder why it should be so utterly out of our reach. We believe there was a time in New Zealand when you could buy good butter at anything from 2d. per lb.; legs of mutton for 6d. each, &c., &c. Whether they were halcyon days from the producer's point of view we very much doubt.

Beekeepers in the Supreme Court.

It is not often that beekeepers occupy the time of the Supreme Court, but an interesting case, occupying three days, was brought before Mr. Justice Herdman at Christchurch, when Mr. E. G. Ward was the defendant in an action brought by the executors of the late R. N. Gidley, who was killed at the war, claiming £762 damages for alleged breach of contract in neglecting to work the bees to the best advantage. Both sides were represented by counsel, and many witnesses were called, Mr. L. Bowman, late apiary instructor for Canterbury, being the chief witness for plaintiffs. After hearing all the evidence the Judge, addressing the jury, said the point they had to decide was which evidence they would accept—the defendant's or that of witness Bowman for the plaintiffs.

After considering for five hours, the jury returned with a unanimous verdict for the defendant, with costs allowed on the highest scale.

[Friend Ward, accept our hearty congratulations.—Ed.]

Hard to Beat.

PARTICULARS OF OUT-APIARY AT TE NGAE, ROTORUA, RUN BY F. E. STEWART.

Taken over from a Maori in October, 1918, the apiary consisted of one medium strength and four nuclei, all in butter boxes with roughly made frames, with combs all criss-crossed. Transferred to ten-frame well-made benzine-case hives. Three weeks bad bee weather necessitated feeding, and one nucleus died. Replaced latter with Italian three-frame nucleus, and Italianised the other four in November. Took 150 lbs. honey in February, 1919, and divided into ten medium strength colonies, each wintering with a fair amount of stores. Gave each a 3 lb. block of candy at end of July. In August transferred all to switchboards, but did not succeed in getting early queens, which must be obtained to secure maximum results from the hand-board. The photograph shown on the cover was taken on 8th February last, and shows the wonderful progress made, one colony being seven storeys high, though practically no honey flow occurred in January, or more tiering up would have been required. This outyard is in most uninviting-looking bee country, and adjoins a small sheep farm. These bees will be divided into 25 colonies in February.

Kia Ora, 11/2/20.

F. E. STEWART.

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,—During the past six months many requests have been received by the directors of the H.P.A. for meetings to be held in various parts of New Zealand at which beekeepers could come together and learn direct from the management about the doings of the N.Z. Co-operative Honey Producers' Association (and perhaps its misdoings), and the future policy to be adopted by the Association in regard to the marketing of honey. It was realised by the Association that many beekeepers throughout the Dominion had not the opportunity of getting to our annual meetings, nor to the annual Conference, and consequently were not sufficiently conversant with the working of the co-operative movement and its value to each beekeeper. Consequently, at the wish of the directors of the H.P.A., I started out at the end of January on a six weeks' journey throughout the Dominion.

Largely with the aid of the various Branches of the National Beekeepers' Association, meetings and field days were organised, which were well attended both by shareholders and non-shareholders of the H.P.A.

Meetings, &c., were held at Blenheim, Cheviot, Rangiora, Christchurch, Barrys Bay, Geraldine, Mosgiel, Balclutha and Invercargill in the South Island, and at Masterton and Hastings in the North; and in addition many beekeepers were visited at their own apiaries.

Arriving at Cheviot, I picked up Mr. John Rentoul, Chairman of Directors of the H.P.A., and had his company during the South Island tour. Beekeepers everywhere expressed their pleasure at Mr. Rentoul's presence, and his addresses to beekeepers, both on technical matters and also on the policy of the H.P.A., were greatly appreciated.

In addressing the various gatherings of beekeepers, we endeavoured to give a straightforward account of the operations of the H.P.A. since the inception of the movement in regard to the marketing of honey. We gave figures to show that each year the Association had increased its sales of honey; each year had shown an increase in the quantity of honey sent in by shareholders; each year had shown an increase in the returns to the producer. It was shown that in five years the amount of honey handled by the Association had increased from approximately 10 tons in 1914 to over 600 tons in 1919; that during that period the sales made by the Association had increased from £475 to just short of

