Apis Club
Cornell University
With Compliments
J. Hopkins
June 1925

THE NEW ZEALAND AND AUSTRALIAN

BEE JOURNAL.

Devoted exclusively to Advanced Bee Culture.

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THE NEW ZEALAND AND AUSTRALIAN BEE JOURNAL

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CONTENTS.

CALENDAR—MAY.

THE honey season of 1883-84 may now be reckoned amongst the things of the past. In taking a retrospective view of it, we can call to mind many circumstances that made it one of the most peculiar seasons that it has been our lot to experience in New Zealand. Commencing with the month of September, we find the middle portion was unusually fine, with exceptionally sharp frosts at night, especially in the inland districts; the latter part being very stormy and wet. October opened fine, and continued so till about the 9th, which raised our hopes, as breeding had been going on very rapidly and the strongest of our colonies were preparing for swarming. With our bees in prime condition, and the aid of favourable weather to bring on the clover, we anticipated a rich honey harvest. But, alas! our anticipations were doomed to disappointment, for nearly the whole of the remainder of the month—when the bees should have been working on clover—we had a succession of wind, hail, and rain storms. Very little honey indeed had been gathered from fruit blossoms, owing to the severity of the weather. There was no change till near the latter part of November, when we had a couple of days or so fair. Through a portion of October and November we counted no less than 39 days in succession on which rain fell. Our bees had scarcely gathered a particle of honey up to the end of the first week in December, for, although some clover had been in blossom about a fortnight, the temperature had been so low that no secretion of honey had been going on. Very little was gathered during the remainder of the month, barely sufficient to serve the bees as food—in fact, it was not until January set in that our bees were able to make any headway at all, and then only at intervals. By the end of the month they had pulled up a bit, and were able to gather a little from dandelions and thistles during February; but white clover, the plant we look to at Matamata to give us our main crop of honey—we have no other—proved almost a total failure. However, we do not anticipate having another season like the last for many years to come, and we are somewhat consoled by the

fact that very old colonists do not remember such a one before.

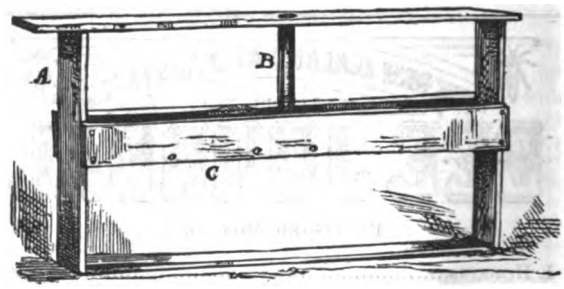
Those who, like ourselves, have to depend on white clover have suffered the worst, more especially those located inland. In districts near the sea coast, and places where there is a variety of pasturage, bee-keepers have come off much better, although in no case that we have heard of has there been, at the most, more than half a crop secured. Even in this case we must congratulate ourselves, and be thankful it is no worse; for in California, at present one of the largest honey-producing countries in the world, bee-keepers are often more unfortunate than we have been this season, so that we must not complain but do our best and wait patiently till next season, when, in all probability, we shall be able to more than make amends for the past one.

WINTERING.—Wintering bees successfully in any part of the Australasian colonies should not by any means be a difficult matter. The conditions necessary to ensure success are very simple indeed, and when these are complied with, there need be no apprehension for their safety.

All preparations should be made this month. Each colony should be overhauled, sufficient food provided, top boxes removed, bottom boards cleaned, and extra mats of some warm, porous material provided; weak and queenless colonies should be united and all made snug.

UNITING.—No time should be lost in uniting very weak and queenless colonies. We have already given instructions for uniting, but for the benefit of new subscribers we repeat them: When two or more are to be united, move the weakest a few feet each day till alongside of the strongest. In the evening, remove some of the side frames in the strongest hive, and move those on which the bees are clustered to the side of the hive; place one or two vacant combs next to the bees, and gently lift out the frames with the bees adhering from the other hive and hang them next to the vacant combs, put on the mat and close the hive. It is as well, before uniting, to remove one of the queens—where there are two—and cage her, in case anything should happen to the other. Many bee-keepers sprinkle all the bees before uniting with scented syrup, to give them the same scent; others smoke them for the same purpose, but we have always been very successful without either. To save risk of losing a very valuable queen, we would recommend caging her as in the usual way when introducing queens until all danger of fighting is past.

FEEDING.—The best food that can be given for winter stores is sealed honey, but where this is not to be obtained, a syrup made of the best sugar will answer, provided it is given to the bees before very cold weather sets in. Any colonies not having sufficient stores to carry them through the winter, should accordingly be fed this month, so that any evaporation of the syrup required may be accomplished while the warm weather lasts. Another reason why feeding should be done this month is, that it is better that bees should not be disturbed more than is absolutely necessary during cold weather. A very good syrup for feeding at this time of the year may be made by adding a half-pint of water to every pound of sugar used; boil for a few minutes, and when cool it is ready for use. Various feeders have, from time to time, been devised for supplying the food, but almost any one will do in warm weather; for rapid feeding, a tin dish two or three inches deep, with a thin, wooden, perforated float to keep the bees from being smothered in the syrup, if placed on top of the frames, is as good as any. In cold weather this would not answer, as the bees would be unable to reach it most of the time. The food then should be put down amongst the cluster to keep it warm and handy for the bees. A simple form of feeder we saw mentioned by a correspondent in an American bee journal, and almost the same as that described by Mr Brightwell in this issue will answer the purpose. Any bee-keeper will be able to make a ½doz. of these in a very short time. [See engraving.]



FRAME FEEDER.

All that is required for making this feeder is a broad or narrow frame, and three bottom bars for making the trough, unless a deeper trough is needed, then other pieces for the sides may be substituted. Two feeding troughs instead of one may be fixed in the one frame if so desired. The troughs should be given a coating of hot beeswax, to make them perfectly tight and to prevent the wood absorbing the syrup. The tube shown in the engraving, with its end running through the top bar, is for convenience of pouring the syrup into the trough without removing the frame. If the trough is a deep one, then it would be better to use a float.

