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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CALENDAR.—SEPTEMBER.

SHOULD the weather prove favourable a considerable amount of honey will be gathered from willows, early flowering peaches, and other trees now coming into blossom. Honey from these sources, however, cannot always be depended upon, as the weather is often very stormy at this time of the year, in which case the bees cannot collect it. All kinds of willows are valuable honey trees. At the Thames, where we were formerly living, there were a large number growing in the neighbourhood of our apiary, and in some seasons, when fine weather prevailed during the time they were in blossom, we have both been astonished and delighted at the large amount of honey that has been stored from this source. We would, therefore, strongly recommend the planting of these trees where practicable.

Towards the middle and latter parts of the month, apple, pear, and other fruit trees will follow, as well as some native trees, hawthorn, dandelions, &c., keeping up a succession until clover blossoms. As breeding in strong colonies will now be increasing rapidly, care must be taken to keep them snugly covered. Everything should now be prepared for the approaching season, so that when it does come the bee-keeper will be ready for it. Those who contemplate starting an apiary this Spring should now arrange with some neighbouring bee-keeper for a supply of early swarms, and procure the hives ready to receive them. The latter part of this month and the beginning of next will be the best time to transfer bees and comb from boxes to moveable-comb hives.

SPRING MANAGEMENT.—The success of an apiary for the season depends in a great measure, if not entirely, on its management in early Spring. In order to have the full advantage of the honey season the hives should be crowded with bees at the commencement of the main harvest. If the colonies are weak in population at this time, a considerable portion of the season will have passed away before they are in a condition to store surplus honey. It should always be borne in mind that it is only strong colonies that are profitable.

In most districts the main crop of honey is obtained from white clover. In this locality (Waikato) it commences to blossom in ordinary seasons about the end of the second or third week of October. To ensure crowded hives at this time the bee-keeper will need to commence working for this object some six or eight weeks earlier, say at the beginning of September. The colonies should then all be examined, and the state of each noted for future reference. Any that are weak and have but little brood should be crowded on to as few frames as possible by placing a division board on each side the cluster, first seeing, of course, that they have sufficient food, while those that are strong and have brood in three or more frames may have the outside frames containing the least brood placed in the centre of the brood nest where the empty cells will soon be occupied with eggs. In the course of a day or two a frame of honey may be placed in the centre of the brood nest, after slightly bruising the caps of the cells with a knife. If the colony is well supplied with food, a frame of honey for the purpose may be procured from among the outside frames. Should there, however, be no honey available, an empty comb filled with sugar syrup will answer the purpose. The bees will at once commence to remove the greater part of this honey or syrup and thus give the queen more room for laying in a part of the nest that will be quickly occupied by her. The excitement amongst the bees consequent upon the removal of the honey has the effect of causing them to stimulate the queen by extra feeding, which induces her to lay a larger number of eggs.

The above process of arranging the brood and honey frames may be gone through every seven or eight days, taking care that the brood is not spread more than can be covered by the bees. If this is properly attended to the colonies will be in splendid condition by the middle of October; the hives full of bees and large quantities of brood hatching every day. The surplus arrangements may now be put on if honey is being brought in, or, if increase is desired, artificial swarming may now be proceeded with.

Preparing Colonies for Queen Rearing.—Every bee-keeper owning a half-dozen hives or more will find it greatly to his advantage to rear his own queens and to keep a few spare ones on hand in nucleus hives during the honey season for any emergency. By raising queens each season from the best stocks only, it will naturally follow that in the course of a few seasons an improved strain will be the result, which every apiarist should strive to obtain.

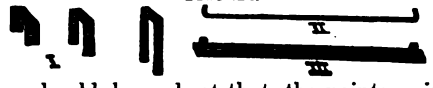
In selecting colonies from which to rear queens, those should be taken which are known to possess qualities superior to the rest. For instance, those which have proved themselves the best honey gatherers; at the same time other qualities should be taken into consideration, such as docility, prolificness, least liability to swarm, &c. The number of colonies required will depend upon the number of queens needed; for small apiaries one or two would be sufficient. These should be stimulated by slow feeding from the commencement of September, as before explained, and have a frame of sealed brood given to them occasionally from other stocks to force them on in advance, so that they will be ready to swarm at least two weeks before the rest. Another colony should also be prepared in the same manner from which to raise drones; a frame of drone comb being placed in the centre of the brood nest. The method of rearing queens will be explained in our next month's calendar.

Transferring.—The latter part of this and beginning of next month is about the best time for transferring bees and combs from boxes to moveable comb hives, as the combs will not be so heavy with brood and honey at this time as they will be later on.

For beginners we recommend the method given in the *Illustrated New Zealand Bee Manual*, which is as follows:—

"When about to commence operations, see that everything required is on hand before starting. You may need a small saw, a hammer, a chisel, a long thin-bladed knife, a smoker, or in lieu of this a roll of cotton rags, an old table-cloth or sheet folded up, and a board a little larger than the frames. A small table or a barrel turned bottom up will do to operate upon, and, lastly, some transferring wires. To make these, take some tinned wire—I use No. 16 bird cage wire. Lay a frame on its side, and cut the wire into lengths of an inch or so longer than the outside depth of the frame, *i.e.*, from the top of the top bar to the bottom of the bottom bar [fig. I, II.] You will probably require thirty of these to a hive. Having cut sufficient, make a bend in the wire a half-inch from each end.

Figures.

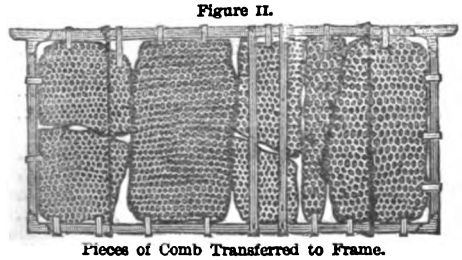


"These should be so bent that the points grip the top and bottom bar of the frame when in use. Clasps are also very handy; these are made of strips of tin an inch wide. [Fig. I.]

"The best time of the day to transfer is in the morning, when most of the bees are out at work. Everything being in readiness, light your smoker or roll of cotton rags, and blow a little smoke into the entrance of the hive you wish to transfer, and then carry it away a yard or two, and turn it bottom up. Place an empty box over it. Of course, if the bottom is nailed on, it will have to be wrenched off before the box is placed upon it. Tie a cloth round the junction of the two boxes, and with two small sticks rap on the hive for about 15 minutes. In the meantime the hive you are going to transfer to should have been placed exactly where the old one stood, so that the bees that are out on returning home may have a place to go into. The smoking and rapping on the hive will so alarm them that they will fill themselves with honey, and go with the queen into the upper box. As soon as most of them are in, lift if off and place it near where it stood before.

"You are now ready to transfer the combs. Lay the small board on the table or barrel, and the sheet nicely folded on the board. Now take your knife and cut the combs free from the sides of the hive, gently knock it apart, and take out the combs as whole as possible. When you have cut out the first, lay it on the folded sheet, lay the frame on, and cut to fit the frame. If larger than the frame, cut it so that by springing the frame open it will just go over. In this way the frame will grip the comb so securely that it will need no other fastening.

