

The Australian bee bulletin. Vol. 19, no. 1 April 30, 1910

West Maitland, N.S.W.: E. Tipper, April 30, 1910

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THE AUSTRALIAN Bee Bulletin.

A MONTHLY JOURNAL, DEVOTED TO BEE-KEEPING.

Published by E. TIPPER, West Maitland

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V. 19. No 1.

APRIL 30, 1910.

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"The Australian Bee Bulletin."

A Monthly Journal devoted to Beekeeping.

Circulated throughout the Commonwealth of Australia,—New Zealand & Cape of Good Hope.

Published by : E. TIPPER, West Maitland, N.S.W. Aus.

Editor: W. ABRAM, Beecroft.

MAITLAND, N.S.W.—APRIL 30, 1910.

EDITORIAL.

The season is practically finished. Owing to the changeable weather and lots of rain, the honey flow did not turn out as good as it would have had fine weather remained. Some have done well, though.

Last month, Miss Pollinger, a very smart South African beekeeper, paid me a visit. Unfortunately, the weather was unsettled, and even whilst examining a hive in the open a shower came along and Miss Pollinger held her umbrella over the hive till we had finished our work. In the bee-shed matters are different, and we looked at several hives. Miss Pollinger was surprised of the quietness of my bees in such weather.

As Miss Pollinger is soon going to be married, I wish her the best of happiness in her new venture, and shall be pleased to hear from her from time to time on South African bee-culture.

In the Journal of Agriculture, Victoria, page 149, Mr. Beuhne gives a doleful description of the enormous losses in bees in Victoria. He now advises not to leave more combs for winter than they can conveniently cover. Just so. That was my advice many years ago. The bees can then much better adjust matters and make themselves comfortable. Otherwise some late gathered

honey is out of their winter rest and gets spoiled by atmospheric changes. I am glad we are beginning to agree, though it required great losses first to persuade that my principle was right.

THE NEW SOUTH WALES & COMMONWEALTH BEEKEEPERS' UNION.

RULES.

(Subject to Alteration.)

Styled: THE NEW SOUTH WALES AND COMMONWEALTH BEEKEEPERS' UNION.

1. Objects and Aims: To aid and assist beekeeping in all its branches.

2. Members are beekeepers or have particular knowledge of bee culture.

3. President, Secretary, Treasurer and two other beekeepers form the executive to carry into effect, to the best of their knowledge, all matters submitted to them by members regarding Union business.

4. Vital questions or subjects shall be decided by members voting per post.

5. Subscription to Union, 5/ per annum, dating from 1st July each year, payable in advance.

6. All expenses, except time, incurred by any of the Executive on behalf of the Union's business to be paid them out of funds of the Union.

7. Members agree to abide by majority rule.

8. All correspondence to be addressed to the President for the time being until otherwise arranged, who shall publish in the "Australian Bee Bulletin," or send each member (not a reader of the A.B.B.) periodical reports of the Union's Executive works.

9. Members are requested to submit to the Executive matters which they desire to be decided on by vote or referendum.

EXECUTIVE.

ABRAM, W., Beecroft, President.

BRANCH, J. J., Enmore, Hon. Sec. and Treas.

LORD, H., Technical College.

PARRY, J. J., Erina and Parliament House.

PARKER, D. W., Turramurra.

* * * *

Last month the Executive held no meeting as there was no important matter to deal with.

This month a meeting was held on the 18th, and all the Executive were present. The minutes of last meeting were read and confirmed.

The President submitted a letter from Mr. E. F. Hunter, Hon. Sec. T.B.F.A., as follows:—

Trunkey,
April 2, 1910.

The President

Commonwealth Beekeepers' Union,
Sydney.

Dear Sir,—I am directed by the members of Trunkey Bee-Farmers' Association to draw your urgent attention to the method of ringbarking, which is being carried on by Robert McKenzie on his Improvement Lease, No. block 698, of 3050 acres, parish Mulgunnia county, Georgiana. I am also directed to request that you bring the matter before the proper authorities, with a view

of compelling the lessee of above lease to keep to conditions and regulations, carried by these leases.

I am further directed to state that the conditions in reference to ringbarking are being grossly infringed, and we trust that the Lands Department will take immediate action, which will compel the lessee to keep within measurable distance of the regulations.

I am,

Sir,

Yours faithfully,

E. F. HUNTER,

Hon. Sec. T.B.F.A.

The letter arrived on the 5th of the month, and as the matter appeared a very urgent one, the President at once wrote to the Under Secretary for Lands, and also to J. C. Hunt, Esq., M.L.A., to assist our claim. Here is the copy to the Under Secretary:—

The Under Secretary for Land.

Dear Sir,—The Trunkey beekeepers and members of the N. S. W. & Commonwealth Beekeepers' Union urgently request me to draw your attention to the method of ringbarking, which is being carried on by Robert McKenzie, on his Improvement Lease 698, of 3050 acres, and to compel the lessee to keep to conditions and regulations, as the conditions referring to ringbarking are grossly infringed, and I trust that immediate steps will be taken to compel the lessee to keep to regulations.

I may add that the Trunkey District beekeepers represent about 5000 hives of bees, and it would be a great loss to them if ringbarking goes on indiscriminately.

Thanking you in anticipation,

I am,

Yours truly,

W. ABRAM.

President of the above Union.

By next mail I also wrote to the member of our district, asking him to aid, as much as possible, in the matter.

The Executive approved of the President's action.

It was then agreed to hold a meeting or convention of beekeepers at the end of June; but the exact date cannot yet be given, as the arrangements for cheap excursion trains are not yet available; but every intending attendant can be on the look out for some; and in next issue full particulars will be given. It is to be hoped that a good number will turn up, and that some very necessary steps will be taken by them to improve the conditions of the industry. Therefore, prepare yourselves with plenty of energy for action.

Consideration was given to the ballot for electing the Executive for the next year, and it was decided that a ballot paper be issued to members in due course.

A number of new members are in readiness to join by the new year, as each of the Executive and some members are of a progressive mind, and induce those interested to help the concern.

Mr. F. A. Thorpe, a member of our Union and an enthusiast in bees, was present at the meeting. These meetings are open to any member who wishes to attend and informs the Hon. Sec. to that effect; and the Executive would be glad if there were more like Mr. Thorpe. But we are only beginning, and, as beginners, we have done very well. Therefore, there is hope to do better when we get older.

It was mentioned that various bee diseases are playing havoc with bees in many parts of the world; and unless drastic measures are being taken, beekeeping is in a very bad plight. But what has the Government of New South Wales, the mother colony, done to help beekeepers? Therefore, prepare your-

self and attend the convention and submit matters that will relieve the trouble.

The day after the meeting, J. C. Hunt, Esq., M.L.A., sent me a Departmental letter stating that the Trunkway matter had been referred to the District Surveyor for report.

The Editor.

PRIZE COMPETITION.

The Publisher of the "Australian Bee Bulletin" offers Prizes for competitive contributions on subjects appertaining to Beekeeping, under the following conditions:—

1. The prizes are:—1st, 7/6; 2nd, 5/0; 3rd, 2/6.

2. Competitive articles to be addressed to Mr. W. Abram, Editor A.B.B., Beecroft, headed "For Competition." Write full name and address, but also affix a sign or mark, as it is intended to omit full name on publication, but to publish name of all competitors first issue after judging.

3. Entries for each month close on the 20th. Any subject may be chosen.

4. One judge will be appointed by the Editor, to act as single judge, but each month there will be a different judge, and his name will be published together with the results. The judge's decision is final.

5. Postal notes will be sent to winners on receipt of the judge's decision.

Our aim is to encourage juniors and amateurs to exercise their skill in beekeeping and in writing, thereby assisting one another. (The editor's son does not compete.) The most efficient beekeepers will be selected to act as judges. A copy of the A.B.B. will be sent to the one selected each month, and the results published next issue. Competition starts now, and prizes will be offered for your work. Who will win?

