



LIBRARIES

UNIVERSITY OF WISCONSIN-MADISON

The Australian bee bulletin. Vol. 11, no. 6 September 28, 1902

West Maitland, N.S.W.: E. Tipper, September 28, 1902

<https://digital.library.wisc.edu/1711.dl/VECNQOG43FDOL8H>

<http://rightsstatements.org/vocab/NKC/1.0/>

For information on re-use see:

<http://digital.library.wisc.edu/1711.dl/Copyright>

The libraries provide public access to a wide range of material, including online exhibits, digitized collections, archival finding aids, our catalog, online articles, and a growing range of materials in many media.

When possible, we provide rights information in catalog records, finding aids, and other metadata that accompanies collections or items. However, it is always the user's obligation to evaluate copyright and rights issues in light of their own use.



MAITLAND, N.S.W. — ^{Sept.} AUGUST 28, 1902.

The following is a list of advertisers in our present issue:—

Supply Dealers.

R. K. Allport, Chuter St., North Sydney.
A. Hordern & Sons, Haymarket, Sydney.
The W. T. Falconer Manufacturing Co.,
Jamestown, N.Y., U.S.A.
Chown Bros. and Mulholland, Ltd.,
Thomas St., Ultimo, Sydney.
R. Beuhne, Tooborac, Victoria.

Queen Raisers.

W. Abram, Beecroft.
H. L. Jones, Goodna, Queensland.
Jas. McFarlane, Lyndhurst, Victoria.
Mrs. Jennie Atchley, Beeville Bee Co.,
Texas, U.S.A.
J. W. Miner, Ronda, N.C., U.S.A.
R. H. Jervis, Moss Vale, N.S.W.

Miscellaneous.

A. Hordern & Sons, Haymarket only,
Sydney.
Allen & Co, 242 Sussex street, Sydney
P. J. Moy & Co., 161 Sussex St, Sydney
W. L. Davey, Plenty Rd, South Preston
Victoria.

Foundation.

R. Beuhne, Tooborac, Victoria.

Read trip in the Scottish Highlands elsewhere.

For spring dwindling get new queens. Look up our advertisements.

No drug, unless awfully corrosive will kill foul brood spores.

The honey crop in the United States is expected to be very low this year.

Last season was the worst drought in America since the country was settled.

Read Mr. Beuhne's account of Bee Disappearance, page 126. We would like as many opinions as possible.

The secret of successful beekeeping lies in having strong colonies always ready to gather surplus when a honey-flow comes.

If honey candies in the cappings make vinegar of it. Soak the cappings and put the water when drained into a barrel with wire cloth on top.

Gleanings says:—"Some species of eucalyptus, known as gum tree, grow to the height of over 400 feet!" We sometimes have to go from home to hear news.

The Vinegrowers' Association in South Australia is urging the Government to allow the London depot of that State to fall into the hands of a private company. Why?

The production of honey in the United States in the year 1899 was 2,701,167 pounds less than it was in 1889, while the production of wax was 598,727 pounds greater than in 1889.

Honey Tins.—We prefer properly made new tins. In using old kerosene tins there is great trouble to clean them properly, so that the kerosene taste does

not go to the honey. There is also trouble in soldering. Even with new tins that are being sent away, it is safest always to put a little solder in the lids.

To find the Queen—About sundown, when the bees are ceasing to fly place entrance guards on the hive, then jounce the bees off. They will all run in through the zinc except the queen.

A Dr. Gandy, of Humboldt, Nebraska, U.S., keeps up to 3000 colonies, has made as much as \$25,000 in two years from bees. He keeps 25 acres under sweet clover, and the same under catnip, which enables him to keep 300 colonies where 100 could only be kept otherwise.

We would particularly call attention to an advertisement elsewhere, that there is for sale a bee supply and honey business. It is one of, if not the oldest established businesses of the kind in New South Wales. A well-equipped plant, most satisfactory reasons for wishing to dispose of same, terms very easy, and to a pushing and enterprising man of a mechanical turn, it should be a "good thing." We shall be very pleased to give particulars to intending purchasers.