Figure II.



Pieces of Comb Transferred to Frame.

"When the combs are smaller than the frames, it may require several pieces to fill them; even the smallest piece of straight-worker comb should be transferred. In this case fill to the best advantage, and put on the wires where required to hold it in position (fig. 11.) Now raise the board and cloth till the frame is vertical, and put sufficient wires on the other side to secure the comb. As each one is transferred, hang it in the new hive, keeping that containing the brood in the centre. Proceed as above until all the worker-comb has been fastened into the frames, and hung in the hive. Now raise it with small blocks of wood, off the bottom board, and shake the bees out of the box in front. They will at once enter, and in a few minutes commence to fasten up the combs and tidy up their new home.

"Care should be taken that none but nice straight worker-comb is transferred. Any clean drone comb may be kept to use as starters in section boxes; it should be put into the frames in the same position as built. This can be easily ascertained. By looking at a piece of comb in its natural position, it will be seen that the cells are built at a slight angle, the outer edge being the highest, the better to hold honey, &c. It is in this way they should be fastened in the frames. There are other ways of securing the comb besides using wire—such as winding twine around the frames, or tacking small strips of wood on each side, but it will be found that the wires are by far the best—they are easily put on and taken off. In two or three days the bees will have fastened the combs securely, when the wires may be taken off, and the work will proceed as cheerfully in the new home as though the colony had known no other.

"Bees may be transferred any time during the honey season. If done after the flow of honey has ceased, or while robber bees are about, the combs should be taken into some room to be transferred. If there is not sufficient to fill all the frames, put comb foundation in the remainder.

"Be sure that no crooked or awkward pieces are transferred, as they would cause no end of trouble; better by far use foundation."

STANDARD FRAME FOR AUSTRALASIA.

(Continued from page 15.)

In our last issue we pointed out the advisability of adopting a standard frame for Australasia, and gave some reasons why it would be advantageous to the bee-keepers of these colonies to use a frame of uniform dimensions throughout the length and breadth of the land. It now only remains for us to give our opinion as to the best size of frame to adopt.

It is, perhaps, necessary to mention as a reason for speaking of the frame only, that it is the most important part of the hive. And when once the size of this is decided upon the body of the hive may be made to contain any reasonable number. There is a limit, of course, to the number that may be useful in any one hive; but of this part of the subject we shall speak further on.

The sizes of the principal frames that have been in use hitherto, vary from 12 inches square to about 18 x 10. Although compared with the Langstroth size, *i.e.*, 17⅝ inches x 9⅛, the others in use have been very few in proportion. Of late years the advantages of the long and shallow frame over the deep and narrow one has been admitted by nearly every bee-keeper of experience, most of whom have now adopted a shallow frame. The size that appears to be a happy-medium between the two extremes of shallow and deep frames is that of the Langstroth. It is claimed by the few who still adhere to the deep and square frame that in cold climates the bees winter better on them; but this does not appear to be the case in practice, as, after the disastrous winter of 1881-82 in America, the statistics went to show that the average loss of bees was less in the Langstroth hive than in any other, thus showing that the shallow frame is superior even in this respect.

Some of the advantages of shallow frames are—1st. They can be made of a greater length than a deep frame without being inconvenient, thus affording a much larger surface on top for surplus boxes. 2nd. The bees have a less distance to climb to reach the surplus boxes when storing honey; and the hives being proportionately shallow, there is less risk of them blowing over in high winds. 3rd. They are much more easily manipulated than the deep frames, and with less risk of killing bees or injuring queen cells.

It will be now understood from what we have stated, that in choosing a frame for a standard, it is expedient to adopt a shallow one. The principal shallow frames in use at the present time are the Langstroth, and the standard adopted by the British Bee-keepers Association. The dimensions of the former have already been given; those of the latter are 14 inches long by 8½ inches deep, outside measurement. This size we do not consider nearly so convenient as the Langstroth size, for in adopting a frame we must take into consideration the raising of comb honey principally, and choose one that is adapted to its requirements, so long as these requirements do not materially interfere with other demands. Now, in raising comb honey for market, we have found that the 1 lb. section boxes are more readily disposed of and handier than those of a larger size. The square 1 lb. boxes are 4¼ x 4¼ inches, and eight of these just fill a Langstroth frame, and four a half story frame, so that we cannot imagine one more suitable in this respect. Looking at the matter from all points, and judging by our own experience, we feel convinced that we cannot do better than advise bee-keepers of the Australasian Colonies to adopt a standard frame, and let that frame be the Langstroth.

Number of Frames to Hive.—The next question is, How many frames should a hive contain? We have always used a ten-framed hive, and consider this number of frames as near the correct thing as possible. There are some bee-keepers who use but eight; but from our experience we believe that the brood nest would be too small for this country, as we have brood generally in all the ten frames through some portion of the breeding season. The consequence would be, with an eight frame hive, that the queen would be compelled to go into the surplus boxes to lay, which is the very thing we must do our best to prevent. In advising bee-keepers to use a ten-framed Langstroth hive we reckon upon having all the surplus honey stored above the brood nest, as we have proved this system to be the best. Perhaps, in concluding, we cannot do better than give an extract from our answer to a correspondent in the *Auckland Weekly News*, on the best size for hives, as this goes into figures:—

While experimenting I proved, to my own satisfaction, that the storifying process as against the collateral or side storing, was the best for obtaining surplus honey. It then

only became necessary to have the lower or breeding hive of a sufficient size to accommodate the queen when laying to her full capacity, so that, if properly managed there would be no need for her laying in the upper or surplus storeys.

Now, the "Langstroth" frame (inside measure) is 8½ inches by 17 inches—one square foot. This will give, with 50 worker cells to the square inch, 7200 to the frame; 10 frames, the number for a hive, gives 72,000. As there are usually odd corners that are not filled up with comb, and a part of each comb stored with honey and pollen for feeding the brood, we can only reckon upon a little over two-thirds of the 72,000 cells being available for breeding. For convenience, say only two-thirds, 48,000, this will give sufficient space to allow of the queen laying at the rate of 2285 eggs (worker) per day; or allowing for a small proportion of drone eggs, which take three days longer to mature—about 2270 per day, which will be found ample in ordinary cases. Very often during a glut of honey, much of the above space will be stored with it, thus preventing, in a great measure, the queen from laying, and compelling her to go into the upper storeys in search of empty cells. It is then that good management is required to prevent this, by keeping the cells clear of honey in the lower hive.

Knowing the requisite size for the brood nest, in enlarging the hive, it simply becomes a question whether side or top storing is the better plan. I think there can be very little doubt about the matter. In early spring when it is necessary to give room for storing surplus honey, we often have some cold days, when the bees would do very little at the sides of a hive away from the brood nest; but if the extra room were given above, where the heat of the brood nest would permeate, the work of comb building could be going on as usual. If the "storifying" principle is decided upon, then enlarging the hive to any size required is merely a matter of putting on one or more storeys.