Everything should be done to prevent the interior of the hives getting damp, as this is very liable to cause dysentery amongst the bees. Covers should be examined, and any cracks that would allow leakage should be stopped. A strip of tin tacked over a crack and painted will answer the purpose. An extra mat or thin chaff cushion laid on top of the frames will retain the heat and keep the colony warm. There should always be good ventilation at the entrances, we never like to see a hive pushed right back in winter. If it contains a fairly strong colony, a three or four inch entrance is much better than a smaller one. We have noticed that outside combs are more liable to become damp when only a small entrance is allowed. When a colony cannot cover more than five frames in cold weather, division boards should be used to contract the hive, so as to crowd the bees on to the centre frames, the outside ones may then be removed.

We would advise all new subscribers to obtain the back numbers of the JOURNAL while they are in print. They will be found invaluable for reference.

Every farmer ought to have a few stands of Italian bees. They will pay many times their cost.

Ants can be destroyed by sprinkling salt around the hives, and in the ant-hills.

MARKETING HONEY.

(CONCLUSION.)

COMB-HONEY.—This is a class of honey that there will always be good demand for amongst a certain class of people, though the demand in the general market, when compared with extracted honey, will be limited. The most handy and popular package for marketing comb-honey in is the one pound section box. Two pound sections make a very nice package, but do not sell so well. We have raised large quantities of both for market, and found on an average that four one pound sections will sell to one two pound. Half pound sections have been largely used in America during the past season, but the high price that has to be asked for these in proportion to the one pound boxes, to give an equal profit, is likely to limit the demand for them. The proportional increase of price required to be obtained for half pound sections, to pay as well as the one pound sections, is calculated to be about two thirds. Supposing one pound sections to be worth 1s., then two half pound ones should be worth 1s. 8d., so that we think this size can never become very popular. With regard to two pound sections, a prominent Auckland provision merchant once advised us not to put on the market packages of honey that would cost retail more than 1s.; for, said he, "I find that all packages, 1s. or under, will sell more readily than those of double the size, even supposing they only cost another sixpence." Taking everything into consideration, together with our own experience, we cannot recommend a better or more suitable package for comb-honey for market than the one pound section box.

Before removing sections from the hive, every cell should be sealed if possible; but they should not be left on the hive after this is done, as the bees continually running over the face of the combs will soil them in time, or at any rate destroy that bright appearance that makes comb-honey look so tempting. As soon as taken from the hive, they may be placed in the honey room, and as early as convenient, each section should be thoroughly cleaned from propolis and made to look as nice as possible. They can then be placed on the shelves for a few days, to allow the comb to set, when they may be labelled and crated. Some of our readers will no doubt be surprised when we speak of labelling sections, but it is just as necessary to label sections of comb-honey as it is tins of extracted honey; we found this out about three years ago to our cost. When supplying comb-honey to shopkeepers at that time we always left them a glass honey crate to retail it from. These crates had our name painted on them, and being got up nicely, was always sure of occupying a prominent position either in the window or on the counter. The sections were not labelled, and on one occasion a lady who had purchased some taken from one of our crates told us that she thought our honey was too dear, that she had that day bought some sections and weighed them, and found that none exceeded three quarters of a pound. To this we replied that they certainly could not have been ours, and there must be some mistake about it. When informed where they had been purchased, we at once went to the shop, and found that the shopkeeper had been retailing from our crate, and passing them off as ours, a number of sections that he had taken from his own hive, and were, as the lady had said, very little more than half full. To prevent this kind of unprincipled work in the future, we saw that it would be necessary to either stamp or label each section, and this we would advise every bee-keeper to do before sending his comb-honey to market. A good sized rubber stamp is the cheapest and handiest; it should have large-sized letters so that they could be plainly seen. The name and proprietor of the apiary would be all that would be required on the stamp. If labels are used, they need only cover one side of the secton, say 3½in. x 1¾in., and may be of some neat design, printed in colours.

When shipping comb honey to distant markets particular attention must be paid to the packing. For if one section should happen to come to grief, and the honey start running, it would be liable to spoil the appearance of all the sections in the crate. The best style of shipping-crate that we know of at present is the one shown by Mr Collins at the late show, which took our special prize. It is simply a case to hold 24 one-pound section in one tier; between each row of sections a thin board is placed, the last one being a little stouter than the rest and wedge shaped, so that it will fit tight and prevent the whole from moving when pressed into place. In Mr Collins's crate the dividing boards were rather stout. Boards one-sixteenth of an inch thick, or cardboard, would do equally as well, and make the package much lighter. The wedge-shaped board for tightening all up would, of course, require to be somewhat stouter. We also think that cases of this kind could be made to take a double tier by having what might be termed a false bottom, put in just above the lower tier of sections, on which to stand the upper one. If the upper tier were resting on the lower one, those below would be very liable to get squeezed and damaged; but with the false bottom between, this could not happen. Before shipping, the crates should be marked as advised for extracted honey. When supplying shops the bee-keeper should see that a glass crate or show-case is provided, so that when being retailed the honey may be kept from flies and dust. One would be sufficient for each shop, and they should be supplied to the shopkeeper at cost price. With regard to painting show-cases, we noticed most of those at the late show were white. Now, white we consider a very bad colour, as it shows comb-honey at a disadvantage. Even the lightest of comb honey has a slight tinge of yellow, and, when shown in contrast with pure white, does not look nearly so nice as when in contrast with a dark colour; besides, a white crate so soon looks soiled after being handled. We would, therefore, recommend painting show-cases a dark colour—say blue or green.

GRADING HONEY.—Nothing will tend to do the honey trade more good, or give confidence to dealers, than the proper grading of honey. We have several times seen crates with nice-looking well-filled sections near the glass, and the rest of the space filled with a second or third-rate article. This is what our American cousins term "veneering." All tricks of this kind eventually result in a loss to the producer. Both comb and extracted honey should be graded and sold according to quality, each grade being kept by itself. Samples of extracted honey can be sent to merchants and dealers through the post in small tin bottles, and the crop sold by sample either tinned or in bulk. There is no convenient way to send samples of comb honey except by

forwarding a small crate of, say, half-dozen sections, but whatever is sent should be a *fair* sample of that offered for sale.

