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# The New Zealand Beekeepers' Journal.

Vol. 6.

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No. 7.

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Delegates and Visitors to the Ninth Annual Conference  
at Dunedin, June 1922.

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THE NATIONAL BEEKEEPERS'  
ASSOCIATION OF N.Z.

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# The New Zealand Beekeepers' Journal

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

No. 7

VOL. 6

7/6 PER ANNUM.

## National Beekeepers' Association of New Zealand.

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

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

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

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## EDITORIAL.

The 1922 Conference, the report of which is embodied in this issue, was, in our opinion rather above the average, both as regards the attendance at the various sessions and the interest shown by the visitors. The climate of Dunedin may be cold, but that was neutralised by the warmth of welcome given by the southern members; in fact, we do not remember any Conference where the spirit of good-fellowship was more in evidence.

Although we were rather against the idea of shifting the Conference from place to place when it was first suggested, we are now convinced of the wisdom of the change, as by this means the whole of the beekeepers in the Dominion have a chance to get the "personal touch" with those holding responsible positions in both the National and H.P.A., which makes all the difference to the members of those Associations.

We have published a very full report of the proceedings, which we hope will be read with pleasure and profit by our readers.

## Visit to the N.Z. Co-op. H.P.A.'s

MANUFACTURING PLANT AT  
DUNEDIN.

A large number of visitors to the Conference accepted the invitation of the H.P.A. to visit the manufactory of bee supplies recently purchased from the Alliance Box Co. Ltd. Mr. R. W. Brickell, who is in charge, showed the visitors the timber in the rough state as received from the mills, following it through the various machines to the finished article. The machine for making the lock corners of hive was watched with great interest, also the section grooving machine, the method of shaping end bars, &c., &c. The general opinion was that the shareholders were to be congratulated on being part proprietors of such an up-to-date plant, as all the machinery (driven by electric motors) is in a state of thorough efficiency and right up to date. The whole of the machines are connected to an automatic section dust and shaving collector, the rubbish being carried without handling and fed into the fire-box of the destructor. The system keeps the air pure and the factory clean.

An eight-frame Gould extractor, driven by a 1½ h.p. Mogul engine, showed a very excellent combination for the large bee-man.

The factory is splendidly situated, being right at the railway station, and only a few minutes from the wharf, this ensuring the rapid transit of goods.

It is intended in the early future to enlarge the building to provide for the packing of honey.

## Annual Meeting of the N.Z. Co-op. H.P.A.

The annual meeting of the N.Z. Co-op. H.P.A. was held in the Hall of the Y.M.C.A., Dunedin, on Tuesday, May 30th. Mr. J. Rentoul (chairman of directors) was in the chair.

The meeting was attended by about 50 shareholders.

The Chairman's address was as follows:—

Ladies and Gentlemen,—It has been the custom in the past to always hold our annual meeting at the time of the National Beekeepers' Conference, and the practice has been followed on this occasion. Also, we have followed the practice of having our meeting at different centres of the Dominion, in order to give shareholders from all parts an opportunity of coming into personal contact with the management.

Our Company is the only one of a co-operative nature operating over the whole of the Dominion, and we know that shareholders sometimes feel that they would like to know a little more of the working of the Company, and this can best be obtained by personal contact with the management which this opportunity gives.

In moving the adoption of the report and balance-sheet, I would like to refer briefly to the past history of the Company, so that those who are new members and recently in the honey production industry will realise what the Association has done and the difficulties with which it has had to contend.

The Honey Producers' Association was started in 1914 in Taranaki by a number of beekeepers there. At the same time Canterbury honey producers were endeavouring to form a similar Association with the same idea—that was, to try and improve the conditions that were then prevailing in the honey market. Although honey production in New Zealand at that time was considerably less than it is now, the market at that period could not absorb the quantity that was produced. We had no organised export, and honey producers were consequently at the mercy of the buyers, and the price got so low that the prospects of making a living out of the industry were very remote.

The Company was started with practically no capital, shares being taken up on the deduction basis, but from its inception beekeepers' prospects were materially improved, and from then up to the present we have really never gone back. The work the Company has done for the producer is amply shown in the big increase that has taken place in the industry since its inception.

The Company was formed in 1914. The first two years were difficult years on account of the small supply, and right up to the present we have not really had a normal year of trade conditions, and the difficulties of marketing have been very great indeed.

Shortly after the Company was formed, an arrangement was made with the Bristol and Dominions' Association to pack our honey for us in England; and this arrangement at the time was a good one, assuring a prompt advance to the beekeepers although our capital was so very small. It happened, very unfortunately—and this could not be foreseen—that the Bristol and Dominions eventually proved an expensive proposition for us. During our operations with them we had to contend with the difficulties of the war period, when shipping was not available; and directly the war ceased, the slump in certain products that occurred in Britain proved disastrous for the Bristol and Dominions, and they went into liquidation.

The conditions then in England were such that it was quite impossible to find a market for honey there for a time at any price at all. During a considerable period

of the war, when sugar was tied up, honey was on a free market, and the people of Britain, to obtain sweets, were forced to buy honey at exorbitant prices, most of it of very inferior quality. This so fed the British people up with honey, that when sugar again became available they had little inclination to buy further. This left us without a market in England, and it is only now that the English market is beginning to recover its former tone.

In 1920, therefore, there was no market offering in England; arrangements with the Bristol and Dominions collapsed; and we had about 500 tons of honey to export.

Just at this time there was a demand for produce to take to America—produce that would be saleable there, and in order to dispose of it and get the use of the cash there and thus save the rate of exchange, honey being the only produce that was any good in America at the time, we were able to place our honey at good prices for shipment to America. Immediately afterwards, however, the American market collapsed, and this involved us in a little trouble over some of our sales, in spite of which, however, the business proved very satisfactory. The position of the American market is shown to-day by the fact that we have at the present time a quote from an American firm for 1,000 cases of honey from Honolulu at 5 cents, practically 2½¢, and this honey is all from one apy. It also shows that we are not the only honey producing country in the world.

It became necessary, therefore, for your directors to look around for another and more permanent market, and the arrangements we have made with Messrs. Mills and Company of London are the result of our efforts in that direction. Before going into more particulars of what Messrs. Mills and Co. are doing, I would like to refer briefly to our balance-sheet dealing with last year's operations; and as that balance-sheet deals only with a period which is now six months past, I will give you further particulars of the present condition of the Company.

We did not have a very good run last year; in fact, I do not know any trading concern which did. Besides the ordinary trade depression which set in, we had expenses, some of which we did not foresee, and some which we could not avoid.

With reference to the Bristol and Dominions, when these people went into liquidation they were holding large quantities of our honey, on which they had advanced us 9d. We had had a good deal of argument over this honey previous to the liquidation, owing to the allegation by the Bristol and Dominions of fermentation in large portions of it. After the collapse of the Company, the liquidator, on behalf of the creditors, made heavy claims on us. We, on our part, considered that we had heavy claims on them, and we were naturally put to considerable expense in legal business, cables, &c. The position was such that for us to get a better knowledge of what had really oc-

curred in regard to our honey at Home, to counter the claims of the Bristol and Dominions' liquidator and to substantiate our own, it was necessary to send Home a man to investigate the position. Mr. Spindley, who was our auditor, was eventually chosen to go Home, as we considered that his knowledge of our operations with the Bristol and Dominions would enable him to represent us in the best possible manner. We have now definitely concluded all matters with the Bristol and Dominions' liquidator by relinquishing claims on both sides, thereby terminating what was rather an unfortunate business.

While Mr. Spindley was Home on this mission, it was considered advisable that he should go into the matter of packing there, and complete tentative arrangements we had already made with Messrs. Mills and Co., or else advise us if better were offering. The work that he has accomplished there will establish the Company's Home marketing, we hope, for all time. At the same time, the bulk of the cost was a charge on last year.

The year 1921 was a period of extreme depression in trade in this Dominion. Previous to that, money had been coming freely into the country, war gratuities were being distributed, wages were high, work plentiful, and everyone was in a position to buy freely and buy the best. The advent of 1921 reversed this position; a very large portion of the population had to practise extreme economy, and buying was considerably reduced. This affected the sales of "Imperial Bee" honey very considerably. Packing charges were still up, also wages and other expenses.

In view of the extensive sales of "Imperial Bee" honey in 1920, the Company was optimistic in anticipating a sustainment or increase. This did not eventuate. As a matter of fact sales decreased by a very large amount. Packing charges were still high, and the decrease in sales made the local market a very poor proposition for last year. Now, this local market is the principal difficulty that your directors have to contend with, but I will refer to the matter later.

The supplies business also fell off, but our new arrangements in absorbing the Alliance Box Co. Ltd. will put this business on a permanently good footing.

Our general manager last year went contrary to his instructions, and failed us in three respects. He was instructed, in view of the possible come-down of the market, to buy as little as possible; make all economies possible; and be very strict about giving extended credit. These instructions, unfortunately, he did not carry out, and we were left at the end of last year with more money on our books and more goods in hand than should have been the case.

We had another misfortune last year, which necessitated a change in the position of general manager. I do not know if shareholders appreciate the difficulty of running a Company with a scattered direc-

torate; but I had not been long in my present position before I found that it largely increased the responsibility of my position, and made it very difficult to give the supervision over the affairs of the Company that it was desirable one should.

While matters were going all right the conditions of such management made it necessary that the Board should place a fair amount of confidence in the manager; and this was all right while everything was going well, and the manager was making good. Directly, however, reports of dissatisfaction arose it became a very difficult matter to keep the supervision over the office that was necessary, and the responsibility on the directors became very trying. I took it upon myself at this stage—when complaints from shareholders were received that our former manager was not attending to his duties—to insist that the Board should form a Committee of those members nearest to the office for the purpose of more directly supervising the business and reporting to the whole of the Board at frequent intervals. This Committee later became our Finance and General Committee, with Mr. Clark as chairman, and since that period Mr. Clark has been giving his personal supervision to the work at head office and to finance matters, and has kept the Board in touch with all matters as they occurred. Practically, he has been carrying out the position of managing director. This has been very satisfactory indeed, and Mr. Clark has done excellent work in pulling the Company through a very difficult period. Under his direction, with the assistance of the present manager, the whole working of the Company has been gone carefully into, a general clean-up has been made (stocks of honey of different qualities had accumulated for some time past), supplies stocks have been overhauled, and various economies have been made in the matter of staff and working expenses.

Shortly after the formation of the Finance Committee, it was found necessary to summarily dismiss our previous manager, and the Board appointed Mr. Hugh Fraser in his place.

I would like here to again refer to the local market proposition. This, as I said, is the most difficult proposition that your Board have to deal with. A peculiar position has arisen in the Company having to compete against the competition of their own shareholders in many cases. We started off on the local market packing honey and selling it at a price which would bring in a fair return to producers, providing we could sell sufficient quantity to break down the over-riding charges. Our success in this respect has been considerably marred by many producers—and many of them shareholders—packing against the Company and underselling it. It must be very plain to shareholders that this department of the Company's business cannot prosper under conditions of this sort. Shareholders can hardly blame the management for not giving them good returns on the local market when they are

underselling, bringing the price down, and limiting the sales of their own product. Those who do this contend that they can make more than we can obtain for them; but if this competition with the Company did not exist, I am quite certain that we could return to them more than they are making at present by underselling us or by packing on their own. If this practice of selling against the Company, which is purely your own selves banded together for better marketing, continued to such an extent that the Company could not carry on, what position would you be in then? You can see what other producers are doing with regard to organising and trying to get pools to sell their produce on practically the same lines that we are doing ours, and that alone should be sufficient for us to stick to our own organisation and make the best of it.

I would just like to give you a few figures showing the position of the Company at the present date. We have received up to the present 422 tons of honey for this year. Our paid-up capital shown on the balance-sheet is £6,105 (at date £6,495); shareholders at the end of 1921, 752 (at present 848), being an increase of nearly 100 this year.

It will be apparent to you that our paid-up capital is very small, and I think it is something to the credit of the management that they have been able to finance our operations on such a small capital. The great need of the Company at the present time is more capital and more mutual support from the producers.

Now, what perhaps will be of more interest to you is the progress being made with our English marketing arrangements. When Mr. Spindley went Home, he took some time to investigate possible agencies in England before finally closing with Mills and Co., and this meant some delay in commencing the marketing of our honey last year. However, arrangements were finally made, and packing was commenced by Mills and Co. at the end of February. Thus they have been packing for about three months to date.

Mills and Co. are very optimistic about "making good" with our line, and I think for the short time they have been operating—it means practically opening up a new business—they have got on very well. They had from us last year 878,455 lbs. of honey, and have sold 266,348 lbs.

There was very little discussion on the report and balance-sheet, the feeling being that we had come through a very trying time successfully.

The directors elected to fill the vacancies on the directorate were Messrs. Gibb and Watson.

The Chairman was voted the usual honorarium. He protested that half the usual sum voted would be sufficient, but the meeting was emphatic that Mr. Rentoul's work for the Association was worth considerably more than what was voted.

Mr. Rentoul returned thanks for appreciation of his services.

# NATIONAL BEEKEEPERS' ASSOCIATION OF N.Z.

## NINTH ANNUAL CONFERENCE

HELD AT THE Y.M.C.A. HALL, DUNEDIN, MAY 31st, JUNE 1st, 2nd, 1922.

### FIRST DAY—WEDNESDAY, MAY 31st.

The Ninth Annual Conference of the National Beekeepers' Association was opened in the Hall of the Y.M.C.A., Dunedin, on Wednesday, May 31st. There were about 80 delegates and visitors present. The President (Mr. T. G. Clark) was in the chair.

Amongst those present were:—Mr. J. A. Campbell, Director of the Horticultural Division; Mr. W. E. Goodwin, Assistant Director; Messrs. Earp, Jacobsen, Westbrook, and Gilling, Apiary Instructors; Mr. Attwood, President of the N.Z. Fruit-growers' Federation; Mr. J. Rentoul (Chairman) and Mr. H. Fraser (general manager) of the N.Z. Co-op. H.P.A.; Messrs. J. Cooper, J. Ross, Ogilvie, Forster, Hutchinson, Irving, W. E. Barker, A. Venables, Zwimpfer, W. Pirie, W. Howard, E. G. Ward, B. H. Howard, Hall, May Jun., T. Barr, J. Craig, J. Naismith, Coppin, J. H. White, R. Stewart, Tonkin, Burnet, Barker, Murdoch, Coppin, McLay, Quin, Richards, C. A. Pope, Kitchingham Jun., Wilson, Baty, Simpson, Goodman, McArthur, Bray, Reed, Ball, Kippenberger, Watson, A. R. Bates, W. Booth, Beeby, Gedney, Drummond, R. Gibb, L. Irwin, R. W. Brickell, Winslade, W. D. West, A. J. May, Barrett, A. H. Davies, Whytock, Lilburne, C. J. Clayton, Paterson, R. Garvie, A. M. Bird, D. Collie Sen. and Jun., Pinder, F. C. Baines (Secretary); Mesdames Simpson, M. Thompson, R. Garvie, Bird, May, Winslade, Pirie; Misses Under and Wilson, and others.

The President then called upon Sir William Fraser, M.L.C., to open the Conference, the Hon. gentleman speaking as follows:—

Mr. President, Ladies and Gentlemen,—

The reason of my coming to open this Conference to-day is because of the absence of the Prime Minister. You may imagine him coming down here, having only a few days, and the enormous amount of work he has to do in the time at his disposal. He requested me to come and open this Conference—that is the reason why he is not here and I am.

I do not profess to be a bee expert, but I know something about the industry, because I hold the position of Chairman of the Imperial Repatriation Board, which has assisted a good many of our soldiers

to engage in the bee industry, and they have got on very well. I must say that what we have tried to do was to train them. I need not tell you that it is almost useless to hope to make a living unless you have a technical knowledge in regard to the industry. If a man wants to succeed in it, he must have been trained, because the amateurish kind of work will not answer.

I suppose one of the objects of your Conference is to meet here and discuss the best manner in which to keep bees and carry on to a successful issue. I need scarcely impress upon you that one of the main factors in success in this industry, as in every other, is to be particularly careful that you send to market nothing but the very best. There is another thing, too—that if you hope to succeed you must establish the name of N.Z. honey abroad. You have established a name in England. N.Z. honey, I know perfectly well, is esteemed very highly, and the great need is to keep that good name. See to it that no honey is sent away which is not of the very best, because anyone who does that is injuring the market for all.—(Applause.)

As far as New Zealand honey is concerned, there is a market for it at Home, and the people prefer it to that obtained from other countries. Do your utmost to carry out that object that none but the very best class of honey is sent to England. I trust that you will be able to draw up regulations which will have the effect of making the industry a still more profitable one. The old adage, "There is plenty of room at the top" is still as true as ever. There is any amount of room on the London market for all the honey New Zealand can produce. Keep up the standard that the excellence may show itself.

I am rather gratified to have had the honour of opening this Conference. I was under the impression that it was an Otago Conference; I find it is a Dominion Conference, and I am all the better pleased, more especially as I understand there are delegates present from all parts of the Dominion.

I may say that so far as assistance from departmental officers is concerned, I feel sure the Government will be only too pleased to render assistance to the industry.—(Applause.)

The President then extended an invitation to Mr. J. A. Campbell to address the Conference. Mr. Campbell spoke as follows:—

Mr. Chairman, Ladies and Gentlemen,—

I am very pleased to have this opportunity of meeting you. This is the first occasion I have had this pleasure in the official capacity I recently acquired. You, like myself, miss our old friend Mr. Kirk, who has always been a very hearty supporter and staunch friend, and has assisted in every way possible to push your industry along. I regret to say that Mr. Kirk's health has not been at all good, and I am sure you join with me in expressing regret on this account. It is very nice to know that his health is improving, and we trust he will enjoy his well-earned rest.

The Conference will, no doubt, deal with very important matters in reference to the industry. Since I took over the position of Director, I have learnt a great deal more about the industry. Previously Mr. Kirk dealt with the beekeeping question. I understand from official and private remarks that there are a few points on which you want the Department's assistance and which the Division should take up. We shall be only too pleased to consider them. Put forward your problems, and I am sure they will have every consideration and support that the Division can give, provided that we agree they are essential to the industry.

I, like Sir William Fraser, trust you will have a successful Conference, and that all the difficult problems you have will be thrashed out, and not side-issued because they are difficult or because they require the necessary push, and have them brought before the proper authorities. I know you are not backward in that respect, and that on this occasion you will live up to your reputation.—(Applause.)

The President then introduced Mr. Attwood, President of the N.Z. Fruitgrowers' Association, and invited him to address the Conference. Mr. Attwood spoke as follows:—

Mr. President, Ladies and Gentlemen,—

I did not come here to give you hints—I came to get some. I feel somehow or other that we belong to the same fraternity. You people want the nectar, out of our apple blossom, and we want the activity of your bees to fertilise the blossom. Our interests are mutual. I do not know how it is with you, but I guess you have some problems. We fruitgrowers have but I have learnt one or two things during my association with the Fruitgrowers' Federation. I found out something quite accidentally the other day, and it set me thinking. I found out that the beekeepers almost to a man supported the official organ of the Association, and when I asked the question, "Now do the fruitgrowers do it?"—well, Mr. President, I was grieved to find that amongst fruit-

growers there was a large number who did not trouble very much about their interests. One thing I would like to know, and that is how you can work together in unison and so produce rules and regulations that will be for the benefit of all and do damage to none?

Mr. Campbell knows the difficulties we are up against. I do not know whether our difficulties are greater than yours. There is no difficulty that cannot be overcome by united action and a little bit of give-and-take on both sides. We have to get there. If we are to make progress we must have harmony, and we are hoping to get that even amongst fruitgrowers. We do know fortunately what is blocking it, and we are determined to put anything that blocks it, whether president or anyone else, clean out of it. There is no other way. You must have harmony. I did not come here to make a speech; you have your business to attend to. I tender you the fraternal greetings of the Fruitgrowers' Federation, and hope that the result of your Conference will be to the advantage of your industry and a credit to yourselves. Above all, I would stress this point, and it applies to our own Federation as well as to you:—You must put your heart and soul into the business. Get into the business properly; produce the best, and the best only, or get out of it.—(Applause.)

Mr. J. A. Campbell then introduced Mr. B. G. Goodwin, the newly-appointed Assistant-Director of Horticulture, who expressed his pleasure at meeting the beekeepers of the Dominion, and hoped he and they would be able to work together for the good of all those engaged in the industry.—(Applause.)

The President, in addressing the Conference, spoke as follows:—

Ladies and Gentlemen,—

I little thought when attending the last Conference that I would be called upon to preside at this one, and we must all regret the circumstances—failing health—which caused Mr. T. W. Kirk to resign from the presidency of the National Association, and I will ask you later on to pass a resolution of regret to be forwarded to him. I am afraid my efforts to fill the position will fall short of that of such an experienced gentleman as Mr. Kirk. However, I will do my best.