Messrs Bagnall Bros & Co., Turua, Thames, have forwarded us a sample of a cheap hive, on the comb-honey-rack principle, they have just manufactured. This hive, Messrs B. B. & Co. believe, will meet a demand amongst those who merely require to raise comb-honey for family use. It is a good, substantial hive, and, with the exception of rabbets round the edges, and the halfing on the ends, is exactly like the ordinary "Langstroth" they manufacture. It consists of one story, bottom board, rack for sections to be placed on top of lower hive, 28lbs sections, and separators. The price of this hive in the flat is, we consider, remarkably low, being only seven shillings.

APICULTURE IN QUEENSLAND.

BY C. FULLWOOD.

I PROMISED in my last to inform you how the Italians were introduced to this colony, and the results. Well, years ago, attempts were made and all proved failures by the bees perishing in transit, or, as in one case, proving hybrids. A. Macky, Esq., our commissioner to the Philadelphia Exhibition, succeeded in bringing a stock from America. The Italian strain was, however, quickly lost, and thus this attempt failed.

The writer of the present article, on paying a visit to Europe, three years since, determined to make another attempt, and secured five queens, put them up in a tenement hive, of 4 frames each, shipped them or board the 'Orient,' at Liverpool, in September, and landed all safe first at Melbourne, where he gave them a fly for a few days, then to Brisbane, where he landed all five queens; each having a good number of bees in November. Three of the queens were lost during the first two months. The other two did remarkably well, and numerous stocks were Italianized from them.

This venture having proved successful, an attempt was made by the writer to introduce queens direct from Italy. Chas. Bianconcini, of Bologna, was communicated with, and arrangements made for him to ship a package of twelve queens by one of the Orient liners calling at Naples. This was done, and in August, 1882, the package arrived at Brisbane, containing five living queens. In one box the only bee alive was the queen, and she is still presiding over a stock in our apiary. Of the other four, by accident one was destroyed, another was superseded by the bees after she had been laying some weeks; the others are still doing duty, and furnishing, as required, bees and queens to stock the apiary with yellow bands.

So far these have proved the most suitable bees for this moth-infested colony. They are decidedly more prolific and more persistent gatherers than the ordinary bee.

From all quarters where they have been introduced there is but one report—"very superior."

The only difficulty will be maintaining the purity of the progeny. In order to do so another parcel of twelve queens has been ordered from Italy. Should these arrive safely, or even half of them, pure Italians will be sufficiently numerous about Brisbane to cover all the blacks that are likely to be raised, for all around the blacks have been swept away by their relentless foe—the moth.

This direct introduction of queens is a matter of considerable importance to the colonies. If succeeding attempts do not fail greatly, a central position might be taken up from whence all the colonies might be supplied with queens and bee fixings. Sydney or Melbourne would be good for this.

It is somewhat surprising that these colonies are so far behind in this matter. We cannot obtain supplies. It may be that the introduction of Italians direct, and their successful acclimatization, will induce some persons to commence the business in one of the leading cities. The winter has been very mild so far. Bees have been working well all through; drones are still flying, and in about six weeks swarming will commence. Peaches are now in blossom.

[We shall be very happy to assist in establishing a central depot, from which queens imported direct from Italy may be sent to all parts of the Australasian colonies, as suggested by Mr Fullwood].

APIARY BOOK-KEEPING.

IN all industrial operations it is essential to success that the manager can always know exactly *what he is doing*, what progress is being made in each department or subdivision of his works, and what may be the results—beneficial or injurious—of each particular mode of working adopted. Where the operations are so simple, or confined within such limits that the "master's eye" can daily follow every detail, an intelligent practical man may see and do all that is necessary without the help of any written records of progress, or with the aid of only a few memoranda; but where they are very complicated or extensive it becomes necessary to employ a system of methodically noting and tabulating facts, so that the results may be brought before the eye in the simplest possible manner consistent with clearness and accuracy. Hence arises a sort of industrial "book-keeping," quite

separate and distinct from the commercial accounts, and it is in such a sense that I now apply the term to the business of the apiary.

A system of this kind appears to be particularly requisite for the bee-keeper, because it is necessary for him to deal with each separate hive according to its peculiar circumstances, just as a physician should deal with each separate patient. A bee-keeper, with only one or two hives, or a doctor with only one or two patients, may carry all the details and symptoms of each case in his head; but when the hives or the patients are to be reckoned by tens or by hundreds, both the apiarist and the doctor require the aid of sytematic records, without which there is great danger of their applying an indescriminate mode of treatment, which, though harmless or even beneficial in some cases, may prove fatal in others.

I have not seen the subject mentioned in any book upon bee-keeping which I have met with, and felt rather puzzled to decide how such records should be kept without involving too much writing and details on the one hand, or a slovenly looseness on the other. I, therefore, think it may be well to invite a discussion on the question in the BEE JOURNAL, with the double hope of its proving useful to beginners, and of drawing some valuable practical hints from the more expert.

The plan we have tried in our apiary here is as follows:—There are kept: 1st, a daybook; 2nd, a registry of stocks; 3rd, a table for honey extracted; and 4th, one for comb honey.

The *Daybook* contains all the data for the other registries. It is only a small account book in which is opened a separate page for each stock, according to the number of its hive. In it is noted in regular succession of dates all the facts of any importance, commencing with date when hived, weight of swarm, whence obtained, age of queen; then dates of adding or taking away supers, of extracting honey or taking section boxes of comb-honey; with quantities in each case, and, of course, any event, such as giving a new queen, uniting a new swarm, &c. The page is only ruled with columns for the date, memoranda, and two on the right hand side for extracted honey, and comb-honey, to be entered in lbs.

The *Registry of Stocks* is a tabular form, either in a book of suitable size, or on a separate sheet of paper, ruled horizontally in blue lines for the entries, and vertically with red lines into columns, to be headed as follows:—1. No. of hive. 2. Date when hived. 3. Weight of swarm. 4. Whence obtained. 5. Age of queen. 6. Remarks. 7. First swarm, in four sub-columns, showing A—date, B—weight, C—age of queen, D—when hived. 8. Second swarm (as before). 9. Third swarm, do.

In entering the queen's age we distinguish between those brought out in the early months of the year, which is the close of the season, and the latter months of the same year, which is the commencement of another season, by adding a letter to the year number, thus '83E, and '83L; or it might be better marked '83-1 and '83-4, to represent the first and fourth quarters of 1883. This column must be wide enough for two or three entries, so that in case of changing a queen the old date may be crossed out and the new one entered in a clear manner. If the swarm is obtained from a source where the age of the queen cannot be ascertained, the entry is made thus: (?) to signify doubtful.

A glance at the registry at any time will serve to show all the events in connection with the history of each stock, which it is necessary for the bee-keeper to bear in mind.