N.B.—This is a money prize competition—not a disposal of queens.

Decision for March.

Mr. W. J. Benson, Tyndale Apiary, Clarence River, Judge.

1st Prize. "C." "Queen Cell Talk."
Miss Penglase, Busby Park, Gibsland.
2nd Prizes. "Thos." "The Great Loss of Bees in Australia, etc." Mr. Thos. Armour, Fernbank, Victoria.

The Editor begs to profer his best thanks to both contributors and judge for their valuable assistance. Are there no other contributors who wish to try their luck?

* * * *

HIVE COVERS.

(By "C.")

What constitutes a hive cover is a matter worthy of more consideration than it generally receives. Admitted that an elaborate costly hive cover will not gather honey. Yet, indirectly speaking, the hive cover has much to do with crop secured by the beekeeper. Few things are so determined to the prosperity of a colony of bees as to have a leaky cover. A leaky cover means that the top bars and also the combs get wet and mouldy; and any beekeeper who has had the experience of mouldy combs knows how the bees almost refuse to work on them any more. They keep the green dirty appearance for years afterwards. In the supply dealer's catalogue many different hive covers are listed, more of which meet my entire approval. Of course, different covers will be found best in different districts; but at all events, any "wood" hive cover is wanting in the necessary qualities of a business cover. I have tried, perhaps, a couple of dozen different types of hive covers, and will briefly put before your readers the one I consider the best. There is no need to go in for expensive materials; provided, of course, that you use either an iron shade or a "ruberoid" mat. The latter is my preference, for the following reasons: "Ruberoid" is light and easy to

handle, needs no cumbersome weights to hold it on, as in the case with iron. A piece of "ruberoid" can be cut easily to any size with ease; and if cut a little longer than the hive, the cleats of the wood cover, which should be used over "ruberoid," makes it fit down and keeps the bees nice and snug. When "ruberoid" is used in this way, there is no need to have the wood cover of one piece or to be watertight. A sufficiently serviceable cover can, therefore, be constructed from any waste timber, packing cases, etc. If you want to make a more stylish cover, three pieces of ordinary tongued and grooved flooring pine, well painted and cleated, makes a really good cover for use over ruberoid. Many of the hive covers listed in catalogues are far from what is really necessary for a hive's protection. If you use mats of bag, etc., under a wood cover, what is the result? In the winter months the mats are damp in many cases, and as I have said before, damp hives never prosper. I'll just tell you about some of the hive covers I have seen in the apiaries of the more expert. One apiary I visited, and which contained some 12 colonies, wore as a hat a wet bag placed astride a piece of fire wood. Ants lived underneath the bag, and the bees were further down than the ants. Another beekeeper of short experience had but one colony of bees squat on a cedar chair under a weeping willow tree, for protection from the rain. He had a wallaby skin; a good, but expensive cover. That apiarist understood the needs of his bees, and has now 50 colonies in up-to-date bar frame hives. He never puts a hive on a chair now. He contends in his jovial moments that makes them lazy, and prefers to put them on stands instead of seats. A colony of bees as much requires a hat as does a man. No girls need no hats as we grow enough hair on our skulls to keep out both sun and rain.

WINTERING BEES

By "Thos."

Perhaps no more seasonable topic could be discussed just at present than the wintering problem. In Australia, out-door wintering can be carried on with the very best results. In fact, many of our warmer districts, honey crops are often secured during the winter months. For all this, there is a wintering problem; and it is a more difficult problem than plenty of beekeepers think. I often hear beekeepers say that their bees winter just as well in old boxes full of cracks as others do in dove-tailed hives with chaff cushions, and all the rest of their artificial help, as the inexperienced prefer to term it. Now, let me point out that even if every colony came through winter alive in old boxes with cracks gaping open, they suffer loss of bees and vitality, perhaps only a few from each hive; but from the whole apiary the loss would be very considerable. Besides, I deny that bees will winter as well in a draughty cold hive as they will if well protected and cared for. Other apiarists carry the idea to the other extreme, and advocate the use of double walled chaff hives in this country as is common in America. Now, altogether, I do not want to depreciate the ideas of perhaps more capable men than myself; yet I think this method of wintering is too costly, when it is generally known that not a particle of difference is noticeable in the spring from the colonies that just had ordinary common sense care. What is probably more essential than packing and fussing is a bountiful supply of capped honey of good quality. There is no artificial blanket that can be given to bees that will take the place of good fat combs of capped honey. A colony of bees wintering with a shortage of stores is in a very bad way compared with those with abundance, not merely because they may

starve, but because the interior of the hive changes in temperature so sudden when a cold snap in the weather takes place; also a frosty night gives such colonies a rough time; while other hives in the same apiary are lively and warm, and can get on the wing as soon as the sun comes out in the morning.

Yes. I feel convinced that a colony of bees, with ample honey in a one story hive of 1 in. timber, and watertight cover, is in a perfectly satisfactory state to go into the severest winter any part of Australia is likely to have.

Wind is a bad thing in the winter and spring months, and a beekeeper should be very careful to locate his yard so as to get as little as possible of the cold piercing winds from the west and south west. A good dense growth of ever-green trees should be planted on the west and south sides of the apiary; but the hives should not be placed directly under the branch, but back at least 1 chain, so that the trees will not cause the hives to be shaded at any part of the day. If a beekeeper attends to the above, using common ideas, he need have no fear but that his bees will come out of winter in as satisfactory a condition as is possible with the present knowledge of the honey bee.

THOUGHTS ON THE BEE INDUSTRY.

As a new reader of your valuable journal, it is with pleasure I read of the efforts being made by the formation of a beekeepers' union, so as to come in touch and infuse a spirit of enthusiasm in the beekeepers of this and the various States, for their personal benefit, and the advancement of the bee industry generally. When we analyse the bee industry as it stands at present in this State, and compare it with the same business as carried on in other parts of the

world (America particularly), one cannot help wondering what our beekeepers and bee-goods jobbers are thinking of to stand apart from any organization that has for its object the advancement of the industry, when there are such possibilities ahead in return for a little energy and co-operation on their part. Take the dairying of this State as an example, and ask yourself what has brought it along at such a rapid rate and made it one of the foremost wealth-producing industries; and I think you will say with me, co-operation and scientific training. And so with bee-culture, so long as beekeepers remain apart, and are a divided family, unmindful of their own interests; so long as they neglect forcing their just claims under the notice of the powers that be; so long then will the honey industry remain the "Cinderella," instead of one of the brightest of our industries. Does it not provide food for thought that we, with our large area of country, great belts of nectar-producing trees and plants, backed up with a splendid climate, do not produce one tithe of the honey we should do? Someone will say that the present supply is equal to the demand, and that we could no compete with America in the Home markets if we exported. To that I would say, first educate our beekeepers in the proper methods of preparing his goods for the market, instruct them by demonstrations and addresses, the uses of modern appliances, and on bee-culture generally. We have some very capable apiarists in this State, as anyone may see if they take the trouble to view the various exhibits at the Easter Show. These men go into the business on scientific principles, and by using modern appliances, are able to produce a first class article; but they are not a numerous class at present. A great deal of beekeeping is done in the old box-hives, which mainly consist of kerosene cases turned bottom upon a

stand; or sheet of bark, with a little hole cut for bees to get in or out, and bars across inside like roosts in a parrot cage. A stone is usually placed on top to prevent it from blowing over. When one of these hives has to be robbed, the usual practice is to place another box on top and belabour the bottom one with a stick until the bees desert it and take refuge in the top one. The old hive is then turned up and the comb cut out. Very little discrimination is exercised between brood comb and virgin comb, if any of the latter exists. The brood comb has more or less larvae in it, and there is inevitably a liberal allowance of bewildered bees mixed up with it when this method is followed; but they all go into the same receptacle, and the beekeeper consoles himself with the reflection that what does not kill, fattens.