First of all, allow me to congratulate the beekeepers of Otago and Southland upon the Conference being held this year in Dunedin. I think it an excellent move to change the venue of the meetings each year to the various principal beekeeping centres, as it must bring our scattered beekeepers more in touch with our Association, and that is what we need to secure their support. It also induces a friendly rivalry.

I shall not detain you long, but I wish to bring forward what I consider the most important business we can deal with at the



present juncture, and that is, with regard to the National Association itself and its future policy, which I trust will receive your closest attention, and be well discussed during the present Conference. In the first place, we must all understand that the National Association is absolutely essential to the welfare of our industry, and that if anything happened to it from the want of support, the industry, I am afraid, would drop back again into a sorry condition. At the same time, the National has certain duties to perform before it can look for the support necessary to keep it in a healthy condition and be of the service it should be to the industry.

I am not going to reflect on the past policy of those who have had the government of the National, but considering that a very small percentage of our beekeepers are members, we cannot close our eyes to the fact that there must be something wrong somewhere, and I ask the Conference to make it our first and special business to discover the weakness, and if possible, the remedy. Unless our National is well supported and progressing, all the efforts of our local associations will do but little good to the industry as a whole.

This brings me to the point where it is necessary to say something concerning the branches of the National. It goes without saying that, unless these are alive and fulfilling their duties, the National must suffer, and it is clear to me, as doubtless it is to most of you, that some reform in their working is as much needed as in the parent Association. I have gone into the matter of the National fully, because I consider it the most important business that can be brought before you to deal with, and if a remedy can be found to overcome our present weakness, I shall consider this as one of the most important conferences yet held, all other business we may transact being of a secondary nature to this.

I move that a special committee consisting of delegates from the various associations present, one from each, to the number of five, be appointed to go into this matter and report to the Conference not later than Friday morning.

There is one other subject I wish to touch upon briefly before sitting down, and that concerns the H.P.A. I am aware that many present are shareholders and attended the annual meeting yesterday, at which the business of the Association was discussed, but it is to non-shareholders that my remarks will chiefly apply. We are now passing through a world-wide commercial crisis which is affecting all industries, shaking some of the oldest and largest to their very foundations. Fortunately we in New Zealand have felt the upset less than in most other countries, but we have not escaped altogether, therefore, there is no occasion for surprise that the honey trade should have come under its influence. The H.P.A. has had to meet some difficulties, which, owing to the business tact of the Board of Directors, have

been so far successfully met. I must however, point out that if we are hoping to obtain the largest returns for the capital, labour and skill expended in our industry, we must work together in the co-operative movement and support the H.P.A., without which our honey trade would drop back into the disordered condition prevailing formerly when the middleman secured most of the profits, and beekeepers were underselling each other. Heaven forbid that we come to that stage again. It has been said that the National and H.P.A. are two separate institutions, and that each should conduct its own affairs. Granted, but they are so intimately connected as part of the machinery of our industry that they come into contact at all points, and if one suffers from want of support, the other must. Therefore, in conclusion, I beg of you to give both institutions your unstinted and whole-hearted support.

The Secretary was then called upon to read the minutes of the last Conference, but on being asked the number of pages these occupied, on the motion of the Chairman, seconded by Mr. L. Irwin, they were "taken as read."

The Secretary said:—

Mr. President, Ladies and Gentlemen,—

During the past year the National has, like all other similar organisations, felt the effects of the depression, which happily is now gradually passing away; but it has made its mark on our figures. However, we are, thanks to the Government subsidy, quite solvent. The National has been increased by one extra Branch the last year, the beekeepers of Blenheim having started a Branch Association.

Regarding the Journal, I am sorry to state this is still being carried on at a loss, although we are not so much on the wrong side as at this time last year. I have interviewed the printers (Messrs. Stone, Son and Co. Ltd.), and have gone thoroughly into the cost of producing the Journal, and can honestly say that they are printing it for us at a figure which does not show a reasonable margin for their working expenses. It was necessary to buy half a ton of paper for the Journal at a time when paper was at a very high price, and this has not yet been worked off; but as soon as this is used up we can go into the question of using a considerably cheaper paper.

The shortage of ready cash in the country has caused a loss of about 120 subscribers, and this lessened number, coupled with the still high cost of production, is the cause of the figures showing as they do.

I should just like to express my appreciation of the valued assistance given by Mr. E. G. Ward and others in conducting the Journal, which you will be interested to learn goes regularly to Japan, Sweden, Germany, France, Italy and other European countries.

# NATIONAL BEEKEEPERS' ASSOCIATION OF N.Z.

BALANCE SHEET FOR THE YEAR ENDING MAY 31st, 1922.

RECEIPTS.			EXPENDITURE.		
	£	s. d.		£	s. d.
To Cash in hand 31/5/21 ..	13	18 0	By 1921 Conference Expenses	24	15 0
.. Government Subsidy ..	100	0 0	.. T. W. Kirk's Testimonial ..	13	9 6
.. Govt. Grant for Conference			.. Travelling Expenses ..	51	9 5
.. Reports .. .. .	20	0 0	.. Refund to Branches ..	65	9 6
.. H.P.A. Refund .. .. .	7	14 0	.. Postages .. .. .	57	15 6
.. Donations .. .. .	11	1 0	.. Salaries .. .. .	150	0 0
.. Sale of Handbooks .. ..	7	17 6	.. Printing Conference Report	28	0 0
.. Sale of Badges .. .. .	2	1 0	.. Printing Journal .. ..	124	11 10
.. Journal Subscriptions ..	210	8 4	.. Printing and Stationery ..	10	12 7
.. Journal Advertisements ..	50	4 0	.. Sundry Small Accounts ..	4	6 6
.. Association Subscriptions	98	8 6	.. Bank Charges .. .. .	0	15 2
.. Members' Subscriptions ..	32	19 6	.. Petties .. .. .	2	0 0
				£533	5 0
			Balance at Bank	46	18 8
			Less unpres. cheques	29	11 4
				17	7 4
			Cash in hand .. .. .	3	19 6
				£554	11 10
	£554	11 10			

## JOURNAL ACCOUNT.

RECEIPTS.			EXPENDITURE.		
	£	s. d.		£	s. d.
To Subscriptions received ..	210	8 4	By Printing .. .. .	203	18 2
.. Subscriptions outstanding	3	15 6	.. Postage .. .. .	49	3 8
.. Advertisements .. .. .	50	4 0	.. Salary .. .. .	100	0 0
.. Advertisements outstanding	39	18 4			
	£304	6 2			
Deficit .. .. .	48	15 8			
	£353	1 10		£353	1 10

ASSETS.			LIABILITIES.		
	£	s. d.		£	s. d.
To Handbooks on hand ..	15	0 0	By Subsidies to Branches ..	9	0 0
.. Badges .. .. .	5	0 0	.. Sundry Creditors .. ..	91	1 4
.. Cash in hand .. .. .	21	6 10	.. Balance .. .. .	90	19 4
.. Sundry Debtors .. .. .	43	13 10			
.. Govt. Subsidy .. .. .	100	0 0			
.. Typewriter and Duplicator	6	0 0			
	£191	0 8		£191	0 8

Audited and found correct. 29/5/22.

(Signed) E. W. SAGE.

Mr. Bray asked for information re Assets and Liabilities as shown on the balance-sheet, and moved—"That it be a recommendation to the incoming Executive to consider the question of showing unexpired subscriptions to the Journal as a liability on the balance-sheet." This was seconded, and carried.

After further discussion, the motion for the adoption of the Report and Balance-Sheet was carried unanimously.

#### AMENDMENTS TO CONSTITUTION.

Clause 6 reads:—Subscriptions to the Association are due and payable on June 1st in each year, and must be paid within two calendar months of that date. Members who do not resign by notice under their hand on or before July 31st in each year shall be deemed to be members of the Association for that year, and their subscriptions shall be due and payable.

Proposed Amendment.—The dates in the above to be altered to April 1st and May 31st respectively.

The Secretary pointed out that the object of this amendment was to enable the Balance-Sheet to be published before the Conference assembled.

Mr. Bray moved that the amendment be passed. This was seconded by Mr. W. Watson and carried unanimously.

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 should consist of not more than seven members, but should not sufficient nominations be received, the quota shall be made good from those members attending the Annual Meeting. The officers of the Executive shall consist of a President, Vice-President, and Secretary-Treasurer; the last-named, however, if thought desirable, may be appointed by the Executive from outside the Association. Remainder of clause unaltered.

Proposed Amendment.—Prior to the Annual Meeting every Branch may nominate a representative to serve on the Executive, which shall consist of not more than six members, including President and Vice-President.

From the nominations so made, the meeting shall elect four members. Should not sufficient nominations be received, the quota shall be made good from members attending the Annual Meeting. The Secretary-Treasurer shall be a permanent officer, his appointment, remuneration, and removal being entirely in the hands of the Executive, subject to three months notice on either side. Remainder of clause unaltered.

The Chairman proposed the amendment pro forma, and Mr. Bray seconded, and drew attention to the clause which says:—"A Branch Association may nominate;" it was not compulsory.

Mr. Rentoul: Would this disenfranchise individual members of the Association not belonging to a Branch?

Mr. Watson: It seems to me it would have the effect of disenfranchising members of the parent Association if this clause is adopted. He moved—"That the matter be referred back to the Executive for consideration, and report later on."—This was adopted.

Clause 17 reads:—At the Annual or Special General Meetings, delegates may represent the District Branch and vote on the following terms:—On all questions of which notice of motion has been given, the delegate or delegates may exercise one vote for every financial member of their Branch.

Proposed Amendment.—At the Annual or Special General Meetings, delegates may represent the District Branch and vote on the following basis:—One vote for every financial member owning up to 25 colonies, and an extra vote for every additional 25 or part thereof. The official delegate shall exercise the total voting power of the Branch. In the event of a Branch not being able to send one of its own members as a delegate to the Annual or Special General Meeting, it may appoint any member of the National Association to act. (NOTE.—The delegate's certificate from a Branch must state—(a) The number of members who are financial; (b) the total number of hives owned by such members; (c) the number of votes to which the delegate is entitled.) The certificate to be signed by the Branch President and Secretary: Members of the National who are not members of a Branch shall have the same voting powers—i.e., one vote for every 25 colonies or part thereof, and such votes may be exercised by a duly authorised proxy.

The General Secretary moved—"That the voting power of each member be on the basis of the subscriptions paid to the National—i.e., 5/- subscription (1 to 15 hives), one vote; 10/- subscription (16 to 50 hives), two votes; 15/- subscription (51 to 100 hives), three votes; and one additional vote for every 5/- paid above 15/-; hon. members, one vote."

The President moved the adoption of the motion for the purpose of discussion, and it was duly seconded.

Mr. Gibb: I think we want to go cautiously. I approve of Mr. Baines' amendment, for I have been at Conferences in other parts of the Dominion, where I represented my district, and when I wished to move something, if that proposal was lost, it was lost on the voices, and there were generally quite a number present who were friends of beekeepers, and who voted accordingly, and we were likely to be swamped. At the same time we will have to guard against the big beekeeper getting too many votes; guard against a strong Association that will put in a delegate and so carry everything they want.

After further discussion, it was decided to refer this matter back to the Executive for report later.

At this stage Conference adjourned.

#### AFTERNOON SESSION.

### SOME SUGGESTIONS ON BRANCH ORGANISATIONS.

By L. IRWIN.

When requested by the Secretary some time ago to contribute a paper at this Conference, the proposal seemed to me to be quite outside the realm of practical things. For one with but a very short experience and limited skill in beekeeping to attempt to teach those who are acknowledged experts would be very much like taking a small boy from the Primer Class and asking him to offer advice to the whole school, including the teachers.

As a teacher of the best beekeeping methods, I would only be ridiculous. However, there are many others qualified and willing to give us this instruction, and I will most gladly leave it to them to do.

The only matter that has occurred to me as one on which I might offer some suggestions is the question of our Branch organisation, and whether anything can be done to improve it.

Just here it would be as well to state that qualification for discussing even this subject is little in evidence, as my experience of Branch work is most limited. Perhaps it would have been better to have chosen as a label "Some of the Difficulties of a Branch Secretary."

Following on the Conference held in Auckland last year, there was a good deal of criticism of the work accomplished by the National, and among other things the charge was made that the National was failing to secure the support of a majority of registered beekeepers. Very little help was offered in the way of suggestions as to how such support could be secured, but the critics left us to infer that, were they put in charge of affairs, we would see a vast improvement. When we examine the question a little more closely, it needs no great amount of wisdom to realise that the work of the National, from its inception to the present time, has been carried on by the men most willing to give of their time and money towards the achievement of the objects for which our organisation stands. To the men who guided its affairs in its earlier years we younger members are more indebted than many of us realise. The men who founded and developed the National year by year have no reason to be ashamed of the results achieved, and the thousands of beekeepers who have calmly accepted the benefits while making no contribution towards securing these benefits have little indeed to be proud of.

Naturally, the success of the National is very largely if not altogether dependent on the success of the Branches. Each Branch should, as far as possible, secure the interest and financial support of all beekeepers within its borders. Few if any Branches are successful to this extent. In those Branches with which I have had any experience, the men who do the work are few in number. A somewhat larger number regard it as a duty to pay their subscription, while still another lot pay a sub. occasionally, and then consider they are doing the Secretary a favour. Another section unblushingly takes advantage of all the Association has to offer, and absolutely refuses to contribute a cent.

Now, one of the objects that I should like to see achieved would be the perfecting of a scheme whereby every beekeeper who benefits by our organisation would automatically be compelled to contribute a just proportion of the expense incurred, for we must remember that in addition to those sections already mentioned, there is a very much larger number who, although registered beekeepers, do not attend our field days or come in contact with our various activities.

Every man who keeps a colony of bees is benefited by the work of our organisation, even though he keeps away from us. The work done by our leaders in the past in securing legislation that eradicated box-hives, secured the appointment of skilled instructors and graders, also the framing of regulations to prevent the introduction of fresh diseases, the reduction of railway charges, and the carrying out of even the present amount of inspection—all this is work which is to the advantage of every man who tries to keep bees for profit. The vast majority, however, contribute nothing—absolutely nothing—in either money or work to help in securing these advantages.

As I know practically nothing of the work of other Branches, I will outline the work which is attempted in my own district. In our conditions and spread over a very wide area as we are, we find that frequent meetings are not practicable. If we had a lot of conditions which we have not got, then frequent meetings could no doubt be held. So far we have not been able to attempt them. Instructional meetings each month are, I have no doubt, of immense service. I can only repeat that we have not been able to run them. Possibly with another Secretary they could be started and carried on successfully; but as yet that is one of the conditions that is lacking.

Our experience has been that the policy most successful in our location is to put all our instructional work into one big effort on Field Day, and our whole year's work is devoted to collecting enough money and organising our preparations so that on Field Day we will be able to present a good programme of instruction carried out by the best teachers we can beg, borrow, or steal. If there was the smallest chance of getting him, we

would have absolutely no scruples in asking our worthy President (Mr. Clark) to come from Auckland at his own expense and give an address on our next Field Day. I hope he will think it over.

When we secure our instructors, we advertise our day rather extensively through the Press, and also send a written notice to every beekeeper within fifty miles whose address is known to the secretary. As a result of this preparation we usually secure a very good attendance. A good proportion of our most faithful subscribers travel long distances to be present; quite a lot of local residents turn out and listen to our "heavy artillery," and thank us profusely for the lovely day. "But of course we are not beekeepers!" So there is no subscription. Practically every year, however, draws in a few new members, and could we have all subscriptions renewed regularly we would be much better off financially, and able to extend our efforts considerably. As it is, we are able to pay our advertising, printing, postages, telegrams, rent and other incidental expenses; but the amount which our Branch contributes to the National funds is so small that if all other Branches are equally bad, I do not know how bankruptcy is avoided. Indeed, in 1921, when the policy of subsidising Field Days was in force, I am sure our Branch received more than it contributed.

Now, to my mind the whole difficulty is finance. Everyone whom I have met admits that the Field Day provides the best instruction that could be given, and could we get into touch with all the beekeepers in our territory, then I have no doubt our subscription list would soon be improved. The trouble is that there is so very little opportunity to meet the non-subscriber.

Now, what can we do? Well, my reply is that for Southland we must do to a very great extent just what we have done in the past, but do it better. That's about the size of it. In the past you have done the best you could with the men and money and opportunities available; and after all the results are not to be despised, our valued critics to the contrary notwithstanding. With even a tenth of the men who benefit contributing to our funds, it has been worth while. But in the future let us do it better.

One of the projects which I had hoped to bring into being during the past year was a series of visits to districts at a distance where sub-branches might be formed. So far we have been unable to carry out this scheme, but we look forward hopefully.

Now, in this connection I have a suggestion to make. In attempting this kind of extension work, a secretary has very little chance to know who is who in a district twenty or thirty miles away. To help somewhat here, I would like to see each Branch equipped with a complete list of all registered beekeepers within its bounds. I commend this suggestion to our good

friend Mr. Campbell, and hope that if my suggestion is approved by this meeting, Mr. Campbell may see his way to supply each Branch Secretary with a list of all registered beekeepers within the sphere of activities of that Branch. Now, having secured that list, what would I do with it? First of all, I would compile a list of those whose postal address is Invercargill. Then another such list for Gore, Mataura, Wyndham, Winton, Otautau, &c. When I had the principal townships listed, I would add to each list the names of those beekeepers in small localities who were within a reasonable distance of the larger centre, endeavouring to group those who have a certain community of interest in each locality. Having thus got a complete roll of all the beekeepers, centring in, say, Winton, I would classify them, stating how many colonies each one owned, and whether any of them had ever been members of the Beekeepers' Association, and if so when their last subs. were paid. All that information would be available as soon as the roll supplied by Mr. Campbell was classified.

My next step would be to select some of the most likely names and write a number of personal letters asking for the help of the person written to. If he failed to respond, I would try another. When successful in getting replies, I would ask to be supplied with names of all beekeepers known to my informant within a radius of a few miles; as far as possible how many colonies each one had, and whether any of them would be likely to assist towards organisation. My correspondent would be used as far as possible as agent or secretary for that locality. Where there was a reasonable prospect of getting the beekeepers of that locality together, I should endeavour to arrange with Mr. Earp to carry out an educational demonstration. If at all possible, I would try to be present when such a demonstration was carried out, take the opportunity to introduce myself to as many beekeepers as possible, and with such a practical illustration of the benefit of organisation, I should expect to secure quite a number of members. The same method would be applied to other centres wherever the local conditions were favourable to such a course being followed.

If members were secured, an endeavour would be made to persuade each one to subscribe to the Journal and take a share or two in the H.P.A. Could these little demonstrations be thoroughly organised and carried out, I have not a doubt that the Southland Branch would easily double its present membership within a year, our income would be vastly improved, and many beekeepers would be benefited. What is to hinder such a programme being carried out? Principally the amount of work falling on the secretary. Unfortunately, he is not a man who can keep bees for the pure love of the game. He is faced with the prosaic necessity of getting a living by securing a crop of honey, and

to visit a number of districts for the purpose of helping in demonstrations and securing members, Journal subscribers, and B.P.A. shareholders at the time of year when his bees require every ounce of his time and every ounce of his strength is a contribution to the National that he is not able to make.

The work of classifying the names, preparing and indexing the district lists, writing letters of inquiry, and generally supervising such a scheme he would be willing to carry through, because much of it could be done in the evenings; but the visitation of the country centres he could not afford to carry out. In our case, possibly one or two of our members might help here, but the success of such a scheme is to a very large extent dependent on this part of the work.

Here we come back to the justice of levying a legal toll on the beekeepers who at present do not contribute anything to the cost of organisation. Our present members are not only giving their money, but they are giving far more valuable time to this work, the results of which are shared equally with the man who gives neither time nor money. In the interests of every beekeeper this work needs to be done. Have we not here an unanswerable argument in favour of an apiaris registration fee to be collected by the Government, and a definite proportion handed over to the National for the purpose of defraying the cost of this very necessary work. Here, I consider, is the crux of the matter. Let us concentrate on the Apiaris Registration Fee; let us give our continued thought to getting it as perfect and fair in its operation as possible; and then let us put our whole weight into getting it put into force and used to help forward the needs of our industry.