The tables for "honey extracted," and "comb honey," are simply ruled horizontally with blue lines for the entries, and vertically with a column for date, then as many columns with consecutive numbers as there are hives to be dealt with, and the last column for totals. The date of extracting is entered in the first column, the number of pounds extracted from each hive on the same line in the column of the same number, and the total of each day's extracting in the last column. These tables afford means of seeing at any moment, by merely adding up the columns, what each hive, and what the whole apiary is producing.

It may be well to add that the weights of honey extracted are ascertained as follows:—A spring balance hangs in the extracting house with a light frame holder attached, in which are placed (in one or more lots, as necessary) all the frames brought in for extraction from one hive. The gross weight is noted upon a slate kept ruled in columns for the purpose; the same frames, after being uncapped and extracted, are again weighed, and the difference is, of course, the honey extracted. The entries on the slate are copied the same evening into the daybook and the tables. In the case of section box-honey the sections only are counted when taken away as filled, and are assumed to contain one and two pounds of honey respectively, although this is of course not always the exact weight.

Very little time is occupied in ascertaining and noting these weights. With proper arrangements it need in no way interfere with or delay the business of extracting, even in a large apiary where economy of time is, no doubt, of great importance during the extracting season. But even if the trouble were much greater, I do not see how any clear supervision of an apiary is possible without a knowledge of the details here alluded to. Any practical suggestions for simplifying the manner of ascertaining and recording those details would be very useful, and if certain forms of books and tables could be agreed upon as those best suited for general use, it would be a boon to all bee-keepers if they could be procured ready ruled and printed at a reasonable price.

T. J. M.

Bayview, Katikati, July, 1883.

[Our esteemed correspondent, "T. J. M.," was not aware, at the time of writing the foregoing article, that we had published an *Apiary Register*. He has since obtained one.

We consider the keeping a record of the doings of each colony of great importance to bee-keepers, and tends largely to the successful management of the apiary. No doubt our correspondent has compiled a very useful form of register book; but, as he says, if the manner of recording details can be simplified it will be a great boon to bee-keepers. To this end we shall have much pleasure in publishing any practical suggestions from our readers. Perhaps, if "T.J.M." were to kindly send us a copy of an opening of his book or books for publication, it would assist the matter considerably.

On the next page we give an opening of our *Apiary Register* on a much smaller scale than the original. It is almost identical with one published by the editor of the *American Bee Journal*. With this should be kept a rough memorandum book for noting down different items, the most important of which should be afterwards copied into the Register.—ED.]

SAMPLE OPENING OF APIARY REGISTER, SHEWING METHOD OF RECORDING ITEMS.

COLONY No. 20.

HONEY.

QUEEN From .....

CHARACTERISTICS. *(Standard, 100 Points.)*

Year.	Month.	Day.	Principal Events in the History of this Colony.	Pounds of comb Honey.	Pounds of Extrd.	Bloom Gathered from.	When the Queen was Hatched. Year.	Mth.	Day.	Race.	Size.	Fertilized by.	Removed to	Industry.	Docility.	Hardiness.	Prolificness.	Color.
1882	10	15	Swarmed from No. 8.															
„	12	1	Artificially swarmed to No. 33, with queen and four frames brood and bees.				1881	11	25	Ital.	Med.	Blk. D.		80	50	70	75	Dk. yel.
„	12	4	Introduced fertile queen from No. 10 (nucleus.)															
1883	8	9	Honey obtained for the season.	56	70	W. Clo. Flax.	1882	11	2	Ital.	Large.	Ital. D.		80	70	70	75	Lt. yel.

REMARKS:

November 1st, 1882.—Put on top story with sections, after extracting 30lbs. honey from lower box. White clover abundant.
November 24th, 1882.—Removed 25 sections, and extracted 15lbs. from lower box.
December 6th, 1882.—Weather cold and showery.
December 24th, 1882.—Removed 31 sections, and gave frames of comb in upper story.
January 2nd, 1883.—Extracted 10lbs. Honey coming in slowly.
January 18th, 1883.—Light showers; extracted 20lbs.
March 10th, 1883.—Four frames sealed honey in upper story and 15lbs. in lower.
May 1st, 1883.—Prepared for winter; 35lbs. honey.

REMARKS:

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

MATTERS IMPORTANT TO THE SUCCESS OF THE HONEY INDUSTRY.

SIR,—I have read with much pleasure the first issue of your new publication, the appearance of which I, in common with many others, engaged or taking an interest in apiculture, have hailed with much satisfaction. Business taking me frequently from home, I am not at present a practical bee man, but yet I hope to become one, and strive never to lose an opportunity, either to improve my own knowledge of the industry, or excite an interest in it on the part of others. The further I have enquired into the matter the more am I satisfied that with ordinary diligence, care, and perseverance, bee culture offers safe and profitable inducements to all who will give it their intelligent attention, my conclusion in the matter being abundantly confirmed by the returns furnished from countries much less favourably situated in respect to climate, &c., than is our adopted land.

The question which I specially wish to call attention of all honey producers to, as one of very great importance, is the matter and manner of marketing honey! In view of a large and increasing production, this is a question which should claim the attention of every bee-keeper. That there is a large demand for honey is abundantly proved by the quantities imported from California. This demand our apiarists should seek to satisfy, and if they will go the right way to work may not only do so, but also largely increase the consumption. But if the local market is to be satisfactorily supplied, much more attention will have to be given to the "get up" of the article than has been the case in the past. So long as honey is sent to market in the rough style that has prevailed, without classification, in unsuitable and unsightly packages or vessels to take its chance at the auction mart and go for what it will fetch, it will rarely be disposed of at a satisfactory price, and what with shipping, carting, and rough handling, even good honey, under such treatment, cannot be "well placed." Let bee-keepers study to ascertain in what form the commodity can be best placed before consumers, seek out suitable agents (supposing they are unable to see to it themselves) and get them interested in pushing the sale and making the merits of the article known, and there need be no fear as to the result; but the article must be "up to the mark," and not such as the writer has on the recommendation of even respectable Auck land grocers, recently bought in tins labeled, "Pure N.Z. honey," and which, on being opened, proved to be a nasty, unpalatable, unsightly mass, quite unfit for human consumption. Honey, doubtles, but—bah! the sale of such stuff is enough to condemn the local article for all time; and small wonder that after more than one experience of this kind, when honey is required, unless section is obtainable (which isn't often), the Californian is taken in preference to local. Honey should and may be sold at prices that will place it in the reach of all, and make the neat little lb sections as well-known on the table as the pat of butter. Hundreds never use it because they are not alive to its merits, or it is not brought prominently before them, or within their reach in a convenient form. More might be said, but this letter is too long already, and my object is rather to call attention than suggest detail. Meanwhile I am doing what I can in a quiet way to encourage the use of honey as an article of regular consumption in every household, and advise all interested in the traffic to do likewise. Wishing much success, I am, &c.,

COMMERCE.

Auckland, July 13th, 1883.

[The subject chosen by "Commerce" for his paper is one that we commend to the notice of all bee-keepers engaged in raising honey for market. Next to the raising of honey, the style and manner of marketing it is of the greatest importance. We quite agree with all that our correspondent has written, and shall have plenty to say on this matter ourselves in due season. —ED.]

