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PER ANNUM: 3/6 IN ADVANCE.

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The New Zealand Beekeepers' Journal

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

No. 30 DUNEDIN. 3/6 Per Annum.

A GENERAL TRADE MARK.

Is a trade mark a valuable asset?

Business men generally recognise real value in an advertised trade mark. This has a real value per se, and is worth fabulous prices where the volume of business done is large. This value can be readily demonstrated. You can take two similar articles of exactly identical quality, one to bear a familiar brand and the other none at all. Place them side by side, and 11 persons out of 12 will buy the one with the familiar brand, even if they have to pay more money for it. This selling power gives the trade mark actual value over and above the value of the goods. Honey is no exception to this rule. People will buy honey, it is true, without any trade mark at all, but put a trade mark on your honey and let the quality be good and every pound sold under this trade mark will help sell other pounds of the same quality. A local trade mark is a great help in a local way, but its value is extremely limited even to the owner of it. Suppose that every local man has his own trade mark, and advertised it in his own home market. This would immediately cause a conflict and antagonism between neighbouring beekeepers. Each neighbour instead of helping himself and all the others, really tears down the work of the others. The customers are all up in the air when they go to buy honey.

The remedy for this condition is a general uniform trade mark, so that all beekeepers can add their mite to the uplift by advertising the general trade mark in each of their local markets. In this way the efforts of each helps all as well as himself.—The Booster.

FLAT v. GABLE COVERS.

Mr. A. L. Luke is very emphatic in his condemnation of gable as compared with flat covers, and as he appears to have rather overstated what happened at the Dilworth Apiary, of which I am supervisor, I ask leave to reply and to state what actually occurred and the reason.

The Dilworth Apiary was started in August of last year. A treble shelter hedge was planted right round the site before a bee was located on it, a portion of which will give us ample shelter before next winter, so that everything possible has been done to provide shelter. In the meantime, however, there is a gap on the south-west side, from which on rare occasions we get very heavy blows. Last autumn, before the bees had been closed down for winter, a very heavy gale came along and through the gap. A resident told me it was one of the heaviest winds he had experienced in New Zealand. It blew down one of the big pine-trees on the farm. It was during this gale that

many (not all, as Mr. Luke says) covers blew off. The surprising fact is that the hives were not blown over. Neither before nor since has there been one cover removed by wind so far as I am aware, which distinctly proves it to have been an exceptional case.

Mr. Luke's experience with gable covers is rather unique where they let frost through. I have tried both; in fact, I started with flat covers in 1878, and would have continued with them for the sake of economy and labour-saving (I was then cutting and making scores of hives by hand), had I not found them detrimental to the bees through causing overheating of the hives. Shade boards or sacks thrown over the hives mitigated the evil a little, but the ventilation, or the want of it, kept a whole squad of bees fanning all the time.

With regard to the temperature of hives having flat and the ordinary gable covers, I must certainly join issue with him. There are few that have given more attention to the ventilation and temperature of hives under different conditions than myself (see the volumes of the Australasian Bee Journal). The so-called test Mr. Luke made of hives without bees cannot be considered as a test to decide so important a question. I have had ample proof of the matter when, in conjunction with the late Rev. A. M. Madan, I carried out continuous experiments for several weeks, with sometimes over a dozen thermometers in and around the hives at one time, and taking readings every hour from early morning till midnight often, all of which went to confirm the advantages of a gable roof, which allows of a good cushion of air between the cover and frames. Look at some of the illustrations in the "A B C" of apiaries showing flat covers, shade boards, and bee-trucks on top—most unsightly. Both gable and flat covers need some kind of fastening in winter, especially where not fully sheltered.

I. HOPKINS.

CO-OPERATION.

(By W. B. BRAY, Barry's Bay.)

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(Continued from last issue.)

I have met some shareholders who are obsessed with the idea that if their honey goes forward for export they are at a disadvantage compared with the shareholder whose honey is put on the local market at a higher price. It is not so: all shareholders are on an equal footing. A cases his honey for export; B sends his to the bottling depot uncased, but the value of the cases is deducted from his cheque, and represents a profit to the Company, as it is a saving. Likewise they resell the tins to B next year at the price of new ones, and make another profit. Every shareholder is credited with the same gross price, according to grade. As far as he is concerned, his honey then loses its identity. The profits on the year's workings are afterwards divided amongst the suppliers on the basis of the number of pounds they supplied. Nothing could be fairer than that. Major Norton reports that all grades

are realising the same price. (What about grading now!) I am pleased to hear it, as it puts all suppliers on an equal footing regardless of grade. I don't begrudge a beekeeper an equal price for his dark rank manuka honey, because he cannot help those characteristics. But I do know that good prices will encourage everybody to produce a well-ripened clean honey, and when it is handled by the H.P.A. here or its agents at Home, I know that the market won't be blocked by all kinds of dirty, fermented or overheated honey, as I have seen it here, more particularly in Auckland.

The co-operative system of marketing means uniform and better prices and packing, quicker and larger sales. The one brand gives the buyer greater confidence. There is no doubt that we have the means of doubling and trebling the local consumption, and it should soon become a question of getting enough honey.