In conclusion, let me say that we have always tried to make our organisation helpful to all engaged in keeping bees without waiting to first ask whether they would subscribe to our funds. One of the greatest pleasures I have derived from my position has been to receive during the last three months enquiries from eight beekeepers who were not members asking me if I could give them any guidance as to how they could sell their honey to advantage. I rejoiced greatly, and told them promptly what to do with their honey and where to apply for shares, and I believe most of them took my advice. None of these men are members of our Branch as yet, but I am very hopeful. Please note that each of these enquirers was able to write to the secretary for valuable help because a few other beekeepers had for the past ten years been paying their annual subscription to keep our organisation alive, consequently there enquirers knew him personally; they only continue as a handful of beekeepers to bear the cost of this for the benefit of all, or shall we persist in our efforts to ensure

that the men who have hitherto shirked shall in future bear their fair share of the costs of organised effort.

Mr. A. H. Davies said they were up against the same proposition. The members were all scattered. The Auckland Provincial Branch had found it advantageous to cut the district up into sub-Branches. These collect the members' fees and run their own Branch, but the biggest difficulty is to get members to pay their subscriptions.

Mr. H. N. Goodman said they were up against the trouble of collecting subs. If he met the members personally, they would always pay, but they would not bother sending them. He thought it would be a good idea to give receipt-books to all the members of the Branch Committee, with power to collect the subs.

Mr. Bray said the same difficulty was experienced in all the Branches.

A committee, consisting of Messrs. Clark, Irwin, Davies, Goodman and Baines, was appointed to go into the matter and report to Conference later.

A hearty vote of thanks was accorded Mr. Irwin, who said the greatest job was to get the money from the man who would not pay, and he hoped the Apiaris Registration Fee proposed would get a good shaking up.

## HUBAM CLOVER.

### A WONDERFUL HONEY PLANT.

By E. G. WARD.

It has been said that the man who makes two blades of grass grow where one grew before is a benefactor to his fellows. There are many well-known names of men who come under this heading, and I want to introduce one who has every right to claim this distinction. His name is H. D. Hughes, and his right to the title is due to the fact of having discovered, cultivated, and introduced to the agriculturists of the world a new variety of sweet clover, to which the name of Hubam has been given. Sweet clover is the common name of a plant known to botanists as *Melilotus*. There are two kinds of *Melilotus*, the white and the yellow—both biennials.

Hubam is the name given to an annual variety of *Melilotus alba*, or white sweet clover, which was discovered in 1916. The history of the discovery was given in a circular published by the Iowa Experiment Station, which says:—

"In January, 1916, some 500 different lots of seed of the common biennial sweet clover, secured from all parts of the world, were planted in greenhouses at Ames, Iowa. In one of these seedings a few plants were found which grew to a height of 4 feet, and matured seed in a few months. Seeds from these plants were carefully saved and multiplied, and in the spring of 1918

very small samples of seeds were sent to each of the State Experiment Stations and to large seed companies. The reports received from these sources confirmed our belief that the clover gave promise of great value. In the spring of 1920 over 45,000 samples of seed were distributed by the Iowa Experiment Station. Hundreds of reports from all parts of the country have been received from the farmers who planted these samples.'

There were only 22 plants discovered in 1916, and from these plants all the Hubam in the world to-day has sprung. It has been known to beekeepers in America for many years that sweet clover is a valuable honey plant, and some of the early writers on bee culture used to advocate scattering seed in waste places; but the seed of Hubam is not plentiful enough yet to be prodigal in getting rid of it.

As beekeepers you will, of course, be interested in it as a honey plant, but it has other virtues. As a soil improver it is unsurpassed, and as a forage plant it is among the most valuable known. It makes excellent hay, and can be ploughed in as green manure. It gathers nitrogen from the atmosphere, and enriches the soil with that very necessary element of plant food. The *Breeders' Gazette*, May 26th, 1921, states editorially:—

"Its possibilities as a stock-feeding and soil-improving crop make it the most valuable crop that has been domesticated in several centuries."

The question may arise as to what kind of soil suits it best, and the answer is that it will grow in any soil—even the poorest, but it will thrive best if the soil contains lime in fair quantity. If lime is deficient it can be applied in the usual way at the rate of one to one and a-half tons per acre. An authority says:—"It will grow on absolutely any soil except that which is waterlogged. Clay hillsides, sand, rocky points, quarries, alkali—it will grow anywhere."

These remarks apply to sweet clover in general, and include Hubam, but I will deal now with Hubam in particular. Those of you who read the *Journal* will probably have followed up what I have had to say on the subject there, but as you may not all take the *Journal*, I will give you a brief account of my experience with the plant.

As a preliminary, I may say I had grown a small patch of both the white and yellow biennial in my garden in Christchurch some four or five years ago from seed I got from America, and I found that the bees were very fond of it. I saved some seed and tried to introduce it to neighbouring farmers at Lakeside, but only one of them gave it a trial. I have not seen him this year, but I know he nursed the seed and sowed a plot of several acres, but whether he has succeeded up to his expectations I have not heard. As the land where my bees were located did not belong to me, I did not follow the matter any further.

When Hubam began to be discussed in "Gleanings in Bee-culture," my interest in sweet clover was once more aroused. The report of its wonderful value as a honey plant stirred up thoughts which had lain dormant for a long time, and I determined to give this wonderful plant a trial. I sent for a small pinch of seed, which Mr. A. I. Root said would be given to anyone who applied for it, and at the same time asked that, if the seed were on the market commercially, the A. I. Root Company would procure and post me half a pound of it. I received the pinch of seed in due course, and sowed it, but it was a failure through my not taking the trouble to properly prepare the ground. About a month later the half-pound came to hand. Before the seed came to hand, I had bought an apiary site at Ohoka, and arranged to have a portion of the land cultivated ready to sow down. The land is peaty and the sub-soil shingly, and as the rainfall was scanty last season, you can imagine that it was very dry. The seed was sown broadcast at the rate of about 8 lbs. to the acre on October 18th, and appeared above ground on the 26th—eight days from sowing. It commenced to bloom on January 10th, when about 2ft. high—eleven weeks from sowing—and there were a few blooms left on April 8th. This gives a period of twelve consecutive weeks of blooming. It was cut on April 17th, and lay on the ground till May 1st, and then thrashed. I found it too tough to get all the seed out, so have stacked the hay, and will go over it again, as there is a lot of seed in it yet. Of course, it is impossible to say how much honey was obtained from it; but as the bees worked it from early morning till dewy eve, I should judge that a 20-acre paddock would make some showing even among 100 colonies.

To get the best results it is worth while taking some trouble. A firm seed-bed is necessary. The surface soil only should be loose. The United States Department of Agriculture states that sweet clover will grow without inoculation, but the soil must be rich in nitrogen for the best results. The soil can be inoculated with a commercial culture, or soil from an alfalfa field may be used for the same purpose. It is advisable to sow early—say, not later than the middle of September. It will then get established before dry weather sets in, and will come into bloom early. Mine was sown a month later on account of the ground not being ready. It is advisable not to sow too thickly. From 3 lbs. to 4 lbs. per acre will give good results, provided that the seed has had proper treatment. To secure proper germination, the seed must be hulled and scarified. Unless this is done not more than 25 per cent. will germinate. After scarifying it will germinate up to as high as 98 per cent. A hulling and scarifying machine has been invented by Prof. Hughes, but for small quantities a satisfactory job can be done by rubbing the seed between two boards covered with emery or sandpaper, and







you will all agree in that. We make quite a good show beside Root and Dadant publications which come from the home of modern beekeeping. It utterly surpasses in absolute value the *Apicoltura Italiana*, formerly called *L'Apicoltore*. Original articles are rare in that Journal. It has a deal of good material—translated from the American! Our Journal is far ahead of another the Editor sent me when in one of his funny moods, the "*Bienenwirtschaftliches Centralblatt*," the Journal of the Hanover Beekeepers. It is crammed largely with Association business. Such articles as I have seen in the two issues to hand are hardly useful, e.g., "How strong are bees' jaws?" They have been measuring them with calipers. Rather advanced for most of us!

A further consideration. Do you think that these foreign publications would bother asking us for exchange copies if our Journal were not worth while? Have you ever noticed what the *Bee World* has to say about it?

There is one thing which I am sure is the basis of the success of our Journal. The one thing I have not been able to find in the many Journals on many subjects—that cheery tone of goodfellowship which makes us all friends in spirit. If the Journal did nothing but foster that spirit it would be worth the money. Why, but for that I should not be standing up here. As it is, I feel that you will put up with me good-humouredly if only because we throw ink at one another occasionally.

Further, our Journal is original, consider how little it relies on outside help, how little it borrows from other publications. If it falls away from this standard it is our fault. But what are you doing to help it along? You can't do anything? And old John Willie is better able than you and he doesn't. Oh, leave John Willie alone, look to your own business. This habit of laying the trouble at the door of the next man is becoming too wide-spread. As far as I can see, the responsibility is passed on from man to man until it is lost somewhere in transit. Anyway you have kept bees for years. You must have some ideas. If you can't write, tell them to someone who can. Yes, and suppose you are a new chum? Is there any aspect of beekeeping you would like discussed? Send along your requirements.

But it is as easy to write something. You will remember the compositions you used to write at school. Compositions on proverbs usually—"Fire makes a good servant but a bad master," and so on. Well, let's see if we can manufacture a few beekeeping proverbs to supply you with subjects.

"Love me, love my bees."—That's easy.  
 "A sting in the ear is worth two in the eye."—That will bear discussion.

"It's a poor hive that has no workers."—Now, that's a good one.

"Many drones make light supers."—So is that.

"A stung child dreads the empty super."

"There's no smoke without a Jumbo."—Ask R. W. B.

"There's many a sting 'twixt the boot and the trouser."

Or something more useful perhaps, as "What to do when the inspector arrives."

"How I made an extractor from an oil-drum and mother's old mangle."

Yes, gentlemen, the critic's task is easy. He has but to demolish, to pick to pieces, and to sort the resulting debris. But why should you in your case matter the Journal's this and the Journal's that? It didn't order was, and it hadn't order did. Suppose it didn't order was? What would you have done to save it from those depths? What are you going to do? If you want to criticise, let your criticism be helpful. Suppose your motor car is not running well. You take it to the motor wreckers. The mechanic seizes a hammer, a chisel, and a spanner, and commences to take it to pieces. H-m! Leak in the tank! Pump's clogged! Cylinders are cracked! Spark plugs shorting! And when your engine is nothing but a heap of parts he barks: "S'not a motor, it's scrap iron; take it away!" 'Twere better to draw the curtain on the scene that would ensue. But that is what our critics are doing for the Journal—unthinkingly, perhaps. Still, that doesn't alter facts.

If we insist on the last ounce of individual satisfaction in anything concerning the National or any of its interests, we insist on its downfall. The National in all its activities does its best for the individual, thereby obtaining the best for the many. But as the world wags friends, perfection in that line is unattainable. Therefore, let us not be too selfish in insisting on the satisfaction of our merest whims, for we are but units in a fairly comprehensive whole.

Meanwhile, let us criticise to the top of our bent if need be. But let our criticism be helpful and constructive. Otherwise we know not the harm we may do. For we have a sound organisation, and the spirit of that organisation is in the rightest, tightest, brightest Journal that ever smelt of printer's ink!

That these things may remain so, let us keep before our eyes the motto adopted by an Association similar to ours—The Italian Beekeepers' Federation—"Il mio non sol ma l'altrui ben procuro." Which I translate freely, "My aim is prosperity and success, not for myself alone, but for all my fellows too."

Which I think is a suitable text to close with.

Mr. Irwin: I am sure we have all enjoyed Mr. Howard's paper. Although it has a humorous vein, there is a lot of matter for serious thought. We do not contribute to the Journal as much as we should.

Mr. Ward: I am always interested in Mr. Howard's writings in the Journal. He had touched on one point which everyone trying to help the Journal must feel. One does his best, and when people read it they say, "Why, bless my soul, I could have done better myself." But they do not try. Sometimes I find it very difficult to say anything, leave alone make it interesting. So I make an appeal to you not to wait to be asked, but offer the Editor something to show interest. Anyone can try, and if it wants rearrangement, Mr. Baines has sufficient literary ability to make it interesting. Step in and lend a hand; the Journal is what we make it.

Mr. Baines: If you will just give me your idea, I will write it up for you. And I want you to realise that the writer of any article published gets the credit for the matter he has put in—not the Editor. I say this because there seems to be a feeling in certain quarters that if a correspondent sent forward an article which had, we will say, particular merit, the Editor gets the praise and not the writer of the article—which, of course, is not the case. My aim is to make the Journal of real use to the readers, and to that end I appeal to you all for articles of interest and help.

A hearty vote of thanks was accorded to Mr. Howard.

### NUCLEI MANAGEMENT.

By A. R. BATES.

I find on visiting most of our commercial beekeepers that only half-hearted attempts are made at systematic queen-rearing, the reason perhaps in many cases being that they fail to provide sufficient mating boxes, and do not care to cut down the strength of the colonies in spring by forming nuclei.

A plentiful supply of mating boxes should be part of the essential equipment of the commercial apiarist. A cheap and serviceable article can be made from a benzene case. Take the case apart, a nail puller being the most useful tool for the purpose. The case-ends will be found to vary in length and width, but this can be rectified by tacking on fillets to make them a standard size. Plenty of clearance should be allowed for beneath the bottoms of the frames; at least 1-inch is recommended.

Cut  $\frac{1}{2}$  x  $\frac{3}{4}$  rabbit for the frame rest, and two grooves equi-distant from the ends  $\frac{1}{2}$ -inch in depth, to take the division boards, thus giving a triple nucleus box, each compartment taking three frames. The division boards may be  $\frac{1}{4}$  or  $\frac{3}{8}$  timber, and should have mats tacked on to prevent bees from gaining access to the next compartment. It is very handy to have them loose fitting in the grooves, enabling them to be withdrawn to unite nuclei when queens are removed. A  $\frac{3}{8}$  hole is a suitable entrance, but should be made mouse-

proof if nuclei are carried over the winter. The roof is best on the telescope principle, and covered with some waterproof material. Cut sides to length to give easy fitting for frames. The floor is nailed to the box, and a couple of 3 x 1 cleats attached underneath to keep the box off the ground. A dip in hot tar will preserve the bottom for years, but would attract too much heat for the box, which should be painted. Hand-grips may be cut or cleats nailed on for convenience in carrying.

To procure bees for the mating boxes, start the number of queen cells required by any of the well-known systems, and the same or following day draw from each strong colony two to four frames of sealed brood, allowing two for each cell. This is stacked over queen excluders on strong single storey colonies, each taking one or two supers. The combs of brood are replaced in the colonies by empties, giving the queens ample laying room, and by supering up at the same time this will go a long way to help in swarm control.

Ten days after the cells are started, they will be ready to set out in the mating-boxes. It will be now seen what an advantage it is to be able to use the stacked up brood, especially should bad weather conditions prevail.

By this time the bulk of the brood has emerged, and the young bees, not having flown and located their hives, are ideal for our purpose. Two combs, each of which will be a mass of young bees, are sufficient for each mating-box. It is essential, though, that at least one should have a good patch of sealed brood in order to prevent the bees from absconding. The combs should be looked over for queen cells; a few generally are built when stacked over the excluder. These of course are destroyed. Judgment should be used in regard to food supply; a pound or two of honey in each mating box will carry the bees over a spell of bad weather. As each nucleus box receives its complement of bees, it is set out on the site it is to occupy. The entrances need not be closed, as the young bees stay where put. When all are in position, the queen cells can be withdrawn from the cell-building colony and one inserted in each nucleus, in the centre between the two combs being the best position, as here it will not be subject to extremes of temperature.

To make sure none are missed, leave the covers upside down when setting out the nuclei boxes, and right them as cells are inserted. Cell protectors are not a necessity.

If the weather is cold, a small box containing a hot-water bottle and cotton-wool packing is very useful to carry cells in to prevent them being chilled. In districts where spring queen-rearing is not to be relied on, queens may be reared at the close of the honey flow and carried over the winter.

In my district the flow rarely continues after the middle of February. It

is rather a benefit to cut down the strength of the colonies at this time, and nuclei can be set out and queens profitably reared without cutting into the honey crop.

To carry over the winter successfully, give each nucleus a solid sealed comb of honey and one of brood. As queens are used the three nuclei in a box can be united by withdrawing the division-boards, and will soon build up into a strong colony. Nuclei carried over the winter are very useful for making increase, as colonies can be divided, and will build up earlier than where spring queen-rearing is depended on.

When queens are reared early in the honey season, the nuclei are apt to become overcrowded and swarm out. A wired frame with starter of comb foundation inserted when the queen begins laying will keep the bees occupied, and perfect worker combs result. Damaged combs may also be repaired in the same way.

Variations of this system of nuclei management have been used by a number of successful apiarists, and I contend that should more attention be given systematic queen-rearing and re-queening, the result would be shown in larger honey crops, and consequently better returns.

Mr. Ward: I notice you use all full-sized frames for making nuclei. Have you ever tried baby nuclei?

Mr. Bates: I find I get excellent results with the full-size frame, and do not bother with the baby nuclei.

Mr. Watson: You use 12-frame hives. Would the system act with 10-frame hives?

Mr. Bates: Yes.

Mr. Gibb: I have no criticism to offer on Mr. Bates' paper, but Mr. Ward has asked if he has ever tried baby nuclei. I have worked it in several places with great success. I work with a frame half the length of a half-depth frame. I admit they require some care, but the number of queens raised by this method far exceeds the amount of trouble required for success.

Mr. Goodman: Mr. Bates' method is practically what I have been carrying on for years. Baby nuclei might be right enough, but in the south, where we cannot rear the queens so early in the spring, we like to rear them in the autumn and carry them over. By using ordinary supers and combs they winter right through in an ordinary box, and it is a God-send to have these nuclei in the spring.

A hearty vote of thanks was accorded to Mr. Bates.

The Secretary at this stage read a wire received from the West Coast Branch:—"West Coast Branch sends greetings, wishing Conference every success."—Airey, Hon. Secretary.

Messrs. Campbell and Goodwin having to leave, the President asked that a vote of thanks be accorded these gentlemen and

the graders for their attendance, the vote being carried by acclamation.

The graders replied, thanking the members, Mr. Jacobsen stating that he proposed shortly touring Australia, where he hoped to find something of interest to the beekeepers, of which they would hear in due course.

Mr. T. E. Clark, who was to have read a paper on "Working Methods," apologized to the Conference for not having his paper ready. He pleaded a very busy time lately, and since his arrival in the south had contracted a very bad cold. He stated that the paper would appear in the Journal in due course.

### HYGIENIC CONDITIONS IN THE EXTRACTING ROOM.

By J. RENTOUL.

Consider a piece of comb honey. You have often seen the same thing before. But I want you to observe it with a special object. Note how clean it is; how carefully it is built, and how well fitted it is for protecting its delicate contents, air-proof, hermetically sealed when finished. And the contents of the cells—what a delicate, fine product it is. Where will you find any other product equal to it that can be gathered from nature? These little workers do their work well; finely prepared, carefully stored is the honey, and their store-rooms clean and sweet. Should we for our part do less than the bees that work for us, and the fine product that they have gathered be roughly and crudely handled by us and subjected to deteriorating influences?

We have in New Zealand progressed a long way from the methods used when the combs were taken from the hives, crushed and mushed up with the hands, sometimes larvæ and all hung to strain amid flies and dust. But have we all adopted the best methods of handling a product delicate as to flavour and sensitive as to chemical changes; and have we recognised the possibilities of contamination when we on our part take the honey from the bees' store-houses and put it in our own? And we cannot do better in this process than consider the bees, and do what they do—keep the honey home clean and well ventilated, and the storage tanks well and tightly covered. At this stage, I might mention that the Honey Producers' Association have been having a good deal of trouble with fermented honey; and while some localities seem to be more prone to produce honey that ferments than others, still odd lots crop up from anywhere. This trouble has been the cause of so much expense and loss that it became urgently necessary that the matter should be thoroughly investigated. It is a strange thing that the biological, chemical, and physical investigation of honey is very

backward, and no country seems to be able to give us the information that we require to thoroughly elucidate our difficulties. Our Association, therefore, asked that the Biological Division of the Agricultural Department should carry out certain investigations, and Mr. R. Waters, of that Department, is now engaged in a series of experiments and investigations that promise to be of incalculable value to the industry.

His investigations have not yet reached conclusions definite enough to be made public, but I will mention one of the results he has obtained. From fermented honey he has been supplied with he has separated numerous yeast spores. It has not yet been ascertained if this yeast is a content of such honey when in the hive or if it is a contamination; but unfortunately the possibilities of ferment contamination are frequently in honey-houses and store-rooms. And the avoidance of this possibility is a real difficulty, especially in the autumn, when everything with a touch of honey on it must be kept shut up from the bees. Water used for washing, wax water and comb refuse are stored away waiting a favourable opportunity for disposal, and these soon reach various stages of fermentation, the spores of which might easily be carried by vagrant bees, flies, or draughts, and lodged in the extractors or honey-tanks. Where foul-brood has to be dealt with, the trouble is often aggravated by the number of combs of all descriptions that must be stored. These are all easily recognisable sources of possible contamination of honey in the storage tanks. And even without these, autumn brings its germ of decay.