One of the severest trials of the honey buyer is careless and incompetent grading. Every beekeeper should try to grade according to the requirements of the market where he is desirous of disposing of his goods, do his work conscientiously and with care, and make a study of it. The average beekeeper, perhaps, does not realize that a great many people, who are outside the fraternity, believe that comb honey is manufactured, filled with glucose, and capped over by machinery. But such is the fact; and I don't know but that they have good grounds for their belief, as I have, in Sydney, purchased a vile concoction labelled Garden Honey, that a decent robber bee would pass by. This adulteration business is the sort of thing that does a large amount of harm to the legitimate beekeeper, and it is one of the enemies on which the Union will have to level its guns, and bring about his downfall. And, Mr. Editor, there is another direction in which I think it would be advisable for Union to move; and that is in recruiting for

the army of the bee. Among the thousands of our suburban residents, how many of them that ever had a swarm of bees, or know anything about them, to most people they are looked upon as things to be avoided. Tell the average suburbanite that bees are a very interesting hobby; and with a look of half pity, half contempt, he will enquire if you have not a bee in your bonnet. But if you can give him an ocular demonstration that they are not the cannibals he thought them to be, the probability is that you will gain a convert to the religion of the bee. That has been my experience, having made three converts in as many months, and who are, like myself, suffering from bee-fever in a more or less aggravated form. And although we may not be able to create a "corner" with our product, we will at least bear the good-will of the bee-goods jobber and dealer in high class stock. There are thousands of such others; and that the Union may be able to enlist them is the wish

of a
"NOVICE."

HIMALAYAN BEES.

FIRST EXPERIENCES IN APICULTURE IN KASHMIR.

Apparently very little is known about Himalayan bees, but as a bee-association has been recently started at Simula with the Lieutenant-Governor of the Punjab as president, it is to be hoped that progress will now be made.

In Kashmir bees are very common. I saw wild bees as high as 7,200 ft. above sea-level which had made their home in the trunk of a pine-tree. The wild bee appears to be yellower in colour and to have a rather longer body than any of the domesticated varieties. Of the latter I have seen two kinds—a dark variety

which may be called a black bee, and another with pale yellow bands round the abdomen and a thorax covered with a light brown fur. In this yellow variety, at the upper part of the abdomen under the wings, there is a fairly broad transverse stripe on the back, below which there are four parallel ones. That nearest to the tail is a little broader at the middle, which makes the bee look as if it had a white tail. The wings when folded reach to the lower margin of this stripe. These white-tailed bees are said to be gentler than the darker variety.

A very large number of villagers in Kashmir keep bees in curious hives which are merely earthenware cylinders about 2 ft. long, and these are built into the walls of their houses. The outside end of the hive has a central hole about 1 in. across or sometimes a series of small holes in a circle, while the inner end has an earthenware lid fitted over it, and kept in position with clay. No artificial feeding is done in the summer, but in winter the bees are supplied with food, though no special measures are taken to protect them from the cold; therefore the mortality is, I understand, very great. In many villages, after a severe winter, when the temperature sometimes falls to zero Fahrenheit, more than three-quarters of the colonies will perish. The Kashmiris understand something of the management of queens. They have a curious way of securing a restless queen by tying a fine thread to one of her legs and pinning her to the comb. Sometimes they also change queens. The hive is opened for the Harvest in October, when the bees are generally smoked out and large numbers are killed. No care is taken of the brood-combs, and insufficient supplies are generally left with the surviving bees. Sulphur is, however, not used.

Bees seem to do better in the hills than in the valley of Kashmir, the latter being too hot in summer. This may ac-

count for the great difficulty which is often experienced in keeping swarms, which sometimes desert their hive even when there is brood in it. Of five swarms which I hived this spring I lost three. The natives say that the bees go off to the hills for the summer, return in September, that they are then easier to handle, and remain contentedly during the winter. Both the swarms which I succeeded in keeping were secured by fitting queen-excluder across the entrance of the hive and retaining it there for a month. One colony left the hive two months after it had been introduced. I had examined the hive the previous day, and found it was a weak colony, there being only a small quantity of brood. The bees being quite gentle, subduers were unnecessary. Next day robbers attacked this hive. The entrance was made as small as possible, and carbolic acid solution sprinkled in front, but a day later I found the hive empty. Where Kashmir bees are kept in wooden hives there seems to be an unusual amount of fighting and attempted robbing. The local earthenware hives do not appear to attract bees, although hornets are often seen attempting to get in; but the wooden hives seem to emit an odour from their joints which attracts robbers, and sometimes even swarms.

Swarms usually issue early in the month of May. On May 4 a swarm was brought to me in a basket, which I hived in the evening, and fitted queen-excluder over the entrance. Into a second hive, on May 9, I introduced another swarm, which escaped on May 10, and some of the bees tried to enter the first hive. I floured them, and most of them were admitted; on May 11 I put another swarm into the empty second hive, and next day a swarm from a third hive settled on the front of it, and had to be removed. A fortnight later the third hive was attacked by a swarm

from a fourth hive, and nearly all the colony was destroyed. On June 5 the queen of this hive was seen outside with about twenty bees round her, and on the 11th, the hive was completely deserted.

I had a good deal of trouble with one swarm before it was finally lost. It was hived on May 25, with queen-excluder in in front, and on the 26th somehow the queen must have got out, as the swarm decamped to a neighbouring mulberry-tree. We secured it, and tried to hive it in the evening, but it refused to go in, and went off again, this time to the top of the tree. On the 27th we captured it again, hiving it in the evening; but the next day it issued again, and, after attacking another hive, it bolted.

I understand that all beekeepers in Kashmir have very similar experiences, but that they are much more frequent when English hives are used.

During the month of May and early June the honey-flow is fairly good. In one hive six frames were fully built out and occupied in one month, but in the following month hardly any work was done, possibly owing to the heat and drought which usually prevail at this time of the year. About 3 oz. of stimulating syrup per day appeared to have a beneficial effect.

Very large hornets are constantly attacking the hives. The bees come out in groups of about seven or nine, and when a hornet approaches they lower their heads and, with a peculiar quivering movement, turn their tail towards the intruder, who invariably veers off. Sometimes, however, a bee with a bolder spirit takes more decisive action. Perhaps, like Sir Nigel Loring, she regards the hornet as a "courteous and worthy person with whom some small bickering may be had." Or possibly, Marcus Curtius like, she seeks, by sacrificing herself, to save the whole community. I have seen a bee suddenly dash out from

the armed circle of defenders and pierce a formidable hornet four times her own size, inflicting a fatal wound. But all are not so courageous, for one day I placed a dead hornet on the alighting-board when the sentry had gone in for a moment. A casual bee coming out for an evening walk suddenly and unexpectedly caught sight of the orange-coloured monster, gave a most dramatic start, and then hastened back to her own quarters. Whether she spread the alarming news I know not, but almost at once a fierce and stalwart worker emerged and, single-handed, seized the unwelcome intruder and threw him off the platform. In their behaviour with ants bees seem rather timid. Ignoring them unless they come quite near, they even then appear to chase them with some apprehension lest the ant should turn and seize them by the nose. No one can watch the action of sentries in front of a hive for long without coming to the conviction that there is often an interchange of intelligence between them and the returning foragers. In hot weather when supplies were scarce I noticed drones, who often disport themselves outside the hive during the hotter part of the day, were sometimes very reluctantly admitted, and were even then treated as if they were strangers, being chased from the hive. During such weather a fall of rain, so far from stopping work, seemed to give it a stimulus, owing perhaps to the more rapid secretion of nectar in the flowers. I have been surprised to find how comparatively few varieties of flowers are resorted to by the bees. Of course, in spring the blossoming fruit-trees and fields of flowering cruciferae are crowded, and in summer mignonette, virginia creeper, hollyhocks, and balsams appeared to possess the greatest attraction; but, curiously enough, there were very few bees to be seen working on white clover. During the hot weather,