(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 JOURNAL REQUIRED.

SIR,—The first number of your journal is to hand, and I hasten to offer my hearty congratulations. In appearance and matter it is to my mind very creditable. I shall be glad to hear of its obtaining a large circulation, as I am well aware that there is a wide field for it, in educating the settlers of these colonies in the "scientific" way to keep bees. Probably the most advanced will find that they have much to learn, which can only be learned by experience, and your journal will afford the best means for comparing results. Fortunately we can avail ourselves of the experience and progress made by the English and American bee-keepers, who have made such rapid strides of late years, but there are so many different circumstances met with in New Zealand that it will not always be safe to apply the experience of other countries to this. This brings me to the point which I would like to impress upon every bee-keeper in the country, that every circumstance of interest should be carefully noted, with a view to its being made public if desired. It would be difficult to enumerate the subjects which require notice, but wintering, increase of stocks, yield of honey, different breeds of bees, diseases of bees, kinds of hives, pasturage, and marketing, should receive attention, I shall probably have something to say hereafter on a few, if not on all, of these subjects, with your permission, Mr Editor.

I have been keeping bees in bar-framed hives for over five years with varying success. I commenced with the bar frames without comb foundation (I had not heard of it then), and found that the bees built their comb without regard to the frames, so that I might as well have had them in a gin case. It was you, sir, who introduced me to the comb foundation some four years ago, and I have used it ever since and would not attempt to keep bees without using it. The Thames is a comparatively poor locality for bees, which in a great measure accounts for the moderate results obtained, both by the writer and others. In the winter of '82 I had eight colonies in Langstroth hives in good condition, with plenty of honey, I lost three by "Spring dwindling,"

one leaving several frames well filled with honey after the bees were all dead. I increased those remaining to 11, and took about 200 lbs. of honey during the summer, and have about 100 lbs. in top stories at present. Eight colonies are strong at this date, but three are weak and require feeding. I have one colony of Italians, four hybrids, and six black. The hybrids gathered the most honey. They are rather cross, although not more so than some black ones which I have. I have seen it stated that the Italians would rob and destroy all the black bees. This does not agree with my experience. I have had some robbing in my apiary, but have not seen a single Italian robber at a black hive, while on the other hand I have frequently seen the black bees trying to gain admittance in a sneaking way into the Italian hives.

I shall now conclude this rambling letter by wishing you and your journal every success.—I am, &c.,

L. J. Bagnall,
Hape Apiary, Sandes-street.

Thames, July 14th, 1883.

[We shall be pleased to receive from our correspondent, Mr L. J. Bagnall, papers on the subjects he has mentioned for publication, knowing him to be fully competent, by experiences, to handle them all in an able manner.—Ed.]

HOW I BECAME A BEE-KEEPER.

It was not by any experience gained in the backwoods of N.Z.—for that was naught—true I had helped to lay low many a rata in search of the sweet spoil which, when obtained, I "pekaued" home, though candour compells me to confess that when it came to the actual robbing of the prostrate giant I generally made a strategic movement to the rear, confident that for me just then the wisest policy was that of masterly inactivity. Nor was it from any advice tendered by my neighbours. Liberal as men are of this, they had not emerged from the dark ages of straw hives and sulphur. No, it was after many days and in this hyperborean region that vague rumours came to me of a man who rashly despising the accumulated wisdom of our fathers, had departed from their simple faith in straw and sulphur, who made the combs for his bees and emptied them, when full, with a machine; who employed several men to look after them, and lastly, most incredible of all, who had such command over the bees that they were more afraid of him than he was of them. This was the last straw, and I found myself in the position of the old woman who implicitly believed her sailor son's stories of the mountains of sugar and rivers of rum, but denounced him as a liar when he spoke of fish that could fly.

Taking the train one fine morning, I made the run of 70 miles to this necromancer's village. Standing on the rear platform the whole way I noticed with keen interest the difference between the North American and New Zealand bush. True to my British instincts I dined, and then proceeded to invade the home of Mr D. A. Jones, of Beeton, Ontario. After a brief interval of waiting that gentleman came in, and learning my errand, invited me to come out into his garden. Here were several rows of grape-vines neatly trellised, and between them a large number (135) of wooden boxes, uniform in size, somewhat cubical in shape, but various in colour. Contrary to all my preconceived notions they were only four inches above the earth, and a rude approach in the shape of a piece of board was placed in a sloping position between the mouth of the hive and the ground. Imitating a distinguished New Zealand author "I plucked up a good appearance of courage" and followed my host between the rows of hives. Noticing how short the rank growth of herbage was kept, I enquired how this was effected, when Mr Consi, the foreman to whom I am much indebted, told me that he generally stacked several of the hives one on the other and mowed the ground sometimes with a scythe and sometimes with a lawn mower. Picking up a small piece of decayed wood, Mr Jones lit it and proceeded to remove the lid of one of the hives. Remembering my New Zealand tactics and that "discretion is the better part of valour," I prepared to seek the seclusion offered by a friendly shed, but was desired to remain where I was. Mentally comparing my host to the American humourist's Assyrian charger, "whose boldness will be the death of him some day," I waited and watched. Quietly removing the lid he tore up one corner of the cotton coverlet and blew with his lips a little smoke from the piece of rotten wood into the aperture, dispersing those bees of an enquiring turn of mind who had come up to investigate. Repeating this operation, he finally, after a brief waiting, removed the coverlet, and drawing a frame in a few seconds gave me my first sight of a queen bee. What else I saw and learned, how I ultimately became "bee-crazy," and how by diligent sitting at the feet of this Gamshiel, or rather at those of his foreman, I became a bee-master must be told in another number.

Niu Tireua.

Hamilton, Dom. of Canada,
June 19th, 1883.

BEE-KEEPING IN THE WAIKATO DISTRICT, N.Z.

Sir,—Although scientific bee-culture is almost in its infancy here, it has made rapid strides since its introduction now some three years ago. Prior to that time the only hive in use was the "time honoured" candle, kerosene, or soap box; anything in fact that would hold together until the autumn, when, if the owner thought they were heavy enough with honey, the poor bees would be "put down," *i.e.*—brimstoned out of existence, and if light they would be left—the inmates to get on as best they could, to be as likely as not all found dead in the spring. I am glad to be able to state that the use of the murderous brimstone here is almost a thing of the past, and bee-keepers have begun to see that there is money in the bees if they are only properly managed; so that instead of the old boxes stuck in out-of-the-way corners of the garden and overgrown with weeds, with old rotten sacks thrown over the tops—breeding places for vermin instead of bees—and junks of firewood on top of all to keep them from blowing over, is to be seen the neat and tidy "Langstroth," placed in a conspicuous part of the garden or lawn; an ornament as well as a useful article.