WORKING APIARIES ON SHARES.

A CORRESPONDENT has asked us to state what we consider would be an equitable arrangement between two parties in working an apiary on shares.

In America, where this is often done, the general rule is that one party furnishes all the bees, including the hives they are in, to start with, and the other works the apiary. At the end of the season all expenses for new material are deducted from the profits, and the balance, including the increase, equally divided; the original colonies still belonging to the person that furnished them. We will put the matter plainly by taking an imaginary case.

A agrees to work B's bees on shares; B then furnishes A with, say, twenty complete hives with bees, which are located at A's place, as being most convenient for him. Spare hives, comb, extractor, smoker, nucleus hives, &c., &c., are then procured for working the apiary, to the value of, say, £28. The increase of stock at end of season is twenty colonies; the proceeds derived from sales of honey and bees amount to, say, £50; then the partnership account would stand at end of season something like this:

Cr.		
By sales of honey and bees		£50
Dr.		
To hives, extractor, and other appliances ...	£26	
„ labour for putting hives together, &c. ...	£2	
		£28
Profit to be divided		£22

A and B would then take each £11, 10 colonies and hives, and an equal division of the other appliances; B, of course, retaining his original 20 hives and bees. The partnership then closes for that season. Should, however, it be the wish of both parties to continue the partnership, then B must allow A some remuneration for attending to his bees during the winter months.

There is also another mode of partnership, in which one partner provides everything, and the other works the apiary for half the value in cash of the entire proceeds. In this case B would furnish the hives and bees to start with, the whole of the material required, and pay for labour in putting the spare hives together, painting, &c., while A would work the apiary. At the close of the season A would take £11, the supposed half of the proceeds, from sales of honey, &c., and B would have to pay him the full value of the 10 colonies of bees—not including the hives which, of course, belong to B.

In "Quinby's New Bee-keeping" we notice the following on the subject of "Taking bees on Shares": —"In managing bees for other parties, as well as furnishing them to those who wish to care for them, we have usually been governed by the following rule: One party furnishes all the bees, and the other does all the work. All expenses for new material, etc., are shared equally, and the receipts—including the increase—are equally divided. The ownership of the original colonies is unchanged."

BEE-KEEPERS' ASSOCIATIONS.

Now that a very considerable amount of interest is being taken in the formation of Bee-keepers' Associations amongst some of the more prominent bee-keepers of New Zealand, it may be as well to enquire as to what has been done in this respect in those countries where bee-culture has already developed into an industry of great importance.

Taking Great Britain first, we find that the British Bee-keepers' Association has been in existence since 1874; this, we believe, to have been the first one formed there. Its objects, briefly stated, are:—"For the encouragement, improvement, and advancement of Bee-Culture in the United Kingdom, particularly as a means of bettering the condition of cottagers and the agricultural labouring classes, as well as the advocacy of humanity to the industrious labourer—the honey bee." It is presided over by the Baroness Burdett-Coutts, and has amongst its vice-presidents two members of the Royal Family and several noblemen. The Association was formed shortly after the *British Bee Journal* started, when bee-keeping in Britain was in a very backward state. For some years it had a hard struggle, and much uphill work to accomplish its purpose; but, with the good of the agricultural labourer at heart, and a desire to do away with the barbarous practice of murdering the bees, it persevered with its good work until it now stands out as a shining light to all the bee-keeping world. One of its objects is the encouragement of county associations, which being affiliated with the parent association, mutually assist each other. Previous to 1879, we believe there were only one or two of these, but latterly the number has increased very fast; last year (1883) there were no less than 33 county associations affiliated to the parent one, some having as presidents members of the Royal Family, while nearly all the rest are presided over by noblemen. About four years ago some members of the British Bee-keepers' Association made a tour through various parts of Ireland, taking with them their bee tent, in which exhibitions of bee manipulating were given in various districts for the edification of the peasantry. This was the means of causing some of the clergymen and well-to-do classes to take an interest in the matter, and since that time there have been two or three associations formed in that country, Scotland also can boast of her bee-keepers' associations; while, if the increase continues at the same rate that it has obtained during the last five years, every county in the United Kingdom will have its association in another few years.

Turning to America, we find that nearly every State has its bee-keepers' society or association, besides a number of county ones, and yet the cry is still for more. In a late issue of the *American Bee Journal*, we notice no less than five meetings called for the purpose of forming county societies. At the annual conventions, as they are termed, bee-keepers are invited from all parts to attend them; special arrangements are made with the railway companies for carriage at reduced rates. These meetings usually last several days, and brings into personal contact the most advanced bee-keepers from all parts of the Union, who were previously unknown to each other except by repute. France, Germany, Switzerland, Austria, Italy, and, in

fact, all European countries have their bee-keepers' associations. A gentlemen long resident in Germany informs us that almost every district throughout the empire has its society, and we know that some of the most scientific men in Europe are members of them.

In all the countries mentioned, bee-culture is rapidly advancing, and this, no doubt, is due in a great measure to the dissemination of bee-literature and to bee-keepers' associations.

The action lately taken by some of the prominent apiarists of the North Island in endeavouring to form a sort of colonial association for New Zealand, is a very commendable one, and one that we sincerely hope may be attended with success. There cannot be a question as to the good such an association will do to the bee-keeping industry if well supported. The bee-keepers of Pukekohe and surrounding districts are taking a great interest in developing bee-culture, and as our readers are aware, have already formed an association which we have no doubt will, with such an energetic secretary as Dr Dalziel to see to its welfare, in time become a strong one, and be the means of doing a great deal of good. We hope to see the time when bee-keepers' associations will be formed in all the principal districts throughout Australasia, and sufficient interest being taken in the bee industry to call together bee-keepers from all parts to the annual gatherings.

As a guide to framing rules, &c., in the formation of bee-keepers' associations, we publish those of the Middlesex (England) Association.

RULES AND REGULATIONS OF THE MIDDLESEX BEE-KEEPERS' ASSOCIATION.