The H.P.A. will make a big effort this year to get all the honey producers on its share list. No one, if he can but see it, can afford to remain outside. No matter how much or how little he produces, the H.P.A. can handle it all. The bigger the turnover the smaller will be the average cost per pound for handling the honey. A good footing has already been obtained in the North Island trade, and another depot is to be established in the South Island this year. I think the time has come when a salaried manager or managing director will have to be appointed to look after the affairs of the Company, as we cannot expect directors who are already busy as beekeepers to give the detailed attention that the growing business will require.

The dairymen co-operated to manufacture their product because it could be done cheaper, and the quality could be improved. They are still selling on the cut-throat system, but what saves them to a certain extent is the immense demand for their product. The buyers chase the producers, and the middlemen don't get such a big slice of the profits because of the competition; but the big turnover helps to make their profits large. We cannot produce a uniform honey, and, except in very bad seasons, we are not in the happy position of being sought out by buyers. Therefore, we must co-operate to blend our honey to a uniform grade,, or sell each grade where it brings the best price. We must stick together to get the best price we can, not by cornering or monopoly, but by eliminating unnecessary handling. We are selling on the world's markets against other countries. Beekeeping pays in California with honey at 3d. and lower. A boat left 'Frisco recently with over a hundred tons on board for Liverpool. Beekeepers there are at the mercy of the middlemen, who add such profits that the honey does not become such a serious competitor as it might.

Co-operation has enabled us to get a higher price than Californian honey brings at Home, so it is to be hoped that when the Californian producers wake up and take the trade into their own hands, as we have done, that they will treat us fair and not start cutting prices. There is room for all to live except the superfluous middleman. We cannot do without him, but we do not want too many of him. We want to ride in a motor car too some day.

HOW I SECURED ELEVEN TONS OF HONEY FROM ONE HUNDRED HIVES.

(By R. GIBB.)

(Continued.)

As soon as the bees come home from the bush, I endeavour to bring them all to the same strength. I mark all the lower storeys of the bush hives. These contain the queens, for as I work with excluders on all hives, I know exactly which super my queens are in. Now, I know I will rub somebody's hair the wrong way when I state that I have never yet found a blocked brood nest where queen excluders are used, and as I run the whole season with three or four swarms, and some seasons none at all, the man who says they encourage swarming does not know what he is talking about.

Now, I have stated that I marked the supers containing the brood nest only, but I do not mark the supers, for I do not care whether they go on to their own brood nest or not. I now proceed to lay out the hives in pairs, ten feet apart, and ten feet between each row; in the second row the first pair is placed midway in front of the row behind. When the brood nests are all set out, I put on the excluders and the super of extracting combs. The supers with honey and bees I reserve to strengthen my nuclei, for let it be remembered that every time I visit the bush apiary I carry several five-framed nuclei, and whenever I find a hive determined to swarm, I take so many bees from it that the next day its landing board is generally white with drone grubs. These bees I take to the home yard, shake into a hive, and give a cell, and it is on these that I generally pile up one or two of my bush supers, bees and all. This brings up the nuclei, and at the same time cures the swarming for the time being. As the bush bees generally come home about Christmas Day, the clover is in full swing, and so long as the extractor is kept going I am not bothered with swarming till the end of January. Swarming is a natural impulse to increase, and there is no royal road to its eradication, and never will be so long as bees have a desire to increase. We have a system by which we examine every hive once in seven days. We start this on Sunday, as that is a day we have most visitors, who want to see the innards of the hives. We blow a few puffs of pungent smoke into the entrance of the hive, and while I cant the hive back Mrs. Gibb blows the bees off the bottom bars, and casts a hasty glance for queen cells, and if no cells are found the hive is let on its stand again; but if cells are found, the brood nest is spread out, and all the brood in the bottom storey is taken away but two combs and the whole filled up with sheets of foundation, one sheet being placed between the two frames of brood that are left behind. The brood combs that are taken away are either placed in the super above the queen excluder or are used to strengthen up any weak colony or nucleus. The examination for queen cells generally takes from one to two days to do about 160 hives. We have now the rest of the week to extract our honey; we are not bothered with swarming, and we get all our extracting combs drawn out in the brood nest. Now,

this is no one-year theory of mine; I have worked it successfully seven years, with an average of 3 per cent. swarms. Last season, which was perhaps the best Southland has ever had, I took eleven tons of honey from 100 hives, and nine tons of that was gathered between 23rd January and 7th February. I had prepared for five tons, and when these receptacles were filled I had to fall back on petrol tins. My tank, which holds a ton and a-quarter, was full to the brim, every super was filled from the top to the bottom, the bees were hanging out in lumps on nearly every hive; I lifted the lids a couple of inches for ventilation, and in the morning nearly every hive had a couple of inches of comb, in some cases the bees actually having built under the bottom board, and all we could do was pray for rain. We got no rest; we extracted all day, and every night till 12 o'clock. It was very peculiar weather; the sky would blacken every day as if for a thunderstorm, the lightning flashed and the thunder rolled, followed by hot tropical rain. As soon as it was over the sun came out hot again, and the bees were at it as hard as ever, and the strangest part of it was that they did not seem to go far for a load.

LIQUIFYING CANDIED HONEY AND MAKING LIQUID HONEY GRANULATE.

(By J. C. HOBBS.)