It is obvious, then, that as soon as the honey is extracted—which should be done in a well-ventilated room, clean, and clear of all waste water, comb refuse, &c.—it should be stored in tanks with well-fitting covers. Many apiary outfits, like my own, have grown with a growing business, and are trying to keep up with the requirements instead of being designed to meet the requirements of the business. But I consider that a good working outfit requires:—

- (1) An extracting room not too big, but just easy room for handling the output of the apiaries. If the room is too large, there is always a temptation to store things in it. The floor should be covered, or of a material that can be scrubbed out with a bass broom after a day's extracting. The room should be well ventilated, with the ventilators as far from the door as possible, and warmly situated.
- (2) Adjoining the extracting room should be the store-room, solid floor, cool, and as large as possible.
- (3) Separate from the other buildings a wax house for handling wax refuse, combs, &c.

These three buildings I consider essential for handling honey in any quantity. Work-room, garage, &c., are according to the methods used; but this paper is concerned with the hygienic nature of the business and the essentials thereto.

Enough is written in these days about germ infection giving rise to disease, and we all see the results in death and illness. We see, alas! too often the disastrous effects of germ infection in what is called foul-brood. Just consider that as subtle an infection may affect your honey in the same ways. It, too, can become ill, lose its delicate flavour and appearance, and even die, for the fermenting mass that one sometimes sees can no longer be called honey. Take a lesson from the bee, learn from science, and use your own good sense in caring for your honey.

I would like to refer to the question of the treatment of honey by both traders and public. Go into the stores and you see honey that has been cut out of the hives in huge chunks exposed on the counter without any protection from flies or dust. People do not seem to know what is required with regard to our product; wholesalers store pat honey in places where no food product should be stored. A little enlightenment to the store people to avoid buying honey in this condition would be a very good thing. The Health Department makes certain rules with regard to honey houses; in fact, some individuals will probably find out what is required by them with regard to honey houses.

I think the time has come when every honey producer should think a good deal about this, and what is the best way to turn his honey out. Some beekeepers make mead. This on no account should be made anywhere in the store-room or honey-house, for the simple reason that the ferment germs may possibly get into the honey. With the present system of marketing, a considerable time may elapse before honey is ultimately sold to the consumer, and the question of fermented honey is a very considerable difficulty in the marketing of honey.

Mr. Davies: I think one of the chief causes of honey fermenting is that beekeepers do not trouble about the cloths they use in the honey room. A wet cloth in the honey-room very soon ferments, and unless these are boiled frequently they are a dangerous source of fermentation.

Mr. Bray: Do you think that the honey in wet combs held over from one season to another would be likely to ferment?

Mr. Gibb: We have always understood that where the moth is troublesome, it is better to put the combs away wet. Now, as to whether that will cause fermentation in the hive later on depends on the specific gravity of the honey stored by the bees later on. The spore will be there, and if the newly gathered honey is of low specific gravity, fermentation will take place. One must also remember that the spores of fermentation carry in the air.

Mr. Bates: If we could get our honey extracted, put into the tanks, and tinned off, would it be an advantage to leaving it in the tanks subject to contamination? I know of one man who runs his honey from the extractor over a hot plate at a temperature of about 100 deg. Do you think it is an advantage in getting it off quickly and into the tank?

Mr. Rentoul: The honey should be got off and into the tanks and tins as quickly as possible, allowing it to remain in the tank only sufficiently long for the scum to rise. Fermentation is a particularly rapid growth. Go to the Highlander Condensed Milk Factory and see how particular the Company are about having anything in any shape or form likely to ferment.

Mr. Bates: What style of tank do you recommend—tinned steel or galvanised iron?

Mr. Rentoul: Plain galvanised iron tanks of about one ton capacity I recommend as being a handy size, but one must always be careful to keep the tank clean, and not put the honey from a fresh extraction on the top of the dregs left from the previous extraction.

Mr. Irwin: What kind of material do you use for the cover of the tank?

Mr. Rentoul: Timber about half an inch thick.

Mr. Bray: We have always used wet combs, but it is quite likely after hearing this discussion we shall get the bees to clean them up in future.

Mr. Westbrooke (Govt. Grader): I obtained some honey of the correct specific gravity, 1.420, and added a very small quantity of fermented honey to it. So far there appears to be no difference. We took some honey of specific gravity 1.425 and reduced it to s.g. 1.325, and added a small quantity of fermented honey, and it fermented very quickly. Personally, I do not think honey of a high specific gravity will ferment even if you put the ferment germ in.

Mr. Rentoul: For the ferment germ to become active the package must be warm. If left standing for a time—say, on board ship in the tropics—the heavier portion of the honey sinks to the bottom. This will account for the fact that in some tins the honey on the top will be fermented but that at the bottom quite sound. Of course, the tin should be airtight, and we are anxious to get one that will be so. We have a screw-top tin on trial now.

Mr. Coppin: Is honey likely to ferment in put boxes?

Mr. Earp (Govt. Grader): Some honey in puts cut by Mr. Allan seven years ago is still quite sound, and has been stored in a cupboard in the office.

Messrs. Clayton and Watson also spoke.

Mr. Rentoul was heartily thanked for his instructive address.

Mr. Rentoul: There is one motion, Mr. President, I should now like to bring before the Conference, and it is—

“That the National Beekeepers' Association of New Zealand make Mr. I. Hopkins a life member.”

The motion was brought forward amidst applause. Mr. Rentoul continued:—Mr. Hopkins needs no introduction to the beekeepers of New Zealand. He has spent his life in improving the lot of the beekeeper, and even now, at the great age of 85 or 86 years, works with an enthusiasm that puts many younger men to shame. I think it would be a fitting mark of appreciation if we passed this motion.

Mr. Gibb: I have very great pleasure in seconding the motion. I worked as a Government official under Mr. Hopkins, and although we could not always see eye to eye on all matters, I am sure Mr. Hopkins has worked to the very utmost for the betterment of the industry and those engaged in it, and I am pleased to have the opportunity to express my appreciation of his services to the industry.

Messrs. Barker, Bray, Brickell, and Ward also spoke eulogistically of Mr. Hopkins and his work for the industry.

Mr. Baines: I, too, am pleased to support this motion very heartily. When I was given charge of the Journal, I was pretty raw as regards writing for the public, and I was indebted to Mr. Hopkins for many hints and much advice in the work. As long as he was able, Mr. Hopkins wrote the “Beginners' Notes,” and also gave us all the interesting comments on matters appearing in the Journal under the nom de plume of “Critic.” It was only when he found his health suffering from too much strain and writing that he gave it up.

The motion was put to the meeting and carried enthusiastically, the Secretary being instructed to write Mr. Hopkins conveying the resolution of the meeting.

## THE ERADICATION OF FOUL-BROOD.

By H. N. GOODMAN.

In preparing and reading this paper on “The Eradication of Foul-brood,” I do not wish to convey the impression that I know all about the subject, or to make any assertions I cannot substantiate, nor do I wish to tread on anyone's toes. My one aim and object is to do what I can to help wipe out the beekeeper's curse—Foul-brood.

There is no doubt this is the most vital question among beekeepers to-day, and if the industry is to make any headway, it is a problem that will have to be tackled and overcome.

I have had some experience in cleaning up disease in the last eight or nine years, both among my own bees and for other beekeepers in the district, and I think the best thing I can do is to give an outline of the work done in our own district.

The first time the inspector came through he found us in a sorry plight—foul-brood everywhere; he told us it was one of the worst districts in the South Island; in fact, there was only one other place that he knew of that could be compared to it.

We were all side-liners and ignorant, and I attribute the state we are in to-day as much to ignorance as to anything else. Mr. Earp told us what to do and how to do it, and, knowing no better, we did as directed. Result: a clean district.

If we had known then as much as a lot of beekeepers know to-day, we might have started to argue, and asked what good it was to clean up when the neighbour's bees were all diseased, and there were wild bees in the bush, wild bees in the rocks, in rabbit holes, and in old buildings, for we had all that to contend with; but we just accepted what Mr. Earp said as gospel and went at it.

Now, I do not want anyone to imagine that this state of affairs has been brought about in one season, or two, or that it was done without a lot of patience and tact. There were only a few of us who cleaned up for a start, and as time went on it seemed almost hopeless to think we were going to get the others to do the same. There was plenty of so-called treating going on—treating a few colonies here and there through the apiary, and taking away combs that showed a few diseased cells, but I have yet to see the first apiary cleaned up in that way; it would all have to be done again next season. But these beekeepers came to see that it was those of us with clean apiaries that were getting the honey, and so gradually we won them over, and by cleaning some myself and helping to clean others and burning the rest, we got through, and in no single instance where I have done the work myself, or helped to do it, have we had to treat a colony the second time.

We hear a lot about reinfection from the neighbour's bees. As far as I can see, the neighbour gets blamed for a lot he doesn't deserve. In my own case, I had foul-brood on three sides of me for five years, yet my bees stayed clean. One of my out-apiaries was for two or three years sitting between two lots of diseased bees and never showed a spot.

We do not by any means consider ourselves out of the woods, for as long as there is disease around us we must expect an occasional outbreak, but it has none of the terrors for us now that it had in the past, as we know how to tackle it.

What, then, is the trouble, and why is there so much disease to-day? There are a few very vital reasons. One reason—and the most important, to my mind—is that we are not thorough enough in our treatment. In trying to save something, we are inclined to say we will risk it, but it is a risk we have to pay for in the end. Then there is the beekeeper who treats a few of the worst colonies every season, keeping a little check on the

disease, but never wiping it out; and I am afraid there are a lot of apiarists in that class, and they have been at it so long that they have come to look on it as one of the annual manipulations; but it is a manipulation I can very well do without.

As far as I can see, there is only one cure for foul-brood, and that is a clean sweep, treating every colony in the apiary and doing the work at the one time. Treating a few colonies this week and a few next week is no good, and I would advise anyone with over thirty colonies to get help. Start somewhere in your district, and then go on from apiary to apiary helping each other, and keep this slogan pinned to your hat all the time:—"Be thorough."

This may seem a drastic measure and a very expensive job in a big apiary; but except for the work entailed it is not so bad as it appears at first sight.

If the bees are built up strong by the opening of the honey flow and then treated, it puts each colony in a better position than a prime swarm, as we have all the young bees as well as those that are flying, and we all know that a prime swarm at the beginning of the honey flow will give a very fair return in an average season.

Then there is another thing I consider would be a great help in eradicating disease, and not only a help to the beekeeper in that way but a good thing for the National and the H.P.A., and that is to split up big Branches into half a dozen smaller ones. At the present time, taking either Canterbury or Southland, it is a tremendous stretch of country, with a President, Secretary, and Committee, seven or eight live beekeepers who have the welfare of the district at heart; but what can they do over so many hundreds of square miles? What do they know of the bulk of beekeepers in their district, or what do the beekeepers know of them? If they started a cleaning up campaign they would have to put their full time to it over a number of seasons, and then perhaps have very little to show for it. But by cutting it up into smaller Branches, there would be a committee for each Branch, who would have an interest in cleaning up their own district, and instead of us at present seven or eight trying to carry on, there would be from fifty to sixty scattered throughout the Province, and I am sure results would follow.

After starting the Clutha Valley Branch, I was asked to extend it to take in Balclutha, but I declined, and suggested they should form a Branch of their own. They have done so, and are doing good work already.

We all know that the side-liner is one of the greatest sources of infection, and as he is not interested in commercial honey production, he will not come to us, so we must go after him, and educate him to keep better bees. It might be said that

it is a bad policy to educate this class of beekeeper, as they will become competitors; but by actual experience we have found it to be the opposite. We have fewer beekeepers in the Clutha Valley to-day than we had five years ago, and others who used to keep from ten to twenty hives are down to two or three.

In giving this paper, I am not proposing that we do the work of the inspectors. The inspectors are wanted, and wanted badly, and far more of them than we have at present, for there are a lot of people keeping bees who will not listen to reason, and with whom other beekeepers and local inspectors can do nothing. We must have the inspectors and the Department behind us, and I feel sure that by working systematically, helping each other and helping the inspectors, we can go a long way in the next few seasons towards wiping out foul-brood; but in all our working we must remember the most essential thing is to be thorough.

A Voice: What system do you recommend?

Mr. Goodman: There is only one system, the McEvoy. Simply shake the bees back into the brood-nest without frames, cover them with a bag, and leave for four days.

Do you treat them a second time?

Mr. Goodman: No; I have never found it necessary.

A hearty vote of thanks was accorded to Mr. Goodman.

The Conference then adjourned until 7 p.m., when an informal evening was spent. Mr. C. J. Clayton described his method of making meal and vinegar, and a general instructive and pleasant evening was spent, terminating at 10 p.m.

## SECOND DAY—THURSDAY, JUNE 1st.

### WEST COAST BRANCH REMITS.

(1) "That the Conference use its power to urge the appointment of a permanent apiary instructor for the West Coast, Nelson and Marlborough Districts."

Mr. Baty, who moved the motion, said: I think we are only asking for something we should have, and we want the Conference to support us. I take it that the beekeepers in the south are in practically the same boat—up against foul-brood and box hives, and I leave it with the Conference to consider the matter, and give the motion their support.

Mr. Bray seconded the motion.

Mr. Irwin: It seems to me we are up against the same old problem that we have been in the past. Until we provide the funds we cannot have the inspectors. Unless something can be done to provide the funds, it seems no use applying for more inspectors.

Mr. T. E. Clark moved—"That this Conference strongly urges upon the Government the necessity of substantially in-

creasing the apiaries instruction staff, and at the same time particularly urges the appointment of a permanent officer for the West Coast, Nelson and Marlborough Districts."

This was duly seconded, and carried unanimously.

(2) "That the West Coast Branch strongly disapproves of the Conference being held in the north of New Zealand one year and the extreme south the following year, and suggests that the Conference be held in Christchurch and Wellington alternately."

Mr. Baty: We think it would be a good idea that the Conference be held alternately in Wellington and Christchurch for this reason: If the Conference is held in a central position it is fair to everyone.

Mr. Irwin seconded.

Mr. Bates: One point I wish to bring to your notice is the number of beekeepers from each island who will attend the Conference in the other island. How many North Island men have we here? The same few will attend wherever it is held. If we had it north and south alternately it would be a good thing, but not necessarily in the two centres named, but centres which suit each island.

Mr. Barker: This is a big question. I think I was the chief person who caused it ever to be moved from Wellington, because I thought it a fatal mistake to always hold the Conference in one place. I had very little support then, but it is different now. Permanency of the National really depends on the shifting of the place of meeting to different centres. I think it has been proved by experience that nearly every beekeeper who once attends a Conference follows us, and I think it should be held alternately in the two islands; but the National should meet at different centres in each. The main thing we want to do is to keep the National moving from one part to another, and everyone will look forward to the time it is due in their centre.

Mr. Clark recommended that the West Coast remit be considered when deciding the place of meeting following the 1923 Conference.

### AUCKLAND BRANCH REMITS.

(1) "That the 1923 Conference be held in Palmerston North."

The motion was moved and seconded, and carried unanimously.

(2) "That the Conference consider the matter of drawing up rules and regulations and registering under the Friendly Societies Act."

Mr. Baty said it was a matter his Branch had talked over, and they thought it would do no harm to bring the matter before Conference, as it would have a far-reaching effect in the matter of obtaining subscriptions, following out the principle which is customary in connection with Friendly Societies, whereby a member is



liable for his subscription until he sends in his resignation by letter. He thought it would be worth trying.

Mr. Baines said this matter had been considered some years ago, when Mr. Brickell was secretary, and it was found to be not practicable. Mr. Baines could not give the exact reasons, but would interview Mr. Brickell regarding the matter.

It was decided to leave the question in the hands of the Executive.

#### RANGIORA BRANCH REMITS.

(1) "That the Department of Agriculture be asked to give a receipt for all apiary registrations, and would suggest that the registrations be acknowledged in the N.Z. Beekeepers' Journal, thus saving the Department the expense of posting individual receipts. This would provide some small financial return towards the Journal expenses.

Mr. J. A. Campbell (Director of Horticulture): The question of using receipts was gone into at the time registration started. The benefit of using receipts was recognised, but held not to be of sufficient importance to warrant the trouble and expense. He knew occasional difficulties would arise where a man would be challenged for not having registered his apiary. His name would not appear on the records, but he would possibly make the statement that he had registered, and had posted his registration card, and no one could say that he had not done so. If receipts were issued, we could call on him to prove his contention, otherwise could prosecute for non-registration, and leave the matter to the Magistrate to decide whether the man's word should be taken. In most instances his word would be taken. Acknowledging registration through the Journal would be quite feasible in one sense, but you would have to get the regulations amended so as to provide for it. But it would mean the publishing of several thousand names. I do not think the amount got out of it would pay for the cost of paper required to publish the list.

Mr. Irwin: Would the present registration card with another leaf attached in the same form as a cheque butt meet the requirements? When a man registered his apiary he could give the card to the postmaster, who would initial the receipt.

Mr. Campbell: If there happened to be a fee it would be all right, but it is free registration, and the Post Office would charge for that sort of thing. The scheme would work satisfactorily enough, but I do not suppose the Department would consider it, as it would cost too much.

It was moved and seconded—"That the matter be left over until after the reading of Mr. Barker's paper on Registration of Apiaries."

(2) "That this Branch condemn any idea of a tax on apiaries."

The Chairman pointed out that there was no motion for discussion put forward by the Branch.

It was moved and seconded that the remit be received.

(3) "That the Department of Agriculture be requested to consider the advisability of again allowing Branches to nominate men as being suitable for apiary inspectors."

It was thought this referred to the appointment of local inspectors, and these appointments were still being made. The Department was quite willing to consider the application of men who wished to act in such a capacity.

It was proposed and seconded that the remit be received.

(4) "That the Conference consider ways and means of improving the financial returns to the honey producer of the South Island, so as to save the heavy expense of sending crops to the North Island to be blended, and then sent back to the local markets, resulting in a loss to honey producers of about 1½d. per lb. for transit expenses."

It was pointed out that this was clearly a matter for the H.P.A., and the Secretary was instructed to write the Rangiora Branch to this effect.

#### HAWKE'S BAY BRANCH REMIT.

"That enough Conference Reports be printed to enable all the Branch members to have one."

Mr. Baines said that heretofore the Report of the Conference had been printed separately from the Journal, the Department of Agriculture having made a grant of £20 towards the cost. This assistance had been withdrawn, and his intention this year was to embody the Report in the Journal and thus save the additional expense. The remit could be met by having additional copies of the Journal embodying the report printed for distribution.

The remit was referred back to the Executive with power to act.

#### AUCKLAND PROV. BRANCH REMITS.

Voiced by Mr. A. H. Davies.

(1) "That an endeavour be made to get tariff on N.Z. honey imported into Canada removed."

Mr. Davies stated there was an excellent market in Canada for our honey, but we were handicapped by the tariff.

Mr. Sage said he had relatives in Canada who had written him on the excellence of N.Z. honey they had been able to obtain there, and asked if there was a likelihood of more being sent to that country.

Mr. Campbell pointed out that it would be necessary that any communication to the Canadian Government would have to be made by the N.Z. Government.

It was then decided that the Executive lay this matter before the Government for them to act.

(2) "That we recommend to the Branch Associations the advisability of advertising in the local papers the necessity of the owners registering their bees and the penalty attached to the failure to register."

The remit was seconded by Mr. A. Baty.

Mr. Davies pointed out the wonderful effect such an advertisement had on the Waipa District, a very large number of people registering bees who were not known by those in the district to be in the possession of bees.

After discussion, it was decided that this was a matter for the Branches to deal with as their finances would permit.

(3) "That in the opinion of this meeting the delay in the grading of honey is most unfair to the producer; and that a strong recommendation be made to the Department with the object of having the present unsatisfactory method altered immediately."

Mr. Davies spoke strongly on the matter, stating that often four and five weeks elapsed between the receipt of the honey in the grading store and the time of grading.

Mr. Sage also spoke in support of the remit.

Mr. G. Westbrooke (Grader) said he would like to challenge anybody to prove that honey had remained on the floor ready for grading for any length of time. He gave the dates of his attendance at the grading stores during the month of May, which in no case exceeded an interval of a week.

Mr. J. A. Campbell (Director of Horticulture) spoke on this matter and his instructions to the graders. He said that he had instructed the graders to use all possible despatch in grading honey to avoid accumulation at the grading store. The graders were doing their best under the circumstances.

Mr. Gibb supported Mr. Campbell.

