Apis Club
Cornell University
With Compliments
J. Hopkins
June 1925

THE NEW ZEALAND AND AUSTRALIAN

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THE NEW ZEALAND AND AUSTRALIAN BEE JOURNAL

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CALENDAR—OCTOBER.

FROM present appearances the commencement of the main honey harvest will be a week or two later than usual. Probably it will be the latter part of the month before there is much honey obtained from white clover. Although we have had some splendid weather during a part of the last month, the nights have been exceptionally cold, with occasional sharp frosts, which has retarded the growth of all honey-producing plants.

Bees are very busy carrying in large quantities of pollen and water for feeding the larvæ now being reared in considerable numbers. Colonies should be examined at least once a week, and the instructions given in last month's calendar—with regard to arranging the brood frames—attended to. Hives set apart for queen-rearing should be getting well advanced, and have drone brood ready for hatching in a week or so. Weak colonies may be strengthened by giving them a frame of hatching brood from the strongest occasionally; or, if there are *several* weak ones, they should be united at once.

As the season is likely to be a little backward, in all probability swarming in most districts will not commence before the latter part of the month. Everything, however, should be prepared in time, such as setting out hives ready to receive the swarms, making swarming boxes, &c. Entrances to hives may be enlarged as the weather gets warmer by pushing them forward on the bottom boards. Grass and weeds growing about the apiary should be cut short and kept in a tidy condition. Artificial swarming may be proceeded with towards the end of the month. Surplus boxes may also be put on as soon as honey is being gathered in fair quantities.

UNITING.—If by any chance there should be several weak colonies in the apiary at this time of year, it is better to unite two or more, and so make one good colony, rather than let them linger on in their weak state, while the best of the honey season is passing away. Various methods are adopted by different bee-keepers for uniting, but we have always found the following to answer very well indeed :

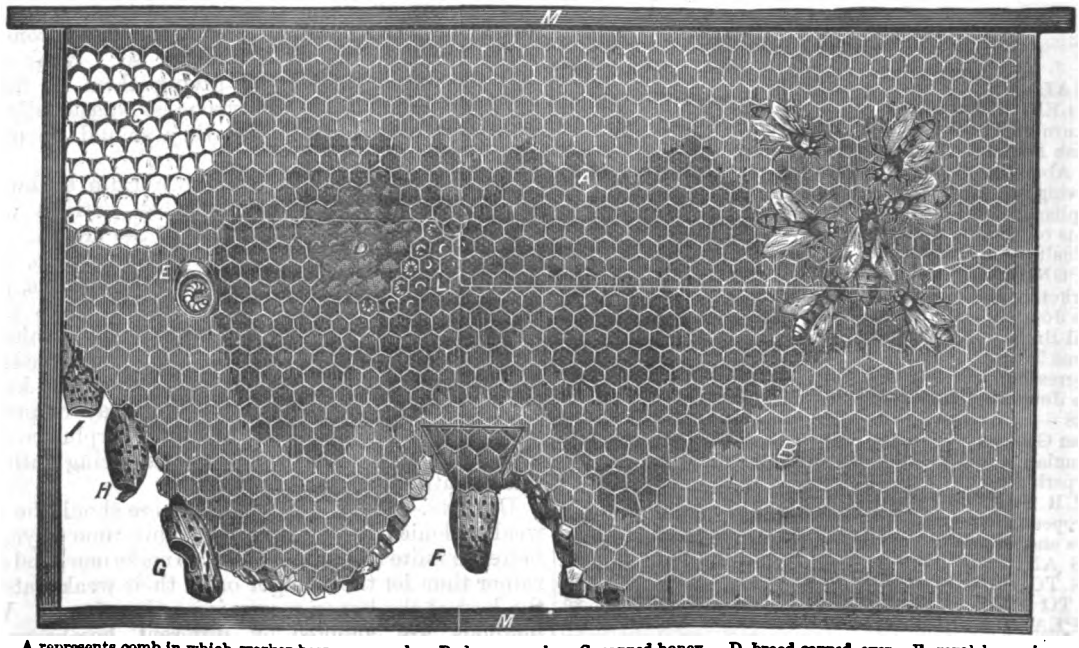
"Move the weakest of the two colonies to be united a few feet every day till close to the other; in the evening lift off the covers of both hives, roll back the mat of the strongest, and if the bees are clustered on the centre combs, remove the side frames and shift those on which the bees are clustered over to one side of the hive. Now remove some of the vacant combs on the opposite side, and gently lift out the frames on which the bees are clustered in the weakest one, and place them on the side of the strongest hive from which the other frames had previously been removed, place two or three vacant combs between the two clusters and close the hive.

"If the apiarist should desire to save one of the queens, he must secure and cage her with a few bees, if not, he need not trouble. A little syrup scented with peppermint, sprinkled over the bees before uniting, is said to prevent fighting. After having united two or more stocks it is as well to watch them for a while, and if fighting *should* take place, use the smoker freely to quiet them. In most cases two or three strong applications of smoke will effectually put a stop to any fighting, and make them live peacefully together."—*New Zealand Bee Manual.*

Queen Rearing.—To obtain good healthy queens it is necessary that the larvæ, from which they are to be reared, are supplied with an abundance of the milky food termed "royal jelly" from the time the eggs are hatched. With the exception of nature's method, *i.e.*, the swarming impulse, the following is the best plan to secure this: Place an empty clean new comb or a frame of foundation in the centre of the brood nest of the hive containing the queen you wish to breed from. Examine the comb each day, and note the date when the first eggs are laid in it. In three days from this time the eggs will commence to hatch into larvæ. Now go to a strong colony and take out the queen and all unsealed brood and eggs, and place the frame of selected eggs in the centre of the hive. The colony being deprived of all their own eggs and larvæ can devote their whole attention to the raising of queens from the eggs given to them. As the queens will emerge in 16 days from the time the eggs are laid, the queen cells should be cut out about the twelfth day and given to nuclei.

Forming Nuclei.—The nucleus hives being in readiness, go to a strong colony and lift out one or more frames until the queen is found. Place her with the comb she is on in a nucleus hive. Take out each comb containing plenty of hatching brood, and insert a queen cell securely. Place the comb with the adhering bees and queen cell in a nucleus hive. If there should not be sufficient hatching brood in the comb, put another one containing brood beside it. The remaining frame may contain honey or foundation. After inserting all the cells, close the entrances to the nucleus hives for 48 hours, taking care to allow plenty of ventilation. It is best to place the nucleus hives in different parts of the grounds, and away from the ordinary ones to prevent the young queens mistaking their hives when returning from their wedding trip. If the sun is strong, the nucleus hives should be shaded while the bees are confined.

Cutting-out and Inserting Queen Cells.—Care must be taken that the cells are not injured in any way when cutting them out. A thin sharp-pointed penknife is what we use for the purpose. Insert the blade of the knife in the comb a little distance from the base of the cell, and cut upwards and outwards for about two inches. This should be done on each side; now cut across, and you have the cell attached to a wedge-shaped piece of comb. A similar piece taken out of the comb you wish to insert the cells into will furnish an opening to receive it. The following engraving from the *New Zealand Bee Manual* will show at a glance how to insert queen cells.