President—The Right Hon. Lord George Hamilton, M.P.
Hon. Sec.—Mr Bernard G. Wilson, Marlborough Gardens, Ealing.

1. The name of this Association shall be the Middlesex Bee-Keepers' Association.

2. Its objects shall be the encouragement, improvement, and advancement of Bee Culture in the County of Middlesex, particularly as a means of bettering the condition of cottagers and the agricultural labouring classes, as well as the advocacy of humanity to that industrious labourer—the Honey Bee.

3. The Association shall consist of a President, Vice-Presidents, Secretary, and Treasurer, members and honorary members.

4. Donors of £5 5s shall be Life members. Working or Practical members shall subscribe 10s 6d, and Ordinary members, 5s and upwards.

5. Donors of prizes of the value of twenty shillings and upwards shall be honorary members for one year, and be entitled to one vote in the election of the Committee.

6. All subscriptions shall be payable in advance, and become due on the first day of January in each year; and until such subscription be paid, no member shall be entitled to the privileges of the Association. If any subscription remain in arrear twelve months, that is, until the 31st day of December following, the person not paying the same ceases to be a member.

7. The management of the Association shall be conducted by a Committee of fourteen members. The President, Vice-Presidents, Treasurer, and Secretary, shall be *ex officio* members of the Committee, five to form a quorum, the Chairman to have a casting vote.

8. The Managing Committee shall be elected annually by voting papers, which the Secretary shall cause to be sent to each member at least one month prior to the Annual General Meeting (which shall be held as early in each year as possible), together with the names and addresses of those members who are willing to serve on the Committee for the ensuing year (any vacancy that may occur during the year to be filled up from the unsuccessful candidates, according to the priority of votes obtained at the election). The President, Vice-Presidents, Treasurer, Auditor, and Secretary, shall also be elected at this meeting, and questions of the government and management of the Association shall be discussed and resolved upon.

9. The Managing Committee shall publish an annual report, balance sheet, and list of members, together with the amounts of their subscriptions, which the Secretary shall cause to be sent to each member of the Association, together with an agenda of the business to be transacted at the general meeting, at least six days prior to the date of such meeting.

10. The Committee shall have the power to make and alter by-laws, provided always that they shall in no case contravene a rule made in General Meeting.

11. If the funds of the Association admit of it, the Committee shall hold one or more Apiarian Exhibitions at such times and places as they shall deem most suitable to the interests of the Association and its objects, and adopt such measures as they believe will most conduce to extend and improve a knowledge of bee-keeping throughout the County of Middlesex.

12. The Committee shall meet at least once in each month, and any three members of the Committee may, by a notice in writing to the Secretary, require him to call a Committee Meeting within three days after receiving such notice.

13. These Rules shall not be altered unless at a General or Special Meeting, which may be called by seven members of the Committee, or a written request of not less than twelve members of the Association; the Secretary shall give each member fourteen days' notice of the same, and state the object for which the meeting is called.

14. All propositions at any meeting shall be disposed of by a show of hands, but a ballot of the members present may be demanded by any three members in the room.

OBJECTS OF THE ASSOCIATION.

The Middlesex Bee-keepers' Association has been established with the twofold object of advocating the more humane and intelligent treatment of the honey bee, and of bettering the condition of the cottagers of the Middlesex County, by the encouragement, improvement, and advancement of bee culture.

AIMS OF THE ASSOCIATION.

As the funds of the Association permit, the Committee endeavour to carry out its objects by—

1. Assisting in the formation of the Middlesex Bee-keepers' Association in affiliation with the Central Society.

2. By the attendance of the Association's Experts with their Bee Exhibition Tent, at the Agricultural and Horticultural Shows in all parts of the United Kingdom, in which exhibitions are given of bee-driving, transferring, &c., accompanied with short and practical explanations of the best methods of bee-keeping.

3. By lectures, meetings, the circulation of suitable books, certificates, and sending out experts as qualified teachers and examiners of apiaries.

4. By establishing a honey market, and spreading a knowledge of the most profitable use and disposal of bee produce.

5. Holding an Annual Show of bees, hives, honey, and bee furniture.

A CORRESPONDENT asks if it is intended that the proposed Bee-keepers' Association shall include in its duties the finding a market for its members' honey and guaranteeing a certain price; stating that he has been informed that this is done by the British Bee-keepers' Association.

Our correspondent has, we think, been misinformed with regard to the British Association selling honey. If our memory serves us correctly, the committee appointed one of the Association's experts—Mr Baldwin—to act as agent for the sale of honey sent to him by any of the members. There was no fixed price, nor any guaranteed by the agent—he of course obtaining the highest he could, and deducting a small commission in payment for his services.

With regard to this matter in connection with the proposed New Zealand Bee-keepers' Association, we may state that shortly after the meeting we spoke to several bee-keepers that attended upon this particular subject, our idea being that honey depots or agencies

should be established wherever most convenient for the sale of apiary produce belonging to the members of the association, the appointment of respectable agencies resting with the committee of the association. It was agreed to by all that this would be very desirable, and we have no doubt that as soon as the association is formed and a committee appointed, this subject will engage their earliest attention.

A LETTER FROM MR R. WILKIN.

We had for some little time been anxious to hear from our Californian friend Mr Wilkin, and believed that something unusual had occurred that prevented his giving the readers of the Journal the promised articles on "Bee-keeping in America." By the last San Francisco mail we received the letter given below, which fully explains the reasons for the delay. We are very sorry, indeed, to hear of the sad misfortunes that have occurred in California through the flood, and of the private losses of Mr Wilkin; though we trust that his Matilija Apiary has since been found to have sustained no damage. It is to be hoped that the coming honey season in California will be a highly profitable one, to enable bee-keepers to make up a little for their recent losses:—

San Buenaventura,
Ventura Co., Cal.,
Mr I. Hopkins. Feb. 23rd, 1884.