Mr. Davies stated that the object of the remit was to bring the notice of the Department to the conditions ruling, chiefly at the Auckland grading store, and was not intended as an attack on Mr. Westbrooke. He admitted that a big clearance had been made in Auckland since the remit was sent forward by the Branch, and was quite willing to let the matter drop.

#### AUCKLAND BRANCH REMITS.

(1) "That the appointment of a Chief Apiarist be again brought before the Minister of Agriculture."

The Secretary read a letter received from the Director-General in reply to a similar request being made last year, indicating that the appointment rested largely on the affirmation or refusal of the beekeepers to the voluntary registration fee.

It was decided to leave this matter open until the discussion arising out of Mr. Barker's paper, "In Defence of the Registration of Apiaries."

(2) "That a levy of 1/- per member of the National Association and its Branches be made annually for the purpose of forming a defence fund, such fund to be set apart from the general fund and devoted to defence purposes only, the last Conference having agreed that the matter should be brought in at once."

The Secretary read the decision arrived at on the question by the Executive last October, which was:—"The Executive, realising that urgent cases may arise when assistance may be demanded from this fund, and in view of the considerable opposition to this fund being made compulsory, the Executive recommends that a voluntary contribution on the scale suggested of 1/- per apiary per year be made, and the Branches are recommended to support the proposal and invite subscriptions. Any application for assistance in fighting a case must be made to the Executive through a local Branch."

The discussion seemed to indicate that this matter had been satisfactorily dealt with. The Branches and parent body were authorised to accept subscriptions for the establishment of the fund, and members could support the scheme if they wished.

(3) "That it be urged on the Minister of Agriculture to increase the penalty for infringement of the Apiaries Act from £5 as it now stands to £20, and if it can be done in accordance with law to make the minimum penalty not less than £2."

This was taken with the remit from the West Coast Branch—"That it be a recommendation to the Government that the fine for keeping diseased bees be increased, the maximum penalty not to exceed £50."

The Secretary read the report of the Standing Committee at last year's Conference on this matter, in which the Director-General had stated that the insertion of this item, with the other amendments recently passed, would have endangered the passing of the whole. The matter would be noted for future consideration.

Mr. J. A. Campbell (Director of Horticulture) warned them not to press for a £50 penalty. There was always a possibility of a magistrate viewing the various breaches of the Act in a very different light to the beekeeper, and there was a danger of simply a conviction and costs being imposed without any fine at all, and we should miss the very thing we were after. He advised them to stick to the maximum penalty being increased to £20.

Mr. A. Baty (West Coast) agreed to withdraw his remit to fall into line with that from the Auckland Branch, which was carried.

(4) "That the registration papers or cards shall contain a column or line to denote the kind of hive the person registering is using, and that no box hive apiary be registered, and the penalty clause be inserted therein for non-registration. Registration to be strictly enforced."

The Secretary read the account of the discussion of this matter at last Conference, and the feeling of the meeting was that Mr. T. W. Kirk's remarks made at the time, "that no man would register himself as owning box hives, knowing that by so doing he was liable to prosecution," still applied, and the motion was received.

Mr. Bray moved, and Mr. Irwin seconded "That the Department be asked to institute annual registration of apiaries and give a receipt to the beekeeper, also to collect statistics on the registration card of the number of colonies owned and the production of honey and beeswax."

Mr. Campbell (Director of Horticulture): Notices of registration are sent to all beekeepers. If you want free registration press for it, but you may not get it. The present system cost a few hundred pounds. It would be much more satisfactory to most people to have annual registration.

The motion was carried.

#### IN DEFENCE OF REGISTRATION OF APIARIES.

DEPARTMENT OF AGRICULTURE:  
OUR FRIEND OR OUR ENEMY?

By W. E. BARKER.

"A fig for those by law protected,  
Liberty's a glorious feast,  
Courts for cowards were erected."

—Burns.

Mr. President, Ladies and Gentlemen,—

I feel somewhat diffident in opening up this subject, as the Department has the somewhat uncomfortable or unlish way of meeting criticism by kicking one in one's bread-basket. Last time I passed some remarks on this subject it cost me £10, but as I gained what I was after I suppose I ought not to complain, but must try and avoid their heels in the future. Which reminds me of a good story.

When I was at college a young man who had more spirits than sense was prosecuted for knocking down a man in a town in Gown Row. He was promptly hauled before the magistrate for morning tea next day and fined £5. As he was leaving the court, passing the grinning face of his late adversary, he knocked him down again, saying, "Oh, if it only costs a 'pony' I'll have another," and he got it.

This paper, however, is not written in the spirit of retaliation.

A Department well run undoubtedly could be of great advantage to our industry, but as run under the present system is most unsatisfactory. Mind you, I don't blame the Department; they can only act according to their funds, and if the Government will not vote sufficient money, we cannot expect them to provide more inspectors or to do their work more efficiently than they do at present.

I am not touching on the question of grading; in that alone the Department has justified its existence, and no country in the world looks upon its markets, its output of honey in better condition, than does the Dominion of N.Z., and the higher we can keep that standard of quality, the better for us. Due credit also must be given to them for the putting into force of the Foul Brood Act, the drafting of which, however, we are indebted to Mr. I. Hopkins. By the bye, I see in last month's Journal our old friend is accusing your Executive with mis-management. He however, is a clean fighter and hits straight from the shoulder; no kicking in the stomach and hiding behind a law book when he was at the head of affairs, and I hope he may long be spared to flourish his shillalagh. It is on the administration thereof that I crossed swords with the Department, but I do not want to say anything against the inspectors, they are good fellows all, but I do think absurdly much is expected of them.

Your Executive met in Wellington last October and spent a long day in working out a schedule of registration, interviewing Dr. Reakes, Director-General, and I must say I was very disappointed on receiving the following letter, for I thought by thus taxing ourselves we had sufficiently shown our sincerity to deserve better treatment at their hands. Here is the letter.

Wellington, 25/3/22.

With reference to the correspondence which has passed between us regarding the proposal that a registration fee should be placed on apiaries, and that the money obtained should be divided between the Association and the Government in the proportion of one-fifth and four-fifths, the Government's proportion to be used for the payment of salaries of additional inspectors whose travelling expenses would require to be borne by the Consolidated Fund, I now beg to inform you that after giving the matter the most careful consideration, the Government regrets that it cannot see its way to go on with the proposal. When, however, conditions return to normal, the Government will be pleased to give the matter further consideration in the light of the circumstances then existing.

Yours faithfully,

(Signed) W. NOSWORTHY,

Minister of Agriculture.

Under the present staff operations are quite farcical and inadequate. An inspector gets word of someone having foul-brood at Peel Forest. He makes a hasty inspection, leaves instructions, then has to leave for the West Coast, leaves instructions, then on to Blenheim, then Dunedin, or has to hop it to Wellington. He never has a chance to make a return visit to see if his instructions have been carried out. What is the result? In one case I know of a poor widow having 60 colonies who had such a meteoric visit, got a fright, sold all her hives at a great sacrifice to a neighbouring apiarist who probably laid the information. Her neighbour also got notification, but being a man of business if not of sense, said, "Oh, I aint going to do anything, he won't come round again," and he did not, and that beekeeper is still in existence and doing well. You cannot blame the inspector—he is going as hard as he can.

I know of one other district which used to get big returns of honey; now they get none owing to the ravages of foul-brood. The beekeepers consulted me, and I told them what was the matter. They had never heard of foul-brood, nor of that "rara avis," an inspector, though their output ran into some tons of honey. If it were not for the unscrupulousness of business, I would be inclined to suggest the appointment of local inspectors to follow up the visits of the inspectors; but this has, I expect, proved a failure, as it is not advisable to set a thief to catch a thief, and I am afraid not infrequently local inspectors have abused their privileges to their own advantage; at any rate, they have been accused of so doing, so that I do not consider it right or advisable to make use of their aid. The Department may say: Why did not Mr. Barker inform the inspector of these cases? That is just it. As a rule, an apiarist does not care to inform an inspector against his neighbour unless he wants to buy his bees cheap or clear him out of the district. Often enough as it is he is wrongly suspected of having laid such information when such has been laid by others. I know of another case that occurred some years ago. The matron of a Government Sanatorium found some bees in boxes, so being fond of them applied to her Department for patent hives. After 18 months or two years she got them, and for ten more that Sanatorium was never visited by an inspector. When I went there she had left, the bees had foul-brood and had died, her successor not caring for them. The boxes and frames were rotting, and scattered abroad, and the foul-brood departed for pastures new. Then what is the best thing to do? We are all fired off petitioning for a Chief Inspector. "First catch your hare before you cook him," is a good recipe, though what the Department will do if we do not pass such a resolution I do not know, as this prospective has been a rich plum, or a bunch of grapes or a bundle of carrots they have dangled before the nose of their present

staff for years, and never an inspector that was not sure that an inspector's baton rested in his motor kit.

Friends, I see nothing else for it but urge the Government to push on the registration fee. A very fair schedule has been worked out, which in the end I feel certain will be money well spent by every apiarist, and that would allow the Department to justify its existence, and I would suggest that this Conference urge the Government to re-consider its decision not to impose a registration fee. I know there are many of my beekeeping friends who see not with me the wisdom of thus taxing ourselves, and unfortunately they are mostly those who will not put themselves out to attend our annual Conferences and see both sides of the question. All good beekeepers arrange their business so that they can take their holiday at the National Conference. I recently met a newly-married couple, both enthusiastic apiarists, who had decided to unite their forces. I told them that they were most unpatriotic not to have arranged it so that they could be with us to-day. They said they really couldn't wait any longer. Of course we can sympathise with them, but with most beekeepers non-attendance at the Conference is just stupidity, and then when we pass some resolution that they think affects their pockets, there is a great howl, and then they send in their resignation instead of waiting to consider and debate our reasons for so doing at their Branch meetings.

But it has always been a puzzle to me why the general taxpayer should have to pay for the upkeep of our industry. They may well argue if the honey producers, why not the butcher, the baker, the candlestick maker. Up till now the interests of the beekeeper have been kept up and looked after out of the pockets of the few enthusiastic members of the National and the H.P.A., aided by a small subsidy by the Government.

The bulk of the honey producers have calmly put in their pockets the extra profit we have secured for them by organisation, and I think the time has come when every beekeeper should pay his share towards the proper organisation of the industry, and the keeping down of the diseases of the bees in the Dominion, especially when the proposed registration fee works out at a smaller rate per colony.

Till the crack of doom there will always be those who will prefer to deal with the middleman—many that cannot help themselves; but when they are registered I believe most of them will in time realise there are two organisations striving to improve the price of honey for them and to help them to buy their wherewithal of their business at the cheapest rate.

I remarked that a fair schedule had been presented to you: I wish to qualify that remark. I wish to say personally and I think every member of your Executive would have preferred to have seen the man having one to four hives registered

at at least 1/- per colony. It was only on seeing the unbending attitude of the Department and Dr. Reakes and listening to their points of view made us think it politic to give away on this point for the present. The Department's attitude was that it would cost more than the tax brought in to collect it. This I consider an error, and in any case a short-sighted way of looking at the question, considering the commensurate benefits that should accrue to the industry from universal registration. 'Tis the careless beekeeper we must keep in order or suppress, for I think we are all agreed that the stamping out of foul-brood and kindred diseases lies largely in the extermination of the one-hive man or his proper supervision, and I feel confident that upon the imposition of the fee the majority of those small hive men who are not enthusiasts or intent in making a business out of their bees would drop out, and the menace to the industry be thus easily removed.

I therefore think the Conference would do well to urge the Government to impose universal registration, and I trust some such resolution will be passed.

Mr. Bray: Is the Department against collecting the tax from men owning up to four hives? They have been arguing against this annual registration. At present they are spending a lot of money and getting nothing.

Mr. Irwin: The proposal was carried at the last Conference, and was put before the Minister. They would not ask the small man to pay a fee, as it seemed as if we wanted to push the small beekeeper out altogether. Two or three modifications had been discussed and submitted at different times, the position as it now stands being that agreed upon by the Department and the Executive. To tax the small man meant serious opposition from all quarters, and this, coupled with the fact that after the tax on these small men had been collected, the actual result for our purposes—that of providing money for the salaries of additional inspectors—was nil; it would cost as much to collect as it realised; therefore, it had been decided to agree to the exemption of the small beekeeper.

Mr. Sage: I think the principle of the tax is wrong. We should be able to get the necessary help from the Department, but perhaps, through no fault of their own, they have not been able to give us what is considered necessary, so we must accept the alternative, and that is to help ourselves. I have had a fair experience with foul-brood, and am not exaggerating in computing my losses at £1,000 from that cause. If the registration fee was going to be an assurance against foul-brood, I would gladly give £20 a year.

Mr. Clark: As it seems that the Department have settled it definitely by turning down the proposed registration fee, we can only move that we ask them to reconsider their decision for the purpose of

appointing an increased staff and a Chief Apiarist.

Mr. Irwin: Before we go too far, I should like to point out that we are asking the Department to place a tax on us, and we are ready to be taxed fairly heavily. At the same time we are asking for the appointment of a Chief Apiarist, who will no doubt largely control the expenditure of the money raised by the tax. Would it be possible to get an understanding with the Government that we should have a Chief Apiarist appointed with very wide powers in the appointment of his assistants and the dismissal of them if they are not satisfactory. The man who is to be at the head of things must have the confidence of the beekeepers and full authority. He emphasised the fact that it would be a great calamity if the Chief Apiarist appointed had not the confidence of the beekeepers.

Mr. Baines: When this matter was brought up some years ago, Mr. T. W. Kirk, the Director of Horticulture at that time, stated that the Department would not under any consideration allow any person or Association to dictate as to what they should or should not do in the appointment of any officer. The Association had every right to recommend a man as being in their opinion the most suitable for the position, and the recommendation would receive every consideration from the Department; but at the same time this did not guarantee that the person nominated by the Association would be selected to fill the position. The only thing we could do was to recommend a man and leave it at that.

Mr. Irwin: I should like to ask Mr. Campbell what are the obstacles that have hitherto prevented this matter getting through. Two years ago we asked for it. At the present time nothing seems to stop it except that the Minister says we cannot have it. If we can find out what is preventing it being put through, can we do anything?

Mr. J. A. Campbell (Director of Horticulture) said the Minister was the guiding individual. He gets his advice from his responsible officers. If he decides that the proposal is not good policy, that is enough.

The following resolution, proposed by Mr. Bray and seconded by Mr. Baines, was put and carried unanimously—"That this Conference asks the Department of Agriculture to reconsider its decision on the matter of the imposition of a scale of fees for registration of apiaries, in order to provide funds for the appointment of an increased staff, including a Chief Apiarist."

A hearty vote of thanks was accorded Mr. Barker.

## THE NEW GRADING REGULATIONS.

By E. A. EARP, Apiary Instructor.

I am very pleased to have been present to hear Mr. Barker's paper. Mr. Barker said the forming of the grading regulations justifies the existence of the Department. That is very satisfactory, considering there has been more or less opposition to the regulations governing the grading of honey.

Prior to the regulations coming into force there were a number of beekeepers who were willing—in fact, anxious—to have their honey graded. There was also another section opposed to it. However, the opposition was overcome, and in 1915 the first regulations were brought down, and we worked very satisfactorily under these regulations until 1922, when new regulations, with very little alteration to those in existence, were put into operation.

My purpose now is to give you some idea of what we want, what we are trying to do, and to educate those beekeepers who are more or less careless in the manner in which they send their honey into store.

I just want to make one or two remarks on the question of honey. Beekeepers are scattered throughout the country. Some of you are producing honey which may be termed "water white"; others are producing what is known as "medium amber," and each of you with your own local prejudices, support your own particular honey; and if it doesn't get into that standard which you think it should, you raise certain objections.

We produce no bad honey—the bees produce no bad honey. The bad honey which comes into the grading store is the result of the beekeepers' manipulations in many cases. The question that concerns you, therefore, is the classification of your honey, which the graders have to do for you and your buyers, and then it is the duty of the buyers to find the market.

You may be producing a very white honey, and people may like it, but transfer that honey to another district, and the people there will tell you it possesses no flavour. If people in the bush districts were to send their honey into districts where they have been prejudiced or where the taste is for mild, it would receive a very poor reception.

The Honey Producers' Association are trying to overcome the difficulties with our export. They are putting forward a very good blend, which is meeting the opposition to the local prejudice, and the honey is finding a very ready sale in districts where it has not done so before.

My duty as a grader is to deal with this honey once you have sent it in, classifying it as regards colour, and then placing it in its class—either Special, Prime, or Good. Previously, of course, there was a manufacturing class, but that has been cut

out. These regulations are prepared to guide us and also guide the beekeeper. Section 5 No. 3 of the regulations sets out very clearly what we expect first of all from the beekeeper who is producing the honey—that is, he should separate his honey as it is taken and mark separately. Quite a large quantity of honey comes into the grading store packed in cases similar to what you see here—(very light petrol case), which is a typical case of what comes into store and what we are expected to pass. Quite a number come into store packed similar to this—(standard export case, branded, but no extraction mark). What you want to do is when you run the honey off from your tanks into your tins, mark it separately A., B., C., D., E., F., according to separate extractions. We do not care how great or how small the number of cases is, provided you will give us a separate extraction mark. The first extraction may be water white; the second may be white; the third may be light amber. If you bunch the three, then there are difficulties at the store, and we are up against the question of allotting and grading under the colour class. Where we have to keep definitely to colour so the buyer may buy on the colour, we want you to mark your honey. If you follow the instructions in marking honey separately, then that difficulty is overcome.

This season quite a large quantity of honey has found its way into store which, on examination, proved to be white, light amber, and dark. There were no distinguishing marks, and the beekeepers submitted it as one line. The question crops up—which line should it go in?

We do not wish to penalise, but we are trying to arrive at or set up a proper colour class, so that the buyer at the other end may not be dissatisfied when he receives it.

Quite a number of beekeepers jumped into stride when the regulations first came down, and they have never altered, season in and season out. During the past five years they have carefully separated their honey, got their honey in the right grades, and received highest points that can be allotted. On the other hand, there are quite a number who consistently, notwithstanding the instructions which have been given them, send into the grade store cases in a more or less dilapidated condition and no particulars of the extraction mark. By conforming to the regulations, it not only helps you out and places your honey into a better grade, but assists the graders to carry out the work in the grade store much more rapidly, and they can then move on to the other grade stores, and you get your returns quicker.

If you want to make the work difficult for the graders, keep on with your mistakes. As soon as it is found that the honey varies, it is held over pending instructions from the Company in Auckland. I do not know that I can be too emphatic in asking you to mark the separate grades

at the time you are drawing them off from the tank.

The next thing I wish to touch upon is that all honey submitted for grading must be granulated. I happened to be present when a discussion took place on the delay in grading and the cost to the producer in the stores. This could be avoided and expenses saved if you will take time to examine your honey before sending it forward to the grade store. Some of you are under the impression that immediately you rail it you are going to get it graded and get cheques by return mail.

When we arrive at the store and find your honey liquid, we turn it down, and you can obviate the trouble by keeping the honey in your own honey-house, where you get cheaper storage. Since I have been grading, from Lyttelton to Bluff there are beekeepers who consistently send in their honey to the grade stores liquid.

Quite recently the management of one of the works where honey is received for grading stipulated that honey was not to come in in a liquid condition. The very first shipment that came to hand arrived in a liquid condition. Shortly after it arrived there, I received a communication from Auckland inquiring why it had not been graded. I could not grade it: the regulations expressly state that honey must be in a granulated form, and so long as these stand we cannot grade liquid honey. The result was that honey was held over. My advice to you is—if you have not got sufficient storage room to store your large crops of honey, build extra accommodation and provide your own storage.

There is another point that I want to stress in connection with the packing of your honey, and that is the amount that you endeavour to get into your cases. I have had honey come into store that had to be rejected because the beekeeper, when using lever top lids, had actually floated his cap on top of the honey, and in order to secure the cap I placed a piece of brown paper over it to hold it in position. The whole trouble arises through trying to get 60 lbs. of honey into the tin which should hold only 59 lbs., the result being that the honey is rejected. This is a mistake which is frequently made by beekeepers, and trouble arises at the store because we are not able to secure the caps. It has been suggested that we should take out a little of the honey, but I do not believe in the practice of allowing any storeman to interfere with your honey or any honey coming into store. I will not allow anyone to touch the honey except myself, and that practice I have made insistent, so that in the event of trouble arising at any time the responsibility should not be placed on my shoulders or those in charge of the stores. Far better that the beekeeper come in and see his own faulty pack. The regulation states that the tin shall be provided with a leak-proof cap, either

press in or screw cap, and shall be secured either by soldering or any other device, provided the director agrees to it. This is the first season the screw cap has been tried in this district, and I cannot tell yet what will be the ultimate result.