when supplies are scarce, the bees are rather bad-tempered, and an occasional undeserved sting is sometimes meted out to an observer who has been previously tolerated. In the evening, although the hive may be full, the inmates seem more gentle than in the heat of the day. The stings appear to vary considerably in intensity. Some, even when delivered deeply and strongly, produce little swelling or pain; others, inflicted lightly and in passing, as it were, have produced great irritation. It is probable that in this and many other respects Kashmir bees are very like their English relatives. It will be interesting to see whether the introduction of English or Italian queens will result in greater industry or whether their progeny, too, will succumb to the somewhat enervating influence of climate and the summer and autumn droughts.—(Dr.) Ernest F. Neeve, F.R.C.S., in "British Bee Journal."

HIVING SWARMS WITH CLIPPED QUEENS.

BY G. M. DOOLITTLE.

A correspondent writes, "I have trouble hiving swarms having queens with clipped wings. Will you please tell us through the columns of the "American Bee Journal" how this is best done.

The simplest plan, and one which I used for years, or till I concluded that I wished no more natural swarming for myself, is as follows:—

Go to some woods where you can cut a light tough pole, which will reach to the top of your tallest trees, which will take for granted are not more than 25 feet high. If you are in a locality where your trees are liable to cause your bees to cluster higher than this, then I would on no account tolerate natural swarming. Have the large or butt end of the pole sharpened so that

It can be pressed into the ground when necessary, or when you may so desire. At the upper or small end of the pole, tie on a bunch of brown rags about 4 inches in diameter and 8 inches along to the top of the pole, when the same is ready for use.

When a swarm issues, proceed to find the queen, which is easily done by stepping to the rear of the hive from which the bees are pouring; when the queen will be seen, as soon as she comes out, hopping around in front of the hive on the ground. As soon as seen, put the open end of a wirecloth cage you will keep her in down in front of her, when she will run in, after which you will close the cage with a stopper. This cage should be about one inch in diameter and 6 inches long.

When the queen is caught, secure the cage to the brown bunch with a wire or two, so bent that it will fasten the cage quickly and securely where you wish it. Now raise the pole in the air and keep it where the bees are thickest, when they will often begin to alight on the brown bunch with the queen. As soon as a pint or more have settled on the bunch, slowly carry the pole to where you can lean it up against something, and the bees will follow along and keep alighting as you go, and continue to do so till all have settled. If they do not alight on the pole they will soon select a spot to alight upon the same as they would if the queen was flying with them, for her presence is known to them just the same as if she had her wings whole and was amongst them in the air.

As soon as they begin to alight, place the pole in such a position that the queen and brown bunch comes at the place they are clustering, and leave it thus while you are preparing a hive for them. When they are partially clustered raise the pole or push it up and up, so that the queen and bunch of rags with the bees on them, is a foot or so away from their selected cluster-

ing place, when all the bees will cluster on the queen, after which you can carry them wherever you please, the same as you would had you cut off limb with a cluster upon it.

Having the bees on our pole, they are carried to the hive where you wish to place them, when a small portion of the cluster is detached from the rest by poking them off with the pocket knife, the hive-opener, or anything which is convenient, having these bees drop right in front of the entrance to the hive, into which they will run, setting up the call of "A home is found," when all the bees which may have taken wing through this process of detaching the pint or so of bees, or otherwise, will begin to alight down with those running in. When these are nicely started going into the hive, another poke of the cluster is made, dislodging this time a quart or so, and when this last lot are well under way into the hive, we are to shake all of the bees off the bunch of rags on the pole, shaking them along from one to two feet out from the entrance, so they will not clog the same by so many of them coming en masse in front of it at once. These last shaken off will at once begin to run toward those that have before started in, when the "line of march" will go steadily on until all are in the hive. If in going in, they hustle up to the entrance so fast as to clog it with bees, I take my knife and gently stir the bees directly in front of the entrance, which will cause them to run in with renewed vigour.

When nearly all of the bees are in, the queen is liberated and allowed to go in, when the work is done.

No matter in how bad a place they cluster, the operation of getting the swarm on the pole is always simple, and there is no need of being in a hurry, for they cannot go to the woods if left hanging on the pole in the not sun all day, for should they uncluster and start off they would soon come back to the

pole and queen, as I have had them do several times. This also does away with that bugbear in natural swarming, of having two or more swarms come out at the same time, as all beekeepers having several colonies know so well about, for we need not work with sheets, fountain pump, or anything of the kind, till we are almost ready to give up in despair, to keep them from going together, as used to be the case in olden times; but simply let them cluster on the pole and we are at liberty to prepare the second, third or fourth hive, as the case may be, leaving a queen in front of each hive, except the first, as the queen for that hive is on the pole.

When all are clustered, take the pole and carry it to the hive having a queen in front of it, when we proceed to hive them as at first, except that we only dislodge from the cluster on the pole about the right proportion of bees for one hive; then go the next, leaving enough for a colony there, and so on till all are hived as we wish them. All is done with a perfect ease and certainty, which no other plan can fully give.

I would often leave the bees hanging on this pole two or three hours, or till I got other pressing business done, when I would hive them at my leisure, the only caution being necessary was to see that the pole was so fixed that it could not break from the great weight of bees, and that the queens, not with the cluster, had a few bees with them, to feed and care for them while waiting. In fact, it is always well to allow from 4 to 10 bees to run into the cage with the queen, when she is found in front of the hive, so that should any unforeseen thing happen to call the apiarist away, these would feed and protect the queen all day if need be. Then, if, toward the latter part of the swarming season, I wished to put two swarms in a hive so they would rush a whole lot of nice honey into the sections in the short-

est, possible time, thus making them bring in an immediate return in cash, while if each were put separately in hives, nothing would be the result in section honey, I did not have to hunt out the queens for one of them was with the two clustered swarms, and the other was let go back into its old hive. I would as soon think of going to the old log gums and box-hives, as I would of managing an apiary on the natural swarming plan with queens having unclipped wings.—“American Bee Journal.”

HONEY PLANTS.

(Continued from p. 280, March issue.)

be referred. In all the older works they are referred to Audibertia, and perhaps the wisest plan at present would be to retain this name until some agreement can be reached. The white sage, so common throughout Southern California, was Audibertia polystachia; the black sage was Audibertia stachoides; the crimson flowered sage was Audibertia grandiflora.

“Professor Green is of the opinion that the white sage belongs to a distinct genus which he has named Ramona. Briquet, the Swiss authority on this family, has extended Green’s genus to include the black and crimson flowered sages. According to this last authority these three would, therefore, by Ramona polystachia, Ramona stachoides and Ramona grandiflora.

“There is still another opinion prevalent among botanists, and that is, that all of these plants should be referred to the genus of true sages—that is, Salvia. Since the specific names mentioned above are pre-occupied in Salvia, it is necessary to change some of them if the genera are combined. The white sage has not yet received a valid name under Salvia. The black sage is Salvia mellifera (Green), and the crimsoned

flowered sage is *Salvia spatheca* (Green). There are other species, of course, which are concerned in this mix up; but the three mentioned above in this only ones of much importance as bee plants.

H. M. HALL."

BEEKEEPING FOR WOMEN.

A New Accession to the Ranks.

BY MISS MABEL VANDERGRIF.