A represents comb in which worker bees are reared. B, drone comb. C, capped honey. D, brood capped over. E, royal larvæ in queen cell just started. F, nymph (or embryo queen) in a cell completed, removed from another comb, and inserted artificially. G, queen cell with the side torn open by newly-hatched queen in order to destroy its embryo rival. H, queen cell from which queen has just hatched. I, stump of cell partly eaten away by bees. K, queen, surrounded by court, taking food from worker's proboscis.

ARTIFICIAL SWARMING.—The best time to make artificial swarms is just previous to the time when natural swarming would commence. They may be made by the method given in the *N.Z. Bee Manual*, or by removing the queen and four frames of brood and bees to a new hive on a new stand, and introducing a queen or queen cell into the old hive from which the queen has been removed. It is better to remove the queen to the new stand along with the bees, as it tends to prevent so many returning to the old hive, as there would were the old queen not with them.

INTRODUCING QUEENS.—When honey is coming in freely, queens may be introduced with very little risk of losing them; at other times there is considerable danger, unless the bees are fed liberally. There are certain points which it is necessary to observe in introducing queens, in order to lessen the risk of their being destroyed. 1st: That all queens and queen cells have been removed from the hive. 2nd: That the queen before being liberated is permeated with the peculiar scent of the hive to which she is being introduced. 3rd: That she is introduced in such a manner that while being protected, the bees have an opportunity of becoming acquainted with her. 4th: If the bees are not gathering honey when the queen is being introduced, the colony should be fed.

A very simple introducing cage has been made by a Mr Alley, a prominent queen breeder of America, and given in his *Bee-keeper's Handy-Book* His method of making it is as follows:—"Take a block of wood, 3in. long, 2in. wide and ½in. thick, and bore through it a 1¼in. hole one-half inch from one end; then take a knife and cut a slot or mortise from the hole to the end of the cage (or block), being careful not to cut out more than enough to allow the bees to pass through after the wire-cloth is fastened on. Now cover both sides with wire-cloth; next cut a piece of tin, 1½in. long and ¼in. wide, and fasten it to the end of the cage not mortised, by driving a tack through the centre of it and into the cage.

"This is adjustable, and works on the principle of a a button to a door; and when it is turned crosswise, the cage will hang from the top bars of the frames between the combs, and thus will be held in position and prevented from falling down. This cage may be used in introducing both laying and virgin queens. The queen should be put in through the mortise-hole, which should then be filled (or plugged) with a mixture of sugar and honey; and in introducing, if the bees have been queenless three days the queens will be kindly received."

The principle of the working of this cage is that the bees liberate the queen by gnawing away the plug of honey and sugar. By the time that they have made their way into the cage they will have become friendly to her. In introducing virgin queens, the bees should have been made queenless three days before to ensure success.

PUTTING ON TOP BOXES.—If increase of stocks as well as honey is desired, the top or surplus boxes need not be put on until after the bees have swarmed. If all queen cells are cut out of each hive as soon as it has thrown off a swarm, and a fertilized queen introduced, the top box may be put on at once. Top boxes may also be put on the hives containing the swarms as soon as they are about three parts filled with honey and brood. In order to prevent as much as possible the queen depositing eggs in the surplus boxes, care should be taken to keep the combs in the brood nest clear of honey by extracting it, and thus give her plenty of empty cells below.

RETURNING THANKS.

ON behalf of the proprietor of this JOURNAL, Mr J. C. Firth, and ourselves, we take this opportunity to thank our numerous subscribers and contributors for their support, and also for their kindly and encouraging remarks in connection with the establishment of the JOURNAL.

We had somewhat anticipated that a Home Bee Journal would be welcomed by the bee-keepers of Australasia, but we certainly were not prepared for the very many warm expressions of appreciation and wishes for its success that we have been the recipients of. It is only due to the proprietor to say that he takes a very deep interest in the bee-keeping industry generally, and that directly the proposal was made to him to start a Journal he at once consented.

Starting and maintaining a Journal of this description entails a very large amount of expense; and as the subscription list is the principal means of meeting it we would ask our present subscribers to do their best to obtain new ones. If each obtain only one new subscriber it would materially assist us. We will willingly send a few sample copies to any one for distribution amongst bee-keepers in their district who have not already had a copy.

We are sorry to say that our endeavours to obtain a reduction on the foreign rates of postage of the JOURNAL have proved fruitless.

COMB FOUNDATION IN SECTION BOXES.

No doubt it will have been noticed by those who have raised comb honey in quantity that the boxes are not uniformly filled. Many of the 1lb boxes vary in weight as much as a quarter of a pound; some weighing a trifle over a pound, while others weigh but very little over three-quarters. This is due to the use of starters only in the sections instead of full sheets of foundation. Since the introduction of foundation with an extra thin base, full sheets are used in America where their use was once strongly condemned. There is also another advantage in filling the sections with worker foundation; bees, as a rule, build drone comb in the sections below the starters, and this is an inducement for the queen to deposit drone eggs in them, the space being limited for breeding drones in the brood nest. We would therefore recommend the use of full sheets in the place of starters. We are cutting our thin comb to sizes so that our customers may have no waste, viz.: 12in x 3⅞in., and 16in x 3⅞.

AN ABUNDANT HONEY HARVEST.

WE are pleased to learn that the honey harvest in both England and America during the season just closing, has been very good indeed. Extraordinary accounts are given in the various bee journals of the immense yield from white clover in both countries. Let us hope that we may have the same to record for Australasia at the close of the coming season.

DRIVING AND HIVING BEES.

BY T.J.M.

The description of his "hiving tray," given by Mr Smith in the August number of the Bee Journal, induces me, especially as the swarming season is now near at hand, to mention and recommend for adoption a simple apparatus which we have used for the last two years at this apiary for all purposes of hiving bees, whether taken as natural swarms or driven from other hives or boxes. The necessity of performing the latter operation with several old box hives, and conveying the bees a long distance upon horseback, was the "mother" of this little invention, if I may call it so. A friend living some nine miles distant, who had kept a number of box hives, and who was about to remove, and to give up bee-keeping, offered us the bees if we would drive them, and thus save them from the sulphurous death to which they were otherwise destined. My son gladly accepted the offer, and having given some consideration to the difficulties of driving bees from boxes of various sizes and shapes, conveying them a long distance upon horseback, and then introducing them into a hive of larger dimensions than any of the old ones, he prepared a case such as I shall now describe, which was found to answer its purpose admirably, and which we have always used since, and found equally effective and convenient for taking and hiving natural swarms.

It consists of a light box (of half-inch wood) of any convenient size, the top being open, and the sides *continued* as it were by an open sack of light canvas, about two feet long, bell-mouthed shaped, one end being made to fit the top of the box to which it is permanently tacked, and the loose end being so much larger as just to fit over a Langstroth hive. In each end of the box a round hole of about three inches diameter is cut, which is covered with a piece of perforated zinc nailed on the inside; a strap handle is nailed on the outside of the bottom board, and the case is complete. I have said that the box may be of any convenient size, *i.e.*, to hold a good swarm; but I would recommend, if a new box be made for the purpose, that its length should be fifteen inches outside, so that it may just rest crossways upon a Langstroth hive when uncovered; the width and depth need not be more than nine or ten inches. The exact weight of the empty case (which need not exceed six pounds) should then be ascertained and painted on the side of the box.