As far as honey coming into store is concerned, it has opened up this season in a better condition, and the pack has presented a better appearance when we have started to grade it. The only trouble with screw caps where beekeepers are not using small strips is that there is a tendency for them to receive a bash. They present the same appearance as that of a top hat after a row, and there is some difficulty in removing the caps. When the beekeeper has taken the precaution to place a little bit of timber on the cap, it has arrived at the depot in excellent condition. Previously it was not an uncommon occurrence for me to arrive at the grade store, and find on opening up the cases that the tin was already opened without removing the cap. The caps became dislodged in transit, the result being that in many cases the honey had to be turned down. There was trouble through the air getting in. We are awaiting the result of a practical test, and if they prove satisfactory on arrival in England, they will be of benefit and great advantage.

This season I have had to turn down quite a quantity of honey through beekeepers not following the instructions issued by the Company, resulting in a large quantity arriving at the grading store with the caps varying from 4 in. up to 10 in. in diameter. The regulations provide for a 3 in. cap. I am not going into the question as to the advantages or disadvantages of a big cap. Those of you who had your honey turned down this season through caps being over-size were previously instructed, and you had definite instructions from your Company not to use anything larger than a three-inch cap, and the responsibility must be borne by the beekeepers who work contrary to the regulations.

Just a few words in connection with the oiling and lacquering of tins. Some of the beekeepers are apparently under the impression that it is only necessary to oil the tops, but as we have to weigh the tins in order to arrive at the correct weights, it is then we find that your tins are not properly oiled or lacquered. Then your line has to be turned down. Some beekeepers oil the tops or the sides and neglect the bottom. They seem to think this is farthest from the grader, and will not be noticed. When the honey is taken out to be weighed, it is quite obvious to the grader that either lacquer or oil is dear. My experience, after handling a large quantity of honey is that there is no better oil for the purpose than boiled linseed oil. It gives the tin quite a nice appearance. I think we are directly responsible to Mr. Cottrell for using linseed oil. Wherever it has been used in the south, I find it gives better results, and is

better than lacquer. Lacquer rubs off and does not present a nice appearance.

The regulations provide for dividing up the honey under separate points—Flavour, Colour, Condition, Grain, &c., but cutting out Packing. It was thought that it was not right to penalise a beekeeper on account of his packing. Now we are giving a description of the packing; that is to say, we are marking it Good, Fair, Bad. (Mr. Earp at this stage exhibited a petrol case.) This is far too light, and the beekeeper has not taken the trouble to scrape off the brand of petrol. The cases should be neatly branded, and should present a similar appearance to this (standard export case), and in every case one end should be left clear for the grader to place his stamp where it can be easily seen by the Customs official when passing it for export. Many of you still persist in branding both ends, and as Mr. Westbrook has already pointed out, one end must be kept clear. I want to warn you against branding both ends of the case. Under the regulations we can hold up your honey until the cases are packed. Many of you also are under the impression that your honey will get stolen in transit to the store, and you securely pack your honey and nail it down securely. I have seen cases with sixteen nails at each end. When nailed up so securely, a good deal of trouble is experienced in opening up. It means time and money to you and expense to the Company. It can be more satisfactorily done by using three or four nails.

These are the only points I wish to touch on in regard to export. There has been a steady improvement in the get-up of the honey for export right through the South Island. Whether it is because the beekeepers have been penalised I cannot say, but we are very careful to give you the necessary instructions so that you will get your honey promptly graded and shipped.

There are a few beekeepers who still persist in neglecting instructions. They may be persistent, but as long as they are persistent their honey will be held up until they comply with the regulations. On the other hand, many have steadily improved and met the department in the proper way.

Mr. Clark moved a very hearty vote of thanks to Mr. Earp for his instructive address, and this was carried by acclamation.

At this stage the Conference adjourned.

#### AFTERNOON SESSION.

Mr. C. J. Clayton demonstrated his system of treating foul-brood with a live hive of bees on the roof of the Y.M.C.A. building. Although the weather was very cold, and the bees not very keen on leaving the brood, the carbolic cloth shifted them.

Mr. Clayton's demonstration was followed with interest by a number of the visitors, and a hearty vote of thanks was accorded him.

#### ADVANCED METHODS OF BEE-KEEPING.

By R. GIBB.

I feel that I have flown rather high in offering to give a paper on "Advanced Methods of Beekeeping." I am afraid you will be expecting something fairly good. The more I think of the subject, the less I seem to know. Remember, they are not all my methods. What I intend to speak on this time is not advice to beginners, but just a few good points that I have seen worked among beekeepers as an inspector, and also since that time.

I have seen how many of the best men in New Zealand have done their work, and have tried to embody their best ideas in running my own apiary. I will just roughly run through various things. First of all,

#### SITE.

Most beekeepers look back upon the day when they first thought about beekeeping, when they had their first swarm. My advice to the beekeeper is to get into real good country—heavy dairying countries, where the farmer times his land and uses a top-dressing of super phosphates.

Bees live upon the clover bloom. Try and get heavy dairying land, well limed. The lime applied to the soil is just that great liberation of plant food which clover thrives on. Phosphate is used largely in the South, and it is that manure which encourages plants to flower and produce pure seed. The beekeeper should, if possible, get into places of this description.

#### SITE OF HONEY-HOUSE.

Most of our dairying lands offer undoubtedly some ideal places for a honey house. My ideal honey-house is one built on a hillside, where the honey can be run by gravitation from the extractor to the tank below.

Advantage of the Gravitation Scheme as Opposed to Pumping.—I have worked a pump in Southland very satisfactorily, and have seen them worked satisfactorily in many parts of New Zealand. The honey pump works best where the extractor is up off the ground, and the honey runs to the ground. My new honey-house, which will be built in the spring, will be on a hillside.

Arrangement of the Different Articles in Use in a Honey-house.—Speaking to advanced beekeepers, nothing below a four-frame extractor is worth considering, because of the large number of frames you can get in the extractor. A small machine has a tendency to break the combs, but with the larger extractor (six or eight-



frame), you can understand that the circuit that the combs are travelling round being greater, there is less resistance, and consequently less liability to break the combs.

The use of large machines, of course, means that we must also use power, and there are four kinds of power possible—steam, petrol, water, or electric. Of the lot, I think electric is the best. A great many beekeepers make the mistake when they buy a petrol engine in procuring one too small. You should, I think, in buying engines, get one that will do a little more work than is intended. In buying an engine, beware of the battery engine. I have had a good deal of trouble with them in the past. That is where the electric motor excels. My own is an English engine, the National, which gives great satisfaction. Where we can get a local article we should purchase it. Water power is more dependable if the honey-house happens to be on the hill. Steam is a good thing if in the main yard. Most of the larger beekeepers are branching out into out-yards. There are two or three methods of running out-yards. You might have a car of some description. You might run out-yards and have complete plant there; but that is expensive, so you may run a lorry and store your tins and keep your honey in it. In flat country it might be better to bring all the combs home to one centre.

Steam is a very handy commodity to have at the home yard. Even if you do not use it to drive your extractor, it is handy for melting wax and cappings, and supplies the steam required for your honey knife. In the Lea knife we have the steam circulating round the back. Big improvements could be made in that. To run the steam tubes right through the handle with suitable projection would, I think, be better.

Then there is the matter of keeping melters at the home yard. Some in the past have been worked by lamps, but then we have the fumes. These melters are very useful articles, but the honey from them should never be put in the tank with other honey.

Matter of Arrangement in the Honey-house.—The beekeeper should have the door of his honey house so placed that he lifts his supers off to the attendant who is uncapping so that he will not have to work round. The super is put down, and with two or three deft strokes the comb is uncapped. The boy takes it, and pops it into the machine.

What I want to impress upon you is that you have your honey-houses so that you will obtain a maximum of output with a minimum of labour.

#### HIVES.

If you go round the country, you will find the man who uses 8-frame hives. They are nearly dead now. A few use 12-frame. I think that if you are going to run an

apiary, you should stick to standard right throughout. My advice is to stick to the 10-frame.

I make my own hives, using my engine. At the end of the season, being a more powerful machine than the 1½ Gilson, I simply take the belt off the extractor and put it on to the saw-bench, and make everything from start to finish.

#### ROOFS.

I have experimented with roofs, and have come to the conclusion that the flat roof is just the thing. The gable roof is harder to make; it does not keep the water out. I do not use mats. I make sure that my frames have got a bee space above the frame just a-quarter of an inch, and the bees seal it down. It is a little hard to get off at times, but give it a kick with your boot.

#### BOTTOM BOARDS.

We older beekeepers remember the old style bottom board made by the Alliance Box Co. To-day they make a different one, which is the reversible. You can make a simple one yourself; as long as it does the work it is all we want. The one I make is composed of two pieces of board nailed on to a cleat 3x1½. Now see the advantage. The cleats are put on so that the space between them is just the size of the lives, and when I want to shift bees, I simply start with a new bottom board reversed, place the hive on it, and I have my bees confined. You can shift 150 hives in a very short time, and that is what counts in commercial beekeeping, and that bottom board is good enough for Southland.

Next we come to wiring frames. There are a lot of cumbersome ways of wiring. I get the length required to wire a frame, then tack two nails half the length on a board, and wind the wire round the nails. Then bind the wire in two or three places to keep it from twisting, knock one of the nails out, lift the wire, and cut right through one end, which then gives you your wires all cut to length, and you have both hands free for wiring the frames.

Now we come to extractors. In the larger outfit there are two different kinds of outfits to be procured—one is gear, the other friction driven. I use the gear. I think advanced men cannot do better than buy the friction. I have never worked the Gould. You can take the baskets out and clean them.

We next come to melters. The fault of the Baines melter is that all the heat is applied to the bottom, and that is just where your honey is dripping from the tubes and receiving the greatest amount of heat, and it gets scorched. The fault is that the tubes have no circulation, and the steam rises to the top. Heat must be applied, so you want a false bottom underneath, so that when plugging across you may turn on steam. I consider that the capping melter has been splendid.

**Honey Knives.**—There is no better than the Lea.

**Storage of honey.**—This is a matter of tanks. I have a tank which holds 144 tons. Mr. Hopkins has spoken of wide tanks, so that they might ripen the honey and get rid of the moisture by evaporation.

Some of you would like to know about specific gravity. It is not hard to work if you get a Twaddles hydrometer, one which will register 80 and 90 deg. Float it in the tank. When it drops to 85 or 86, that honey is ready for tinning. The difficulty is to get the scum to the top. If you want to know the specific gravity, multiply .86 by 5, and you have 430. The specific gravity is 1.420. The best I have grown was that which was 1.430.

Now, another thing about cases. Quite recently I got the best cases. I wanted my honey to go through looking nice. We should try to put up our honey as attractively as possible; we never know where it is going. Of course, the bulk of it is going to London, but it might find its way upon the American market, as there is a good market there. Petrol cases planned up will not look well. We want our cases to be a pleasure to the eye. There should be no necessity for us to have to brand them. What we want is that the Alliance should brand them before they go out. It would be nicer if we had them impressed. When putting honey up into cases, what I do is to weigh two tins, take off 5 lb. for tare, and the nett weight is then 120 lbs.

Another thing the advanced beekeeper might do is to try and improve the race of bees. Those who run a lot of bees often find one hive far outstrips another. They should bring some of these queens home to the main yard.

Mr. Bray asked if home or factory-made hives were best.

Mr. Gibb replied that factory hives were the best.

A discussion on bottom boards, &c., then followed, which terminated with a hearty vote of thanks to Mr. Gibb.

### ITALIAN BEES: WHY I PREFER THEM.

By ROBERT STEWART.

Beginners and those with an established apiary of Black Bees often ask, "What are the advantages of Italian over Black Bees?" and "Will it pay to change?" If you want to make the most out of your bees, either in honey or pleasure, it will certainly pay to change.

First.—Italians are keener workers and will store a larger quantity of honey per colony, for worked alongside Blacks, they and Italian crosses will be out earlier and later in the day than pure Blacks. Italians respond more quickly to feeding

in the Spring, and if it is a season when a bad Spring has given a severe check to bees, Italians from this advantage alone will often give half a crop when Blacks will only have time to build up and gather sufficient for Winter stores before the season is over. This applies especially to districts with a short honey season.

Second.—They are much easier to handle. Italians will, if properly handled, hardly take notice of your opening up their hive in the honey season. The queen will go on laying and the workers keep on comb-building and attending to the young brood and other work while frames are lifted out and handled. It is possible to work all day in an apiary of Italians without a veil and not get a single sting. Contrast this with Blacks running over the combs and boiling over the side of the hive at the least jarring of their combs and disturbance by smoke and handling, and the loss of a day's work by the colony while they recover perhaps in the middle of a honey flow, without taking notice of the stings you get into the bargain.

Third, Swarming.—If given sufficient room from the start to keep them employed, Italians are not given to much swarming, and an Italian apiary will not have more than about ten per cent of swarms if the working room is given them. But the biggest advantage is that Italians, if deprived of their cells in a honey flow, go ahead piling in honey while Blacks under similar conditions will sit down and wait till they raise another crop of cells and do little work till they either swarm or the season gets so far advanced and they give up the idea of swarming.

Fourth.—In re-queening a colony or needing to find the queen for any purpose, an Italian queen is quite easily found and a couple of minutes is usually quite sufficient, as the bees stay quiet on their combs; while Blacks get so excited that it may take an hour or more to find her, with bees running over the combs and robbers getting a fine start on the demoralised colony.

### ITALIANISING.

If you decide to Italianise your colonies there are several ways of doing so. If you have only a few hives or your purse will allow it, the easiest method is to procure an untested Italian queen for each colony and introduce them after killing off the old queen. With a fair sized apiary it may be preferable to do your own queen rearing. In this case procure from six to twelve untested Italian queens from some reliable queen-breeder towards the end of the honey season, introducing them to your Black colonies. As soon as they begin to breed up in the Spring see that the colonies with the Italian queens are kept well supplied with stores. As the season advances you will be able to pick out say two of the best from which to raise the queens, after picking on your breeders. Keep the others going ahead, feeding them with a little sugar syrup or with an occasional

comb of honey kept over for that purpose, and about six weeks before you expect to start raising young queens give each Italian colony, except the ones picked as breeders, a frame of drone comb in the centre of the brood nest. About the time your Black colonies start to raise drones, go through them and remove all drone comb. If this is not practicable go through each colony every fourteen or sixteen days and destroy their drone brood. About three weeks before the time your first colonies usually begin to build queen cells, select say four of your strongest Black colonies, put half their brood above an excluder, leaving the other half and the queen below. Four days later insert two combs near the centre of the brood nest in each of your two breeding colonies. Four or five days later remove the bottom storey to a new stand of the colonies with brood above the excluder. Next, place the top storey on old stand. It is now a queenless colony, and all brood about sealed over. If any queen cells have been started, destroy them, and insert one frame with eggs from the breeders in each of the now queenless colonies; also cut out a half-inch wide strip through the comb where the eggs are, and pare the lower edge on the top side where the strip is cut out to a V-shape, and insert the frame in the centre of the brood-nest. Now, feed a little to each of those now queen-raising colonies. A frame of honey with the cappings bruised on one side is about the best to give them. In four days examine them, and for each queen cell started that you can later on cut out and transfer to another hive; you can now proceed to deprive a black colony of its queen. Eight days later you can transfer an Italian cell to each black colony made queenless, after destroying all cells started on their own brood. It is well to remember when transferring those cells to handle them carefully; also they must not be allowed to get chilled by exposure to cold air, nor yet exposed to a hot sun. Either of those conditions for more than a minute will injure or destroy the immature queen in the cell. A variation to transferring the cells is to have nursery cages or frames to insert the cells into, and as the young queens hatch out, place one in the brood nest of each queenless black colony, having first destroyed their own cells on the eighth day. For best results the young queen should not be more than a few hours old when dropped amongst the bees.

Another procedure is to start by getting, say, two tested or select tested queens about the middle of the season, and by a similar method raise cells for all your black colonies about the end of your honey flow. When the first hive or so in the apiary starts to worry at the drones, it is time to have your cells started, and as fast as you can get sufficient cells going kill off the black queens and insert an Italian cell to hatch out. At this time of the year there is no need to bother about the late cells started by the black colonies,

because the Italian cell you insert should hatch out first, and the young Italian queen will herself destroy any cells started. This lot of young queens will probably nearly all get mis-mated, but their bees will be far better workers than blacks, and as their drones will be Italians, you can the next season go ahead and re-queen again—this time with a good prospect of a fair amount of pure mating.

Where honey production is the main object, it is not necessary to have all your queens purely mated, but it is absolutely necessary to have several pure Italian colonies of a good strain to raise queens from when re-queening your colonies. It is the greatest mistake for anyone to raise queens from stock of mixed blood, as such are liable to have the worst traits of both sides and the good points of neither.

Mr. Ward: Do you think better queens are raised by the Alley method—that is, without disturbing the egg, or by the grafting method?

Mr. Stewart: If there is no damage done there can be no practical difference.

Mr. McLean: Do you think it advisable to use cells prepared by the bees themselves.

Mr. Stewart: It is all according to the reason why they reared cells. If a colony had a queen that had done good service for two years, and the cells raised were for supercedure, they would be quite satisfactory to use; but it is far better to raise cells from a colony that doesn't want to swarm but is sticking to its work.

A very hearty vote of thanks was accorded to Mr. Stewart.

## POOLS AND CO-OPERATION.

By R. W. BRICKELL.

One of the interesting studies is to follow the gradual development of the exchange of goods from the very earliest days of barter down to the present time, through small stores and merchants until we come down to modern times with an intricate system of distribution involving all classes of the community.

The primary producers are gradually awakening to the fact that they—the men on the land—have not been getting as much of the value of their labour as they might, and out of this awakening has developed a number of marketing schemes. A writer on dairy produce recently said:—

“It is patent that under existing circumstances we are absolutely at the mercy of a few manufacturers of dairy produce, and are without the slightest say in the disposal of our output. To illustrate or point my argument, a few months ago the butter manufacturers and exporters

struck an adverse market in London, and made a loss. But they shed no tears. Why should they, with the obvious remedy at hand? They simply conferred, and proceeded to recoup their loss by lowering the price of butter-fat to 9d per lb., and so the dairy farmer 'carried the baby.' I repeat, whenever they choose to join hands the manufacturers have the cream supplier under the whip. But many will ask: What is the remedy? In my opinion, what is required is prompt organisation of the dairy farmers in a union of their own to promote the interests of dairy farmers. Equally, or more urgent, is the necessity to set up a purely co-operative butter manufacturing company, owned and run by the producing shareholders only, with articles of association so drafted as to eliminate utterly the 'dry shareholder' problem. With some 4,000 cream suppliers in Otago, we have not one co-operative buying factory to safeguard our interests. It but needs a start, and a purely co-operative company confined to producers would eliminate the enormous waste involved by the present system of competing manufacturers. Yet it is from the capital and labour expended by these voiceless thousands that the pool promoters derive their economic and business existence."

Beekeepers have that for which all the other primary producers are striving, by way of meat pools, grain pools, dairy pools, &c., under their co-operative movement—namely, marketing under their own control.

It is an interesting fact that because of the co-operative movement in New Zealand the producers of honey have for some years past, and are at the present moment, getting more for their honey than are the honey producers in any other part of the world. These facts show clearly that no beekeeper, unless he be a philanthropist, can afford to stay outside the co-operative movement.

I commend the above facts to your careful and serious consideration.

Mr. Brickell was accorded a hearty vote of thanks.

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**N.Z. CO-OP. HONEY PRODUCERS' ASSN. AND THE INDUSTRY.**

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By H. FRASER.

Mr. Chairman, Ladies and Gentlemen,—

I heard Mr. Brickell say that he had been busy for a fortnight; I have been busy for five months. When I came down here, I was hoping to get into the meetings and hear a good deal more about bees and honey; but I have been hard at work down at the factory. Mr. Rentoul was going to speak to you regarding the H.P.A. in the industry, but pushed me on to it.

What I want to say to those persons who are not members of the H.P.A. is just a

little thing that happened on my way south. Last year we had one big producer in the Manawatu district, and he got dissatisfied and left us. One of the big merchants in Wellington, who had dealt extensively in honey before the H.P.A. came into existence got his honey crop. There was a break in the H.P.A., and the wholesale merchants were going to get control of the honey industry. When speaking to people there about "Imperial Bee" honey, they said, "A. S. Paterson are out on the honey market again. What is wrong with you?"

That is a very important thing—one man breaking away who was a member.

We have an organisation which has extended extraordinarily since I have had executive control. We have got the London packing depot going; gone into the supplies factory here; and are looking round the world for other markets. It is just a question of time getting honey into various channels. It is starting a new line which is taking a little time.