I believe it is a good thing that the public of New Zealand are educated to use candied honey, as most of our honey readily granulates. It sometimes happens that we have to leave some of our honey in tanks until it is candied hard as a rock. A brother beekeeper seeing this some time ago, said: "Well, if I had honey like that it would break my heart." It has broken neither my heart nor my back, and I will explain how it was reliquified.

First of all, the tanks are 400-gallon corrugated iron ones, with 2-inch honey taps. We also have two half-sized ones which, being only half the depth, are very handy. When the tanks are not in use they are rolled out of the buildings and stored under the bush trees out of the way, the taps being oiled to keep them from rusting.

The stands are about twenty inches high, which allows plenty of room for a small platform scales and a 60-lb. tin of honey under the tap. There are five openings, about a foot square, for lamp stoves, one in each of the four sides and one in the centre of the stand. The floors of stands are made of 12 x 1 inch boards, posts of 4 x 2 or 3 x 4, and cross-pieces 2 x 4. These are portable, and are tipped out of honey house and stacked outside when not in use.

To reliquify a tank of honey, we proceed as follows:—Trim and fill five lamp stoves; set them on stands after lighting them. We use small fruit-cases and new hives for stands. The back and middle lamp go nicely on one fruit-case, and can be pushed along the floor. The flames of lamps should not be more than ¼-inch high, and the top of lamp about one inch from bottom of tank. If the tank is in a corner, a wall of benzine cases is made at one side, also in front, leaving it as convenient

as possible to get at the lamps. The top of the tank is now covered with boards. These can be several inches apart to allow heat to get at the honey. A hive-sheet or tent-fly is now laid over the boards. Having two tents, I take one and lay it over the top and front of the tank; the other is also spread over the top, and hangs down the side over the wall of boxes. Scrim, sacks, hive-sheets, tarpaulins or anything suitable is spread out on top to keep in the heat. If the packing is made six inches or more thick so much the better. Every twenty-four hours the lamps are refilled and trimmed, keeping the flames very small. At the end of five days the honey in the top of the tank will be found quite liquid and of about 110 degrees of heat. There will be a lump of candied honey on the bottom, which can be poked through with a pole. The honey is now ready to tin off.

Making Liquid Honey Granulate.

It sometimes happens that honey that has been thoroughly liquified will not granulate readily, or will only partially granulate with very coarse grain. Warm it till all the coarse grain is thoroughly melted, and when nearly cool stir into it a tin of very fine-grained candied honey that has been warmed and stirred just enough to allow it to pour nicely. Give it a good stirring every day for three days, tin off, and you will find in one or two weeks' time the honey will have set with a nice fine grain.

IS CRYSTALISATION A GROWTH?

(By A. IRELAND.)

"Critic" says Yes. I say No. Now, let us see who can back up his position best by scientific argument. "Critic" bases his argument from the definition given in the dictionary of the term growth. A dictionary is not a scientific text-book; it only pretends to give the popular meaning of words. A building in course of construction is said to be growing towards its completion. "Critic" gives a host of separate and distinct words or ideas, all of which come under the definition of the term growth. But that only points out the poverty of the English language when one word has to do duty for many ideas totally different from each other. We may put up with it for popular use without any great inconvenience. But in a scientific discussion it could not be tolerated, for it would lead to endless confusion. Growth in science means something in which there is life—an organism, which starts from a germ and grows into a mature organism. The process of forming crystals does not start from a germ, consequently has no life. It is an aggregation of parts towards a centre—a formation, and not a growth. It would seem foolish to call the formation of ice on water as a growth. But it is the same as the formation of crystals in the granulation of honey. Growth always means increase of size, but all increase of size is not necessarily growth. A building in formation gets larger, but not by growth. Growth is that mysterious process of nature that takes up dead matter and converts it into living matter. Whereas it was dead it is now alive, which cannot be said of either a building or of crystals, or of any of those things that belong to the inorganic world.

Hints for Beginners.

WHAT TO DO.

(By W. B. BRAY, Barry's Bay.)

In most parts of the country the honey flow will be well on now. If honey is coming in rapidly, there are two courses to follow: either add more supers as required or extract to provide more room. The bees will fill a super in a week or even less in a good honey flow, therefore a close watch must be kept to provide storage room, as once they fill up all the space they have they commence to loaf. A crop can be considerably curtailed by allowing the bees to loaf in this way. The honey flow proper lasts only a few weeks, and every advantage must be taken of it. I always put the fresh supers on top, as then it is easy to see what work the bees have done in the last super added. When the hives have a full super of honey on, and I am going to start extracting, then I put the empty supers underneath the full ones, which are then at the top, ready to be taken off for extracting in a few days.

Sometimes the bees are slow going into the new super, especially if it contains all foundation. When such is the case, they can be encouraged by lifting up a few combs of honey into the super and putting the frames of foundation in their place. Keep the combs together in the centre of the super, as if they are alternated with the foundation they will be drawn out very wide, and the foundation will be correspondingly narrow. In getting foundation drawn out always have the ten frames in the super. If you can get to them after the combs are drawn, but before any sealing has been done, one can be taken out and the rest spaced farther apart. In using supers of empty combs, I like to have nine in the first super and eight in the additional ones. By spacing the combs farther apart in this way, I get as much honey and have the less combs to handle in the extracting.