£50,000. Shareholders had increased from 25 to just under 600, while the returns to the producer had more than doubled. We endeavoured to show beekeepers that the present prices being obtained in New Zealand for their honey were entirely due to the operations of our Association, which had taken hold of the surplus honey produced in New Zealand and had found other markets for it, thus preventing a glut of honey offering for local consumption, with the resulting slump in price, and permitting a steady sale of honey on the local market, with prices on the upward grade from year to year. We pointed out that the beekeepers in the Dominion produced at least 500 tons more honey in each year than the population were prepared to consume, and that unless we were prepared to stabilise the market in the Dominion, and deal with this large surplus quantity of honey by the creation of an overseas trade, there would be so much honey offering each year in New Zealand that the producer would be forced again into the hands of the speculator, and the price of honey would fall again to the prices ruling not many years ago, when numbers of beekeepers had to accept 2½d. and 3d. per lb. for their honey. We endeavoured to lead beekeepers everywhere to realise that only by having their own marketing association, by controlling that organisation, and by all beekeepers giving it their support could the honey industry make progress in New Zealand, and that only by united effort on the part of all beekeepers could the people of the Dominion be encouraged to develop a taste for honey and to use it regularly as a food.

There is evidence that the visit has opened the eyes of beekeepers generally to the wonderful manner in which the H.P.A. has served the industry during the few years that it has been in existence, and that this year will see a much stronger co-operative movement, with the infusion of a good deal of new blood.

We very greatly appreciate the manner in which we were received at the various meetings, and our thanks are due to very many beekeepers who went to no end of trouble to arrange meetings, to provide us with hospitality, and to make the tour a success.—I am, &c.,

C. F. RYLAND,
General Manager.

Auckland, 23rd March, 1920.

(TO THE EDITOR.)

Sir,—Seeing the apiary boundaries question is about to drop, I would like to say here we will be doing a foolish thing, to my mind, after going so far with it, and, like others, I fail to see it is impossible. Say we can't, and let it drop. I have heard it said there is no such word as can't, or can't has no meaning. Now we are all inventors of a kind, and surely we have the right kind in the ranks of New Zealand beekeepers to get over this problem. Personally, it is not in my line or class of thought, but to those who are

foremost in this I would say, "never say can't," and in the end we will get what we are after. It does not require a very wise man to see the need of such a measure is not far off, and as it may take some time to get it advanced to work smoothly, there is more reason to keep it going now.—I am, &c.,

C. SMEDLEY.

Te Awamutu, 9/3/20.

[You will see by the decision of the Executive this matter is still open.—Ed.]

(TO THE EDITOR.)

Sir,—In reading "Canterbury Tales" in the last issue of the Journal, Mr. Ward states that Mr. Pender, of New South Wales, is against the use of excluders. I read now and then about this man and that man saying that excluders are no good, but I have yet to talk to the man who can give a sufficient reason for the statement. In a season like we have had in Hawke's Bay this year, I defy anyone to take honey off the hives by brushing or shaking unless clad in armour; you must use escapes, and to use escapes you must use excluders. Some will say it curtails the laying capacity of the queens. That is the beauty of them, as I for one do not want my queens providing a lot of useless mouths to feed while the flow is on. Another will say it means honey-bound brood chambers. Well, I find that unless it is run for comb honey, I have to put combs of honey or feed to fill brood-nest for wintering. Another will say my bees will swarm sooner than go through the excluder. Well, this year has been a lean year as far as getting a surplus is concerned, but in several cases I have found honey going into the top super, the bees coming through the excluder, putting honey in two drawn combs in the centre super, and the flow not being heavy they did not draw out the seven frames of foundation, but passed through on their way to the drawn combs above, and the brood-nest empty of honey.

Now, as I am open to be shown, I would like some of your readers who do not use excluders to give me some points, as personally in my management I cannot do without them. As Mr. Ward says, it would form a good discussion for Conference, and I hope this letter will break the ice and let us excluder men into some of the other fellow's secrets.—I am, &c.,

H. SHEPHERD.

Hastings, 6/3/20.

[This matter will be fully discussed at Conference.—Ed.]

(TO THE EDITOR.)

Sir,—As one who for many years was a press and commercial photographer, may I congratulate you on your photographic reproductions. They are decidedly an acquisition to your already well-appointed Journal, and will without doubt largely help to increase its popularity and circula-

tion. Is it too much to ask for further additions to the "portrait gallery" of our prominent beekeepers. They would be especially interesting to the "newlycomers" and those unable to attend the yearly meetings.—I am, &c.,

F. W. DUTCH.

Rakia, 4/3/20.