My Dear Sir,—I have been feeling very dissatisfied with myself for some time for not being able to fulfil my promise, and communicate something of interest in bee-culture for your Journal, especially as you had aroused the expectations of your readers to learn something of the progress of bee-culture in America. I had nearly got my honey shipped to England when I commenced hurriedly to build myself a new dwelling house before the coming honey season opened up; this, together with putting two new apiaries in order, kept me fully occupied. My care, labour, and anxiety has now been doubled by the result of a great flood which has occurred in Southern California. A few weeks ago we had begun to dread the prospects of another dry season; many of our bee-keepers were offering to sell their bees for a mere trifle on this account. However, on the 27th of January it commenced raining, giving us in twenty days 18in. of rain in the valleys, while in some places in the mountains double that amount fell, which culminated a few days ago in a disastrous flood.

Our people are located along the river bottoms and at the mouths of the mountain canyons, for the sake of water and good building sites; these are just the places that floods are likely to affect most. Our neighbouring town, Los Angelos, had 124 houses washed away. Much damage has been done all over the country; the telegraph lines, railways, and waggon roads have been so demolished, cutting off communication between different places, that at present we have no means of learning the extent of the damage done over the country. All around us was a vast expanse of water, rushing by in torrents, carrying large trees and rocks to the ocean, a mile below us. The water surrounded my new house, but did little damage to it; all my neighbours deserted their homes and fled to the hills. A Chinaman, after his house washed away, clung to a tree-top near by, but soon both Chinaman and tree washed down to the sea. My barn at the Sespe Apiary of 700 hives—pictured on the front of your Journal—was washed away with its contents, one half the dwelling house with its contents also, and one half my honey house, with many of the equipments of the apiary, including 600lbs of wax and foundation machine. A rock that I am sure 200 horses could not draw was washed down and landed in front of the honey house. My choice apiary of 300 hives, in the Matilija canyon, 21 miles from here, is all supposed to have swept past this place to the sea. But, even supposing it possible that they are there all right, yet it will cost from one to two thousand dollars to open a road to them again. Several families are shut in the canyon unable at present to communicate with the outer world. My business is thus so disconcerted that, unfortunately, I shall not be able at present to give the necessary time and attention to writing the promised history of bee-culture in America.

Later.—I have 800 hives left, and hope to have a good honey season, which I am sorry to learn you have not had in the past one.—Yours very truly,

R. Wilkin.

APICULTURE IN QUEENSLAND.

BY. C. FULLWOOD.

In my previous communication I stated, "we have been having a grand season, not too warm." Since then the weather has at times been excessively hot; for a while the honey flow ceased, which is frequently the case in January. There is a little coming in again now, the end of February. This will very likely continue more or less until April or May, after which there will most likely be a small quantity gathered during the winter. Latterly the weather has been more enjoyable. We have had a few showers, but not nearly so many as needed.

I was pleased to learn your success in obtaining queens from Italy. Safe arrival of 50 per cent. is not so bad, when we remember that previous to my successful introductions total failures had been the rule. No doubt C. Bianconcini strives for success; he is thankful for any suggestions that may aid in ensuring it, and is thoroughly deserving of the patronage of Australian bee-keepers.

It may be well, however, to obtain some yellow bands from other localities, in order to prevent too close breeding, and possibly secure a finer class of insects. Once we get the Italians predominant it will be advisable to work for a superior strain of them, and as it appears highly probable that the Cyps. and Syrians are of the same race, although condemned by Abbott, of England, as "truculent pests," it may be as well to introduce some of them, so as to secure unmistakeable fresh blood. For those who would prefer the most gentle bees, "Carniolans" might be secured. These, crossed with Italians, I understand, are really good bees, only they swarm so frequently; but for genuine go-aheads a cross from Italy and Syria, I believe, would shine. I am quite inclined to try Benton's favourites.

We must persuade our brethren of Australia to give us the benefit of their experiences through the Journal. Even the most simple results will many times prove valuable as leading to something. No doubt we all have much to learn, and a vast deal to unlearn; practical experience is the best possible teacher. The dogmatic assertions of ancient beemen are in course of confirmation or refutation. My Queensland experiences have quite upset many such—in some cases to my own discomfiture.

The other day a young neighbour on overhauling a rather weak stock, that had been weakened by dividing some time previously, came across two queens. Having informed me thereof, I went over to examine them, and found on one comb a laying queen—a com-

paratively young one—and on another comb a young queen apparently not commenced depositing. I could not obtain any information that would lead to a solution; but I rather opine the young queen came in from her wedding to the wrong home, and was allowed quietly to perambulate the combs for at least three days to our knowledge. Being in want of a queen or two just then, we removed her to another abode.

We are taught that there is comparatively small risk in introducing newly-hatched virgin queens to queenless stocks that have been in that state for a few days. My experience is—and I have tried Root's, Alley's, and other plans—that I have signally failed in introducing virgin queens, and have been universally successful with fertilized ones. Root's plan with me has been a complete failure.

The other day my daughter called my attention to the fact that some of the bees appeared to be swarming; this puzzled me. I had just been among them, and had not discovered any preparations for such. On looking up the yard, sure enough, a swarm was on the wing; but where are they from? No signs of any exodus from any of the boxes; yet the swarm is small. Presently they began alighting on one of the boxes, and essayed to enter therein. "Hold on! here's a row! A little vagabond swarm of black rascals trying to jump an Italian claim." No go, the yellow jackets were too much for them. The queen, a virgin black, was balled at the entrance, and immediately caged. Hundreds of the niggers were demolished double quick by the Italian assegai, and the remainder of the swarm clustered around the caged queen until evening, when they were introduced to a weak hybrid stock, the queen decapitated, and all made quiet. A few days previously I had noticed quite a number of little black rascals reconnoitring these boxes, evidently looking for snug quarters, impudently imagining they could storm the citadel. Even then many received their quietus from the outpost of the yellow warriors.

I am using one of Cowan's Automatic Extractors, and I like it well, as it saves me a lot of time. It is an ingenious contrivance, rather more costly than ordinary ones.