The honey is ready to extract when the combs are sealed nearly all over. It is not necessary to wait till every cell is sealed, but once the comb is three parts sealed it is safe to extract the honey. If the flow is still on when extracting is commenced, there will be no trouble in removing the honey from the hives, but when the flow is over robbers will cause a deal of bother. A very convenient method for removing the honey at any time (especially for the man who is engaged at something else and wants to do the extracting at odd times) is to put a wire cloth escape frame underneath the super, to be removed about twelve hours before it is wanted. It is made by fixing one or two bee escapes in a sheet of wire cloth the size of the super, and nailing half inch by inch battens all round it on each side, so it will give plenty of clearance between the two supers, and allow the brace combs to be cleaned up. The advantage of the wire cloth over the old style of a wooden frame is that the super is cleared quicker, and the heat of the hive is retained, so that the honey is still warm for extracting. Whatever plan is used, the main thing to avoid, especially when the flow is over, is the carrying of bees into the extracting

room. I nearly forgot to add that there must be no brood above the escape board, or the super will not be cleared of bees. In any case, it is bad practice to extract combs containing patches of brood, especially unsealed brood. Such combs should be left to a future extracting, when the brood will be hatched.

I know a man whose first experience of extracting was something like this. He used the kitchen, and spread newspapers on the floor. He allowed plenty of honey to drip about, so that before long the paper was sticking to his boots. He stood the extractor on the floor, and lifted it to a box each time he drew honey off. He often got a heavy comb opposite a light one, with the result that the extractor (2-frame) waltzed round the kitchen with him.

Arrange the extracting room so that the combs travel round the room. Stack the full combs just inside the door to one side. Have the uncapping can next, then the tray for uncapped combs to drip on, then the extractor, and, lastly, the tank. The extracted combs can be stacked near the door ready to go out. Above all, have the extracting room scrupulously clean, and keep it clean.

A good queen will not have enough room in the bottom storey, and it will have a good deal of brood in the first super. This makes a rousing strong colony, which will gather more honey than one where the queen has been confined below by an excluder. Honey makes the best queen excluder, and when the flow sets in properly the queen will soon be crowded out of the super. If you want to make sure there is no brood in the super when extracting time comes, now is the time to put the excluder on to confine the queen below. It is a job hunting her up now, so it is quicker to shake all the bees out of super in front.

The rainfall on the Canterbury Plains has up till now (December 5th) been insufficient, and it is doubtful whether any honey will be extracted. A good soaking rain in the near future would mean a fair crop yet. Along the foothills of the Alps and on Banks Peninsula there has been more rain lately, and prospects are good for a medium crop. Honey is coming in freely on the Peninsula, but the season will be over in a few weeks.

NOTES FROM THE BUSY BEE APIARY.

(By DANIEL J. SCULLEY.)

Beekeepers throughout the length and breadth of New Zealand, cannot you hear the Editor's appeal asking you to contribute an article towards the New Zealand Beekeepers' Journal? He is also asking you to get just one subscriber to the above-mentioned Journal so as to double the size, and also to illustrate some of the articles which are written by beekeepers throughout the lovely isle. He also wants to know from any beekeeper who has made a success of getting queens mated above the excluder, and I must say that I have been very successful in getting queens mated over the excluder on a small scale, and I am now going to test it on a large scale. You get big rousing colonies, and all you have to do is to remove the old queen, and your colonies of bees will have a good young vigorous queen. There is a trick in it, but it is so

simple that even a beginner will succeed with it. I have also had success in introducing a queen without removing the old queen, and the two queens go on laying in the one hive. There is no trouble; just simply place the new queen in the hive, and the two will go on laying, which gives big strong colonies. Although I never tried it, I believe two or three can be introduced at the one time, and the lot go on laying in the one hive.

As the season gives promise of being a good one, I am going to try all those new methods out on a large scale, and if they prove a success in my hands, I am going to give to the public in book form or through bee journals. I love testing and finding out new things, and also trying to better the methods which are in use to-day, for we cannot always remain in the ruts which the old beekeepers (oh, how I admire their pluck for blazing the track for those beekeepers who are making a living from the most fascinatnig branch of agriculture) had to be contented with. And that is why beekeepers throughout the length and breadth of New Zealand should contribute an article, no matter how short it may be, for every little helps.

You have an energetic Editor and a National Beekeepers' Association who are getting a world market for your honey, so it rests with you to assist and help the Editor to push ahead beekeeping in New Zealand by answering his appeal.

Clifton, Queensland, Australia, September 4th.

IMPORTED QUEENS.

The success of modern beekeeping hinges to a very large extent on the strain of queens at the head of each colony. When the flow starts the profitable colonies are those who get to work early, and keep at it good and hard as long as the light lasts. It is also well known to beekeepers that certain strains are able to combat disease much more effectually than other strains.

These are the principal reasons why importing of high grade queens still goes on, in spite of the fact that the proportion of queens which arrive alive is very small. It is stated that every queen which arrives alive costs the beekeeper about £15. The importing of queens, therefore, can be said to be a heart-breaking and a costly business.

A representative of this firm is leaving for the States shortly, and is putting into operation a scheme whereby we are able to guarantee safe arrival. At the present time all queens are carried in the mail-bags, with disastrous results. Our scheme is on entirely different lines, and will be tried out on the journey over with a large number of mismated and untested queens.