Mr. Willyan advertises for a situation in an apiary. In writing about same he says:—I would be very glad if you will use your influence on my behalf, my obtaining a position means more to me than I can fully comprehend at present. I am proud to be able to say that I am as useful in the apiary as any man, having had eight years' experience. I have a good knowledge of the business in all departments, from foundation-making to queen-rearing and also am in possession of a tried and proven cure for bee-paralysis. You will know that my father holds a good position among the beekeepers throughout the land.

PUBLICATIONS RECEIVED.

The New Idea, a Woman's Journal for Australasia, contains 80 neat, closely-packed pages. The tone that runs through the letter-press in "The New

Idea" is good. It is essentially a journal for the Australasian home—its mistress and her bairns. Not a "mawkish" par is found in its pages. Its matter may not satisfy the blue stocking or the lady of mannish tendencies; yet it is entirely free from the stupid sensationalism of the "Lord-and-Milkmaid" order which permeates the flood of cheap English and American journals, which pour, each week, into the Commonwealth and New Zealand. We heartily recommend it to the patronage of our readers.

A TOUR THROUGH THE HIGHLANDS OF SCOTLAND.

Our old neighbour and fellow-beekeeper, Mr. J. F. Meiklejohn, late of Ard Glen, and who, some two years ago, left Australia to spend his declining years in the land of his birth, has sent us the following very interesting letter, which we feel assured, the reading of which will afford very great pleasure, not only to Scotchmen, but to beekeepers generally, and everyone of our readers. He has also sent us quite a number of very beautiful photos of the different historical places he visited:—

Dunblaine, Scotland, 14th August.

I see you still keep us in mind by frequently sending us a copy of the "A.B.B." which you may depend on I read with interest. I am glad to learn that the honey production is a more profitable speculation now that it was formerly, and I trust that the price may still further improve, the demand increase, and your production of the article double. Well, I am glad to say that we are still in good health, and rubbing along in as comfortable a way as possible. I am very contented on the whole with my lot but would like a few bees to amuse me, but I can't have them where we are at present; we are not isolated enough for that, but time and opportunity may come yet.

For our summer holiday we settled on having a run into the Highlands, where

there is so much that is attractive to all tourists, in their historical associations, and their natural beauties. We accordingly set out from here by train for Perth, where I was to meet my brother, who was to accompany me on our cycle runs further north. Mrs. Meiklejohn went by train on the Highland Railway to a place called Ballinluig, which we were to make a sort of centre from which we could go in different directions to other places at our leisure. We two took to the road with our bikes for the run of about 25 miles. The weather was superb and the roads ditto. After leaving Perth the country all around looked very beautiful, everything so fresh and green, with grand mountains towering in all directions. We soon pass on our right the ancient palace of Scone, where the Kings of Scotland were crowned in olden times, and where the stone of destiny which came into prominence the other day at the crowning of the King, was kept for many centuries. The palace is embosomed in wood, and has a venerable and beautiful appearance from the road where we were, but as the Tay flows between us and it, we had not the opportunity of exploring it and its more immediate surroundings as we would have wished. A mile or two on and to the left we pass close to Logiealmond, the Drumtochty of Ian McLaren's exquisite books, "The Bonnie Briar Bush" and "Auld Lang Syne." After a few more miles riding we came to Dunsinane (vide McBeath) and in from two to three miles more Birnam wood. It is there still though it appeared once to be on the move.

I will not be afraid of death or bane
Till Birnam Forest come to Dunsinane.

According to Shakespeare, strange things happened there and thereabout. We then came to the village of Birnam, modern-looking and very prettily situated on the banks of the Tay, and opposite to the ancient town of Dunkeld, with which it is connected by a very handsome bridge, built in 1809 by the Duke of Athole.