[Our experience, *re* introducing virgin queens, corresponds with that of Mr Fullwood. We also have tried various plans, in all of which we have at times been successful, while at others our losses have been fully 70 per cent. It does seem strange that while a queenless colony will accept a queen just hatching if the cell is put into the hive before the queen has emerged from it, it will not accept a queen immediately after it has hatched. We have often, when introducing cells, found young queens half out of them; when we could do so, we have pushed them back, capped the cells again with a little wax, and put them in the queenless hives, when, probably, within a few minutes the queens would hatch and be accepted; but had the same queens been introduced immediately *after* hatching, in at least seven cases out of ten they would have been killed. The risk attending the introduction of fertile queens by the usual methods is very small, indeed.—Ed].

In the R.M. Court, Christchurch, a bee-keeper was sued for 10s damages, for trespass for following a swarm of bees on to plaintiff's premises. The Bench gave judgment for defendant, and remarked that plaintiff's refusal to allow defendant to take his swarm was unneighbourly."

For the N.Z. and A. Bee Journal.

All correspondence must bear the name and address of the writer, not necessarily for publication, but as a guarantee of good faith.

THE PRICE OF HONEY.

Sir,—I had prepared a reply to your answer to my note on the above subject in the March number of the Journal; but I believe you are likely to have sufficient material for April and May numbers without it, so I will hold it back for a little while, and merely say at present that the need for ventilating this subject is shewn by the fact that I now know of consignments of capital honey in beautifully filled pound sections, not an empty corner in the box, and every cell sealed (reserved samples were shewn me), which have been sold by different bee-keepers, at the following prices:—6½d., 7d., 8d., 10d. One of my friends had an inquiry from an Auckland merchant for as much as he could get, and he would give a little more than 10d.; but my friend is one of those few people who know exactly "how many blue beans make five." He had already sold at *a shilling* per pound section, and could have sold more at the same price. Perhaps the Bee-keepers' Association, with the assistance of the Bee Journal, will bring about a greater uniformity as to the price of honey.—I am, Sir, Yours, &c.,

Uncle Took.

[A uniform price for the various grades of honey in the different local markets is just what is required; it is ridiculous that prices for the same class of honey should vary so much as in the figures you quote. It is, however, an evil that will in time rectify itself. We are just now passing through the first stage of the bee industry, and our experience in this matter will, no doubt, be exactly similar to that of bee-keepers in other countries until our markets for honey are properly formed. The exchange of ideas and experiences between bee-keepers through the Journal, Bee-keepers' Associations, and Shows, will do more towards bringing about a uniformity of price in this article than anything else.

With regard to the price we quoted, viz., £40 per ton, of course, referred to extracted honey in bulk only; first-class comb-honey in 1lb. sections, delivered, we consider worth 9d. per lb., wholesale; of course, like everything else, when the demand exceeds the supply prices will rise.—Ed.]

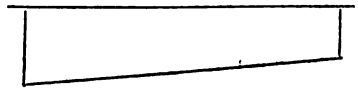
WINTERING BEES.

Sir,—As winter will soon be upon us, I should like to see some expression of opinion from more experienced bee-keepers than myself in the Bee Journal as to the best way of wintering.

I consider a warmer covering is required than the ordinary mat, something light and porous. Chaff is used in America. No doubt, a cushion made of chaff, two inches thick, not stuffed too tight, laid over the frames, would do well. I think something of this

kind is necessary for the comfort and well-doing of our little friends during winter and spring. Although our winters are not so long and cold as they are in America, they are very much damper, which is quite as destructive to the bees. If bees are wintered warm and dry, with sufficient ventilation, which a two-inch chaff cushion would allow, they would consume less honey during the winter, and would be strong and healthy and well able to stand the damp and changeable early spring days when in search of pollen, &c.

Thinking some of our bee-keeping friends may require to feed up this autumn, I give you a description of a feeder I found very useful, easily manipulated, and very simple of construction, and above all very cheap. It is made by sawing the ends of a brood-frame to four and five inches respectively, thus—



Nail on the bottom bar, exactly the same as an ordinary frame except that one end bar is one inch longer than the other, and not so deep Now take two pieces the same length as the bottom bar, two inches wide by two-eighths of an inch thick (I use the bottom bars of the wide frames), and nail on with finishing nails to the side pieces and the bottom bar on each side. This makes a nice boat the same length as a frame, 1¾ inches deep, ⅞ inches wide; holding rather more than half-a-pint. Having one end longer than the other allows it to hang level when the hive has a fall—as it should have—to the front. To make it water-tight, pour some melted wax inside the boat, tilting it up and down until the corners are well waxed. To use it I hang it inside mostly on one side; if I have a division board in, I usually put it on the outside of the division board in the empty part of the hive; sometimes I use a thin strip of pine as a float to prevent the bees crowding in and getting drowned.

Last spring I had a number of these in use, and fed with syrup made of the best sugar. If it was at all chilly, I poured the syrup through a small funnel without moving the feeding frame by simply turning up one corner of the mat. To prevent the bees building comb on the bottom, I greased it well.—Yours, &c.,

E. Brightwell.

Wanganui, March 11th, 1884.

[We shall shortly have an article on wintering, but at the same time we should like to have the views and experiences of others. Wintering bees successfully in any part of Australasia is by no means a difficult matter. Briefly, the conditions to ensure success are—a strong colony at commencement of winter, plenty of food, and a warm, dry hive.—Ed.]

MAKING A COMMENCEMENT.

Sir,—I have been making an attempt at bee-keeping this summer, and have gained some experience which will, I hope, be profitable to me in the future.

At the commencement I had one swarm, which, in November I successfully divided into two Langstroth hives. Shortly afterwards it was shown to me by a friend that foul brood was in the hives. This was a great disappointment, but I set to work and shook the bees into new hives and fed them, according to the directions in the Journal of last July. It succeeded with one swarm, the other dwindled away and was lost. I boiled the hives to disinfect them, and I hope I have seen the last of that troublesome disease.

In December I had a fine swarm given to me. It has yielded about 70lbs. of honey during the last six weeks, besides throwing off two swarms, one of which I captured and hived, the other escaped. Another stray swarm I caught, but as it was a small one I soon afterwards united it with a not over strong hive. I learn from your instructive Journal that swarms transferred from boxes in the autumn have been successfully kept through the winter by feeding with candy, &c. I am going to try the same experiment, some of my neighbours have bees in boxes, and to save them from being destroyed I shall transfer them to proper hives. If it answers it will give me a larger stock to start with in the spring.