[Modesty is a particular failing with beekeepers, friend D., but perhaps your letter might bring a few to light.—Ed.]

(TO THE EDITOR.)

Sir,—In your February issue, Mr. J. E. Yeoman gives an excellent description of his method of converting petrol cases into hives; but as far as I can judge his hives will not be interchangeable with the standard hive in use in this country, which I consider is a serious drawback, as sooner or later the average beekeeper will have trouble and delay if he purchases bees and hives. To avoid this, knock your cases to pieces, as described by Mr. Yeoman, then cut all the side pieces exactly twenty inches long (most benzine and kerosene cases will be found to have sides about 21 inches in length). Plane the end pieces down to 9½ inches deep by 14 inches in width, if not already this size, then before nailing up place them in a vise, and cut a rabbet along the top of one of the long edges three-eighths by three-eighths for the frames to rest upon. A Stanley "45" plane will be found the best tool for this purpose. Remove from the vise and nail together, having previously ripped the side pieces to 9½ inches in width. Then nail ½-inch pieces about two inches in width along the upper outsides of each super, having the top edges level; these pieces will be found useful for gripping the hive when carrying, and will bring the total width of hive up to 16 inches, the same as the standard "Alliance" hive. I do not consider that there is any need in our mild climate to have the sides double or one inch thick all the way down, as Mr. Yeoman advocates, for I have often wintered bees without loss in hives having only three-eighth sides; neither do I consider it necessary to go to the trouble of boring the end pieces for hand grips, though they may be useful upon occasions. When carrying, a hive should always be gripped by the sides and held end on to oneself; if carried with a side next to oneself the combs are liable to be broken through being shaken by the motion of the body when walking. I will not make any comment on Mr. Yeoman's covers and bottom-boards, as they would be hard to improve upon. When completed, the hives should be given at least two coats of good paint of almost any colour except white. I have tried practically all the white paints on the market, and find they all chalk off after a few years' exposure to the weather.—I am, &c.,

A. W. WESTNEY,

Mangere, Auckland.

(TO THE EDITOR.)

Sir,—Some time ago I had a visit from the Government bee inspector, and as my bees had a bad attack of foul-brood, he instructed me to get rid of it. I followed the method in your book, "Beekeeping for Beginners," only in disinfecting the frames and hives, I boiled them in a strong solution of caustic potash made by boiling a kerosene tin full of wood ashes for one hour in a forty-gallon copper. The solution was so strong that it dissolved the paint off the hives and turned the wax on the frames into soap, which was very easily scrubbed off with a brush, at the same time completely disinfecting everything. But I have decided it is better to go in for new frames and hives; so I am busy transferring.

"I am trying hard to please
The inspector of the bees,
I am going through the boxes one by one;
I am dreaming of the money
I'll be making out of honey
When the autumn leaves are falling
And the winter's come,
I'll have to sell some wax
To pay my income tax,
And when Massey floats the next big loan,
What I'm going to do to help New Zealand through—
I'll lend the Gov. a million on my own!"

—I am, &c.,

O. B.

Kahikatea, Greymouth, 18/2/20.

CARBOLIZED CLOTH.

(TO THE EDITOR.)

Sir,—Most of us think that smoke is the only method for controlling bees. It is not. Water—very fine spray, of course—is largely used on the Continent of Europe, especially in queen-rearing. I used it a great deal at one time, but do not particularly like it. It has this advantage over the smoke, that the queen can be found when fine spray is used, whereas if you use smoke you stand very small chance of finding the queen. To reduce a savage hive to reason, I had on some occasions to reduce it to almost soup, and that is awkward, although they soon dry out. Before I go on I will make a couple of remarks on smoke. Have the longest smoker possible; burns longer, is less likely to set the house alight, and is more effective at the subduing business. Sometimes savage bees buzz around your veil in a cloud, and pursue you all over the

place, making things very uncomfortable; just open up the top of your large smoker and work it up smartly till it almost or quite throws up flames. I use sacks on my smoker; cleaner than wood and not so hot; then holding it about on the level of your eyes, and still working it well, swing slowly on your heels for a bit, and you will be pleasantly surprised.