The past season in this district, as far as I can learn, has been very satisfactory to those who have been keeping pace with the times. Several bee-keepers, however, that worked their bees too close, have discovered that that is a penny wise and bad policy; having lost some of their stocks, and been put to the trouble of feeding the re-

mainder. Others have gone in for increasing when the season was too far advanced, which told a tale on the wrong side of the ledger. One or two individuals are mourning the loss of all their bees. My own bees averaged 106lbs of honey per colony, comb-honey in one pound sections. Of course I kept down swarming as much as possible.

I overhauled them this week and found them in good condition, with plenty of honey to carry them through the winter. On fine days they are out and booming on the blue gums. In another month *Limnanthus Douglasii* will be in blossom, which, by the way, is a splendid plant for spring feeding, and very hardy. I have had spikes of flowers on mine a foot across, and literally swarming with bees. *Arabis Alpinus* will be in blossom about the same time; another good early honey plant.

I am very much pleased, indeed, with the appearance of the BEE JOURNAL. It will fill a void in the bee-keeping industry, and I hope it will be, as it deserves to be, well supported. With best wishes for its success.—I am, &c.,

W. DEY.

Hamilton East, Waikato, July 12th, 1883.

WANGANUI AS A BEE-KEEPING DISTRICT AND OTHER ITEMS.

SIR,—Judging by the equability of the climate on this coast, the variety and excellence of the bee pasturage to be found here, and the immense number of wild swarms in the bush, I should say that it is a capital district for bee-keeping. The nests of these wild swarms often contain large quantities of honey. From one nest in a pine tree I took two large buckets of delicious honey; while another gave me three buckets. We have a great number of flowering trees and shrubs—both native and cultivated—from which the bees are to be seen busy gathering their stores. Among them I may mention koromiko, kahikatea, wild clematis, lawers, flax, nikau palm, rata, karaka, native fuschia, matai, blue gums, mirau, gorse bushes, and broom. The two latter have, in some places, overrun acres of ground. They seem favourite bushes of the bees, and as they are blossoming nearly all the year round they must be of great assistance to them.

Most settlers here keep their stocks of bees; the produce being kept for family consumption. The implements of the apiary in use, and the methods of management being of the rudest description. Given, a swarm of bees on the wing; out runs the whole family, each member snatching up a stick and kerosene tin or some other "musical instrument" that may be handy, when they at once commence hammering away, each one trying to outdo the other in making a deafening uproar; while the good housewife at last comes upon the scene with a bell as the best thing she can procure. Should the swarm settle, a kerosene or whisky case is hastily prepared, and having been smeared with a little honey, the swarm is shaken into it, and at night put under a shady tree. In due time, when the box is full of honey, the bees are cruelly smothered by the fumes of burning sulphur, and the honey removed. A farmer on the Wanganui river caught six swarms last year, two of them were destroyed in the above manner, and gave 102 lbs of honey; the other four were left to provide swarms for the coming season to be again destroyed in like manner probably. Another farmer thinking to add a little to his profits, caught 82 swarms, and housed them in various boxes; but to his astonishment he found in the autumn that all the boxes were empty, some of the swarms having died, and the rest taken their departure. All the combs were empty, and the bottom boards were covered about a quarter of an inch deep with putrid matter, through which some white worms were working their way. I had a similar experience last year with four boxes of bees, which I put down to the effects of the bee moth. I then determined to try the bar-frame hive, and made one from a description given in the *Australasian*.

Having no bees left, I looked out for a swarm, and caught a very late and small one on January 25th. On February 11th I looked into the hive and found four frames full of capped honey. On March 4th the bees had built comb in six frames, some of it containing brood. The brood commenced to hatch on the 19th, and it was very interesting to watch the young bees making their first appearance outside the hive. On the 26th I first discovered the queen amongst the combs. The bees seemed to me to be progressing favourably until a very cold and severe gale came on, when, in the morning, I found the roof of the hive had blown off, as also the mat, and the whole of the bees dead. I was, however, so well pleased with my limited experience of the improved hive that I sent at once for your "Simplified Langstroth," and hope soon to make another start. A friend of mine is trying what he calls a "bar hive," that is, bars across the top of the box only. As soon as the lower box is full, which is ascertained by looking through a glass window, another box is placed on top, which is removed when filled. As the bees do not restrict themselves to building their comb along the bars, but sometimes build across them, I cannot see the advantage of the bars.

As far as I have heard no one in this district, with the exception of myself, has tried the bar-framed hives, and I intend exhibiting one of those I have received at our Agricultural Show in September next.

I am ordering the BEE JOURNAL through my bookseller. Wishing you every success with it,

I am, &c.,

C. W. BABBAGE.

Wanganui, July 8th, 1883.

[It is a great pity that more attention is not paid to bee-keeping in so good a district; but we doubt not that as soon as our friend starts scientifically others will immediately follow in his footsteps.—ED.]

REMEDY FOR BEE STINGS.

SIR,—The best antidote for the bee sting poison I have ever used is Coutts' Acetic Acid. A small sponge or piece of cloth soaked in it and applied to the part after removing the sting, kills the poison in a minute, and all pain and swelling is gone; the small puncture is the only thing to be seen. This simple recipe may be new to some of your readers.

JAMES M. CLARK.

Woodside, Pollock, July 28th, 1883.

SUBSCRIBING TO THE JOURNAL.

SIR,—I have received a copy of the BEE JOURNAL, and shall become a subscriber, as I think it will be of great assistance to bee-keepers in these colonies. Every apiarist in Australasia should subscribe to it, and send you a report of their doings for publication; and also a statement of their failures or mistakes as well as successes in order that each may assist others with their experience.

I commenced last season with two colonies in Langstroth hives; I afterwards bought two, making four altogether. These I increased to 13, which eventually were united down to ten strong colonies, all in Langstroth hives. In May I moved them from Coromandel to Parnell, Auckland, an account of which I gave you in my last.

From my first experience in moving bees I have come to the conclusion that it is a mistake to move them any distance over rough roads on new or first season's combs, more especially when they are heavy with honey and brood.

JAS. LANGFORD.

Parnell, July 19th, 1883.

THE JOURNAL.

I have at last seen the journal (first issue). My copy came from Napier. Mr Adams here had only one copy, which he had lent to a friend, so it was out three weeks before I saw it at all. I think it is first rate, quite beyond my expectations, and it will increase in interest as time goes on and contributions pour in from bee-keepers in all parts of the country.

G. STEVENSON.

Ormond Apiary, Gisborne,
August 3rd, 1883.

[Evidently your copy of the journal must have miscarried, as we posted copies to all the bee-keepers we were acquainted with on the 2nd of July. Copies of each issue will be posted promptly to subscribers at the beginning of every month.—ED.]

THE JOURNAL APPRECIATED.

SIR,—I am very much pleased with the NEW ZEALAND AND AUSTRALIAN BEE JOURNAL, and sincerely hope it will be well supported, and kept up to its present promise. I will contribute my mite to the best of my ability. I will try and send you a letter for the JOURNAL in a day or two, if only to show how thoroughly I appreciate it.

E. D. H. DALY.

Woodside, Hautapu, July 6th, 1883.