We have had some heavy rain lately, after five weeks of hot summer weather, during which the bees worked hard on the white clover, then blossoming in abundance. This rain will, I hope, bring us a good autumn honey harvest, to make up for the bad summer we have had.

H. P.

Waipawa, March 14th, 1884.

[We would remind our correspondent that by omitting to send his name with the above correspondence he has not complied with our regulations.—Ed.]

BEE-KEEPING NORTH OF AUCKLAND.—BEES KILLING THEIR QUEENS.

Sir,—By recollection and notes in my diary, I will give you (as you requested in your January number) the condition and particulars of our colonies when the queen-killing took place; and I shall be glad if you will point out the cause and a remedy:—

About the middle of September, 1882, weather very fine, and bees gathering honey freely from willows, damsons, peach, furze, gum trees, and bush flowers, we transferred 15 colonies to clean hives, which was all that survived the bad winter out of 36—the others died of foul brood, cold, and starvation. We found in nearly all hives (when transferring) a ball of bees, with the queens inside. Some of them were in such an exhausted condition as to be not able to walk, and as soon as we returned them the bees would rush at them and enclose them again. The remainder of the bees were running about just as they do the first day or two after losing their queens.

All colonies had plenty of sealed honey, but not much brood; the queens were all under 12 months old, but did not lay many eggs. About six weeks before it occurred we supplied them with sugar-candy, and placed wheatmeal in sheltered nooks, which they carried into their hives in large quantities; and we noticed that when the queen-killing was going on this mixture had fermented, and was running out of the cells, and the bees were trying to remove it. We cut as much away as was possible, which we thought had a good effect, as soon after they got round into their proper senses, but not before six colonies were minus of their queens.

The best of our honey season generally ends about the 1st of January, but this year, after a very indifferent season, the flow of honey suddenly ceased about the 22nd of December. We averaged nearly 30lbs. of

comb honey each colony, but two out of three boxes were imperfectly sealed. This yield was without foundation until nearly the latter part of the season, when we used some for the first time, and were surprised how much more quickly they were filled up.

JNO. BECROFT, JUNR.

Port Albert, Feb. 8, 1884.

[We have no doubt about it being a case of robbing in each instance when your queens were "balled." The middle of September is rather early to transfer, unless you took the precaution to do it in some place where the bees from your other hives could not interfere. At this time, robbing is very easily started, and nothing is more liable to start it than transferring; it would have been better to have postponed the operation till two or three weeks later. When robber bees attack a colony, one of the first results is the loss of the queen; the colony then becomes disorganised, and the work of robbing becomes much easier to the robbers. A very handy arrangement to have in an apiary is a manipulating tent. It is made by covering a light wooden framework with mosquito netting; it need only be large enough to cover a hive and the operator, and allow a little room for transferring if required to be done at any time when robber bees are about. With the aid of this, the bee-keeper can open a hive at any time without fear of starting robbing; it is also handy to put over a hive attacked by robbers. We are sorry to hear that your are troubled with foul brood, and trust that you may succeed in eradicating it; in last issue we gave Mr T. W. Cowan's method of preventing the spread of this disease.—ED.]

FROM OUR CONTEMPORARIES.

THE OUTLOOK OF APICULTURE.

IN December last Prof. A. J. Cook read before the Michigan Bee-keepers' Association the following essay:

Before commencing a survey of the present status of our art, I pause for a moment to speak of an event which is of deepest interest to us all.

Need I say I refer to the presence among us of our honored and revered friend, L. L. Langstroth. * * *

A few years ago the cynics of our brotherhood told us that conventions were the enemies of our art, that they were worse than useless, and that to stimulate the growth of apiculture was to use the suicide's dagger. Now it is rare indeed to find a man so narrow as to disclaim against associations. While time has shown that with bee-keeping as with every other business, increased supply brings a much greater increase in demand, which is further made potential for good, by bringing the increased energy and intelligence which numbers are sure to give. The business that booms, is the one that has among its patrons the talent, the tact, the energy, and the genius of the country. Without conventions, we could not have inaugurated, and made successful our splendid exhibitions, which are sure to foster our art as few things can. Those States whose conventions are ablest and most frequent, are ahead. It is always so, with every art and at all times. County and district societies should send delegates to the State association, and the State to the Inter-State and National. Thus concerted action will be made possible; thus the thoughts and methods of the most progressive will become the property of the many. To be sure, we have our excellent periodicals, but they are only possible, as association inspirits bee-keeping, and, good as it seems and is to get the thoughts and methods of our able apiarists through the Press, it is not like personal intercourse, and word of mouth. Conventions are a powerful educator. No single bee-keeper becomes abler and better prepared to do his work well without benefitting the whole fraternity.

We increase our art only as success shows it worthy. I may praise our business with a voice that would do honor to an auctioneer, yet that will influence little unless my neighbours see evidence that the almighty dollar puts in an appearance. Those who are energetic, willing to work, intelligent and willing and eager to learn, observing, persevering and attentive to their work, will rarely ever fail in apiculture. Those who lack these qualities will be left behind before they get far enough to meet great loss; so little mischief is wrought even if some are induced to adopt this business, and because they lack the elements of success, fail. Usually they gain enough added intelligence to more than pay for the time and capital expended.

Another fallacy, as I think, which some few of our apiarists are loudly proclaiming, is that apiculture is only for the specialist. Why, gentlemen, our brothers in horticulture and agriculture are free to admit that they owe more, in the way of real progress and advancement, to amateurs than to specialists. I know that apiculture is no exception. Long, Demaree, Clute, and a host of others of our best bee-keepers, are amateurs. I am free to say that three-fourths of the honey product of our State is produced by men with whom apiculture is only an ovation. I can name a score of bee-keepers, whom I know personally, who are farmers, lawyers, doctors, who keep hundreds of colonies of bees, and many of whom, not only get large returns of honey, but winter each and every year with entire success. When our specialists are all equally successful, then they may cry hold! enough! with more justice.