With a perfect understanding of the heights to which I have attained, I now take the liberty, some may call it the presumption, of introducing myself to the readers of "Gleanings" as a Californian beekeeper.

Acutely aware of my own limitations, I hasten to confess that all I know as yet concerning a bee is that one end gathers, or may be expected to gather, honey, while the other end stings, or, at least, may be expected to do so. It is now two months since I left New York city for the good of my health; and it is one month ago since, arriving in California, I immediately became an apiarist for my financial well being. A rancher, a native son, sold me three hives. I was then advised to purchase queens. Now, in New York city one may select from three brands of eggs—strictly fresh, fresh, and just eggs. It now appears that the Californian bee-market is stocked with three brands of queens—selected, tested, and just queens.

Before being somewhat in the position of the donkey that died of starvation between two heaps of hay because it could not make up its mind from which heap to take its first mouthful, I was fortunate enough to meet a sagacious (though rather profane) French bee-expert. From the latter authority I accepted three Italian tested selected queens. And this Frenchman, probably on Sis Hopkins' principle that "it pays

nothing to do nothing for nothing for nobody," accepted my 15 dollars.

My health was wonderfully improved—thanks to the California climate. Green alfalfa covers all the bottom lands of this valley; green sage brush covers all of the surrounding hills, and I, however green as yet as regards the niceties of apiculture, expect speedily to notice an improvement in my financial condition—thanks to my California bees.

Hope has been defined as a belief in a future event, and the future event in which I have a thorough belief is the advent of tons of honey.

Readers of this publication may expect to be made aware very soon of the success of Mabel Vandergrif, Beekeeper.

PROGRESS OF BEE-CULTURE IN ITALY.

BY C. P. DADANT.

The death, during the month of September, 1909, of two noted Italian apiarists, has drawn the attention of the beekeeping world to that country and at the progress achieved by it in api culture.

Italy, some 60 years ago, was a divided country, the greater portion of it being under the iron rule of the Austrian monarchy, a small part under the Pope's rule, and the remainder under other small rulers. The unification of the country by the overthrow of the Austrian power and the securing of an independence that was long sought, under the influence of the spirit of liberty set aflame by the patriotism of Garibaldi and his volunteer legions, gave an impetus to progress, and it is hardly to be doubted that Italy would not yet to-day be as progressive as she is, even in the culture of bees, were it not for the political progress achieved in the middle of the past century.

Germany had already achieved very important progress in apiculture when Italy came to the front; but Germany had the good luck of being the birth-place of two great apiarists—Berlepsch and Dzierzon—the inventor of modern methods and the parthenogenesis; not to mention a number of scientists who helped in discoveries in bee-anatomy. America followed the footsteps of Germany. To make sure of this, one needs only to peruse the first two or three years of the old American Bee Journal. But the pupil soon got ahead of the master, and at the present date the Dzierzon and the Berlepsch hives can not be compared in efficiency of manipulation to any of our modern hives. Langstroth was the man who set the pace here, by his inventions and his accurate researches.

Italy then took the cue. In the sixties, one of her leaders, Major Hruschka, invented the honey-extractor. But to use this machine a practical hive was needed. Both the German and the American hives were tried, and the latter, I believe, took the lead very promptly. In 1868, "L'Apiculture," their national bee-journal, was founded. A Central Association for the Encouragement of Bee-Culture was organized. Let us bear in mind that Italy, like all the old monarchies, is composed of classes very far apart in social positions. The contadino or peasant, at that time, had no education; in many places he lacks education yet, but he is gaining slowly and surely. On the other hand, the nobility is among the most aristocratic of Europe. The Viscontis and the Borromeos trace their ancestry back to the middle ages. But it was among these aristocratic men that the progress began. They bent their energies in the most democratic fashion to the spread of what they recognised as progress, and proud as they

were of their ancestry, they did not consider it a degradation to put their hands at useful work and to preach the gospel of progress to the uneducated. They mingled with the mass to teach new methods, and counts, doctors, engineers and ordinary tradesmen set themselves on a basis of equality before the little honey-bee. Is this not worthy of our consideration? Perhaps we can hardly realize what such a thing means, in a democratic country like ours, where all men are equal.

It would be useless and impossible for me to name all the men who made Italian bee-culture what it is to-day. Crivelli, Visconti, Lurani, Rauschenfels, Dubini (the author of a splendid treatise), Borromeo, Barbo, etc. The work of the last named, extensive microscopic studies, was brought to the reach of every one by the art of Clerici, who made beautiful lithographs of most of them, and these lithographs were published under the auspices of the Central Association. They were since re-published by the editor of the journal "L'Apicoltore," Rauschenfels, who is to-day upwards of fourscore years of age, but still on the path of progress.

Bee-culture in Italy has also been urged forward by the demand for Italian bees from all parts of the earth. But more than anything else the work of its translators has been beneficial. From the beginning of its publication articles have been translated for "L'Apicoltore," first by Dr. Dubini, later by others. Our American readers would be astonished to see how well acquainted the Italians are with the writings of Doolittle, Dr. C. C. Miller, A. I. Root, Hutchinson, and hundreds of others in America. In the same way they quote from German bee-culture, France, England, Belgium, Switzer-

land. There is not a magazine in the world which is more cosmopolitan in its make-up than "L'Apicoltore."

But, dear reader, do not infer from the above that the beekeepers of Italy are all progressive. This would be a big error. Neither are the beekeepers all progressive in America. It was lately found out by Mr. Holekamp, Secretary of the Missouri State Beekeepers' Association, that there are 42,000 beekeepers in Missouri alone. How many of those are up-to-date apiarists? Not one-tenth I dare say. And Missouri does not hold the record for ignorance, for we have other sections of the country much farther behind. Dare we criticise other countries

While the Steinheil trial was in progress in France, and our newspapers were throwing ironical jests at the rendering of justice in French courts, in our own country—in proud Illinois—mobs were dealing out lynch law to black and white alike at Cairo. While we look at the mote in our brother's eye, let us not forget the beam which is in ours, and bids fair to deprive us entirely of eye-sight.

Can we draw a moral from the action of the Italian noblemen who have so pushed bee-culture forward among the masses? Yes. There were only a handful who took hold of this work, but their united effort has done wonders. It is not so much the numbers of progressive men that cause steps forward, as the quality of the men who do this work. So in whatever line we see possibility of progress let us unite, work in harmony, and let us not leave a stone unturned which may help progress among our fellows.—"American Bee Journal."

RESULT OF ARTIFICIAL FOOD.

An energetic amateur beekeeper writes to me as follows:—

"I have just discovered foul brood in two of my nuclei, although it has never appeared in the apiary, and I have not seen any of my full colonies affected. As I have only a hazy idea of the method of cure, will you kindly direct me by return as to how I should proceed? Many cells appear to be sunken. From what do you surmise it has arisen? I have fed with pollard, white of eggs and honey, according to Mr. Morgan's plan. Do you fear the pollard has been musty?"

My reply was to light a good fire at dusk and put the affected nuclei on it, because, if not, the other stocks will surely become affected, and it may mean the loss of the whole apiary. The artificial food was certainly unsuited.

Now, the foregoing clearly shows once again how right I was when I warned beekeepers against using such artificial means of bee-food as pollard, white of eggs, milk, etc., except in the hands of an expert. It is remarkable how some beekeepers will give such foolish advice, and equally how some will follow these. Honey, pollen and water are the proper bee-food; but don't give them pollard, syrup, white of eggs, etc. It is not natural food for bees. Attend carefully to their wants, and perhaps there will be less heard of spring losses, etc. On the other hand, is it any wonder that bees do not prosper if they are not closely attended to during times of adversity? It is then when care is needed—not when they flourish and flow in honey. The proper wintering is the first step to next year's success. Bear that in mind, no matter what others may say.