Would you like to order queens and be sure of getting what you order in good condition, or your money back? That is what we offer you. The queens will be delivered about September. A telegram will be sent you asking you to meet a certain train, and the delivery to you or to your representative of a live imported queen will fill our contract. Please understand that no queens will be imported other than those ordered, and that we take the whole responsibility of safe arrival.

The queens will be high in price, but cheap when you consider we guarantee safe arrival. Correspondence invited.

ALLIANCE BOX CO., LTD., Castle Street, Dunedin.

Correspondence.

(TO THE EDITOR.)

Sir,—I notice that Mr. Gibb has been kind enough to recommend a course of bee inspection for myself and Messrs. Cotterill, Clayton and Stewart in order to modify our views about foul-brood. I admit that the bee instructor's course has done Mr. Gibb good; at all events his description of his apiary seems to indicate that he is keeping well clear of foul-brood. It was, however, just a little unkind of him to include Mr. Stewart's name, seeing that the foundation of Mr. Gibb's present apiary was fifty colonies bought from Mr. Stewart. Surely there could be no more eloquent testimony to the cleanliness of Mr. Stewart's apiary and to the effectiveness of his dealing with foul-brood than the fact that during the six years that Mr. Gibb has had those bees they have remained clean. It is quite true that Mr. Stewart's method of curing foul-brood was not orthodox, but it was effective; it cleaned his apiary, and it has remained clean ever since. More than that, I believe that it will be found that some of the combs that many years ago did duty when Mr. Stewart was dealing with foul-brood are still in use.

Now, as far as I understand Mr. Clayton's method, there is no attempt to save the combs. He only advocates an improved method of McEvoy treatment, a method of getting the bees off their combs without carrying infected honey with them, and advocates the rendering for wax of all contact combs. Mr. Cotterell's method I have not looked into, so will say nothing about it. My own method is to mark every colony in which I can find disease and use sulphur. I do not want to winter more than 120 colonies, and as my bees usually increase to about 200 colonies during the summer, I can remove disease wherever I find it without loss.

Now, Sir, I am not one of those who regard the McEvoy treatment as the last word on foul-brood. It was, I admit, a great step forward from the old starvation cure, and was more successful, and there is no doubt that so far as we know at present it is the best; but I am persuaded that more sure as well as more economical methods will yet be found for dealing with the scourge. And I contend that instead of decrying those who are giving time to discovery along these lines that we should encourage them and help them all we can. Science has told us much about foul-brood, and it has still a good deal to tell us, but I am quite sure in my own mind that the best results must come from practice, from experiments carried out under expert supervision, and in the light of what science has been able to ascertain for us. There are a great many anomalies about the disease which want clearing up. For instance, why is it if it is so dreadfully infectious that combs that have had disease in them have been used again safely? Why is it that sometimes the simple removal from the hive of two or three combs that showed the disease has effected a cure? No one doubts that this has been done, and the fact that it has been done seems to me to indicate quite clearly that there are weak spots in the armour of this disease that

will yet be known, and will make it easier to deal with it.

In conclusion, let me say that I am not, in the light of our present knowledge, advocating any departure from the McEvoy treatment. I am merely saying a good word for the four unfortunate beekeepers whose neglected education has led Mr. Gibb to prescribe a course of bee instruction, and also to say to anyone who is searching for weak spots in the foul-brood armour —Go on, and may you be successful.—I am, etc.,

JAMES ALLAN.

(TO THE EDITOR.)

Sir,—I beg leave to thank Mr. Barker for his kindly answer to my inquiry as to where I could learn that chromosomes blended. I already have all but one of the works of reference which he recommends, and in that one I am sure I shall not learn of so radical a departure from the teaching of all the others, which is to the effect that, as Mr. Barker states, "Chromosomes may be multiplied at one end, added to at the other, and divided in the centre," but under no known set of circumstances do they blend.

Despite the wrong simile he uses anent temper of father being followed in the son, the fact remains in spite of his denial that new races can be evolved by loss of unit characters, that new races have been and are being evolved by loss of unit characters. For example, the non-sitting races of fowls are evolved through loss of the unit character of the natural stimulus to carry on the race by sitting.

While Mr. Barker's researches have been carried on in regard to plants, and mine, beginning with my studies at Eton, in animal physiology, yet both of us may have a deal of light to throw upon that ultimate goal of all true bee-masters, perfection in queen breeding. It is for that aim and end I take space to continue the discussion.

By the remarks in July issue of "Citizen," who "e'en in sleep doth prate of his affairs," I gather that only a very few of we beekeepers have received any more than an ordinary education. Personally, I can see nothing at all difficult in the quotation "Citizen" stumbles over, but the fact that he does so proves the necessity for one out of all of us to put present-day science in such a garb that the average man may read and understand.

To that end I beg we may have articles upon the present-day progress of heredity in so far as it concerns our beekeeping, and certainly nothing in the whole gamut of our vocation is of more vital importance than improvement of our queens. We also need the assistance of a few close observers with the zeal and enthusiasm to apply doggedly to the question that intense application needful to attain the knowledge of what constitutes the unit characters in our bees. We at present know the colour factor is one. I can shrewdly guess that, in comon with the non-sitting instinct in fowls, non-swarming (or, rather, swarming) is another, and surely we would count as altogether another race one of bees that were as devoid of swarming as Leghorn hens are of sitting. This would again be evolution by a loss of unit characters—a loss of a chromosome, not a blending.