We have other ideas in view when we have finished with London. We can get into the West Coast of Canada and Vancouver. That is one of the policies the Board has in view for extending the market for surplus honey.

At the present time in New Zealand we have an organisation now to handle honey. We can handle twice or three times the quantity at practically the same cost, except containers. The rent or staff would not need to be increased one iota. We want everybody to make the industry go ahead as much as it has been going ahead lately. We must realise that we have not had a normal year since the H.P.A. came into existence. Take, for instance, our London house. They were holding up the price of New Zealand honey, but the honey from other parts of the world is 30, 40, 50 per cent. lower than ours because they have no organisation. The foreign brokers go in and buy at the sales. A says to B, "I want No. 39," and B does not bid against him. B says, "I want 116," and A refrains from bidding on that line. That is the way the marketing of the surplus honey of other countries is being carried on in England. Some of our shareholders told me that prior to the H.P.A. being in existence they sent their honey (white) Home, and received 2½d.

In regard to ours at the present time, in handling our last year's honey, I have to say it is very satisfactory, and we ought to be at the end of this year in full swing, and then we will be able to deal with producers in New Zealand who are selling their honey on the market against us.

We want people to go to the H.P.A. for honey. We do not want to put the price up. Let the public get a good article at a fair price and the producer a good return. At the present time we have had to drop our local price 1d. per lb. because the man outside the Association has been

able to sell just under it. Those persons who are not members should consider, when making future arrangements, that there is only one concern in the honey industry in New Zealand that can handle successfully, and that is the H.P.A.

These are the things that I wish persons who are not shareholders to think of, and make up their minds to join up with the H.P.A. The price we are selling at now is quite reasonable to the producer and to the consumer; but what we wish to do is to sell double the honey, so that our overhead charges will come down in proportion. It means a great thing if we can double our sales in New Zealand; we can reduce our overhead expenses very considerably.

I may say that since January 1st, 1922, we secured 100 new members. That shows we are getting the support, and I hope by the time we get back to Auckland there will be considerably more. I have applications to come in from districts where the directors have been working, and there may be another twenty.

Mr. Baines gave a brief outline of his experiences in marketing and exporting honey previous to the existence of the H.P.A., and strongly urged all those in the industry to become shareholders in the H.P.A.

A hearty vote of thanks was accorded to Mr. Fraser.

The Secretary read a letter from Mr. R. Hutchinson, expressing his regret that he was unable to attend the Conference, and requesting that his paper be read.

### THE NECESSITY FOR KEEPING BETTER BEES.

By R. S. HUTCHINSON, Kerepahi.

In the keen business world of to-day, when competition is rife in all branches of industry, one must keep the "best" or lose one's trade. It is so with beekeeping—the best bees first; then the best appliances are necessary to produce the desired result—a good honey crop.

The total honey crop of the Dominion for the season ended 1921, as given in the last April issue of the N.Z. Beekeepers' Journal, works out at an average of less than 33 lbs. per colony.

In New Zealand we have all the latest methods and most modern appliances; we have a State Experimental Farm, where professionals freely impart their knowledge; we have the Beekeepers' Journal to spread any new ideas; and yet our average yield of honey per colony is so low!

To my mind, in endeavouring to obtain an increased surplus, methods and appliances count for little when compared with strain of bees kept, for after all bees

alone are responsible for the gathering of honey. Man has not yet discovered any other system. Hence the necessity of keeping the best possible class of bees, and to produce them we must go back to the queen, which should be young, raised from proved honey-gathering strains, and as nearly non-swarming as possible. Some years ago the well-known American beekeeper Doolittle said all there is in beekeeping centres in and around the queen. The statement is as true to-day as when first uttered. It follows then that to be really successful, a beekeeper first of all requires a sound knowledge of queens and queen-breeding.

Compare a dairy farmer who has good pastures, a plentiful supply of water, and sanitary yards and shed fitted with the latest machinery, but has poor dairy cows, with one who maybe has not so many conveniences and appliances, yet has good stock. The returns of the latter invariably exceed those of the former. Similarly, the cropping farmer, on the best of land, using all the latest knowledge in regard to tillage, &c., but regardless of one of the great essentials—the class of seed—is frequently disappointed with his small returns. Why, then, should a beekeeper expect to be successful with poor stock—namely, either old queens or those of inferior strain? No methods or appliances will make up for this defect, not even in the best localities during a good season.

There are several well-known systems of breeding good queens economically which are not difficult for the average beekeeper to master; hence there is no excuse for poor queens, which undoubtedly mean poor returns.

More attention devoted to breeding good bees and correspondingly less time spent in manipulation of hives and equipment would certainly result in the desired larger surplus of honey. When the flow is on colonies of good bees require little attention, sufficient storage room being about the only essential. They will speedily do their part and fill all available space; in fact, such is their instinct to collect honey, that to prevent them from accumulating at this stage the hive entrance would actually require to be closed. On the other hand, poor bees, requiring much building up before the honey flow commences, and needing constant attention afterwards to prevent swarming, often cannot fill their allotted combs. Such being the case, surely no thoughtful beekeeper, contemplating the daily progress of the best colonies in an apiary, can arrive at any other conclusion than that it is principally good bees that make for such outstanding success. Notwithstanding this fact, there exists amongst beekeepers many methods which are said to improve the honey crop. Why not give the bees the credit to which they are entitled—not the method?

It may be noted, when speaking of keeping better bees that a young queen is a safe slogan, although an older queen

of a better strain will quite often make the best showing, in spite of the young queen's stimulating effect on a colony. So it comes back to the all-important point, the strain of bees from which to breed queens. It follows, then, one should select breeder queens from colonies that have consistently given the best results. Lastly, with regard to our strain of bees, let us use the old saying, "Make our good better and our better best."

A hearty vote of thanks was extended to Mr. Hutchinson for his contribution of so interesting a paper.

The session having concluded a little early, Mr. J. Murdoch, of Ross, volunteered a paper, and the Chairman (Mr. L. Irwin) accepted the offer with thanks.

1862—WESTLAND—1922.

THEN AND NOW.

By J. MURDOCH.

Only 60 years! you say. A lifetime to many; to most who trod those golden shores in the feverish lust for gold there remains but a memory of that hardy band of pioneers who braved the hidden dangers of an almost impenetrable bush, roaring mountain torrents, treacherous quicksands, floods on land and storms at sea.

There were only a few adventurous spirits who travelled through Westland prior to 1865; but in that year, when the news was circulated of rich gold having been found, they came from all parts, every man determined to make his fortune as quickly as he could. Some told me they expected to dig up the gold just as we dig up potatoes. Some were going to make their fortunes in ten years, and then go home to the Old Country and live like lords. Some came, never to return; some were swallowed up crossing our rivers; some were lost in the bush, and have never been heard of from that day to this; some, sad to relate, fell victims to the murderous attacks of a gang of bushrangers—Burgess, Levy, Sullivan. The man who turned Queen's evidence afterwards told of their exploits in the vicinity of where this is being written. One story is told of a gold buyer who was in the habit of going from the bank on a certain day of the week along a bush track to a neighbouring mining township composed principally of calico tents. The gang determined to await his return with the gold and waylay him in the bush, and so determined were they that in spite of the wet and cold they lay concealed until long after dark, waiting for—what? They could still be waiting there, for the banker had gone home by another track!

We had all classes and conditions of men here on the goldfields. Many have since gone West. Some were college bred

men, who came out for the benefit of their country; some cooks' sons, who have left their mark in the land of their adoption. Truly, "All the world is a stage, and all the men and women merely players; but each man in his time plays many parts."

The early pioneers of this part of "God's Own Country" were men of many parts. They had to have a knowledge of many trades; they endured many hardships; they had long hours of hard work; they had to be content with many strange kinds of food when travelling through the bush; they had to carry swags of 80 lbs. (sometimes over that weight) up hill and down dale, over rivers, through bush, hanging on to supplejacks, sometimes advancing two feet and then sliding back again. These men must have had the constitution of a horse and nerves of iron. How many men have we to-day putting up with the hardships of the gold-seeker in the back ranges? Some say we have too much sense. The old chaps say, "You haven't got the innards for the job." True, oh, King! Then the men were hardened by adversity; now we are pampered in the lap of luxury.

Come with me to the top of Mount Greenland, a nice four hours' walk through virgin bush from Ross. This tourist resort is not very well known; if it were many more of our tourists would visit it in the summer. There is an iron hut on top free to campers. On a clear summer morning one may look away to the north, and with the naked eye can trace the Hokitika River wending its way through Kanieri, Koiterangi, and coming right round to the back of Ross. Lake Mahinapua lies just below; the Totara Lagoon stretches right from Ross almost to the Lake. With a good pair of field-glasses one can pick out the houses in Hokitika and Kanieri. Looking further north, you can pick out the Paparua Ranges and Point Elizabeth, which lies beyond Greymouth.

Turning south, the coast-line and bush in never-ending wave upon wave greets the upturned eye, until one is lost in wonder, love and praise at the grandeur of Mount Cook standing boldly out in his mantle of white, greeting the voyagers to our shores, and proclaiming to all the world the existence of the Ruler of the Universe whom men call God.

To-day one can motor from Hokitika to the Franz Josef Glacier (Waiho Hotel) in six hours. In olden times six days might be occupied in doing the journey.

To-day we send sheep and cattle over the Otira Gorge to Addington. In the early days mobs of cattle were driven from Canterbury to Westland, and were made welcome in every mining camp they passed. No abattoirs in those days! On arrival at a mining camp a bullock would be shot, strung up to a tree, dressed and sold right away.

Sixty years ago there was not a house—not even a bee-hive—within coo-ee of where I am sitting, unless there happened

to be a hive in one of the trees. To-day beekeeping is still in its infancy here, compared with what it might be were an intelligent use made of the many profitable appliances and ideal locations still open for selection in what has been termed "Wild and watery Westland." My friend who used the above title lives in sunny Nelson. He wanted to hear of someone getting a five-ton crop here, but I am sorry I cannot oblige him yet; but perhaps he would exchange cheques with a friend of mine who in a season of only nine weeks got over four tons from 50 colonies.

The past season seems to have been bad all over the Dominion, so we cannot complain under the circumstances if we do not get more than our friend with his 50 colonies.

We are often amused at the impressions in the minds of visitors who come here and happen to strike a wet spell. We cannot ignore facts, so I made application to Mr. A. Chesney, of the Lands and Survey Department, to give me the record for the last six months of rain and sunshine; the number of days shown as days with rain refers to the number of days upon which rain fell at any time within the 24 hours, between 9 a.m. and 9 a.m. For instance, a full day of bright sunshine may be experienced and rain may fall during the night or early next morning, so that day (of 24 hours) is recorded as a day with rain.

	Inches rain.	Sunshine, hrs. min.	Rain.	Sunless days.
1921.				
Oct.	15.34	106 4	27	8
Nov.	12.71	181 8	23	6
Dec.	13.52	200 22	23	5
1922—				
Jan.	10.80	273 24	11	2
Feb.	3.73	528 ..	8	..
Mar.	12.87	147 12	26	2
Totals	68.97	1136 10	118	23

The above table shows at a glance actually what sunshine we had during the months that count in making up your cheque at the end of the season.

The spirit of the early miners has descended like a mantle on the sons. They were always looking forward to the day that they were going to strike it rich and make their fortunes. We are looking forward to better days, when our isolation will be relieved by the opening of the Otira Tunnel; when the despised and neglected shores of the Golden West will again ring with the contented hum of its happy workers.

The want of population hampers many of our public works, as owing to the length of our coast and the scattered homes of many workers, our railways, roads and bridges are not what they would be with more population.

I was very pleased to see from the pen of Prof. Hewitson:—"The sources of power in our coal-fields and in our lakes and rivers are an incalculable blessing.

Our coal resources in quantity may not be very great, but in quality our coal stands high. You will remember that the steam-producing power of West Coast coal was established some years ago, when a man-o'-war, which was in harbour in the Pacific, was caught in a hurricane. Steam was got up and the vessel headed out to sea in the face of the gale. Our water-power is probably of much more importance than our coal power; it is so great, so well distributed throughout both islands, that the day will come when domestic life will be largely revolutionised by the introduction of electric light and power into almost every home in the Dominion." If science during the next 25 years makes as rapid strides as it has done in the last 25 years, you will be able to fix a storage battery under your armchair, press a button, and up you go! As far as the West Coast is concerned, there is not the slightest need to use one ounce of coal for our light or power purposes. We have water-power enough and to spare to generate all the electricity we need to run our railways, light our towns, drive our engines, cook our food, and warm our homes—all this water running to waste and very few harnessing it up. One of the exceptions is the Electric Dredge on Rimu Flat, near Hositika. The power is derived from the waters of Lake Kanieri, and should you visit the Coast see this dredge, and you will marvel at the wonderful power of electricity. Not only can our rivers and lakes be harnessed, but many of our creeks can be utilised for power in the same way as the miners lift the water to the required height by digging water-races with just sufficient fall for the purpose. For the beekeeper, who requires only a small amount of power, these creeks are ideal, as they can in many places be harnessed cheaply.

"Some of the flavours of the West Coast honey are awful!" was the opinion expressed in an article appearing in the Journal last year. I might also say that some of the butter made, some of the cheese, some of the bacon cured by some people, not necessarily on the West Coast, are simply awful! However, you can judge for yourself from this sample now before Conference. I believe every man should stick up for his country; then if your district can produce a good article, why not stick up for it? In ancient Greece, Mount Hymettus, near Athens, was famous for its honey. In France the honey of Narbonne is prized because it is white and scented. In Malta the honey has a fine aroma, because the bees collect it mostly from orange blossoms. In Madagascar and in Mauritius there is a bee which produces green honey with a peculiar scent. To-day wild honey bees are still plentiful in Palestine. When our Lord came back to His wandering Disciples, He asked them for something to eat, and they gave Him a piece of honeycomb. The Book of Proverbs says, "My son, eat thou honey because it is good."

In the early ages people had no sugar, but honey is often mentioned in the Bible, and the Egyptians used it in embalming the dead. Then honey was used, but now it is produced to a greater extent than ever, and it behoves us to advertise it more, eat it more, boost it more.

In conclusion, let me repeat a few lines from a picture of an old man sitting on the grass. He is busy making the old-fashioned skep, and, viewing the new frame hive, he says:—

"I've made these skeps for many a year,  
But I shant make any more;

For one thing the boxes 'ave knocked 'em  
out,

And another—I'm seventy-four!

"I like to think of the bees as I cut

These straws to their proper length;  
And the One who gives 'em power to work  
Is the One that gives me strength.

"I sometimes watch 'em a flittin' about  
On the flowers—red, yella, and blue;  
And I says to myself, 'They're a-workin'—  
A-workin' for me and for you.'

"And I tries to take this lesson to heart,  
As I looks at the humble bee;  
The honey they makes, why it ain't for  
themselves.

But for others—for you and for me!"

—(Applause.)

During the reading of the paper, Mr. Murdoch was rudely interrupted by a member.

The Chairman apologised to Mr. Murdoch for the interruption, and asked the meeting to pass a very strong vote of censure on the one responsible for the interruption. This was carried emphatically.

Mr. Baines, as secretary, also apologised to Mr. Murdoch for the slight that had been offered. It was the first time in his experience that such a thing had occurred. "For my part," said Mr. Baines, "the paper just read is one of the very best I've heard at any conference, and it was quite a treat to be taken away for a few minutes from "Constitution" frames, box hives, disease, etc., into God's fresh air and beauty described by Mr. Murdoch.

Mr. E. G. Ward: I should like to second what Mr. Baines has said. I have attended most of the conferences that have been held, and I cannot call to mind a paper that has given me more pleasure than Mr. Murdoch's.

A hearty vote of thanks was accorded Mr. Murdoch, who stated that the interruption did not worry him; he was still prepared to do whatever he could to help the Conference, and what had happened would make no difference.—(Applause.)

The Conference then adjourned.

### THIRD DAY—FRIDAY, JUNE 2nd.

#### MORNING SESSION.

The Conference resumed on Friday morning, Mr. T. Clark presiding.

#### AMENDMENTS TO THE CONSTITUTION.

The Chairman stated that the Executive had gone into the matters that had been referred back to them, and would ask the Secretary to read Clause 10 as now proposed.

Prior to the Annual Meeting at which they are to be elected, every Branch or member paying his fees direct to the General Secretary may nominate a representative to serve on the Executive, which shall consist of not more than six members, including President and Vice-President.

From the nominations so made, the meeting shall elect four members. Should not sufficient nominations be received, the quota shall be made good from members attending the Annual Meeting. The Secretary-Treasurer shall be a permanent officer, his appointment, remuneration and removal being entirely in the hands of the Executive, subject to three months' notice on either side. Remainder of clause unaltered.

The motion that the amendment be made was moved by Mr. T. Clark, seconded by Mr. Murdoch, and carried.

Clause 17 to read:

At the Annual or Special General Meetings, delegates may represent the District Branch and vote on the following basis: one vote for every 5s. subscription paid by every member of the Branch. The official delegate shall exercise the total voting power of the Branch. In the event of a Branch not being able to send one of its own members as a delegate to the Annual or Special General Meeting, it may appoint any member of the National Association to act. Every delegate shall be entitled to exercise his voting power as his judgment dictates, after hearing the discussion in open conference.

(NOTE.—The delegate's certificate from a Branch must state—(a) The number of members who are financial; (b) the total number of hives owned by such members; (c) the number of votes to which the delegate is entitled.) The certificate to be signed by the Branch President and Secretary. Members of the National who are not members of a Branch shall have the same voting powers—i.e., one vote for every 5/- sub-paid, and such votes may be exercised by a duly authorised proxy.

Proposed by Mr Bates and seconded that the amendment be made.—Carried.



Mr. Clark: On the matter of Branch organisation, the Committee appointed to consider same have come to the conclusion that the following proposal is about all that can be done:—That the General Secretary and the Branch Secretaries arrange a series of dates for their respective field days, so that it would be possible for a member or members of the Executive to attend each field day in rotation.

Proposed by Mr. Clark, seconded by Mr. Gibb.—Carried.

#### ELECTION OF OFFICERS.

Mr. T. Clark (President) said he had great pleasure in nominating Mr. E. W. Sage for the President's office. Mr. Sage had always been keen for the betterment of the industry, and Mr. Clark had had great opportunities of seeing a little of what Mr. Sage had done as a director of the H.P.A.

Mr. Bray seconded.

On the motion—"That nominations close for the office"—being passed, Mr. Clark declared Mr. Sage the President for the ensuing year.

Mr. Sage took the chair amidst applause. He thanked the members for the honour they had conferred on him, and assured them he would do his best to further the interests of both the National and the industry generally.

The following gentlemen were elected:—Vice-President, Mr. A. R. Bates; Executive—Mr. J. Rentoul, Mr. T. E. Clark, Mr. R. Gibb, Mr. H. N. Goodman; Auditor, Mr. W. R. Brickell.

Mr. Baines proposed a hearty vote of thanks to the retiring officers, which was carried by acclamation.

A vote of thanks was accorded the Press, after which the President declared the Conference closed.

## New Observations on the Natural History of Bees.

By FRANCIS HÜBER.

(Published in 1808.)

(Continued from last issue.)

It is of much consequence to be intimately acquainted with this species of queens, for they may have great influence on different experiments, and may embarrass the observer: we should ascertain whether they inhabit pyramidal cells smaller than the common or hexagonal ones.

M. Schirach's famous experiment on the supposed conversion of a common worm into a royal one cannot be too often re-

peated, though the Lusatian observers have already done so frequently. I could wish to learn whether, as the discoverer maintains, the experiment will succeed only with worms, three or four days old, and never with simple eggs.

The Lusatian observers, and those of the Palatinate, affirm that when common bees are confined with combs absolutely void of eggs, they then lay none but those of drones. Thus, there must be small queens producing the eggs of males only, for it is evident they must have produced those supposed to come from workers. But how is it possible to conceive that their ovaries contain male eggs alone?

According to M. de Reaumur, the life of chrysalids may be prolonged by keeping them in a cold situation, such as an ice-house. The same experiment should be made on the eggs of a queen, and on the nymphs of drones and workers.

Another interesting experiment would be to take away all the combs composing the common cells, and leave none but those destined for the larvæ of males. By this means we should learn whether the eggs of common worms, laid by the queen in the large cells, would produce large workers. It is very probable, however, that deprivation of the common cells might discourage the bees, because they require them for their honey and wax. Nevertheless, it is likely that by taking away only part of the common cells, the workers may be forced to lay common eggs in the cells of drones.

I should also wish to have the young larvæ gently removed from the royal cell and deposited at the bottom of a common one, along with some of the royal food.