Dunkeld is surrounded by wooded and craggy mountains, and is a place of great antiquity, dating from the 8th or 9th century. About the year 1130 King David I. made it the seat of a bishopric, and a splendid cathedral followed, being added to and beautified in succeeding centuries. It is now in a very ruinous condition, and only the choir is in use, being the parish church. Many noted old Highland chiefs found a resting place without its hallowed walls. Pity it is that something is not done to restore the grand old building to something like its pristine grandeur. We explored the cathedral and the grounds surrounding it, which are very beautifully laid out. Dunkeld is said to have been in ancient times the seat of the Pictish Kings. After having a look through the town we once more got on the road. Immediately after leaving the town, we pass the entrance to the ducal abode of the Duke of Athole. Here we note that the porter is a stalwart highlander all "Plaided and plumed in tartan array." As we are now well into the Highlands we frequently meet with the people whose language is not that of their more southern countrymen, but who at the same time apply to all our enquiries in good English. Still we felt it a little strange when the person whom we would be talking to would turn round to one of his neighbours and talk to him in a language that we knew nothing of. I think it would take me a long time to speak the Gaelic language. We now come to Ballinluig, and I asked one of the natives there to direct me to a place called Blairchroisk. I fancy he may have his quiet chuckle over my pronunciation of the name, as the latter syllable, at any rate, is very different from the way he pronounces it. After getting on the wrong road and getting a mile or two added to our journey, with a very considerable amount of hill climbing, which was no easy matter, having a cycle to push along, we arrived at our destination and met kind friends and relations, some of whom we had not seen for 20 years.

Next day we did not go far afield but accompanied the gamekeeper on some of his rounds. At one spot in the forest we came to he gave a low whistle and hundreds of young pheasants came round him from all directions to be fed. They were as tame as chickens. I don't see where the great sport comes in, in shooting such tame birds. We had frequent opportunities of seeing some of the deer that inhabit the forest, but they will not stand for close inspection. In the afternoon we essayed to try the gentle art in the river Tummel, but found the trout there as wary as in more southern rivers, so our baskets were rather light. The Tummel is a fine river, and at certain seasons swarms with lordly salmon.

Next day we set out, our destination being Blair Athole. A run of four miles brings us to Pitlochry, a very beautiful town situated among the mountains, and a few miles further on we came to the famous Pass of Killiecrankie. The scenery here is very grand. The thickly wooded hills on each side rise to a great height, while in the deep and shaded depths flows the Garry River. The view from the Garry bridge both up and down the Pass is magnificent. At the upper end of the Pass there is a flat where the battle of Killiecrankie was fought in 1689, which resulted in a victory for King James VII., but where his general, the detested Claverhouse fell. A rude stone marks the spot where General Halliburton of Pitcur, who was in charge of General Macky's baggage, fell. Viscount Dundee fell about 200 yards from this spot, and was buried at Blair. Burns sings of Killiecrankie thus:—

I fought at land, I fought at sea,
At home I fought my auntie, O;
But I met the devil and Dundee
On the braes of Killiecrankie O.
The bauld Pitcur fell in a fur,
And Clavers got a clankie, O.
Or I had fed on Athole gled,
On the braes o' Killiecrankie, O.

Blair Athole is a beautiful place. Blair Castle the principal seat of the Duke of Athole is old, at least some parts of it, and surrounded with woods of larch

trees, the first of that kind of tree planted in Britain. We had a fine run back, and when at the Pass, a friend who was in waiting there procured our admission on to the grounds, where we could explore the bottom of the glen with its mighty roaring cataracts and deep gloomy pools. As the road from the Pass is a gentle incline, we on our free-wheel bikes had a very pleasant run back to our headquarters.

Next day we hired a large brake and took the ladies and children for a run to Loch Tummel. It was an ideal day and a thoroughly enjoyable time of it we had. Our late Queen took the same route at one time when she was touring the Highlands, and as there is much to interest one on the banks of the Tummel and Garry, I have no doubt she enjoyed such grand scenery. The spot from which the Queen viewed Loch Tummel is first-class, and the view from the Queen's Lookout is one to be remembered. We squatted on the shores of the Loch and had a nice picnic in Australian fashion, one or two of our company being Australians, understood the art of making billy tea.