In driving bees out of old boxes, after giving them a little smoke, the box is turned upside down; the mouth of the sack being drawn over the open bottom thus exposed, can be folded so as to fit the opening (whatever may be the size of the box), secured in a temporary manner to the sides by small battens placed over the canvas and tacked with light nails, which need only be driven a little way into the wood, so as to prevent the passage of bees at any part. The case is then suspended by the strap-handle from some temporary fixture over the hive, so as to keep the canvas walls stretched, and the bees are driven in the usual manner. They can be seen through the canvas travelling up into the box, and when there, can be conveniently observed through the perforated zinc air-holes. When all is right the box is loosened and set on its bottom, the mouth of the sack taken off the hive and gathered in one hand, any bees that may have remained on the canvas walls shaken into the box, and the sack then tied with a piece of cord as near the mouth of the box as practicable. The case can then be carried by the handle for any distance, on foot or on horseback, or laid (canvas side upward) on any mode of conveyance without inconvenience to the carrier or injury to the bees.

The new hive into which the bees are to be introduced may be placed in its intended position in the apiary, completely fitted with frames of worked comb or of comb-foundation (of course, all the better if one or two of the frames contain sealed honey, or honey and brood), and when the cover and mat are removed the mouth of the sack is to be fitted round the top of the hive itself, or an empty super may be put on, to which the sack is to be attached. I prefer the use of the super as more convenient in many ways. The string can then be taken off the sack and the bees gently shaken in on top of the frames in the hive, the entrance to which should be stopped with a piece of perforated zinc or filled loosely with cotton wadding, so as to confine the bees without excluding air. The box mouth may then be rested crossways on the top of the hive or of the super, as the case may be, and a little time allowed for the queen and the other bees to settle on the frames. Their motions can be observed through the air-holes in the box, and as soon as they have settled the mouth of the sack may be loosened from the hive; or, if a super be used, the box, sack and super all removed together, the mat and cover placed on the hive, the entrance made free, and the bees left to commence operations in their new home.

If a natural swarm has to be taken, either close to the apiary or at any distance from it, the process of securing the bees will be found to be very easy, no matter in what shape the cluster may have settled. The mouth of the sack being held close under, or quite surrounding the cluster according to circumstances, the bees can be shaken or brushed in with the least possible amount of risk of injuring or losing the queen. The work of introducing the swarm into the new hive is of course the same as with driven bees.

Before proceeding to hive the bees, the case should be weighed, and the exact weight of the swarm ascertained by simply deducting the weight of the empty case which is marked on the side of the box.

The use of this hiving case may be recommended on all the following grounds:—

1st. Its simplicity and small cost.

2nd. The facility it affords for driving bees out of boxes of any size or shape, and of taking natural swarms under all circumstances.

3rd. The convenience and security with which the bees can be carried any distance, and by any mode of conveyance.

4th. The accuracy with which the weight of the swarm can be ascertained.

5th. The ease and celerity with which the bees are introduced into the new hive already fixed in its definite position, and fully fitted up with frames in any desired manner.

In a large apiary any required number of these hiving cases can be kept in readiness to take several swarms which may come off in one day, enabling the bee-keeper to hive them at leisure either on the same or following day, and either separate if the swarms be large enough, or united as may be desirable with weak or small after-swarms.

Bayview Apiary, September 1883.

[The swarming and driving-box described by T.J.M., is a very simple, but ingenious, contrivance, and for carrying swarms a distance in, we cannot imagine anything better. The description comes very opportunely, as the season is fast approaching when appliances of this kind are needed.—Ed.]

APPLIANCES FOR THE APIARY WORKSHOP.

It is a matter of great importance to those making up a quantity of material each season for the apiary to have in use all the labour-saving appliances possible. We have several of these appliances in our workshop which, as well as saving time and labour, assists us considerably to do our work accurately. A short description of them will no doubt be of service to those in need of such things.

We must first state that all our material is cut by machinery.

Hive Cramp.—This is a machine for cramping the four parts of the body of the hive together, and holding them square and firm while nailing them. It is made by taking four pieces of timber 6in x 2in three feet long for uprights, and two 4in x 3in five feet six inches long for horizontal pieces to form the platform and to bolt the uprights to. Two uprights are halved into each horizontal piece two feet ten inches apart, and sixteen inches from the upper ends of uprights. These two parts of the framework are held parallel to each other six inches apart by two pieces of 6in x 1in let in to the horizontal pieces. Two ⅝in iron bolts run through the double part of horizontal and upright pieces with a nut and screw hold all firmly together. The uprights and horizontal pieces should be exactly at right-angles to each other. Two 4in x 3in four feet six inches long should be fastened to the bottom ends of uprights, and spreaders placed between; these hold the uprights firm when screwing the parts of the hive together. If made correctly, when the frame is standing erect, the platform formed by the 4in x 3in pieces should be exactly the width of a hive (16in) below the upper end of uprights.

The next things required are the two jaws, one stationary and the other movable. To make the stationary jaw, one pair of the uprights are made use of. To these are screwed two pieces 1½in square, one at the top and one close down to the platform. If thought necessary a stay may extend from the back of each upright to the ends of the horizontal pieces. For the movable jaw a piece of 9in x 2in sixteen inches long is required. A carpenter's wooden bench screw is made to work between the other pair of uprights by fastening the screw-block between them. The end of the screw is now fastened to the movable jaw in the usual manner. To steady the jaw when screwing up, a short piece of inch board is nailed on the bottom which slides between fillets nailed between the horizontal pieces; this forms the cramp. When working it, we place one side of the hive on the platform between the jaws; next, the two ends are placed in their proper position, then the remaining side; we have now only to give the screw a turn and all the parts of the hive are cramped together close and held firm and square while nailing them. When one side is nailed the screw is loosed, the hive turned over, and the other side nailed in the same manner. We may here remark that we always nail our hives on the sides, and never in front. We use 2½in wire nails for this purpose, three to each end. We also use our cramp for putting the four sides of the covers together.

Cramp for Section Boxes.—This is a very handy, simple, and useful appliance for cramping dovetailed section boxes together. Ours is formed by making a base or bottom board 5in wide, 18in long, by 1in thick. On one end of this is nailed securely a piece of 3in x 2in four and one-quarter inches long, the length standing perpendicular. To this block is hinged, by a strap hinge, a lever about two feet long, made of a piece of 3in x 1in batten, the end being tapered down to form a handle. Another small block exactly the same size as that nailed on end of base board, but which may be tapered on the back, is nailed on under side of lever a bare 4¼in from the other block. The cramp is now complete, and if made according to the instructions given a section box will barely go between the two blocks when the lever is down. To use it we first put the sections together by hand, then place them one at a time under the lever against the block on end of base board with the left hand, then with the right hand bring down the lever; this forces all the pieces into their places securely.