As the figure of hives has much influence on the respective disposition of the combs, it would be a satisfactory experiment greatly to diversify their shape and internal dimensions. Nothing could be better adapted to instruct us how bees can regulate their labours and apply them to existing circumstances. This may enable us to discover particular facts which we cannot foresee.

The royal eggs and those producing drones have not yet been carefully compared with the eggs from which workers proceed. But this ought to be done, that we may ascertain whether these different eggs have secret distinctive characteristics.

The food supplied by the workers to the royal worm is not the same with that given to the common worm. Could we not endeavour, with the point of a pencil, to remove a little of the royal food, and give it to a common worm deposited in a cell of the largest dimensions? I have seen common cells hanging almost vertically where the queen had laid, and these I should prefer for such an experiment.

Various facts, which require corroboration, were collected in my Memoirs on

Bees; of this number are my own observations. You can select what is proper, my dear Sir. You have already enriched the history of bees so much that everything may be expected from your understanding and perseverance. You know the sentiments with which you have inspired the Contemplator of Nature.

Genthod, 18th August, 1789.

#### LETTER II.

##### SEQUEL OF OBSERVATIONS ON THE IMPREGNATION OF THE QUEEN BEE.

Sir,—All the experiments related in my preceding letter were made in 1787 and 1788. They seem to establish two facts which had previously been the subject of vague conjecture, (1) That the queen bee is not impregnated of herself, but is fecundated by copulation with the male; (2) That copulation is accomplished without the hive and in the air.

The latter appeared so extraordinary, that, notwithstanding all the evidence obtained of it, we eagerly desired to take the queen in the fact; but as she always rose to a great height, we never could see what passed. On that account you advised us to cut some part off the wings of virgin queens. We endeavoured to benefit by your advice in every possible manner; but to our great regret, when the wings lost much the bees could no longer fly; and, by cutting off only an inconsiderable portion, we did not diminish the rapidity of their flight. Probably there is a medium, but we were unable to attain it. On your suggestion, we tried to render their vision less acute by covering the eyes with an opaque varnish, which was an experiment equally fruitless.

We likewise attempted artificial fecundation and took every possible precaution to insure success. Yet the result was always unsatisfactory. Several queens were the victims of our curiosity, and those surviving remained sterile. Though these different experiments were unsuccessful, it was proved that queens leave their hives to seek the males and that they return with undoubted evidence of fecundation. Satisfied with this, we could only trust to time or accident for decisive proof of an actual copulation. We were far from suspecting a most singular discovery, which we made in July this year, and which affords complete demonstration of the supposed event—namely, that the sexual organs of the male remain with the female.\*

\* The remainder of this chapter chiefly consists of anatomical details. These may rather be considered an interruption of the narrative; and the Translator has judged it expedient to transfer them to an Appendix.

#### LETTER III.

##### THE SAME SUBJECT CONTINUED—OBSERVATIONS ON RETARDING THE FECONDATION OF QUEENS.

Sir,—In my first letter I remarked that when queens were prevented from receiving the approaches of the male until the twenty-fifth or thirtieth day of their existence, the result presented very interesting peculiarities. My experiments at that time were not sufficiently numerous, but they have since been so often repeated, and the result so uniform, that I no longer hesitate to announce as a certain discovery the singularities which retarded fecundation produces on the ovaries of the queen. If she receives the male during the first fifteen days of her life she remains capable of laying the eggs both of workers and of drones; but should fecundation be retarded until the twenty-second day, her ovaries are vitiated in such a manner that she becomes unfit for laying the eggs of workers, and will produce only those of drones.

In June, 1787, being occupied in researches relative to the formation of swarms, I had occasion for the first time to observe a queen that laid none but the eggs of males. When a hive is ready to swarm, I had before remarked that the moment of swarming is always preceded by a very lively agitation, which first affects the queen, is then communicated to the workers, and excites such a tumult among them that they abandon their labours, and rush in disorder to the outlets of the hive. I then knew very well the cause of the queen's agitation, and it is described in the history of swarms, but I was ignorant how the delirium communicated to the workers, and this difficulty interrupted my researches. I therefore thought of investigating by direct experiments whether at all times, when the queen was greatly agitated, even not in the time of the hive swarming, her agitation would in like manner be communicated to the workers. The moment one was hatched, I confined her to the hive by contracting the entrances. When assailed by the imperious desire of union with the males, I could not doubt that she would make great exertions to escape, and that the impossibility of it would produce a kind of delirium. I had the patience to observe this queen thirty-four days. Every morning about eleven o'clock, when the weather was fine, and the sunshine invited the males to leave their hives, I saw her impetuously traverse every corner of her habitation, seeking to escape. Her fruitless efforts threw her into an uncommon agitation, the symptoms of which I shall elsewhere describe, and all the common bees were affected by it. As she never was out during this time, she could not be impregnated. At length on the thirty-sixth day I set her at liberty. She soon took advantage of it, and was not long of returning with the most evident marks of fecundation.

Satisfied with the particular object of the experiment, I was far from any hopes that it would lead to the knowledge of another very remarkable fact; how great was my astonishment, therefore, on finding that this female, which as usual began to lay forty-six hours after copulation, laid the eggs of drones but none of workers, and that she continued ever afterwards to lay those of drones only.

At first I exhausted myself with conjectures on this singular fact; the more I reflected on it, the more did it seem inexplicable. At length, by attentively meditating on the circumstances of the experiment, it appeared that there were two principles, the influence of which I should first of all endeavour to appreciate separately. On the one hand, the queen had suffered long confinement; on the other, her fecundation had been extremely retarded.

(To be continued.)

## Mead.

The beemen of old were exceedingly bold—  
To fight and to hunt was their creed;  
And when they made feast from a fresh  
slaughtered beast,

Were they down-hearted? No! not in the  
least;

They washed it all down with some  
mead.

On the day before Conference, hunting  
around

In the H.P.A. Store indeed,  
A member espied, quietly hidden aside,  
A plain-looking label, but what was inside?  
'Twas a bottle of good honey mead!

He brought it forth quickly, and showed it  
around;

"Castor oil!" everybody agreed,

Then he pulled out the cork, put it up to  
his nose,

Quietly asked for a glass, and said, "Well,  
here goes!"

So they settled that bottle of mead.

To the Conference next day every one of  
us went,

As children go out to a feed;

And while they were talking or tapping  
the floor,

A quiet little knot just outside of the door  
Were busily sampling some mead!

The evening session was out on its own,  
A gentleman sold us some seed;

And the same little knot, in the self-same  
spot,

Didn't look for amusement—they had  
quite a lot—

Were again busy sampling the mead.

When nearing the close the gentleman rose,  
Said the ladies objected to weed;

So, taking the tip, and the room being hot,  
We did quietly slip to the door for a spot

From the good old bottle of mead.

America's a place where SOME beekeepers  
live;

Restoration won't come, we read;  
But don't think that the Pussyfoots have  
their own way:

The beekeepers, too, have a little to say—  
They still drink their honey mead.

Conference has ended, and all have gone  
home,

For nearly a year we are freed;  
So now is the time to replenish the wine,  
And as I have suddenly rrrn out of rhyme,  
We'll fill up those bottles with mead.

A. C. W.

"Is natural swarming desirable? This question would be answered differently by different people. Many of our go-as-you-please beekeepers expect swarms, and are disappointed if the swarms do not come. Yet they are likely to lose some of them. But the practical, active American beekeeper does not want natural swarms. He wants the bees under his control, just as much as the other live-stock of the farm. When he makes increase, he wants the queens reared from his best honey-producing colonies, and does not propose to leave it to chance. In Europe it seems to be different. Many so-called practical men think the bees have lost their usefulness when you succeed in preventing swarming. Many "skop" beekeepers think swarming the only proper way of getting surplus; by hiving the swarms, then "robbing" the richest colonies in the fall to return to the original number. It seems to me that the answer is in favour of colony control.—C. P. Dadant, in American Bee Journal.

Of every hundred beekeepers who applaud the benefits of organised production and marketing, there is only a small percentage who actually join with an Association and help carry on. It is as A. G. Aimes says:—"Too many of us stay on the outside and wait until the fellows on the inside make a success before we get in.—American Bee Journal.

## Beekeepers' Exchange.

[Advertisements on this page will be inserted at the rate of 3/- per 36 words per insertion. Cash must accompany order or will not be inserted. Addresses care Editor 6d. extra to cover cost of postage of replies.]

## A P I A R Y F O R S A L E.

An APIARY of 70 Italians, in good order; lots of appliances on hand; also plenty of spring feed in combs; all for removal. Reason for selling: Bad health of owner. Apply

W. WATT,  
Mataura.

**APIARY WANTED;** about 80 Colonies; must be free from disease, and in good clover district.

Write price and particulars to

"BEES,"  
c/o Henderson,  
142 Hanson Street, Wellington.

### COMB FOUNDATION.

If your Mill is Damaged, drop me a line. I will reform the damaged embossing and open up the grooves to make a better wall. This work is done up to September 15th only.

C. SMEDLEY,  
Te Awamutu.

**FOR SALE,** Strong 3-FRAME NUCLEI, with good strain young Italian Queens; guaranteed clean; any quantity; delivery now or Spring. Price on application to

H. R. PENNY,  
Okaiawa.

**WANTED,** a POSITION in a New Zealand Apiary for the coming season; ten years' Queensland experience; can drive a Ford lorry; will pay own fare. Give full particulars wages, &c., to

L. PITT,  
Herris Street,

West Toowoomba, Queensland.

### DEPARTMENT OF AGRICULTURE. BEES & APIARY MATERIAL FOR SALE

It having been decided to CLOSE the Apiary at the Tauranga Horticultural Station, the Department offers the following for Sale:—

58 ten-framed Hives of ITALIAN BEES, with Tested Queens.—£2 10s. each, in lots of five or upward.

160 five-framed NUCLEI, with Italian Queens.—£1 15s. each, in lots of five or upward.

Also Hive Bodies, Roofs, Bottom-Boards, Extractor, Frames, &c., &c.

The Queens are bred from some of the best strains in New Zealand and America.

For full particulars, apply to the Manager, Horticultural Station, Tauranga, or to the Apiary Instructor, Department of Agriculture, Auckland.

### OPENING FOR CADET.

Professional Gentleman and Proprietor of Up-to-date Apiary is Prepared to take Suitable CADET into home and teach Bee-farming coming season; modern methods, including electric extraction. Apiary and house adjoin; one mile rising township.

Address first instance, "X Y Z,"

c/o Editor.

Wanted, quantity wood wire Excluders.

## STEVENSON'S Standard Bee Hives

SAME AS NOW IN USE IN NEW ZEALAND.

Prices, packed f.o.b. Auckland.

Hive Storeys, dovetailed ..	£0 3 3	Hoff. Frames, one groove ..	£1 1 0
Half-storeys, dovetailed ..	0 2 3	Simplicity Frames ..	0 17 6
Roofs with Malthoid ..	0 4 0	Sets of 10 ..	0 2 0
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Hoff. Frames and Wedges ..	1 2 0	Sets of 7 ..	0 1 4
Sets of 10 ..	0 2 3	Sections, per 100 ..	0 6 0

Foundation Stocked. Special sizes cut on application. Prices liable to alteration.

TERMS: Cash or approved bank draft. Other lines quoted on application.

Timber guaranteed dry and good quality. Sizes same as lately supplied to N.Z.H.P.A.

H. STEVENSON, 16 Nikau Street, Auckland.

### FOUNDATION FOR SALE.

We have a quantity of MEDIUM BROOD FOUNDATION For Sale at 3/6 per lb., and can also convert your WAX into FOUNDATION for you if supplied before end of July at 9d. per lb. FIRST CLASS ARTICLE GUARANTEED.

**PEARSON BROS.,**  
Hukanui, St. Claudelands, WAIKATO.

## BAY OF PLENTY COMB FOUNDATION FACTORY.

BEEKEEPERS' OWN WAX MADE UP. 8d. PER LB. NO CHARGE FOR PACKING

Special Quotation for Large Quantities. Comb Foundation Supplied. Small Parcels, 3/6 per lb.; Cases of 25 lbs., 3/4 per lb. Cash Prices.

BUY FROM THE MANUFACTURER AND SAVE MONEY.

**J. W. EXCELL,** OPOTIKI,  
BAY OF PLENTY

After considerable experience the demand for our Foundation Comb has grown to such an extent all over Southland and Otago that we have decided to supply all Beekeepers with our own Foundation Comb, or make up their own Wax.

Local Foundation always in stock.

Also Makers of Hoffman Frames, etc.

Samples and Prices on request.

Address:

**Butler & Hemmingsen**  
83 Teviot Street, INVERCARGILL.

## 1921-22 PRICES OF ITALIAN QUEENS

### UNTESTED

DELIVERY IN ROTATION OF ORDERS MID NOVEMBER TO MID MARCH.

1 or 2.  
7/6 each.

3 or 4.  
7/- each.

5 or more.  
6/6 each.

### TESTED

DELIVERY IN ROTATION OF ORDERS FROM THIRD WEEK IN OCTOBER.

12/- each.

TERMS.—September to March—Cash with Order; Cheques to have exchange added. April to August—Orders for the following Season may be booked; payment at time of delivery.

Any Queen arriving dead at original address replaced Free if Cage is returned unopened.

### REPORT OF LAST OFFICIAL INSPECTION:

Dept. of Agriculture, Industries & Commerce.  
Blenheim, Sept. 15th, 1920.

Mr. J. H. Todd, Renwicktown.

Sir,—Having examined every hive at your Apiary at Renwicktown, I have found no evidence of Foul-brood.

(Signed) A. P. YOUNG,  
Apiary Inspector.

POSTAL ADDRESS:

**J. H. TODD, Renwicktown, MARLBOROUGH.**

## Why Purchase a Bartlett-Miller Reducer ?

Beekeepers need that the fact be emphasised again and again that the Honey Extractor is a boon and a blessing **ONLY WHEN THINGS GO RIGHT**, and even then only for healthy combs. One diseased comb in the Extractor, and—! There are several jobs around extracting time that the Extractor does not exactly make a botch of—it flatly refuses to tackle them at all! These jobs are by no means all of the same importance.

The least important of these "extractor-strike" jobs is the melting of cappings, and despite the fact that most producers imagine that job is the most important one which a Reducer is purchased to accomplish, **IT IS NOT SO!**

Any Reducer to be worthy the confidence and praise of its owner **MUST POSITIVELY** be able to reduce (both rapidly and without trouble) any old and solid waste every season to those who own one.

It is all very well to save the awful bugbear of the disposal of cappings, and for that job alone a Reducer saves its cost by the elimination of mess, worry and waste every season to those who own them.

**S-T-I-L-L**, many honey producers have allowed their minds to become obsessed by the idea that capping reduction is the be-all and end-all of a Reducer's existence, but it was the result of our experience over thirteen years ago that led to the advertising of our invention as distinctly a **COMB REDUCER**. NEVER did we describe it as a Capping Reducer without the additional word "Comb," for unless a Reducer will handle the blackest combs that ever were taken from the worst clogged brood-nest (with pollen, that is), it will prove nothing better than a deceptive fair-weather friend at just the very time when you need a friend in the shape of a utensil that will see you through the stiffest problem of all one's beekeeping experience, and that problem is the saving in marketable shape (without danger of infection) of the wax and honey in combs from the brood-nest infected with foul-brood. Otherwise they must be absolutely wasted, and the amount of good wax and honey wasted every year through the lack of a utensil to conveniently handle the diseased combs would pay twice over for a Reducer for every Beekeeper in the Dominion. We have a letter from one of our purchasers which we expect to publish in next issue if permission is given us to do so, stating that the owners saved seventeen pounds in reducing comb from box hives, purchased by two friends, the other one of whom saved the bees but burned the combs. Each party took half of the Maori-owned boxes, and our correspondent bought a "BOOSTER," and saved his £17!

Of course, the Bartlett-Miller Reducer is specially constructed to handle F.B. combs with safety. The solid matter is lifted by the operator into the front tube space as it accumulates in the other melting spaces, and here it is allowed to remain until all liquid has run from it that will run, only a little wax remaining with the slumgum; then the patented fall-down bottom is tripped, when all matter drops on to whatever the operator has held there to catch it, and it is carried to the wax-supply cask utterly, free from any honey to carry disease again by being robbed. By this means no amount of solid matter worth considering goes with the liquified honey to the separator, although the melted wax does, and is there separated from its liquid partner.

While the one space containing the solid matter is draining its honey, the rest of the Reducer is quietly going on with its job of melting cold combs. The fall-down bottoms are adjusted by means of screw nuts to whatever runaway space the operator desires—from wide open to quite shut.

**ORDER IF YOU SO WISH BY ORDER ON THE H.P.A. AGAINST THIS COMING CROP. THE H.P.A. ARE OUR ONLY AGENTS.**

The Thoroughwork Apiaries, Kihikihi

# NEW ZEALAND CO-OPERATIVE HONEY PRODUCERS' ASSN. LTD.

FACTORY & SUPPLIES DEPOT,  
Mason Street, DUNEDIN.  
Telegrams: "BEEWARE, DUNEDIN."

HEAD OFFICE,  
Stanley Street, AUCKLAND.  
Telegrams: "BEES, AUCKLAND."

WE BEG TO ADVISE SHAREHOLDERS AND BEEKEEPERS GENERALLY THAT WE HAVE PURCHASED THE BUSINESS OF THE ALLIANCE BOX CO. LTD., THE WELL-KNOWN MANUFACTURERS AND DISTRIBUTORS OF

## ALLIANCE SUPPLIES

The Purchase of this Business means that the Beekeepers control not only the Packing and Export of Honey, but also the Manufacture and Distribution of ALLIANCE High-grade Goods, which are so well and favourably known throughout the Dominion.

For the convenience of Beekeepers, we are arranging that full stocks of all general lines will be carried in all the principal Honey-producing Districts. A list of Agents will be published in the near future. In the meantime Supplies may be procured from most of the Firms who handled "ALLIANCE" Goods in the past. Should there be no Agent in your District, write either Dunedin or Auckland Offices.

## HONEY

Will those Beekeepers who are not Shareholders, please note that we have opened up our own Packing Depot in Great Britain, and the early reports to hand justify us in expecting a much larger return from our Export Market than the prices now ruling in the open market of the Dominion.

All Producers feel the need of some modern method of disposing of their produce. The Meat, Butter, Cheese and Wheat Producers are all discussing the advisability of forming compulsory pools. The Honey Producers have formed a voluntary pool, in co-operation, and this voluntary pool is giving good results. There is room in the pool for you. You take up one share for every 4 cwt. of Honey you send in, and we deduct 1/8d. per lb. from the first advance to pay for your shares.

Share Application Forms on application to either Office.

R. W. BRICKELL,  
MANAGER SUPPLIES DEPARTMENT,  
P.O. Box 572, DUNEDIN.

H. FRASER,  
GENERAL MANAGER,  
P.O. Box 1293, AUCKLAND.

# New Zealand Beekeepers' Journal.

## ADVERTISING RATES.

	1-Year	1-Year	1-Year	1-Issue
Whole Page	£10	£6	£3 10s.	£1 5s.
Half Page	6	3 10s.	2 2s.	15s.
Quarter Page	3 10s.	2 2s.	1 5s.	10s.
One-eighth Page	2 2s.	1 5s.	15s.	5s.
1-inch Insertion	1 10s.	16s.	9s.	3s.

## NICHOLAS' FOUNDATION FACTORY.

BEESWAX WANTED in Large or Small Lots. Highest Cash Price Paid.  
Foundation Comb at Lowest Cash Price.

The capacity of our Electric Power Plant has been greatly increased, and the adoption of the latest methods, combined with years of experience in making Foundation Comb, ensures a product unsurpassed by none.

Mr. H. C. Taylor writes:—"I am well satisfied with your Foundation. It seems to me quite as good as any imported I have seen. I fixed over 3,000 sheets without coming across a faulty sheet. You have saved the Beekeepers of the Dominion a large amount of cash."

Customers among the leading Beekeepers of the Dominion.

**NICHOLAS, 3 CALEDONIA ST., HAWERA.**

## Don't Forget

Our Store when anything is wanted in the shape of

## BEE MATERIAL.

Full supplies of all Beekeepers' Requisites kept in stock. Honey Tin Manufacturers. Agents for Alliance Box Co. and for Benton's Capping Melter.

**REMEMBER! If it's for Bees, we have it.**

**H. BEALE & CO., LTD.,** PLUMBERS, TINSMITHS and IRONMONGERS,

P.O. Box 129. Phone 62.

**MASTERTON, WAIRARAPA.**

## A. ECROYD

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A PRODUCT OF THE HIGHEST QUALITY SUPPLIED AT REASONABLE RATES.  
CLIENTS' OWN WAX MADE UP AT SHORT NOTICE.

WRITE FOR QUOTATIONS AND SAMPLES.

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