An indication that the new recruits in apiculture will exalt rather than degrade the business, is seen in the fact that many are calling for instruction in this line. Few studies at our Agricultural College win more earnest study and real enthusiasm than does entomology, which embraces quite thorough instruction in apiculture. Last year we had a student from England, and this year one from Texas, who came especially for the bee-culture. The fact that Messrs. Jones, Heddon, and Clute have respectable classes, shows that there is a call for more knowledge. We can but wish God-speed to all of these gentlemen in their efforts. Special training is most desirable to the would-be apiarist. To be with such efficient bee-keepers for a season will give a vantage ground that can hardly be appreciated till enjoyed. The practical apiarist will be more proficient if he has had the science of entymology and physiology and other cognate studies, but if he cannot because of age or circumstance take so much time, let him by all means study and work for a season with some good apiarist. Such a course would never be regretted.

The past season has shown that we can procure nearly as much honey in small as larger sections. It would also seem that with the proper arrangement and care, we have no need of separators. That there will ever be call for

METEOROLOGICAL OBSERVATIONS FOR THE MONTH ENDING MARCH, 1884.

(SUPPLIED BY T. F. CHEESEMAN, ESQ., AUCKLAND.)
AUCKLAND.

Month.		Barom. corrected (inches.)	Max. Temp. in Shade.	Min. Temp in Shade.	Mean Temperature.	Solar Radiation.	Minimum Temp. Exposed.	Rainfall in Inches
FEB.	{	30·13	69·0	56 3	62 6	131·1	49·2	2·85
	{	30·07			66·4			2·62

Remarks.—From 1st to 6th, fine, clear and bright, with light variable winds, barometer high; from 7th to 10th, showery, N.E. gale on 8th, shifting to S.W. on following day; from 11th to 18th, mostly fine, showers on 13th and 16th, wind variable, light; 19th and 20th, strong breeze from N.E., with occasional showers; 21st to 23rd, unsettled and showery, heavy thunderstorm on the 23rd; from 24th to end of the month, fine and clear, with unusually high barometer, reaching 30·70 on the 29th. Mean temperature still unusually low for the time of the year; rainfall slightly above the average; barometric pressure above the average.

We have to acknowledge receipt of a swarming box and a couple of frame forms from Messrs Bagnall Bros. and Co, Turua, Thames. The swarming box is ingeniously contrived, and will answer the purpose for which it is intended capitally—in fact, we had an opportunity of testing it at the Auckland Gardeners' Horticultural Show, and found it very handy indeed. The frame forms are of the usual size for making large and small frames. The above goods are manufactured by the firm in their usual first-rate style, and are supplied at very reasonable prices.

We would remind all those wishing to enroll themselves as members of the proposed New Zealand Beekeepers' Association, to send in their names and subscriptions at once to the acting-secretary, Mr H. H. Hayr, High-street. Auckland.

NOTICES TO CORRESPONDENTS.

L. Q. DE SOYRES.—We are now waiting to have photos. taken for our engraver. As soon as these are done we shall be able to give a sketch of the hive cramp and other appliances. We are living a long distance in the country, hence the delay in getting a photographer.

MR THOMAS AWDRY.—Your communication arrived too late for publication in this issue, but will appear in our next, together with full answers to your enquiries.

Messrs Bagnall Bros. & Co. request us to mention that the issue of their new price list has been delayed, owing to the non-arrival by last mail from America of several plates intended for it. It will be printed immediately after the arrival of the incoming mail and forwarded to all their customers, and any who have or will apply for it.

HONEY MARKETS.

AUCKLAND, May 1st, 1884.

HONEY.—First-class honey, both comb and extracted, in good demand. Sales effected as follows:—Comb in 1lb sections, wholesale, 10d; retail, 1s. Extracted, in 1lb tins, wholesale, 7½d; retail, 10d; glassed, in 2lb jars, 8d per lb; retail, 1s; 60lb tins, wholesale, 6d.

BEESWAX.—Scarce; buyers for clean yellow, 1s per lb; dark, 10d to 11d.

H. H. HAYR, High-street.

AUCKLAND, May 1st, 1884.

The demand for good honey remains about the same as last month. The prices are as follows: Wholesale, 1lb tins, 7s 6d to 8s per dozen; retail, 1lb tins, 11s to 12s per dozen. Bulk honey, wholesale, 4d per lb; retail, 5d per lb. Extra fine, 6d per lb; in 1lb sections, from 7d to 9d per lb.

AUCKLAND AGRICULTURAL AND MERCANTILE CO., Limited.

ENGLAND.

Offered for sale by advertisement in *British Bee Journal* of February 1st, 1884:—

HONEY.—Pure extracted white clover, in 1lb jars, 1s each; 2lb ditto, 1s 11d. In 2lb, 3lb, 7lb, 10lb, and 15lb tins, 10d per lb. In bulk, i.e., 2cwt. cans, 10d per lb.

The value of honey imported into the United Kingdom during the month of December, 1883, amounted to £1260.—*British Bee Journal.*

AMERICA.

NEW YORK, March 10th, 1884.

HONEY.—White clover and basswood, in 1lb and 2lb sections, 17@18c.; dark and second quality, 15c.; extracted white clover, in kegs and barrels, 9@10c.

BEESWAX.—Prime yellow, 34@35c.

H. K. & F. B. THURBER & Co.

SAN FRANCISCO.

HONEY.—Not much choice honey offering, but there is an accumulation of off-lots, which are slow of sale. Prices are too high here to admit of exports to other markets. The outlook for the coming crop is very good. White to extra white comb, 15@18c.; dark to good, 10@13c.; extracted, choice to extra white, 7@8c; dark and candied, 5c.

BEESWAX.—Wholesale, 27@30c

STEARNS & SMITH, 423, Front-street.

—*American Bee Journal.*

SPECIAL NOTICES.

QUERY AND REPLY DEPARTMENT.—Correspondence for this department should reach the editor not later than the 15th of each month, when replies are required in the next issue.

Correspondence for publication may be sent at book post rates *i.e.*, one penny for every two ounces, providing the book post regulations are complied with, and the words "Press Manuscript" are written on outside of cover.