Clinching the Dovetails.—To finish the sections and make the joints strong we clinch the dovetails. For this purpose we have a small form, made by nailing two pieces of 3in x 2in four inches long on a small board 4in x 1in one foot in length. The two blocks are nailed just far enough apart to allow a section box to slide between them easily. This form is for steadying the sections and keeping them square while clinching. To clinch, we slide a section box into the form and tap down the ends of the dovetail at each corner with a hammer; this operation makes a firm joint.

We had written the above before receipt of Mr L. J. Bagnall's paper on "Hints on making up hives in the flat," given in another column.

HINTS ON MAKING UP HIVES IN THE FLAT.

BY L. J. BAGNALL.

Most people will find it cheaper and better to buy their hives "in the flat," that is, cut to length, size, and shape, ready for nailing together, and many are now being sold in this way. It is important that care should be taken in putting them together, so that the best results, both in utility and appearance may be obtained, and no bee-keeper should be satisfied unless he can obtain both of these in his hives.

To put the bodies together two frames made of wood or iron are very serviceable. The former may be made very easily out of pieces of 2in x 2in halved at the corners and strongly nailed together. They should be perfectly square, and of a size to admit the parts of the body without much trouble. A few thin wedges will drive them tightly together. Adjust the frames so that the nails may be driven without removing them. Persons who have many hives to make up could fix a frame on a stand and press the parts together with a bench screw.

Before wedging up tightly see that the upper outside rabbit is even all round, then keep all firmly together and nail securely. Two-inch wire nails do well for bodies and bottom boards. Be careful not to split the wood or let the points of the nails come out.

Punch the heads well in. This is very essential, so that they may be puttied up, to keep the wet from rotting the timber.

The roof requires particular care in putting together, as it has to keep out the rain; dampness being very injurious to bees at any time, but especially in winter. Keep the sides and ends square and even. One of the frames before mentioned may be used for this purpose. Place the ridge piece in the centre, allowing it to project an equal distance at each end; fit the covering pieces closely up to it, and nail all securely together. One and a-half inch wire nails do for the cover, except those which require to go in the corners and ridge-piece. Use 2in for these. If the lower edge of the bodies or roof show any unevenness dress them off with a plane.

Having your hives all nailed together, and the nail heads punched in, you are ready to start painting. For a first coat use white and red lead and raw linseed oil. If dryers are used let it be sparingly, and do not have your paint too thick for the first coat. No colour is so good as a pure white for a bee hive, and none looks so well; but white paint does not stand the weather well. The very best white lead seems to wash off as readily as the inferior. To prevent this other colours are sometimes added. I have found the Californian white rubber paint answer well, and use it in my own apiary. Each person can please him or her self as to the shade of colour. Always remember that the whiter your hives the cooler they will be in summer: a very important consideration where they are exposed to the sun's rays. After the first coat is quite dry carefully putty up all the nail holes and any little crevice there may be where the ridge and covering-pieces meet. Two more coats of paint of the approved colour should be given them.

While the paint is drying you can put the frames together. This should not be attempted without a "frame form." With it there is no trouble or loss of time; without it it is impossible to put frames together satisfactorily. Use 1in wire nails, putting two at each corner of the frame. When the hives are all made up and painted they can be either placed in position in the apiary, or in some convenient place, to be ready when wanted.

These hints apply more particularly to the Langstroth hive and frame, first supplied in New Zealand by Mr Hopkins, and now by his successors, Messrs Bagnall Bros. & Co., but will also apply in a good measure to the hives made by other makers.

Turua, 28th August, 1883.

[With regard to hives painted a pure white, our experience corresponds with that of Mr Bagnall—*i.e.*, that the best white lead will "chalk off"—as the painters term it—as readily as the inferior kind, after being exposed to the sun's rays for a short time. We have found that if a little black is added, so as to make the paint a light slate colour, it will stand at least three times as long.—Ed.]

Bees Assist Nature.—Bees assist in the fertility of flowers by distributing their filaments and causing the distribution of pollen; they are important requisites to a full crop of fruit.

Bumble bees are wanted in New Zealand to fertilize clover bloom, in order that clover seed may be produced. The bumble bee, as well as the honey bee, is an important auxiliary in nature.—*Exchange.*

APICULTURE IN QUEENSLAND.

BY C. FULLWOOD.

The prospects of apiculture in this semi-tropical climate can scarcely be gauged by past experiences, seeing that those experiences have been but limited in extent, and the progress of colonization and settlement, with the consequent destruction of scrub and bush will materially change the character of the country as a field for honey-gatherers.

There is no doubt that there are a large variety of honey-producing plants, trees, &c., indiginous to Queensland from which, throughout the year, large quantities of honey may be gathered of an excellent description. Yet it is a fact that the great flows of honey that America boasts, and New Zealand may yet claim, will never likely be realised here.

Except in very wet seasons, bees gather all the year round, the winters being so mild that breeding and honey-gathering rarely ceases. The incoming is more regular, spread over a longer term, but probably will rarely ever be so large as in many other places.

Still, in well-chosen localities, apiculture may be made a very profitable business in Queensland, especially if a ready market, at fair prices, can be found for the sale of the stores.

The fact that one or two families already manage to obtain a respectable livlihood from their bees will be sufficient proof that, with Italian bees, modern appliances, and skilful handling, success, bringing comfort and satisfaction therewith, should attend the steps of the modern bee-keeper, who, determined to overcome obstacles, creates a supply and a demand through the mode of raising and presenting the supply. Very little has yet been attempted in the way of presenting honey in an attractive form, the expense of tins and jars being regarded as prohibitory.

In the early days honey was so plentiful that it was brought to town by the farmers and others in kerosene tins, in the roughest and readiest manner, and sold for a very trifle, so that a fair price is even now regarded as too costly—although it must be presented in better form. When clear, well-shaped jars, and nice tempting sections can be placed before the public no doubt an increased demand will arise, and better prices be obtained than hitherto.

With the common bee the prospects of apiculture in Queensland are gloomy; the moth clears them out wholesale, but with Italians, and possibly Holylanders, a brighter future looms before us, giving impetus, energy, hope.

This is a grand country for multiplication of stocks; from mid-August to mid-April bees will swarm. An old bee-keeper told the writer the other day that soon after settling on an allotment just out of Brisbane some years since, he found a swarm, put them in a box, and in a short time they swarmed, and the swarms swarmed, until the one in the same season became eleven.

Brisbane, August, 1883.

It is said that 3660 workers will fill a quart measure.

Drones v. Bachelors.—It is said by some naturalists that drone bees are a slandered race, that they are not idlers, but nurse and take care of the baby bees. Can as much be said of old bachelors?

(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.

MARKETING HONEY, ITALIANIZING, &c.