I make this foregoing remark because several writers recommend to extract all honey and feed sugar syrup. The latter is not honey in any case, and if the

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honey—or supposed is of bad quality—say from honey dew, then certainly remove that, but feed back good honey, instead of syrup. But so far we have very little or no trouble from honey dew or aphid secretion; thus ours is a good plan. To say that certain honey, such as grey box honey, is unsuited for wintering bees on, is the opinion of a few, and nothing more, because as far as spring losses are concerned, these occur at places where no grey box honey is available. This ought to be proof enough that there are other factors causing the losses; but there are a few who are unwilling to admit it yet, and persist in their hypotheses:

Less foul brood would be experienced if beekeepers carefully studied their bees, and attended to their wants properly. Most diseases are the outcome of neglect of something or other, until they become an epidemic, when there is little chance for the best, even to help himself and others. Foul brood can easily be produced by bad management, etc.; but it is not so easy to cure it. Prevention is better than cure.

If beginners will only follow the advice of experienced beekeepers, they will have less reasons for complaint and failures.

W. ABRAM.

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CHARACTERISTICS.

Writers frequently state that this or that character can be bred out of bees. Have they studied Nature to be so sure of their design? Have they been successful in their attempts? What is character? It is a substance that can neither be measured nor foretold in the infancy of any subject; it is an invisible substance. Take an Infant. Who can tell his character at the time of his birth? And what beekeeper can tell what is hidden in the tiny queen larva which is to be the mother, for two or three years, of a hive. Character is not transmitted as regularly as is colour. It varies. This can be best observed in mankind; but equally in bees by the observant observer. One child out of twelve in a family may develop a character for music; but not every child can do that, no matter what training it may receive. It is an inborn instinct; a special qualification for certain traits; but they are not regularly transmitted to the offspring; they spring up now and then in quite unexpected places and subjects. This is a matter of variation in creation, over which even the wisest have no control. Who tries to work contrary to these facts will have difficulties to contend with sooner or later. If bees are left to their own device, then natural conditions will adjust matters readily. What suits one season does not suit another. But no new character can be inbred. A character may be inborn, but it may not develop if no chance is given it for development. No more can character be altogether repressed. We have thus to take matters as they come, and make the best of it. Meddling with Nature will not help any.

W. ABRAM.

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CORRESPONDENCE.

Tyndale Apiary,
Clarence River.

W. Abram, Esq.

Dear Sir,—Accept my congratulations for your success at the R.A.S. Show. Clean busy at present; arranging an exhibit of honey, bees, &c., for our local show this month. We have had altogether too much rain here during the past two months. In March there were 18 wet days, registering 876 points; and up to the time of writing there has been a further fall of six inches. Consequently the bees have done nothing; and unless there is an interval of mild weather during the late ti-tree flow, my bees will be cut short of ample stores for the winter, and I will be compelled to feed them, a thing I never have had reason to do previously.

With kind regards.

Yours faithfully,
W. J. BENSON.

[Wishing you success at your local show, and hoping that conditions will improve to such an extent as to need no feeding, which is always a thankless job.—ED.]

* * * *

Mr. W. E. Tompson, Windeyer, writes.—The honey season is now over with here. It has not been too good; some times too much rain, and sometimes too much heavy winds; and I find bees do not work well in very windy weather. They are blown about so much, making it hard work. I had a big loss last winter and spring with the bees; but I have worked them pretty well up again to what I had last autumn. I hope you had a good season for honey and made a good cheque; also other beekeepers the same; and hope for better times

next season. What honey there has been this season has been of first class quality here. We have to winter down here at the end of this month as the winter sets in any time after this month with us.

VENTILATION OF HIVES.

The proper ventilation of hives is a subject of great importance at all times, but more especially during the height of the honey season. Ample ventilation is one of the chief factors in the preventions of swarming. But though of so much consequence in this respect, it does not as a rule receive the attention it ought to. The writer, many years ago, carried out a series of exhaustive experiments with the view of finding out the best method of ventilating hives, and to discover what part the bees played in the matter. I found that so far as the bees were concerned they preferred ventilating solely by the entrance, by which they drew in the cool, and expelled the warm air. It mattered very little whether there was a thick close-fitting mat or a porous one over the frames, the bees ventilated in the same manner—by the entrance.

In order to substantiate this, I placed two thermometers at the entrance, one on each side, and one always registered several degrees above the other; in fact, the expulsion of the warm air was so distinct that it could be felt by the hand.

The experiment was carried on for several weeks, and four or five hives tested, so that the mode of ventilation by the bees was proved beyond doubt. It follows then that the entrances should always be large enough to allow of this scheme of ventilation being carried out in a proper manner by a minimum number of bees occupied at this work. When bees are employed “fanning” outside the entrance, it at once indicates

that the entrance is not large enough; that the ventilating bees inside have more work than they can accomplish, and in extreme cases part of the colony cannot work, when they vacate the combs and hang outside the hive.

At this time of the year, the body of the hive may be drawn forward so that it overlaps the alighting from 1½ in. to 2 inches—that is, such hives as contain fairly strong colonies. Some beekeepers raise the front of the hive on wedges, but I don't like the plan, as the bees can then make use of the sides for entrances and get befogged when the hive is lowered later on. It is better to raise the covers a trifle, so long as the mats fit well.

A word concerning winter ventilation. Many beekeepers reduce the entrances in cold weather to the smallest space possible. This is entirely wrong, a good wide entrance for at least six inches should always be provided for colonies of normal strength. There is always a considerable amount of moisture exuding from bees, and in winter the moist atmosphere adds to the total amount, which must be expelled from the hives, otherwise there will be mouldy combs, and soured food, resulting in diseased bees—dysentery. There may sometimes be a necessity to reduce entrances as much as possible in the case of robber bees being on the prowl, particularly for the first few weeks the honey season closes, but at ordinary times in winter the entrances should never be less than six inches in width.

As the proper ventilation of the hive is of so much importance to the welfare of the bees, and directly to the profitable working if the apiary every beekeeper should make himself thoroughly acquainted with the subject.—“N. Z. Farmer.”

NEW ZEALAND HONEY.

In referring to the importance of the honey industry, the “Poverty Bay Herald” says:—“The best of our honey, it is worthy to remark, is able to command as much as £42 a ton in London, or a higher price than has been secured by any foreign honey that has ever reached the English market. New Zealand's bees are not yet sufficient in number to supply the local demand, and yet the value of the product last year is estimated at not less than £45,000. The point that we wish to impress is that there is money in honey if the pursuit is followed upon practical lines. “A gentlemen who has had charge of an extensive orchard near Gisborne for a number of years, and who also owns an apiary of close on 100 hives of bees, informs us that he is satisfied from experience that there is more money in honey than in fruit. For one thing, there is a sure and certain market. It is, moreover, an industry that is particularly suited to a person of limited means or to those who are physically unfitted to battle with the soil. It is light labour and profitable. A man with an acre or two of land in a suitable locality can do well on bees.”

BUSH V. CLOVER HONEY.

I noticed recently in a contemporary some correspondence on the comparative values of honey derived from our bush, and from clover—meaning, of course, white clover. The controversy arose through the contributor to the Apiary column, advising a correspondent, who wished to know, where to start bee-farming, to choose a clover district in preference to one near bush. A “Bush Beekeeper” resented this, and concluded it was tantamount to condemning all bush honey, and calculated to do great

harm to bush beekeepers. He also claimed that some bush honey, notably that from the pohutukawa tree, is quite equal in quality to that gathered from clover. Now, a public instructor, through the Press, should, in the first place, possess expert knowledge of the particular industry he gives advice upon. Having this knowledge, he is well prepared to discuss any matter with those who may differ from him in giving such advice. In this particular case the question was a most important one as regards the future interests of the questioner, and in my opinion the reply was quite correct—that a clover district is more profitable than a bush district for bee-farming.