Now, while I am acquainted with the laws of Nature on such a subject so far as we have delved into them, and am willing to put them before my readers, I must in courtesy defer to Mr. Barker, who was first in the field, if not upon the defined subject of "Heredity," at least in the matter of the (supposedly at present) bearers of heredity—viz., the chromosomes. Will he (and can he, for it is not every man's gift to make entertaining the somewhat dry-as-dust facts of science?) give us a series of articles defining that groundwork necessary for the practical mind to build upon?—if he would improve our present method of selecting and breeding our queen bees, and put it in language "to be understanded of the people"; and such language (as we both well know) is neither that of the text-book nor such as "Citizen" has the nightmare about.

Maybe I am no more 'umble than was Uriah 'Eap; but I know, and I know the others ought to know (or, rather, have the chance to know).—I am, &c.,

H. BARTLETT-MILLER.

ODDS AND ENDS.

(By J. C. HOBBS, Kauwhata, Palmerston North.)

The changing of frames, combs of brood, and honey is of such great advantage in working of bees that it pays not to tolerate foul-brood, but get rid of it.

I have two clean-ups every year—autumn and spring. The times sometimes run into early winter or early summer. In the autumn a few years ago eighteen colonies were treated as follows:—Clean hives were provided with a few empty frames. The bees were shaken into them, and fasted for a few days. One or two solid combs of honey were then given them. Later on as many empty combs were supplied them as they required. In the spring seventeen out of the eighteen were found to be cured. That is good enough for me. Another time I will try giving them foundation with the combs of honey; the combs must be completely full of honey, so that the queen cannot start laying until the bees have consumed any honey they may have, and also part of the honey in the combs.

The spring treatment is two days fasting in a box covered with scrim or hissen, and kept under the shade of trees, then in the evening shaken into a hive of foundation on their own stand, after smearing the foundation with sugar syrup, and pouring some on the bottom boards. This plan has given me good results for a number of years. If I have continued success with Mr. Clayton's system I shall adopt it instead, as it is more convenient for me.

Eighteen years ago I took sixty or more natural swarms, confined them two days, put them on foundation in the evening, after dashing about a cupful of warm sugar syrup on foundation and about the hives. They all, as far as I can remember, took kindly to the hives, and worked well. Only two or three colonies took foul-brood again. One colony was shaken, but it sulked and loafed so badly that no more were "shook." Only four colonies in that apiary were free of foul-brood.

Shaking foul-brood colonies on to foundation at the beginning of the honey flow has been tried by me, but with poor results. Some years ago I transferred six, and only one cure was effected. No more of that for me! On another occasion all the natural swarms from foul-brood hives were put on to foundation only, and all as far as I know retained the disease.

At my seven out-apiaries I have only found one case of foul-brood thus far. At home, which is the hospital apiary, I have not been so fortunate. While clearing up in the autumn one foul-brood case was overlooked by me, but not by the bees who robbed it out. Well, I expected thirty or forty fresh cases in the apiary, but fortunately only nine have contracted it. All this, however, could have ben prevented with a little more care on my part.

The "two shake" plan I have found cures in most cases, but I do not like it. In the first place, the second shake discourages the bees too much, and there is often a lot of raw comb honey on hand that might be affected with foul-brood. The first lot of frames has to be disinfected.

Transferring straight on to starters during the honey flow will cure in most cases; but save me from the drone comb that is usually built. A successful and extensive beekeeper once said to me: "If a man has foul-brood in his apiaries, it is the first thing he should attend to."

Coal tar is very suitable for stools or bottom boards, as it resists the damp much better than any paint, and there is no comparison in the price. One coat of tar will not stand the sun as well as three coats of good paint. I have a number of supers tarred, but would now like to whitewash them with half Portland cement and lime mixed with water. I have been told that it will do very well. The joints of the hives are the most important places to tar or paint. When using paint, the ends of the different parts are dipped or painted twice before nailing together. I have used coal tar for everything about the hives for some years now, and do not expect to go back to paint. Some will say that the hives will get too hot in the summer. Well, I do not find that so.

Soon after I began beekeeping I decided that I would have flat lids. I have now only about six gable lids, which happened to be made of kauri timber. They must be nearly thirty years old, but are as sound as the day they were made. They have not been kept painted either.

I like the appearance of an apiary with gable lids, but prefer working with flat ones for very many reasons.

My bees have been gathering honey all the winter from gums. Though brood-rearing ceased in March and April, which is very early here, yet there was considerable brood in the hives on 6th June, and bees built out foundation as well then as they are doing it now (20th November). They did not do much on the willows on account of unsettled weather at the time of their blooming.

Cabbage trees are now yielding honey. It is nine years since they have yielded honey here.

Bees are working from daylight till 7 p.m.—good long hours.

Good Things from Everywhere.

Will anyone prepared to undertake the work of secretaryship of the National Beekeepers' Association and the position as Editor of the Journal please communicate with Mr. J. Rentoul, Cheviot?