Sir,—Since my last report we have had two of the finest winter months I ever remember to have seen. Bright sunny days, sometimes quite hot; my thermometer marked 90° in the sun one afternoon. With such weather the bees could not fail to thrive, and my eighty colonies, although deprived of rather too much honey in the autumn, are coming well through the winter. I am somewhat dissatisfied with my location from a honey-producing point of view. I have plenty of flax and a a good deal of bush within reach, but clover is sparse. I have arranged to move a few miles to a place where honey of all kinds should be plentiful. I was much disappointed by the returns from England of a small trial shipment sent there. One hears so much about the fabulous prices given for honey at Home that I thought I would send Morton, the provision dealer, a sample keg. The honey was sold at auction, and fetched 30s a cwt. I have had no account sales, but as the keg cost 6s, and freight was 10s, by the time commission and other charges are added I should not be surprised to get a dr. note for deficiency. It seems there is a craze for white honey, and no other kind will sell. It was flax honey I sent, and the report on it was, "The honey is of a dark colour, and somewhat burnt flavour." Unfortunately, I sent a ton later on, partly flax, partly clover, and not knowing the necessity of grading the honey I mixed the tins, and could not tell which was which when I came to pack them. I am afraid it will all be sold as "honey of a burnt flavour." Well, *experiencia docet*. Not much danger of falling into the same mistake again. I am glad we colonials have not such fastidious palates. A case of the same honey in 28lb tins sent to Nelson fetched 6d, and I got 8d for all I sold in 1lb tins.

Will Mr Karl say how he marked his 2000lbs of comb honey—was it put up in glassed crates or how, and was any of it shipped by steamer, and with what result? I am told that a case of Mr Knight's honey, in 5lb glassed boxes, shipped to Wellington, arrived there in fragments. I am making up 1lb sections now to turn out my thick spring honey in the comb. In fact I see no other way of securing it. As Mr Karl says, it is impossible to extract flax honey.

I am delighted with what he says of the Ligurian bee, and will endeavour to Italianize all my apiary during the coming season. Mr Adams has sent to America for queens, and expects them in October or early in November. He imported a full colony last year, but they were all dead when they reached Gisborne.

In a recent number of the *American Bee Journal* I read a plan of preventing increase, which I shall try next season. A swarm issuing from hive No. 1 was secured in a new hive, and placed on the old stand. All the bees were shaken from the combs of the old hive and flew into the hive with the new swarm. The queen cells were then cut out, and the next swarm hived among the unhatched brood. By this process no increase was made, and the hives were kept very strong.

I notice some of my queens are beginning to lay, and the bees are bringing in pollen from acacia. The weeping willow, which abounds in this district, will soon begin to shoot, and then honey comes in pretty freely. We have had some stiff frosts lately, and grass is rather scarce on the flats.

I hope to see some account of the Matamata Apiary in the next number of the Journal.

George Stevenson,
August, 1883. Ormond Apiary, Gisborne.

[We are sorry that our correspondent has been disappointed in the returns from his trial shipment to England; but we certainly think he has himself to blame in a great measure for his disappointment. He should have known if he had perused the Bee Journal he subscribes to attentively, that it is useless to put an inferior grade of honey on the English market with the idea that it will pay. First-class honey will sell readily in England, and fetch a good price; but sending a poor article will only result in loss to the sender, and tend to give New Zealand honey generally a bad name. With regard to neglecting to grade the second lot of honey sent, we think our correspondent has been remiss, as our Manual—which he has—distinctly states that this should be done. We hope and expect to find New Zealand honey in demand in the English market; but the demand can only be created by sending a first-rate article, which can be produced here abundantly, and with as little cost as the poorer kind.

An account of the Matamata Apiary was published before we received our correspondent's letter. We had nothing of importance to add to that given by the "Auckland Weekly News" of last February; but we shall keep our readers posted in all our doings from time to time, and give them the benefit of our experience in every department of apiculture.—Ed.]

THE JOURNAL.—MR DOOLITTLE'S AVERAGE.

Sir,—The first number of the Journal has come to hand, and I must say it is a great credit to you. I did not expect to see a Bee Journal equal to this for the next ten years to come. If this is a sample of what we are to get every month, there is a treat in store indeed. Every person who keeps bees should subscribe to this Journal, and also give their contributions towards it. I sincerely wish long life to it, and also financial success.

Mr G. M. Doolittle gives, in the *American Bee Journal*, his account with his bees for a period of ten years. He says, "That a report of a very prosperous year is often misleading, but one extending through a period of ten years should approximate very nearly to what might be expected for the same length of time to come. His average yield for each colony in the spring of 1873 was 80lbs; 1874, about 100lbs; 1875, a little over 106lbs; 1876, 50lbs; 1877, a little less than 167lbs; 1878, 71lbs; 1879, 58lbs; 1880, 62lbs; 1881, nearly 135lbs; 1882, it was 51lbs—making an average yield for the past ten years of 88lbs per colony; five-sixths of this was comb honey. The average price at which it has been sold is

about 10d a pound; give 73s 4d average cash yield for each colony. Hence, if a man is capable of keeping 50 colonies the income would be £183 a year; if 100 it would be £366. After an experience of fourteen years in the bee business he can see no reason why it does not compare favourably with any other pursuit in life as far as pounds shillings and pence are concerned; and when one looks at it as a fascinating and health-giving pursuit it places most other avocations in the shade."

Westport, August 4th, 1883. J. Barkley.

FOUL BROOD.—A WARNING.

Sir,—It was with great pleasure I received the first number of your Journal. I consider the promoters are entitled to the thanks of bee-keepers for their enterprise, and I only hope they will be rewarded with a large measure of support.

I wish to call the attention of all bee-keepers in this island to your reprint of Mr Muth's paper upon Foul Brood. That scourge of the apiary is rampant in all parts of this provincial district, several apiaries having been entirely depopulated by it; it has spread to the west coast of the Island, and last summer I detected its existence a considerable distance along the Taupo Road, so you will need to have your eyes open at Matamata.

After twice losing my own bees, I wrote to Mr Muth for a copy of his paper, which he kindly forwarded. I found his system efficacious; but with neighbours within a few miles capturing absconding swarms, and putting them into infected boxes, I have to be continually upon the watch; and every now and then all the combs in a hive have to go, and the hive to be boiled and disinfected.

My bees did well last year. Though having been away for three months of the honey season I lost a great deal of honey. I found what you call 1lb sections from the Italians averaged 2½oz more in weight than the same sized sections from the blacks. Is this the rule? In my case I keep the Italians about five or six miles away from the blacks, so the extra weight may be owing to location, though in both cases the principal source of honey would be white clover.

My experience as to Italians does not bear out the general verdict as to mildness of temper. I can always manage the blacks without smoke, but the first time I tried it upon Italians I found they had stings—and could use them. I had tied my horse about twenty yards from the stand, but I soon heard a snort and a crack and then a sound of rapid galloping over the turf. Since then I prefer to use smoke with the Italians. Fearing I am trespassing,

I remain, yours, &c.,

R. Harding,

Mount Vernon, Hawke's Bay.

August 13th, 1883.

[We are very sorry to hear of the existence of foul brood in your district, and would advise all bee-keepers thereabout to do their utmost to stamp it out as quickly as possible; and in the meantime to do their best to prevent it spreading. We are pleased to hear that you found Mr Muth's remedy efficacious, as it is so simple that any bee-keeper can apply it immediately he perceives any symptoms of the disease amongst his bees.

With regard to Italians putting more honey into sections than the blacks, that *is* the case. Italians fill all honey cells fuller. The blacks leave a considerable air space between the honey and the cap of the cell, whereas Italians leave little or none; for this reason blacks are preferred by some for raising comb honey, as the face of the comb looks much whiter.