THE requisites for a good honey crop are a hive full of comb, spaces between combs full of Italian bees, abundance of flowers and favorable weather.

A dog of ours was curious enough to investigate the entrance to a bee-hive the other day. We saw him immediately after, and came to the conclusion that he had a severe cold in his head, by the way he was wiping his nose with his paw.

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

FROM BANKS' PENINSULA.

SIR,—I am greatly pleased with the journal, and have ordered it for twelve months. My apiary is at German Bay, Banks' Peninsula. In the immediate neighbourhood there are orchards, willows, gorse hedges, and abundance of white clover, also native trees not far off. Have had bees there for fourteen years, and for the last three have used bar-framed hives. Last Spring I had 45 stocks, and increased these by swarms to 90, taking 3300 lbs of honey from them. I did not take any until the latter end of December. Think I should have commenced earlier as I then found the honey so thick that I could not extract it with the slinger, so had to cut up the combs and drain in the ordinary way.

How am I to get pure Ligurians? I should like to have them as they are said to gather so much more honey than the common bees? Wishing success to the NEW ZEALAND BEE JOURNAL, I am, &c.,

ROBERT DAWBER.

259, Hereford-street, Christchurch,
July 14th 1883.

[We have sent you a price list of Ligurian bees, &c.—ED.]

FINE WEATHER.

JUNE was a lovely month here. No rain and bright sunshine. Bees all doing well, and flying every day.

G. STEVENSON.

Ormond Apiary, Poverty Bay, 2nd July, 1883.

We are in receipt of several communications from our correspondents, which arrived too late to be inserted in this issue, but will be published in our next.

FROM OUR CONTEMPORARIES.

HUMBLE-BEES AND THE CLOVER.

Prof. C. H. Fernald has written the following article for the Maine *Farmer* on the "Humble or Bumble-bees, their habits and uses," which will be of much interest to many of our readers. The fertilization of flowers, both by these bees as well as by the *Apis Melifica*, or honey bees, and other insects, is a subject of considerable interest to farmers as well as to bee-keepers. Prof. Fernald remarks as follows:

"The Humble-bees, or Bumble-bees as they are sometimes called, are among the largest and most showy of our Maine Hymenoptera, and are extremely useful to the farmers for the work they do in cross fertilizing red clover. It is well known that the flower tube of this plant is so long that few insects have a sufficient length of tongue to reach the nectar in the nectary, and therefore, it is not often frequented by honey bees and other nectar-loving Hymenopterous insects. We are, therefore, greatly indebted to the Humble-bees, for their visits to the clover, their great hairy bodies become more or less powdered with the pollen, and when they visit other clover heads their flowers are fertilized by the pollen which the Humble-bees have brought from the flowers previously visited.

It has been claimed, and without doubt correctly, that unless cross fertilization is effected in some way, the clover will run out. Darwin covered 100 flower heads of red clover with a net to keep the insects from them, and not a single seed was developed, but from 100 heads on plants growing outside, which were visited by bees, there were obtained 2,720 seeds. Experiments, of a similar character have been repeatedly performed both in Europe and in this country, and with like results. In all my observations I have scarcely ever seen any other insects visiting red clover than humble-bees.

These insects are pretty generally distributed over the world, being found in both North and South America, in Europe, Asia and Africa, but not in Australia and New Zealand. It is in northern latitudes that they thrive best, and they even occur in the most northern regions to which man has penetrated.

In Australia there are no native insects adapted to the cross fertilization of red clover, and it has been attempted to introduce humble-bees into that country for this purpose, but with what results I have not yet learned.

There are four different kinds in a colony of humble-bees, the large females or queens, the small females, the workers and the males. Only the queen lives over the winter, and she hibernates either in the nest or under fallen leaves, or in some protected place. When the warm days of spring come, these large females, or queens, may be seen flying from place to place, crawling in and out of places, around and under stumps and stones, hunting for some place in which to make their nests.

When one of these queens finds a suitable place, as a deserted nest of a field mouse, or some hole under a stone or stump, she at once collects a small amount of pollen, which she mixes with honey, making a more or less sticky mass which she sticks into the pollen basket on the outside of the hind leg, and in which it is carried to the nest. As soon as a small mass of this food is collected, the queen deposits several eggs in it without order, and without even constructing any cells, but she continues the work of collecting pollen and laying eggs until the first brood emerges. As soon as the eggs hatch, the young begin to eat of the mass of food which surrounds them, thus enlarging their cavity gradually until they reach their full growth as larvæ, when they spin a silken wall around themselves, lining the cavity which they have excavated in the pollen mass. The old bees close up these cells with a thin layer of wax, and the young transform into pupae, and in due time change into the perfect stage and cut their way out, when they are ready to assume their duties as workers, small females, males, or queens, according to their individual formation.

In the spring and early summer, only the large females are to be seen abroad on the wing, but the first brood consisting of workers only, as soon as they emerge, at once take upon themselves the work of the nests and the collecting of pollen and honey, while the queens remain in the nests. After this time, only small bees are to be seen visiting the flowers and these are the workers.

As the queen continues prolific, more workers are added, and the nest is rapidly enlarged. About midsummer, eggs are laid which produce both small females and males. It is supposed that they pair near the end of the season, and as a result, these small females lay eggs from which the queens are developed. It has been proved that all the eggs laid after the first of September, produce the large females or queens, and as the males are still in the nest, the queens are impregnated in the air after the manner of the honey bee. On the approach of cold weather all the humble-bees die except the queens, of which there are now several in each nest. These queens hibernate during the winter, and in spring they revive to repeat another cycle as described.

Twelve different species of humble-bees belonging to the genus *Bombus*, are known to inhabit New England, and of these I have taken five in Orono.

I am not aware that these insects are in any way injurious, but from the above showing they are of immense value in cross fertilizing plants, and should be protected. Mowing machines and horse rakes destroy their nests when run through them, but this should be avoided when possible.

It is true that they sting upon severe provocation, as when one attempts to destroy their nests, but who wouldn't fight for their own homes and firesides.—*American Bee Journal*, June 13, 1883.

SALT FOR THE APIARY.

Use salt freely about your hives. Sprinkle a little water, with plenty of salt, outside and in the hives, when the bees are troubled with ants. Good salty brine is of much value in destroying moth eggs about hives. Rock salt is good to make brine of, to prevent foul brood, which sometimes destroy whole apiaries, and is to be much dreaded by the apiarist. It is better to use an ounce of prevention than a pound of cure. Use small troughs for the brine.—*Grange Bulletin.*

QUERIES AND REPLIES.

We shall from time to time give replies through this department to questions pertaining to bee-culture, propounded by our subscribers. We would ask our correspondents to be as concise as possible, and to number their questions 1, 2, 3, and so on.