Now, as to the carbolized cloth. I always have two on commission. These were made of flour-bags when these were linen, before Champion got to champion the cause of the people too much. They measure 20 in. by 24 in.; mine are 10-frame hives. I use Calvert's No. 5 carbolic acid. Acid less pure makes the cloth very stiff, as if it had a dressing of coal-tar, and then it has to be boiled out. When the cloth is new or had been boiled out on soap, washed and dried, I saturate it in this manner:—I have two bottles just like the full-grown beer-bottle in shape, only a quarter of its size, holding about seven ounces. Into each of these I put one teaspoonful of Calvert's No. 5 carbolic acid, and fill it up with water. Acid and water do not combine, so I shake it up. The cloth is put into a billy to lie as evenly as to thickness as possible on the bottom; the bottle is inverted, and with it open I sort of knead the cloth until saturated. On a cloth new or just washed and dried this operation has to be repeated three or four times before the cloth is just right—i.e., thoroughly wet, but not dripping. I always have the little bottles ready with acid and water in, and whenever the cloth gets dry I wet it as above described. I never use a cloth dry; much more effective when wet, and easier thrown on. And therein lies the secret of success: throw the cloth on as soon as the cover is off, before any of the bees can escape to make a nuisance of themselves. I use the cloth to control or to subdue only, often alone during the honey flow, and have no trouble in finding the queen when I do use it and do not use smoke; but after the honey flow has just let up or ceased, when bees seem to be more numerous and more hot, smoke and carbolized cloth are a good combination. Mistakes will happen, but when I leave the cloth on a brood-chamber long enough to stampede the bees and drive them out, I consider that once more I have made an ass of myself, and more than once I have lost a good queen that way. On nuclei I use carbolized cloth exclusively; it does not excite. I keep my cloths in an enamelled billy with a good lid. Notice here that I do not use that unspeakable atrocity, the mat. I was asked to write an essay on the mat, but how can I, when the Editor will not allow me to swear? The fault is entirely his, and I think he had better write that essay himself. Poor Editor!—I am, &c.,

STEPHEN ANTHONY.

Coromandel, 9/2/20.

Answers to Correspondents.

A. H. Oamaru.—Many thanks. Journal has been sent. You did not put town, so presumed it was Oamaru.

W. J. H. Springthorpe.—It is impossible to give a verbatim report. Sorry! Why not try and transfer the bees from the paper?

J. G. Edenale.—Many thanks. Journal sent.

J. McP., Woodside.—We shall have to take a course on the Gaelic language if you Scotsmen will persist in sending your compliments in that tongue. Anyway, friend Mac, we do not play the fiddle, and if reports be true, the 'lyre' would be more suitable for us.

Bees and Beemen of Old.

By BASIL H. HOWARD.

(Continued from February issue.)

Their stimulus to work is instinctive love of gain and possession. Their work-day is mapped out from dawn till dark with its allotted tasks. They are sagacious and wise, for they always give a due period to rest and recuperation, and never venture far beyond the hives in rainy weather. As a further proof of their sagacity, if overtaken by a wind storm, they ballast themselves with pebbles. Aristotle and others remark on this. Has any modern beekeeper ever noticed bees doing so in bad weather? They sacrifice themselves to their industry and the individual, intent on the welfare of the community, has no regard for itself. You will see a bee give up its last breath in an attempt to reach home with its burden, even though the relinquishing of the load would allow it to reach shelter and renew its lease of life. It is by these qualities that the permanence of the race is secured. The duration of their life never exceeds seven years. Aristotle extends the period to nine or ten years. Pliny remarks that their life is very long, generally about seven years, but never more than ten. Some people, however, he says, believe that if dead bees are kept under cover during the winter, with warm figwood ashes, they will come to life again! Their sovereign commands their unique loyalty, veneration, and love. They gather round him in eager, dressing crowds; often bear him aloft on their shoulders; in battle they deem it a glory to sacrifice themselves for his safety. These qualities, some argue, prove that

their origin is divine, and that they have a share in the world spirit, the common source of all life. I might add that this is one of the fundamental ideas of Vergil, who conceived nature and all things governed by a Universal mind—or, if you will, "one all extending all preserving soul." Tennyson addresses Vergil thus:—"Thou that seest universal Nature moved by universal mind."