Next day was spent rambling in the woods with some fishing in the Tummel.

On the following day started for a run to Aberfeldy, 10 or 12 miles distant and on the banks of Tay. On the way among many other interesting places we had a peep at Grandally Castle, the Tully-Vedan of Sir Walter Scott's Waverley, and the home of his Baron of Bradwardine, a very nice old mansion, still inhabited by some of the descendants of the old Baron. The grounds are beautifully laid out and are studded with fine old trees. Aberfeldy is a nice town situated on the banks of the Tay, the surrounding country being very pretty. I visited the spot where the Black Watch or 42nd Regiment was first enrolled. A very nice monument marks the spot of the regiment's first muster. The bridge over the Tay is one of those which are numerous in this quarter, and which was erected by General Wade, the great ro

maker. These roads were made for the purpose of penetrating into the Highlands about 200 years ago, thus enabling the Government at that time in keeping order among the more refractory of the inhabitants. Of course we visited the Berks of Aberfeldy—

While o'er their heads the hazels hing.

The little birdies blithely sing

Or lightly flit on wanton wing

In the birks of Aberfeldy.

The braes ascend like lofty wa's,

The foaming stream deep-roaring fa's,

O'erhung wi' fragrant spreading shaws

The birks of Aberfeldy.

It rains there sometimes, and as I unfortunately got caught in rather heavy showers I had to return to headquarters by train. Next day, Sunday, was very wet, went to church. Monday rather wet, and only had a stroll through the forest.

Tuesday we started for home, going by way of Loch Tay. As the roads were in a muddy state from the rain of the two previous days, I along with Mrs. M. took train for Aberfeldy. There we found the coaches in waiting for passengers for Kenmore and Loch Tay. As I could not get my bike by coach, I was obliged to take to the road for a six mile spin through mud and mire. I think I got the start of about five minutes, and some of the passengers on the coach with four horses, who were a bit anxious about me, never got sight of me the whole way. Muddy though it was, with hard riding I beat the coach by about ten minutes. It was a warm ride, and as I had to keep my eye on the road pretty closely all the time for fear of coming a cropper, I no doubt missed seeing many of the beauty spots along the way. One place I regret missing was Taymouth Castle, the seat of the Marquis of Breadalbane. I hurried on board of the steamer "Lady of the Lake," and in a few minutes she cast off and headed up Loch Tay. This Loch is about 17 miles in length, and the mountain scenery on either side is very grand. Our captain, a typical Celt, pointed out to me some of the interesting spots, one in particular where there was a great battle

between the Clans McNab and Campbell. I think it would be difficult in pointing out a place in this quarter where there was not any fighting in the bye-past ages. All is peaceful now. Thanks to our just laws, for the altered conditions in which we live at the present time. It would be well if some of the agitators of the sister isle would come over and take note of the order and quiet of a class of people, who manage to live in comparative comfort on smaller holdings and more severe climatic conditions than those of the distressful country. We hear of no land leagues or boycotting here.

In due course we arrive at the head of the Loch and land at a place called Killin, we have an opportunity of seeing here the Falls of the Dochert River. They, like other considerable waterfalls are very grand. We join the train from Oban for the South here, and after a pleasant run of a couple of hours through the country which were the haunts of Rob Roy and Clan Alpine, we arrive at our starting place quite satisfied with our autumn tour to the Highlands. After what we have seen of the "Land of the mountain and the Flood" we could almost chip in with Burns and seriously sing, "My heart is in the Highlands, my heart is not here."

I may say that beekeeping appears to be a considerable industry in the Highlands, and some of the apiaries are rather extensive.

Now, Mr. Tipper, I have written you a good long skit, do you think it worth while to insert it in the "A.B.B." It might interest some of your numerous readers, and give them a little idea of what a bit of Bonnie Scotland is like. Without doubt it is a bonnie country. Of course I took some photos on the trip. I will send you two or three unmounted, you can stick them on cards yourself. Mrs. Tipper I know will be pleased with them, as they are genuine bits of the land of her fathers.