The most disappointing feature of the Journal is the smallness of the list of subscribers who pay each month. Has your name appeared yet? Unless the management get 200 more subscribers next month, they must seriously consider the necessity of closing the Journal down. You can prevent this by sending your subscription and securing an additional subscriber. Will YOU?

A beekeeper of many years' standing made a statement the other day that he had had to destroy a large number of combs which had been in use for years for brood rearing because the inside measurement of the cell had gradually become smaller, and he found that the bees which were reared from these combs were very small in size, and he attributed this to the use of combs year after year. Has anyone else had a similar experience?

A beekeeper in the Canterbury district, writing to the Journal, says:—"I have just cleaned up two box hive apiaries. One man had only eleven hives alive out of forty last year. He had old combs lying about everywhere. Boxes that had died out years ago had never been touched. The whole was rotten with disease. I made a clean sweep of the lot, and got 80 lbs. of wax for my trouble. No inspector has ever been near. The apiary is situated within a mile of my own yard."

How much better off we should be if we had a chief inspector of apiaries, whose duty it was to supervise the field work and see that the inspection of the country is carried out in a thorough and systematic manner, and to organise and develop the industry.

At the present time the apiary division is only tacked on to the orchard division, and this is taking all the time and the energy of the principal officers of the Department.

Now, when any complaint or matter is referred to the Head Office, the subject or complaint is referred back to the officer affected for his report. Naturally he reports favourably to himself, and little or no improvement or redress is obtained. If we had a chief instructor, the complaint or matter would be referred to him, and he, being independent, would investigate the trouble on the spot. In one office of the Dominion, in the course of conversation with an apiary instructor, the officer said that his correspondence took him on an average six days a month.

We submit that our instructors should be field men and not clerks, and that the control of foul-brood, the elimination of the box hives, and instructions to beginners are matters of much more importance than lengthy and detailed reports of the work already done.

You are anxious to serve in every possible way your King and country in the present crisis.

This war brings an enormous expenditure for the equipment of our brave fighting men and the support of those dependent on them. Our financial obligations can be met only by developing the country's natural resources.

A valuable natural resource is the honey which is produced every summer by the millions of flowers blooming on the farms and waste places. This honey not only satisfies the human craving for sweet, but it has a very real food value. At present many tons are wasted for want of bees, and many bees are kept under unprofitable conditions for lack of skilful management.

A few locations are fully stocked with bees already, but large areas rich in honey resources are practically unoccupied. If you have bees and have access to a good unoccupied location you cannot increase food production more rapidly or profitably than by caring for them.

The enormous increase in the cost of tin plates for making honey tins will be a serious item in the expenditure of beekeepers this season. Before the war tin plates were worth from 14/- to 15/- per box. To-day the price is about 42/-, an increase of nearly 300 per cent. Export tins are quoted in the south at 24/- per dozen. With cases added, this means that it will cost nearly ¾d. per lb. to prepare honey for export. Those who pack for the local trade are even worse off. Two-pound tins will cost nearly 3/- per dozen. When the cost of labels and the extra work involved is added, it will be seen that it costs 1¾d. per lb. to pack. Ten-pound tins cost a little more than for export. In considering whether they will export or pack for the local market, beekeepers will be well advised to carefully consider the cost of packing when considering the price obtained. There is every prospect of boom crops in many of the honey districts of the Dominion. The advantages of co-operative selling through the Honey Producers' Association, Hawera, are worth the serious consideration of beekeepers.

HOW TO POISON BEES.

The year before last I had a hundred colonies of bees—50 in each yard, five chain apart for a purpose—and fed them for two months, and at the last feed I purposed giving them a real blow out, so I made a copper full of syrup (16 gallons), brought it to a boil, took out two kerosene tins full, so as to cool quickly, as it was then 3 o'clock, left the rest in, and noticed a few cooked bees in it, so I got a big duck tarpaulin, and doubled it about 24 times, and put it over the copper and put the lid on, and a tin of water to hold it down, and took the other two tins to one yard, and it was fed to the bees in the usual manner, with good results. I came back at 5 o'clock, and took the covering off the copper, and the steam gave me a start, as it came up in my face, and I noticed how new the copper looked to what it did before, so I took out the syrup and had my tea, and started again to feed, and of the 50 colonies that I fed it to, by the next evening there were only the queens left, and the grass and sticks left about were covered with dead

bees. I still had a gallon of syrup left, so took a quart along to the other yard to see what would happen. They crawled in and out for three days and then died, but enough brood came out to keep the queen going, but she stopped laying for over a week. Without a doubt the syrup was of a deadly nature, as a two-storey colony of bees were all killed, and you could hardly see if they had taken any syrup away from the feeder. The copper had been used all morning, as it was washing day. But the damage seemed to have been done in the covering of it up too tight, as the tarpaulin was snow white, having been out a number of winters.

I have had quite a number of letters from bee-farmers about this matter, so I thought the best course to adopt was to make it public through the Journal.