I have held over till now the discussion of the ancients' ideas on the generation of bees. In this I have not followed strictly the sequence of Vergil's ideas. That the ancients could have believed as Vergil did opens wide the eyes. He says in short: "It is remarkable that bees do not breed nor unnerve their bodies with the languor of love, nor bring forth their young in travail, but by themselves (i.e., without the male) gather their young from flowers and herbs." This myth was borrowed from Aristotle, who mentions that the young were found on the cerintus, on reeds, and on olives. Pliny, writing one hundred years later, is more modern in tone; his discussion is somewhat lengthy, but in view of the recent word war re-cuddling drone, I think I may justly give it in full. "The generation of bees has given rise to much keen inquiry by scientists, for the reason that bees have never been observed in the act of coition. Some there are who hold that the bees fashion the young from flowers with their mouths; others that the bees are fertilised by a single male, the king of the swarm. (If Pliny had had a bottle, it would have been to his advantage had someone offered him 15, if he had had some ether.) Those who support this view claim that the king is the only male in the hive; that he is of great size so that he may be equal to his task; that without him there is no breeding; that the rest of the females accompany him, not because he is the king, but because he is the male bee; this they say, gives weight to the theory that the drones are brought forth by a different system of generation. For how is it possible that the union which produces the ordinary bee should likewise create imperfectly developed bees as the drones? The first theory seems nearer the truth (!). But then a difficulty arises. Sometimes here are born at the bottom of the comb larger bees, which drive out the others. This pest is called the gad-fly (?); but how is it born if we grant the truth of the first theory? One thing, however, is certain—that bees brood as hens do. There is first deposited something like a little white worm, which lies on its side in the cell, sticking to the wax—(ye ancients were close observers—at times). The 'king' is not deposited in egg form, but is brought forth with wings, and is the colour of honey. As for the others, the common ruck, drones and workers, as soon as they begin to form, they are called nymphs. If you tear off their heads before the wings have formed, the other bees (their mothers) greedily devour them. Then as time passes they pour in honey, and brood over the cells, buzzing loudly

to make as they think, the heat requisite for the hatching of the brood. This continues until each bee bursts through the membrane that encloses it, and all emerge together. This has all been seen at the suburban villa of a man of consular rank, who had constructed hives with walls of thin transparent horn. (Now, I wonder whether the inventor of the modern observation hive was acquainted with Pliny? The period of incubation is 45 (forty-five) days. (I do not hold a brief for Pliny, so do not expect that I shall explain away these figures; but I shall point out, however impertinent and presumptuous it may

seem, that Mr. Page, a well-known editor of Vergil, in a note says that the egg develops in five days into a grub, which spins for itself a cocoon and becomes a pupa, which in seven or eight days hatches into a perfect insect. As he does not mention whether this is the worker, drone or queen, I take it that the worker is meant). The young are educated by their mothers; several 'kings' are produced lest there be a shortage. When these reach maturity the worst are by common consent picked out and slaughtered." So much for Pliny. So much for the nature of bees.

(To be continued.)

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FOR SALE, Fifty to Sixty COLONIES of BEES; guaranteed free of disease; also several cwt. BEESWAX.

G. J. PINK, Ohau.

WANTED TO PURCHASE, Small HONEY EXTRACTOR. State price and make to

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APIARY FOR SALE, consisting of about Ninety Hives on stands in 13-frame Hives, watertight roofs; Engine Extracting Plant, Tanks, Foundation Mills, Wax, Frames, all usual apiary sundries.

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ONLY ONE! THEN WHOSE WAS IT?

At the Demonstration of HONEY REDUCERS at the Field Day at Ruakura on February 4th last, only one of the three Machines competing got rid automatically of the whole of its slumgum, both of the others having still between the tubes the whole of the solid matter they had left from the combs melted.

Readers scarcely need to be told that the BARTLETT-MILLER MACHINE was completely empty of all solid matter when the demonstration was over. It was the only one with a practical method of dumping slumgum by the mere release of a lever, that resulted in a complete clearance of the melting spaces. NO HITCH AND NO TROUBLE.

As to the device of cooling the honey before it leaves the machine, none but the B.-M. REDUCER even thought such a device necessary—at least to judge by the total absence of all such arrangement on the others exhibited.

That these Reducers are miles ahead of all competitors was amply proved, and it is abundantly evident that all competitors are merely in the experimental stages which B.-M. passed years ago; in fact, some of the ideas held by our competitors are amusing, not to say ridiculous.

One Reducer that had on other occasions been demonstrated was not even heated up, although on the spot. WHY? Was it because the B.-M. Machine so completely knocked it off its feet last year?