Get your Honey Labels printed at
"Bee Bulletin" printing works.

VICTORIAN NOTES.

R. BEUHNE.

THE DISAPPEARING TRICK AGAIN.—A problem is sometimes solved in quite an unexpected way. A month ago I was worrying how I should manage the out-apiary at swarming time this season, as I have no skilled assistance, and beside looking after the home apiary have a good many other matters to attend to. The management of the out apiary does not longer trouble me, for there is little or nothing left to manage. The home apiary has come through in very good order, without loss of any kind, not even a single queen missing. Having finished the first spring examination at the home, I congratulated myself on the result and went to the out apiary quite expecting it to be in almost as good order. Judge of my surprise when I found that out of 50 colonies there were 12 left with enough bees in them to make their recovery probable, the rest were either gone altogether or had so few bees left that a dozen put together would not cover two combs. Having had a rather large experience in this line two years ago, and having the home apiary intact, I can review the facts more calmly than I could then. But so far as my opinion of the cause of the trouble is concerned, I can see no reason to alter it in the least, it still appears to me to be the only tenable explanation that the dwindling is the result of the shorter average life of bees raised (on food deficient in some respect or affected by some fungus.)

A comparison of the last entries in my record book, when wintering down, with the first this spring brings to light some remarkable facts. The honey-flow such as it was did not commence till the end of March, but lasted till the end of May, giving an average yield of 100lb. per colony for the out apiary. When I shut the colonies down for the winter they varied greatly in strength, while some were very strong and others of average strength, there were some very weak ones. All, however, had their brood combs

heavy with well sealed honey. Under ordinary circumstances I should have expected that the strong ones would come out well in spring, and that if any succumbed it would be the weaker ones. But a comparison of the records of June 14th and September 15th shows that not one of those strong in bees in June has sufficient bees left to be able to recover, several succumbing altogether. On the other hand the weaker colonies have lost very little in bees and are in much better condition. This seems at first sight to upset the old golden rule to have your colonies strong for the winter. I have my own idea as to the reason of this reversal of the usual order of things, but to get as many different views and aspects of the question as possible I refrain from giving my opinion at present and invite others to give their views.

I have had so far news of only one other apiarist suffering, and very severely, and if he does not publish his experience and experiments, I shall ask his permission for next issue. Let us know all there is known about it. In the meantime I have referred the matter to the Department of Agriculture and asked for an expert scientist to visit some affected locality to obtain all information and the necessary material for a thorough investigation.

AN INTERESTING CURIOSITY.—Under this heading *Deutsche Bienenzucht* publishes a two page article by the editor, (Aug. 1st), the curiosity being a comb built from a full sheet of foundation, all worker comb one side but with a large space of drone comb on the other side. The writer is of opinion that this has never been observed and described before. The conclusions he draws are a little far fetched in my opinion, as for instance, that the bees which built the drone cells were already under the swarming impulse, whereas those that built the worker cells on the other side were not. As for the curiosity itself, I have some half-dozen amongst my stock of combs, and if I am not mistaken there was one

of them in a set of combs I showed at the annual meeting of the V.A.A.

THE SEASON.—The prospects for the northern half of Victoria are by no means encouraging. There appears to be a great dearth of pollen. The usual supply from various acacias is quite insignificant and the drought is certainly the worst since I have been in this part. Unless we have a good downpour of rain soon we had better all be sent to the seaside to be soaked and restored to original dimensions like a dried apricot.

CS₂.

To the one who has never looked into the chemical science at all, the above will suggest a rebus, and he will whisper something like seeing crooked twice. But how inappropriate! for the beekeepers who read our "old reliable" American Bee Journal, I take it, rarely see crooked even once. To the one who has looked but little into the marvels of modern chemistry, C suggests Carbon—that which forms much of gunpowder, most of coal, and nearly all of graphite, and all of the diamond. S also recalls Sulphur, the same that coats the end of the match. And CS₂ means to him Bisulphide of Carbon, or carbon bisulphide. The 2 indicates that in a molecule of the liquid there are two atoms of sulphur to every one of carbon; hence the word bi-sulphide. I have been thus explicit as this substance is coming to have a very important part in our fighting of insects. The beekeeper finds it more pleasant to use in protecting against the bee-moth than is the sulphur alone. And so, before long, sulphuring will very likely be entirely superseded by sulphiding, which, by the way, is a newly-coined word, and will not be found, I take it, in the dictionaries.