I have had considerable experience in raising both bush and clover honeys, and also in marketing them, and it is this experience that prompts me to say that clover honey is so far superior to bush honey as to make its value on the market from one third to one-half more, and the demand infinitely greater. Broadly speaking, I would estimate the profits from a bee-farm in a clover district to be at least double that from one in a bush district, both being managed in an equally skilful manner. I would therefore strongly advise any person about to go in for commercial bee-farming to start in a good dairying district, where there is plenty of white clover.—“N. Z. Farmer.”

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UNIFORMITY IN HIVES.

By F.M.R.

A STANDARD ADVOCATED.

Unfortunately there is no Apiaries' Act in force in Victoria to make it compulsory for beekeepers to adopt hives of certain types and dimensions. Among those who make a commercial success of this business there is really no need for such regulations, for to prove successful a man must necessarily adopt some style of hive which, on account of its construction, renders manipulation easy and rapid. Such hives are generally of the Langstroth pattern, and, though they may differ in the number of frames used, according to the accommodation required for stores and brood they are, on the whole, of a pattern which renders a saving in labour and easy control possible. But among another section of beekeepers there is a great want of uniformity noticeable. The chief objection to a person using a common box-hive lies in the fact that these more often than not are a source of danger to the skilled apiarist. In the majority of instances, it is impossible to keep down disease, and prevent it from spreading. Beekeeping in this State has already assumed large dimensions, and it is time that some measures were taken to protect those whose capital is invested in the industry. The establishment of an Apiaries' Act would be a good thing for Victoria, and one of the first provisions should include particulars governing standard patterns of hives.

A CHEAP HIVE.

It is chiefly those who keep one or two or perhaps half a dozen hives that are indifferent regarding the style of covering used to protect the bees. These so-called hives are, for the most part, ill-ventilated and neglected. In a recent

bulletin, Mr. Isaac Hopkins, Agriculturist to the Department of Agriculture, New Zealand, gives some particulars regarding the manufacture of a cheap hive. Such a hive, while its adoption by this section of beekeepers would not lead to the imposition of any hardships on the owners, would bring about a vast improvement on present conditions. Moreover, it complies with the requirements of the Apiaries' Act in force in New Zealand, and by so doing is a guarantee to the best interests of the beekeeper. The following are the particulars given:—Secure a complete and sound kerosene-case, and carefully knock off one of the broad sides; nail on the original cover, which will now form one of the sides. If the sides of the case are not level all round, build them up level with fillets of wood. The inside depth should be 10 inches.

INSIDE FITTING.

Next nail on at each end half an inch below the inside upper edges of the case, to suspend the frames from, a fillet of wood 3-8 in. thick by 3-4 in. wide, and the length of the inside end of the case. The frames, when suspended from these, should be a clear 3-8 in. off the bottom of the hive. An entrance 3-8 in. wide by 6 in. long should be cut out of the lower part of one end of the case, and a small alighting-board be nailed on underneath projecting from 2 in. to 3 in. in front. A loose bottom-board can be arranged if thought desirable. Top or surplus honey-boxes can be made in the same way, but will not require a bottom. Instead of constructing frames which are difficult to make by hand, the purchase of "Hoffman self-spacing frames" is recommended. The cover of the hive can be made from the side knocked off, and should have small fillets 1 in. wide, nailed on right round the edge to overlap the body. Cover the top with rubberoid, or other waterproof material, and let

it overlap the edges. A capital waterproof covering can be made by first giving the wood a good coat of thick paint, and, while wet, laying on open cheesecloth (not butter-cloth), letting it overlap the edges, and painting over it. The paint on the wood will ooze through the cloth, and the covering will last for years. No tacks are needed. Light coloured paint is best, as with this the hive will keep cooler when exposed to the sun than if painted a dark colour. The actual outlay for such a hive, allowing 4d. for the box, would be under a shilling, providing the person makes his own frames.—"Australasian."

TROUBLE IN INTRODUCING.

I am having trouble with the southern-bred untested queen I bought of a breeder some time ago. I introduced her in the usual way, the colony accepting her seemingly peaceably, which fact I wrote you. After two days from the time she was released I looked into the colony to see if she had commenced laying, and found her balled but with no eggs. I released her quickly, placed her in the cage again, put the cage upside down between the top-bars in the centre of the hive, and left her thus for about 48 hours. Then I released her again and watched her carefully, and all seemed to go well for about two days more, when, on opening the hive again, I found her balled and still no eggs. Again I caged her as before, leaving her caged about a day, when I took a frame of mostly sealed brood from another hive and placed it in the queenless colony, thinking it might encourage her to lay, and at the same time help to keep up the strength of the colony, which has been without a laying queen since last fall.

For about 48 hours all was peaceable in the hive again, but I could not see that she had laid any unless on the edges of the comb of brood we gave her; but

we found her balled again. Tiring of the game we caged her again and left her in the hive, and—well, here we are to you for advice.

The queen seems well and lively, but in size and appearance she looks almost like a virgin. But it is not unusual for mailed queens to look that way for a few days after being released. I have introduced a good many queens, but have not had any act quite like this. If you could advise me what to do in this case we should appreciate it very much.—W. P. Keefer in "Gleanings."

BUTTERMILK BUCKWHEAT PANCAKES VERSUS THOSE MADE WITH YEAST.

"There are more ways to the woods than one" is also true when it comes to making pancakes; and, I would add, there is still a difference between getting to the woods and making pancakes, which will be appreciated when you eat the pancakes made with sour buttermilk. Everybody will probably agree with me that there will be no difference in the woods, no matter which road you take to get there. When we get into the thick wood, its woods—But how about pancakes! Yes, we have eaten pancakes made of yeast, such as the "lightning," but never can they compare with such as are made with good thick rich sour buttermilk, a little salt, and buckwheat flour and then made light with soda. We do not want the batter too thick; it must spread out easily upon the hot griddle. There must also be no soda odor perceptible when or after the cakes are baked. Experience alone is the guide as to how much soda is needed to neutralize the acid in the buttermilk. Of course, the older it is the more soda is required. We start the batter the evening before it is wanted, then stir in the soda just before baking. The batter left over is saved for the next meal, replenished with the same kind of butter-

milk, and flour and soda added as already stated. We want no water. It is not necessary to stir up the batter the evening before. It may be done just before it is wanted if the buttermilk is right. Of course, if one does not live in the country he may be unable to obtain the genuine buttermilk, and he will have to put up with what he can get. We here have real cows—can eat real butter, and have the real stuff for making pancakes, which will touch the spot that no yeast pancakes can. We also have the real cream and the real honey to go with the real buttermilk pancakes—inseparable if you want a real treat.

I am aware that a great many people eat yeast-raised milk pancakes and pretend to enjoy them; but when such have once eaten breakfast with me they always regret that they can not live the time over again they think they have wasted in eating yeast-raised pancakes.—F. Greiner in "Gleanings."

HONEY.—

Supplies are coming in freely, and there is a fair demand. Choice quality is selling at 3¼d., while good can be bought at 3d. per lb. Medium is worth 2¼d. to 2¾d.

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—SYDNEY—

NECTAR FROM RED CLOVER.**Theories of How Bees are Able to Get it ;
Passageways Through the Combs
During the Winter.**

In regard to bees gathering nectar on red clover, several opinions have been advanced. Generally it is supposed that owing to drier weather, the second crop has blossoms with shorter corollas, and that the bees can reach the nectar on that account. Another theory is that, in wet weather, or, rather, when the ground is sufficiently wet, the nectar is more abundant, and fills up the corollas better, and thus comes within reach of the bees.