In bee culture, for the boiling of bee feed and such like, a copper is about as useless an article as any person can attempt to use. That is my experience. It may be fairly safe to boil the water and then pour it on the sugar in some other way, but don't put the sugar in the copper. In some letters some have said you have fired it too quick and burnt it. But when I say that the first lot was all right for one yard and then the other all wrong, what about it? One says that's the query. I would like to know what the query is. I must say the best feeding lesson that I got and the best letter on this matter was from Mr. J. Wallworth, Palmerston North. This bee craze is a terror, but thank my lucky stars I got going again, and am doing better since I knocked off selling my swarms for 4d. a swarm; but all the same the man that bought them is not making a fortune.

The feeding matter with me this year will be very small, although I extracted fairly bare at the latter end of February, and put the supers back on again, and nice rain came on and a nice growth came on, and to my surprise the supers were all filled up again, so I got a honey house full of good comb honey.

I think I will be able to write an article for the Journal next winter on how I got a ten-ton crop from one hundred colonies. I feel that I am at the top of the ladder now, so they can take it away or I might come down again. The wind is my only enemy.

G. W. FLANAGAN.

The Beekeepers' Exchange.

ADVERTISEMENTS on this Page will be inserted at the rate of 2/- per 36 words per insertion.

APPLICATIONS are invited for the POSITION of GENERAL SECRETARY-TREASURER of the National Beekeepers' Association. Salary £25 per year. Particulars may be obtained and applications addressed to the undersigned.

Applications are also invited for the POSITION of EDITOR and PUBLISHER of the N.Z. Beekeepers' Journal. Salary, £24 per annum. Particulars of duties may be obtained from and applications addressed to

J. RENTOUL,
President National Beekeepers' Association,
Cheviot.

ONTARIO BEEKEEPERS' ASSOCIATION, 1916.

HONEY A GOOD CROP: NO ADVANCE IN PRICE: CROP OF EXCELLENT QUALITY.

With prices of all other foods soaring, housewives will be pleased to learn that there is plenty of honey, and that the prices will not be advanced. The report recently issued by the Ontario Beekeepers' Association shows that a large crop of light honey has been extracted this season. The quality is unsurpassed, being light in colour, heavy body, and a very good flavour. The Association Honey Crop Committee have advised that last year's prices be not advanced, so that honey will be freely bought in many households.

As it requires no preserving, and will keep in first-class condition in any dry, cool place, the 60 lb. can will be a popular size. An average family will conveniently use that quantity throughout the winter. It is to be hoped that the supply will be equal to the demand. Many customers are buying early.

The prices recommended by the Committee are as follows:

No. 1, light extracted, wholesale, 10 c. to 11½ c. per lb.
No. 1, light extracted, retail, 12½ c. to 15 c. per lb.
No. 1, comb, wholesale, 2 dol. to 2.75 dol. per doz.
No. 2, Comb, wholesale, 1.50 dol. to 2 dol. per doz.

These prices are f.o.b. in 60 lb., 10 lb. and 5 lb. tins, the former being net weight with the tin thrown in, the two latter being gross weight.

Note.—The average for 23,763 colonies spring comb was 89 1-3 lbs. in 1916.

Italian Queen Bees.

BEEKEEPERS! Your attention a moment, please!

SIX TONS OF HONEY per 100 COLONIES.

How does that average strike you? That was the actual result obtained in this district last season. The season was nothing exceptional, but the Bees that produced that splendid result were not too slow: they were what we call hustlers; no "Beg pardon" about them.

THE STRAIN WAS GOOD—THAT'S THE SECRET.

It will pay you to have Queens from this strain.

I can supply you. Let me know your requirements.

PRICES:

Untested .. 4/- each .. 10 for 35/- .. 20 for 60 /
Tested .. 7/6 each .. three for 20/-
Select Tested .. 12/6 each

A. J. D'ARCY,

20 Linton Street - Palmerston North.

SEASON 1916-17.

Price List of ITALIAN QUEENS.

	PRICES: 1	2	3	4	5
Untested	5/-	9/6	14/-	18/-	22/-
Select Untested—1/- extra per Queen.					
Tested	10/-	18/-	25/-	33/-	40/-
Select Tested	12/6	22/6			
Breeders	20/-				

All Queens guaranteed free from Foul-brood, Bee Paralysis, and all other diseases, and bred from Pure Stock, which have been selected for hardiness, disease-resisting, good-working, and non-swarming qualities.

Ninety-eight per cent. of Untested Queens guaranteed purely mated.

TERMS: Nett cash with order. Cheques to have exchange added.

P.O. Order Office, Tapanui.

Tested Queens for delivery from October 1st; Untested from about November 20th to first week in April, 1917.

Postal Address:

R. STEWART, CROOKSTON, OTAGO.

EXTRACTORS.

Tons of honey are lost in many apiaries because the bees have not sufficient room during the height of the honey flow.

Extract early and give all the room possible for future stores. Our latest model extractors are beauties. Two, four, six and eight frame machines kept in stock. The power machines, four, six, and eight, are particularly useful machines.

We have also the Gilson engine, 1 and 1½ horse-power. This machine is one of the best, if it is not the very best, cheap engine on the market.

The Rentall 2 horse-power, made by one of the best Scottish houses, is a machine anyone would be proud to own. It will drive two eight-frame extractors, a chaff-cutter, pump, circular saw, or do any other work about a farm.

Correspondence invited.

ALLIANCE BOX CO., Ltd.

Castle Street - Dunedin.

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