To show prospective purchasers how solidly built the BARTLETT-MILLER REDUCERS really are, an amusing episode

of the Ruakura Demonstration will well bear repeating. The steam leads were all attached to the row of machines, and the farm portable boiler was blowing off at 85 lbs. pressure, when it was proposed to test the fixing of the rubber hoses before the crowd arrived. Mr. B.-M. was (very carefully) standing on the steam outlet hose that led away from his own machine, thus preventing any escape of pressure from the Reducer. This of course resulted in the little BOOSTER Machine that was being used taking the full pressure of 85 lbs. of steam. As it was then covered over with a bag to avoid a start at robbing by the Farm bees, nothing was detected just at the time, especially as all hands were busy replacing the rubber hoses which had been blown off the boiler steam supply pipe; but when the bag was removed the sight that met the eye was one to make a cat laugh! That pressure had bulged out the tubes as fat as the most luscious sausage I ever saw, and the roar of laughter that went up from the crowd was enjoyable. It certainly looked to those who didn't know the B.-M. invention, that the BOOSTER was a total and complete wreck. But when they saw B.-M. just press the tubes back again into shape, and proceed with the demonstration as though nothing had occurred, their jibe at the accident took a sudden change to admiration at the adaptability of the Reducer in overcoming so readily and completely what, on the face of it, appeared irretrievable ruin. However, the same machine is now at the Ruakura Apiary, left there at the request of the officials for demonstration purposes, until the stress of orders allows us to send them one without

a hint of damage. But just at present it is the very best advertisement that the mind of man could have devised. Ask our Editor.

We are now caught up on orders, and can place on rail at a few days' notice.

We have been fortunate in procuring a reliable supply of skilled labour, and all work is on the profit-sharing basis, a method that must soon become world-wide.

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to conduct the steam from boiler to Reducer; and we would send this too, but that no two operators will need a similar length, and too short a length is useless. Anyway, rubber hose can be purchased at any store. Price of Boiler complete on rail is 22/6.

As there is a growing demand for the Wax and Honey Separators apart from the Reducers, we are also prepared to supply the Separators alone at 25/- each. As there is a lot of detail in exact measurement in these Separators, we know that nobody without our special plant for making them can compete with this price.

Note.—Unless made to exact measurements, the Separator will not work satisfactorily.

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If you are likely to require supplies, it will be absolutely necessary for you to write us at once and advise:—

1. Number of Colonies to be fed.
2. Period for which Bees require feeding.
3. Estimated quantity to be fed per hive.
4. Total estimated quantity of sugar required from April to December.

(Presumably during some months larger quantities may be required than other months.)

As far as possible the Board of Trade will provide us with White Sugar, but it is quite likely that in order to meet the position we shall have to accept a portion of brown sugar, which has been successfully fed this Winter and Spring to Bees in many districts.

Beekeepers in their own interests should communicate with us promptly, otherwise supplies may not be obtainable later on.

BEESWAX.

We are Buyers of Good, Clean Beeswax in any quantity, from anybody and from anywhere. Write us stating quantity available, and we will advise where to send it. We give highest cash prices, and can do with several tons for the coming season.

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Be advised by us and get in early. Prices are going up. At present we hold large stocks of Hives, Frames, Extractors, Colonial Foundation and American Foundation; also Beekeepers' General Requisites.

WRITE US EARLY TO AVOID DISAPPOINTMENT LATER ON.

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We want unlimited quantities of Beeswax for Comb Foundation making. If you have any for sale we will take it, and offer 2/5 per lb. on rail or steamer any part of the Dominion. Write us for forwarding instructions and address tags. We pay cash within forty-eight hours of the arrival of the wax.

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Colour Range of Workers Guaranteed Leather Three-banded to Golden Faced banded.

TERMS.—Nett cash with order; Cheques to have exchange added.

Any Queen arriving dead replaced free if cage is returned unopened.

NOTES.—Experience in this district shows that it is risky to introduce foreign Queens while swarming cells are general in the hives. Many are killed by the bees and the majority are reduced to the size of virgins, not being fed by the bees allowed to lay for many days. Some Queens during this period are ill-treated by the bees, and, though eventually accepted, may be injured. Before and after swarming season most Queens are accepted at once, and laying freely very soon after being liberated from the cage.

In addition, Customers can rely on getting the very best of Queens after the general swarming season is over.

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