With regard to handling Italians we find them as a rule much more gentle than the blacks; but if once aroused they are likely to do their best to beat off the intruder. In all manipulations be careful not to jar the hives or frames.—Ed.]

DRONE TRAPS.

Sir,—I have just read your *Illustrated New Zealand Bee Manual* (1881 edition). I have read several works on bee-culture, including German and Italian works, but yours is by far the most practical and useful I have ever read, especially for beginners, and I think that no person who takes any interest in bee-keeping ought to be without it.

I wish to call your attention to a drone trap, not mentioned in your *Manual*, which is in general use in the apiaries of my country—Canton Grison, Switzerland, where great interest is taken in bee-culture. This trap is much like some wire mouse-traps, except that it is rectangular instead of round; size, about 4½ x 4½ x 3in high. An entrance is made on one side where some of the wires, sharply pointed, are turned in towards the centre of the trap, and end in a small circular opening large enough to admit drones readily. When in, the drones are prisoners, they being unable to find their way out again. Of course, the wires of the trap are set far enough apart to allow worker-bees to pass through between them with ease, but sufficiently close to prevent the drones passing. If the opening of this trap is placed over the entrance to the hive the drones, on emerging, will enter it, and so be made prisoners, while the workers can escape without trouble. The bottom of the cage is generally a thin piece of board which is made to open in order to shake the drones out after drowning them.

Excuse me for treating so long on this subject, as it could be done in fewer words, but English is not my native tongue. Yours, &c.,

H. Schumacher.

Inglewood, Taranaki, August 12th, 1883.

[We are much obliged to Mr Schumacher for calling our attention to what appeared to him an omission on our part.

The reason drone traps are not mentioned in either edition of our *Manual* is because, under scientific bee-management, they are not required. With the aid of movable-comb hives, and artificial-comb foundation, the breeding of drones is entirely under the control of the apiarists. It would simply be anything but scientific management to allow the breeding of non-producing drones more than were actually needed, as this would be a useless expenditure of time on the part of the queen and nurse bees, and a waste of honey and pollen.

Drone excluders are sometimes used by extensive queen breeders where two or more varities of bees are kept in the same apiary. These are used to control the

mating of the young queens, by placing the perforated zinc over the entrances to the hives, from which the breeder does not wish the drones to fly. The perforations are large enough to allow the workers to pass in and out of the hive.—Ed.]

PROGRESSING.

Sir,—Only a fortnight before I received your Bee Journal—for which please accept thanks—I was talking about my numerous wants in the bee line, some of which would have to be curtailed. I, nevertheless, concluded that a bee journal must be got. I have decided to become a subscriber, to see if it will supply information of a somewhat different character to that supplied by bee books—I already possess your *Manual*—and, if so, will continue to support it. The questions asked and answered, I have reason to believe, will be worth the money alone.

I see you have answered my questions, though I have answered them myself by experience. I have made rapid strides since I wrote you, having transferred five stocks successfully from common boxes into Langstroth hives, united two others out of boxes, and given them comb foundation. I bought 12lbs, also an extractor, and from 10s worth of honey, as I wrote you last, have got to £1 worth, besides having plenty for family use. I got all tools necessary to make my own hives, as I find the freight adds considerably to the cost of hives obtained from a distance. I have been muddling with bees for the last twenty years, and have made more progress this year than the rest of the twenty put together. I have terraced a hill side in two rows to contain 30 hives, with plenty of room for extension. There is a fine range for bees, surrounded by bush and well sheltered. I have dug the ground in front of the hives a half chain wide, and planted it with beans, as I find the bees are very fond of them. I lost two swarms through being concealed amongst some cocksfoot I had growing for seed. They alighted on a peach tree branch, their weight dragging it down amongst the cocksfoot. I first perceived them when taking their final departure; of course, you know the state of feeling that ensues. I am ashamed of my last letter, showing my ignorance on bee-matters, but if it is only a mark to show where I have progressed from hereafter, I will be satisfied. People tell me I have "bees on the brain."

R. Henderson.

Silver Hill, North Oruawharo, July 27th, 1883.

[We congratulate you on the progress you have made since you penned your last letter, published in our first issue. "Bees on the brain" is is a common complaint amongst successful apiarists.—Ed.]

THE JOURNAL.—TRANSFERRING.

Sir,—I am very pleased that you have started a Bee Journal, and I am sure all bee-keepers in New Zealand will appreciate your efforts and become subscribers. A copy was forwarded to me, and all I have shown it to have or will become subscribers.

I am transferring the few colonies of bees I have from the "Woodbury" to "Langstroth" hives.

Nelson, August 17th, 1883. B.S.C.

FROM GEELONG.

Sir,—I have received the first number of the N.Z. and A. Bee Journal, for which I thank you. You will kindly include my name amongst your subscribers.

I began two years ago with a single hive, now I have eleven strong stocks; they have wintered well. I have not much time to look after them or I could have done much better. The bees are an amusement, and a sort of hobby of mine, yet I am anxious to adopt the most approved plans. After many experiments I have adopted a hive of my own, which I find answers admirably. I have eight hives upon this plan, and three others various; the latter I intend to transfer in the spring, so that everything in the apiary, frames, hives, covers, &c., shall be interchangable.

The great difficulty I have is this—the bees are furious on all occasions, smoke seems to have no effect upon them, so in all manipulations I am obliged to be altogether bee proof. Whether it is my awkwardness, or the innate dislike the bees have to their best friend, I know not; perhaps you could tell me? I wish you every success, and shall not fail to make known to you all my difficulties, and report to you my success.—Yours, &c.,

W. J. Thomas.

Geelong, July 31st, 1883.

[We are much obliged to Mr Thomas for his report, and promise of future ones.

We do not think it is the innate dislike of the bees to you that makes them so irritable, but believe that you may occasionally jar the hive when manipulating. We would advise you to blow a good puff of smoke into the entrance a minute or so before you remove the cover. This will frighten the bees, and cause them to fill themselves with honey, when there will be little danger of receiving stings.—Ed.]

STIMULATING AND PLANTING FOR BEES.

Sir,—There is every appearance of a very early spring in this district; the willows are already quite green, and on the sunny days the blue gums are loud with bees. My queens are most of them laying a little, and I intend this week to commence stimulative feeding, giving a small quantity of syrup every night over the cluster by means of tin feeders, as described in the A.B.J. for April 4th, 1883, page 181. I have fenced in three acres round my apiary, and have planted therein fruit trees, a lot of gooseberries and raspberries, thirty five-year-old linden trees (*Tilia Europœa rubra*), obtained from Mr Mason, of Parnell. I put in these latter as being the nearest thing I could get to the American basswood. The trees are particularly well grown, neatly specimens, and I think should yield me a good honey harvest within a few years time. I have still plenty of space for honey plants within the enclosed piece, and am anxiously awaiting your advertisement of

figwort and melilot clover seeds. When should I sow these and spider plant, of which latter I have some seed?