A German apiarist a few years ago undertook to settle the question and spent a part of the summer lying down in the clover-fields to see how it was. He reported that very few insects take the nectar through the corollas ; but some kinds cut a hole near the bottom and help themselves through it. The hole once made, a number of other insects, including bees, take advantage of it ; and if the bees do not work on the first crop it is because at that time there are only a few hole-boring insects present.

The tongue-reach secured at Medina is certainly very encouraging to those who would experiment in that direction. An increase of one-third or over in a comparatively short time, and under such disadvantageous circumstances, is worth noting.

The difficulty in mating could be minimized considerably. In trying to maintain a race of yellow bees among others, any mis-mating can be detected by the marks of the workers ; but when the bees are all of the same color it is impossible.

However, I think the trouble would be largely overcome by establishing an apiary in an isolated locality, inducing the long-tongued queens to raise a large number of drones, and suppressing those from the other colonies.—“Gleanings.”

ELECTRICAL CONDITIONS.

W. Z. Hutchinson, in the July “Review,” writes, “The electrical condition of the atmosphere preceding a rain-storm is nearly always favorable to nectar secretion.” No doubt many of us have noticed that, preceding a thunder-storm, the bees put in some of their best work. I have, however, often wondered whether it was not on account of the heat and moist condition of the atmosphere. With an almost saturated condition the plant throws but little moisture off, and the nectar rises in the nectar-glands of the blossoms. Such a condition may be obtained in a hot-house by means of heat and moisture, irrespective of any electrical condition ; however, I may be wrong in my deductions. I can not say conclusions, for to my mind the matter is an open question.—“Gleanings.”

**BEEKEEPING IN NORTHEASTERN
GERMANY.**

In travelling by rail through Germany I noticed that the northeastern section, approaching the North Sea, is mostly a level country, used for paturage and hay, and the people are chiefly engaged in dairying. There are, however, here and there, great stretches of elevated sandy land, densely covered with a low species of heather, that is a mass of purple bloom throughout summer and autumn, and here many people find it profitable to give some attention to bees. It is not uncommon to see two or more hives near a peasant's cottage, and occasionally you will see a collection of from fifteen to fifty hives cosily housed in an open shed built for their protection. These sheds are mostly made with two shelves, one above the other, so as to accommodate a double number of hives, and are well closed in the rear. Sometimes the sheds are built like a

house court, with a locked door entrance, thus protecting the bees from robbers as well as from annoying or injurious winds. The hives appear like a large closed stone or cement jug, with the entrance near the top, as indicated in the sketch. How the honey is taken out I can not say. It may be that, like the jug money-banks for children, those honey-banks have to be broken to get the honey stored in them.—Geo. W. Park in "Gleanings."

CAPPINGS.

Another lesson learned is to have the bees in the super if possible when the flow comes along, and thus avoid swarming. All told we have only had twelve swarms to date, and at least two of these were caused by supersedure. We know of some yards where the bees swarmed like fury right in the heavy flow at the start of the season, and naturally that would curtail the surplus. If we are able to hold the bees together now, they should be in great shape for the buckwheat, which will be sown around us, but unless we get rain soon, prospects will be nil in that line. Certainly there are bushels of bees that could make good use of any flow that might come along. To-day we extracted 2,000 pounds of honey at the Altona yard, and for the first time tried the capping melter. We have voted the arrangement a success, and it is certainly a source of satisfaction to have the cappings all out of the road when operations for the day are over, and unless something should change our minds, we shall treat all our cappings this way in the future. The melting tank was made by a local tinsmith, and the heat was furnished by a small gasoline stove that costs less than \$5.00. Some have thought that the machine would make the honey-house very warm, but we could not notice it whatever; in fact, would not have known the fire was

there if had simply to judge by the state of the temperature. From our limited experience we are convinced that these melters will be used almost universally are many, and so far we have not located in the near future, as the advantages many disadvantages. J. L. Byer, in "Canadian Bee Journal"

SUNDAY SWARMS.—It is curious how the bees seem to affect this day. Sometimes it seems as though there really were grounds for the old belief. No doubt the bees hear the church bells, and connect the sound with the "tanging" which used to accompany their exodus. But all Sundays are not swarming-days. Yesterday, an execrable day, hardly a bee left hive-shelter to face the north wind, and one strong lot threw out the unhatched drones whilst to-day I am writing these notes in the sunshine amongst the hives, with one ear open for a swarm. Well, for the swarming note.—L. S. Crawshaw, in B.B. Journal.

LIABILITY OF BEEKEEPERS.

A CANADIAN DECISION.

(By E. A. C. Lloyd, Barrister-at-Law.)

Since writing the article which appeared in the "B.B.J." for April 20, 1909, on the responsibility of beekeepers for injury inflicted by their bees, a Canadian decision on the point has come to our notice.

This decision, which is, of course, not binding on the English Courts, is yet binding on the English Courts would consider if a similar case occurred here, and would to a certain extent be guided by it and the law laid down therein.

The facts in the case were these. The defendant was the owner of 160 to 170 hives of bees, which he placed in a small yard, situated within about 20ft. of the highway. Immediately opposite this yard, on the south side of the road, was the plaintiff's property, consisting of a

field of about eight acres, which was in oats, and beyond it another field in buckwheat. In August the plaintiff was in the oat-field with a pair of horses and a binder for the purpose of cutting the oats, when the horses were attacked by a large number of bees.

The horses took fright and ran away to the other end of the field with the binder. The plaintiff followed them and endeavoured to free the horses, but he himself was similarly attacked, and only made his escape by immersing himself in a pool of water.

One of the horses died almost at once, and the other succumbed within two or three days.

Several questions were left to the jury.

1. Were the plaintiff and his horses injured by bees in ordinary flight or work or by the swarming of a colony of bees?

Answer: Ordinary flight.

2. If they were injured by bees in ordinary flight and work, were these the defendant's bees? Answer: Yes.

3. If the plaintiff and his horses were injured by the swarming of a colony of bees, had the bees swarmed from defendant's colony? No answer.

4. Had the defendant reasonable ground for believing that his bees were more dangerous than ordinary bees? A.: Yes.

5. Had the defendant reasonable grounds for believing that his bees were, by reason of the situation of the hives or their numbers, dangerous to persons or horses upon the highway or elsewhere than on the defendant's premises? A.: Yes.

6. At what sum do you assess the damages of the plaintiff, if the defendant be liable for damages? A.: 400 dols.

On this finding the defendant appealed, but the verdict of the Court below was upheld.

For the defendant it was contended that it was not proved that the bees which attacked the plaintiff were the defendant's bees. They may just as probably have been another neighbour's bees. It was also urged that the bee was a harmless domesticated animal not prone to attack men.

For the plaintiff it was argued that bees are *ferae naturae*; they are not domesticated, but may be cultivated; the owner harbours wild animals at his risk.

Mulock, C. J., in his judgment, said: "The right of a person to enjoy and deal with his own property as he chooses is controlled by his duty to so use it as not to affect injuriously the rights of others, and in this case it is a pure question of fact whether the defendant collected on his land such an unreasonably large number of bees, or placed them in such position thereon, as to interfere with the reasonable enjoyment of the plaintiff's land. I think the reasonable deduction from the answer of the jury to Question 5 is that the bees, because of their numbers and position on the defendant's land, were dangerous to the plaintiff, and also that the defendant had reason so to believe. . . . If he was making an unreasonable use of his premises, and injury resulted therefore to the plaintiff, he is liable. It was the defendant's right to have on his premises a reasonable number of bees, or bees so placed as not to unfairly interfere with the rights of his neighbour; but if the number was so unreasonable, or if they were so placed as to interfere with his neighbour in the fair enjoyment of his rights, then what would otherwise have been lawful becomes an unlawful act."—"British Bee Journal."

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