Query.—*Mouldy Bee-bread, Unhatched Brood, Finding Queen, &c.*—1st. What had better be done with comb containing mouldy bee-bread? 2nd. In giving the bees their winter stores should the combs containing honey be placed together, or alternately with empty ones? 3rd. Will unhatched brood in combs, at approach of winter, cause foul brood? I have picked out all (about twenty) with a needle. It is a March swarm. 4th. What is the matter when four or five bees surround another, as if cleaning it, at this time of the year? It is not young bees or robbers that are treated in this manner; they eventually are allowed to go into the hive. 5th. When searching for the queen it seems to put the whole hive in commotion; will she leave the frame by taking wing?

R. Henderson,
North Oruawhare.

Reply.—1st. If the comb is very mouldy melt it up into wax; but, if only slightly, dry it and put it into the centre of a strong colony, and the bees will soon clean it. 2nd. It does not much matter how you place the combs, so as they are near the centre of the hive. It is better not to have the outside combs of honey too far away from the cluster. 3rd. It is always advisable to examine cells containing unhatched brood at any time of the year. It may not cause foul brood, although it would be better that the combs were clear of dead brood. 4th. We do not think there is anything the matter, if it is not robbers trying to gain an entrance. It may be that the sentinals of the hive have been suspicious of the others, and have put them under a strict examination; or, the new arrivals may have come in with a load each, and the others have been anxious to know where they got it from. We really cannot say positively what is their reason for acting in this manner. 5th. The queen will never leave the frames to fly away when looking for her under ordinary circumstances, especially if she is a fertilized queen. Virgin queens are very shy, and act rather eccentric at times, but we never lost one in this manner.

Query.—*Italian Queens and Foundation Machines.*—1st. Are your queens pure Italian or hybrids? 2nd. When would you recommend me to get the Italians? Is October early enough? 3rd. Should I Italianise every hive as soon as I have a queen ready to substitute for the black one? 4th. What machine, and what size of roll do you use for heavy foundation. The "Given" appears to be the latest out. Do

you think, from the descriptions of it in the *American Bee Journal*, it is the best in the market?

G. STEVENSON,
Gisborne.

REPLY.—1st. Some of our queens are pure and some are hybrids. We breed from pure queens only. 2nd. We would advise you to get Italian queens as early in the season as possible. We cannot promise to send out queens earlier than November. 3rd. Yes. 4th. We use Root's best 9in. roll machine for heavy foundation, and Vandervort's 6in. for thin foundation. The "Given," we believe, is the best for putting foundation in wired frames, which is the most that is claimed for it. The "Given" is a press, as perhaps our correspondent is aware.

QUERY.—*Bees and Clover.*—I am a beginner in bee-keeping. I started last November with one colony in a gin case, which I afterwards transferred to a Langstroth hive. I increased during the season to seven by artificial swarming. I have now six black colonies, and one hybrid, all strong.

I wish to ask the following questions:—1st. Is there any honey in firs? 2nd. Do bees take all the fattening out of clover? I hear there is a farmer complaining about the bees trespassing on his farm. 3rd. Do bees do any harm to a farm?

T. W. CRAWLEY & SONS,
Te Awamutu.

REPLY.—1st. If you mean fir-tree blossoms, we believe there is not; but honey-dew is sometimes obtained from the foliage by bees. 2nd. No; read any good work on botany, and you will find that instead of bees doing harm to plants by working on their blossoms, they do an immense amount of good. We shall have something to say upon this subject in a future issue. 3rd. No; on the contrary, cultivations on farms are much benefitted by bees. Your fourth question we do not understand, and as your fifth does not relate to bees we cannot answer it, even if it lay in our power, which it does not.

QUERY.—*Introducing Queens.*—There is a question I wish to ask through the JOURNAL. Is it necessary to cage a queen when introducing her to a hive that has just swarmed?

H. BERRIDGE.

Mititai, Wairoa North.

REPLY.—If we had a valuable queen that we did not wish to run any risk of losing, we would cut out all queen cells and introduce her by caging in the usual way. But when we have plenty fertilized queens on hand we cut out the queen cells, and in a few hours afterwards put the new queen down at the entrance and let her run in. We have rarely lost any by this method.

CIRCULARS RECEIVED.

WE are in receipt of Messrs. Bagnall Bros. & Co.'s Circular and Price List for 1883-84, of hives, artificial comb foundation, and general supplies for bee-keepers. It is a neatly printed and profusely illustrated pamphlet of sixteen pages. We notice a considerable reduction upon former prices, and additional appliances enumerated. The above is sent post free on application. The firm's advertisement appears in another column.

NOTICES TO CORRESPONDENTS.

W. H. CASSIN, Alexandra.—We have sent you a list and a copy of the JOURNAL.

T. L. H., Auckland.—We have not yet glassed any honey. But, no doubt, if you write to Mr. Cook, of the glassworks, Freeman's Bay, Auckland, he will give you particulars as to the cost of honey jars.

Subscriptions to the JOURNAL may commence with any month in the year.

HONEY MARKETS.

AUCKLAND, September 1st, 1883.

The demand for extracted honey is very good. Prices at present are—for 1lb. tins, wholesale, 8s to 8s 3d per doz.; retail, 10d to 1s per lb.

AUCKLAND AGRICULTURAL AND MERCANTILE CO., Limited.

ENGLAND.

Extracted Honey:—9d to 10d per lb, in bulk; 1lb bottles, 11d to 1s 2d; supply abundant.
Comb-honey, in sections:—1s 2d to 1s 6d.
Other forms:—1s to 1s 2d; supply abundant.
Wax:—1s 4d to 1s 6d.
—*British Bee Journal*, July 1st, 1883.

AMERICA.

NEW YORK, June 22, 1883.

We take pleasure in sending you our present quotations on honey and wax:—

	c.	c.
Choice white clover, in 1lb sections (no glass), per lb.	20	@ 21
Choice white clover, in 2lb sections (glassed), per lb	18	@ 20
Fair grades clover, in 1 and 2lb sections, per lb	16	@ 17
Choice buckwheat, in 1lb sections (no glass), per lb	15	@ 16
Choice buckwheat, in 2lb sections (glassed) per lb	14	
Extracted clover, in kegs and small bbls, per lb	10	@ 11
„ buckwheat „ „ „ „	8	@ 8½
Prime yellow beeswax, per lb	36½	

H. K. & F. B. THURBER & CO.
—*Gleanings.*

SAN FRANCISCO July 9, 1883.

Honey—New extracted is arriving freely—selling for 7c. and 8c.; new comb coming forward slowly; extra white, 16c.
Beeswax—None in the market.

STEARNS & SMITH, 423, Front-street.
—*American Bee Journal.*

OUR HONEY IMPORTS.

THE value of honey imported into the United Kingdom during the month of April, 1883, amounted to £1518.—*British 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.

ADVERTISING DEPARTMENT.—Advertisements for the next issue should reach the publisher by the 24th of each month.

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.

Our Correspondents will oblige by writing articles for publication on one side of the sheet only.

P.O. Orders for Subscriptions, Advertisements, &c., to be made payable to J. C. Firth, Chief P.O., Auckland, and sent under cover to H. H. Hayr, High-street, Auckland, or P.O. Box 186.