E. D. H. Daly,
Woodside Apiary, Hautapu,
August 20th, 1883. Waikato, N.Z.

[We are glad to hear that in planting you have chosen trees that will be useful to your bees, as well as ornamental to your property. Honey plant seeds may be sown any time after frost is over. We cannot supply any figwort or mellilot clover seed this spring. We have a small supply of seeds of spider plant to dispose of; see advertisement.—Ed.]

PREPARING FOR THE COMING SEASON.

Sir,—I must congratulate you on the general appearance of the Bee Journal. It is, I consider, very well got up indeed, and I am very well pleased with it.

We are very busy getting ready for spring work. We have just finished nailing together 270 boxes. We are going in for extracting entirely this season. I should like very much to have one of those eight-comb extractors spoken about on page 16 August number of the Journal.

J. Karl.

Ohaupo, August 21st.

[We expect to receive our six-comb extractor in about a week, when, as promised, we will give a detailed description of it in our next issue.

We shall be glad to receive monthly reports from Mr Karl for publication, if he can make it convenient.—Ed.]

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.

EUROPEAN HONEY AND WAX IMPORTATION.

Some time ago we noticed an item in an English paper that, at a sale in Lisbon, Portugal, *sixty tons* of beeswax had been sold. This shows what an extensive sale and use it has in Europe.

The *Deutscher Bienenfreund* for May contains a table showing the amount of honey and beeswax received at Hamburg from foreign countries during 1881 and 1882. The amount of honey was as follows, from

		1881	1882
Havana	lbs	550,060	525,000
Mexico	„	1,100,000	835,000
Chili and Peru	„	1,320,000	1,105,000
California	„	48,000	—
Domingo	„	450,000	270,000
Total		3,468,000	2,735,000

Of beeswax the amounts received were as follows, from—

		1881	1882
Chili	lbs	90,000	54,000
Venezuela	„	145,000	63,000
Angola	„	14,000	—
Madagascar	„	48,000	33,000
West Indies	„	38,500	12,000
Total		335,500	162,000

Honey is extensively used in Europe in the manufacture of honey wine, metheglin and cakes; for preserving fruit, and preparing medicine, as well as for table use, for which it is more generally used than in America.

One firm (Messrs Field and Co.), in Paris, use ten tons of American beeswax per month in making candles for Catholic altars. The religious pageantry of Roman Catholic countries owes much of its splendour and influence to its altar candles, each the tribute of a thousand flowers, collected by millions of bees, leading the thoughts back, perchance, to the sweet and pure origin. Its other uses are very numerous and important. The New York *Grocer* enumerates the following: Its property of preserving tissues and preventing mold or mildew was well known to the ancients, who use serecloth for embalming, and wax for encaustic painting, as in the wall pictures of Pompeii. Wax candles and tapers play an important part in the processions and ceremonies of the Roman Catholic Church. Wax is used by manufacturers of glazed, ornamental wall papers, and on paper collars and cuffs for polishing the surfaces. It is used in varnishes and paints, and for the "stuffing" of wood which is to be polished, as pianos, coach work, fine furniture and parquette floors. Electrotypers and plasterers use wax in forming their molds. Wax is an important ingredient in preparations for covering surfaces of polished iron and steel to prevent rust. Combined with tallow, it forms the coating for canvas and cordage to prevent mildew, as in sails, awnings, etc. Artificial flowers consume much wax, and despite the introduction of paraffine, ceresin, and mineral wax, its use appears to be extending. One of the oldest of its applications is in the laundry, and in polishing wood-work.—*American Bee Journal*, June 13, 1883.

BEES AND FLOWERS.

Bees and flowers, says Mr W. Ingram in the *British Bee Journal*, are inseparably connected. Associated in sentiment, it was assumed that the nectarous flowers gave their sweets to the insects in perfect freedom, and out of their abundance; but modern teaching has satisfactorily shown that the benefits conferred are reciprocal, that while the bee gathers the floral sweets, flitting from flower to flower, it effects an important purpose by carrying the pollen-grains from one plant of the same genus to another, and, by thus effecting cross-fertilization, secures to the plant prolonged vigor and vitality in its progeny.

Amongst the multitude of plants that adorn our gardens and brighten our fields and wastes, there are some that are especially sought out by bees as affording them the best and purest food; and coincident with the extension of bee-keeping, endeavours should be made in each locality to ascertain the relative value of honey-yielding plants, either native or exotic, and to increase them in due proportion. When nature has been so prodigal it may seem to some a needless and unnecessary labor, but it will not be found so. It must be remembered that large numbers of useful bee-flowers have been banished by the plow and the spade. Native plants are weeds to the farmer, and more highly cultivated the district more restricted and poor becomes the bee-flower. One proof of the value of wild-flowers is,

that bees are observed to store honey more abundantly when in easy reach of rivers and brooks, on whose banks waste land, native plants grow in undisturbed freedom.

There is, however, compensation in some highly-managed districts, especially where large areas of turnips are grown for seed, or the different kinds of Brassica, or mustard, or other cruciferous plants, occupy the land. The bean-fields in their season afford great supplies of honey; and meadow and pasture land, rich in white clover, give an opportunity of adding greatly to the luscious store of the bee. But there are seasons when such sources of obtaining food are unavailable; and it is to fill up the intervals between the important field crops I have mentioned, and to secure an uninterrupted succession of flowering plants from which bees may profitably derive their food, that our efforts should be directed.

Cultivating an extensive collection of hardy plants, and having devoted some little attention to those kinds that seem most attractive to bees. I hope to be of service to my bee-keeping friends by giving, in each succeeding month, the names of the most useful bee flowers, with some instructions with regard to their mode of propagation and cultivation, so that in time we may fill up the little flowerless intervals with honey-bearing blossoms.

The weather that invites the appearance of early flowers influences the bees, which are glad of the opportunity of leaving the hive for a short circleing flight as soon as a few gleams of spring sunshine vivify the air, and we may be sure that the few vernal flowers that present themselves are welcome, and immediately visited. The first to appear are the following:—Eranthus hyemalis, Helleborus niger, and H. orientalis, the Snowdrop, Tussilago fragrans, the Russian violet, Crocus imperati, and with the shelter of a wall the winter Honeysuckle, Chimonanthus fragrans, Jasminum nudiflorum.

Although all these are interesting and useful, especially to the amateur gardener, there are few aparians, perhaps, who have the space and opportunities for planting the whole of them. There are two, however, which would repay their introduction in the immediate neighborhood of bees, these are Eranthus hyemalis and Helleborus niger—plants of easy growth and of hardy constitution—the flowers of which are eagerly sought for by bees on their first flight in the opening spring.

Those who are interested in providing honey-yielding plants for the early months of the year, and have failed to make plantations, may still do so in the case of the following eminently useful kinds:—Arabis albida, Aubrietia græca, Wallflower (the early yellow variety is the best), Erica carnea, Limnanthes Douglasii. In all cases for blooming purposes the same season, rooted plants should be put in. To rear plants for another season, slips or cuttings or seed may be set or sown later in the spring.

An editor, after spending half a-day in his apiary, returned to his sanctum, his face all a-glow with a "brilliant idea," and wrote an article on "How to handle bees without being Stung." While reading the proof in the evening he felt something "very peculiar" fooling around the inside of the legs of his pants, which caused him to jump as though he had sat on the wrong end of a tack. He immediately marked the article "dead." The compositor never found out why he "killed" his best production.

QUERIES AND REPLIES.

QUERY.—*Straight Combs—Unhatched Brood—Time for Section Boxes—Artificial Swarms, &c.*—I wish to ask you, or some of your subscribers, a few questions:—1st. What is the best means of making the prepared combs straight—that is, having them straight in the bars when fastened in? 2nd. Is there any means of preventing the bees joining the frames together at the top? 3rd. Is it well to cut out all mouldy comb? 4th. I notice a few bees, say about half a dozen, in some combs which have not come to maturity—some of them have a very disagreeable smell,—when opened is it better to leave them in, or to pick them out? 5th. Is there any trouble to get bees to work in section boxes? I failed last season, but probably put top boxes on too late. 6th. When is the proper time to put top boxes on? 7th. What is the best plan to catch a queen you wish to take out of a full colony? 8th. What is the proper time to make artificial swarms? 9th. Is it advisable to have an extra mat or extra covering on top inside hive for wintering bees? 10th. Are Italian bees much quieter than black bees in handling?

J. BARKLEY.

Westport, August 4th.

REPLY.—1st. If the sheets of foundation have been lying perfectly flat previous to making use of them, and are put into the frames with the aid of a proper board, as described in the *Manual* and price lists, we know no reason why they should not hang straight when fastened in the frames. To ensure the combs being built *within* the frames the hive should be set perfectly level from side to side, in order that the frames may hang plumb. If the hive is a little out, the sheet of foundation will hang plumb, but the frame will not, consequently the lower half of the sheet will project beyond it. We very rarely indeed find any of our combs but what are worked out as flat as a board. We always use a spirit-level when placing the bottom boards in position. 2nd. We presume you mean "bridging" from top bar of one frame to top bar of next. We do not know of any means to prevent it, but as it does not materially interfere with the working of the hive we think it is of little consequence. The bees only do this when making preparations for winter, and a thin knife run through at any time will separate them. 3rd. If not very mouldy take it out of the hive and dry it, and place it in the centre of a strong colony as soon as the bees are gathering honey, and they will clean it very quickly. 4th. To be on the safe side uncap the cells containing dead larvæ, and spread a little solution of salicylic acid and borax over the combs, spraying it well into the cells. 5th. As a rule, no. 6th. As soon as the lower hive is getting pretty full of bees and brood, taking care not to delay putting them on till the bees have begun to prepare for swarming. With a first swarm in a good locality, the top box is usually required in four or five days after hiving it. 7th. We do not know of any particular plan except to look for her until you find her. When we wish to catch the queen, after removing an outside frame to make room, we lift one of the centre frames; if not on this we hang it in the comb-holder, or an empty hive, and examine another, and so on till we find her. If there are many empty cells in the central combs she is pretty certain to be on one of them; but if they are pretty full of brood she is likely to be on

one of the outside combs. 8th. Just at the commencement of the main honey harvest. Here at Matamata, where white clover is our main harvest, it would be about the end of the third week in October in an ordinary season. Of course the colonies should be in condition for it at this time. 9th. Yes; more especially in the early months of spring. 10th. Yes; we find them so.

QUERY.—*Drone Comb.*—In the artificial comb foundation I saw at a neighbour's house the cells appeared to be all one size, viz., for workers. Will the bees enlarge some of these cells for the drones, or must I have a special hive for drones? If so, is suitable comb made, or must I get old comb from somewhere?

BUMBLE BEE, .
Churchill.

REPLY.—We will give the same reply to the above that was sent to us by a leading apiarist in America in answer to the same question, when we were sending for our first foundation machine: "Don't bother about the drones, the bees will arrange that matter; the only thing you will have to do is to see that you don't get too many." This I have found to be very good advice. If an extra amount of drone comb is required put strips of worker comb instead of full sheets in one or two frames and the bees will finish with drone comb.

NOTICE TO CORRESPONDENTS.

WE have been asked why we advertise in our price list nine frames in a colony of Ligurians, instead of ten. Answer.—Because our method of packing the interior of the hive will not allow of more than nine frames.

WE do not expect to have queens, &c., ready to send out before November. Should they be ready before that time they will be sent out immediately; we shall only be too happy to let our customers have them as early as we can.

NOTICE TO NEW SUBSCRIBERS.

WE are having sufficient extra copies of each issue printed to allow all new subscribers during the first year of the JOURNAL to obtain back numbers from the commencement, and unless notified to the contrary we shall send them.

HONEY PLANT SEEDS.

We have a little Spider Plant seeds to spare, which we will send post free at 1s. per packet.

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.

HONEY MARKETS.

AUCKLAND, October 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.

AUGUST 1st, 1883.

There are no quotations in the *British Bee Journal* for August 1st, but an advertisement appears offering 1s. per pound for five tons. There is also an advertisement from the same firm in the *American Bee Journal*, offering to purchase large lots of comb-honey, delivered in London, at an advance of 5 cents per pound on New York prices; this would be at the rate of 1s. per pound.

AMERICA.

NEW YORK, August 15, 1883.

HONEY.—We take pleasure in quoting the following prices on honey obtainable in our market:—

	c.	c.
Fancy white clover, 1lb sections (no glass)...	20	@ 21
Fancy white clover, 2lb sections (glassed) ...	18	@ 20
Fair white clover, 1 & 2lb sections „ ...	16	@ 17
Fancy buckwheat, 1lb sections (no glass) ...		15
Fancy buckwheat, 2lb sections (glassed) ...	13	@ 14
Ordinary buckwheat, 1 & 2lb sections „ ...	11	@ 13
Extracted clover honey, in kegs or bbls. ...	9	@ 10
„ buckwheat, „ „ ...	7½	@ 8
BEESWAX.—Prime Yellow	31	@ 33

H. K. & F. B. THURBER & CO.

—*American Bee Journal.*

SAN FRANCISCO.

HONEY.—Gloomy accounts continue to be received from the southern coast counties regarding the honey crop. In the region of Tulare there is a good yield. Some Tulare comb, crossed and mixed, was placed at 13½c., and extracted of the crop of 1881 sold at 7½c.

	c.	c.
White to extra white comb	16	@ 20
Dark to good	10	@ 13½
Extracted, choice to extra white	7	@ 9
Dark and candied		6½
BEESWAX—Inactive and easy at	27	@ 28

STEARNS & SMITH, 423, Front-street.

—*American Bee Journal.*

OUR HONEY IMPORTS.

The value of honey imported into the United Kingdom during the months of May and June, 1883, amounted in all to £8,315.

DEMAND FOR HONEY.

The following advertisement appears in the *British Bee Journal* for July 15th, 1883:—

"FIVE TONS WANTED FOR CASH.—Honey in the Comb.—Wanted, for Cash.—We will pay 1s. per lb net. for bright-coloured honey in straight combs, no matter whether stored in straw, supers, frames, or sections. Honey to be sound and unbroken, and delivered to us at some railway station in London.—W. M. HOGE & Co., honey dealers, Leconfield Road, Stoke Newington Green, London, N."