The old-time use for this liquid was almost wholly as a solvent of rubber, and so the unpleasant odour of the vapour was rarely met except in the presence of the cobbler, who used it to form his rubber patch to shoe or boot.

The man in our country who has made the bulk of this liquid is Mr. Edward Taylor, formerly of Ohio. I visited this plant some years ago, and was much interested in his work and explanation of how he had improved the process of manufacture. He now makes it by a new electric process, which he has patented, and his factory in New York State is said to turn out 20,000 pounds daily.

It is made by passing the fumes of burning sulphur over red-hot charcoal. The gases of the two unite to form a vapour which cools into a liquid, and this is CS₂. This has a specific gravity of 1.29 at 30 degrees Fahr. It is exceedingly volatile, and when turned into one's hand cools it greatly by the rapid evaporation. Of course, it will evaporate more rapidly in a warm atmosphere, and when a large surface is exposed. If we throw a spray into a room the evaporation would be almost instantaneous. As it is one-fourth heavier than water, a little water turned into a vessel containing it will largely prevent evaporation, as the water remains at the top. Of course, it must be kept in perfectly close or well-stopped vessels, or when we go for it we will be met by emptiness, as have many druggists of whom I have essayed to purchase a little to use in illustrating a lecture.

The usual bisulphide is not quite pure, and is sold as "Fuma Carbon Bisulphide," a quite appropriate name as the disagreeable odor comes wholly from the impurities. When perfectly pure it is colorless as water, has a slightly acid taste and a sweetish odor, reminding one of that of ether and chloroform. When perfectly pure it can be poured on the most delicate fabrics, or on flour, and it will very soon evaporate wholly and leave not the faintest show of its previous presence.

The "fuma bisulphide," is slightly yellowish, and will, because of the impurities, often leave a stain, and so its use must be guarded. The vapor will not stain, and so in its use we are safe,

if we do not pour the liquid on the cloth or food products. I use it much in ridding my insect cabinets of other insects that are lured to eat them up. I put the cases into the box, close it hermetically by shutting the cover on rubber, and then pour the liquid through an uncorked opening into the box, so that only the vapors strike insect or the paper lining the bottom of the cases.

The vapor which can be detected in all parts of a large room almost immediately after spilling a few drops, is 2.63 times heavier than air, so it of course tends to settle. Thus, unless we use enough to saturate a box or room, the lower portion will be much more dense. This is an important fact to remember.

With care there is no danger in breathing this gas or vapour. If we are confined in it for long it results in dizziness, nausea, extreme congestion, insensibility, and death. In filling a mill which it is desired to rid of insects with its vapours, one may suffer considerable inconvenience if they fill from top to bottom, while by going from the bottom to the top, no trouble will be experienced. In this case one leaves from an upper window. It acts quite energetically on the heart, so those with weak hearts should use it with extreme caution.

We should always remember in using this substance that the vapors are explosive and very inflammable. A lighted cigar or match in a room containing the vapors would result very seriously. We must use the same caution as we would in using gasoline or naphthaline.

Bisulphide of carbon is now used in killing ants in their under-ground tunnels, as I have often described; in killing other subterraneous insects; in destroying insects in mills, warehouses, etc.; weevils in peas, beans, etc.; in destroying moths and beetles that eat our silk and woolen clothing; to some extent in killing insects on living plants by covering with close tent or box; and last, in protecting our honey from the ravages of the bee moth. It has strong disinfecting power. Meat will keep in its vapors.

USE TO PROTECT COMBS.

To destroy the bee-moth larvæ or caterpillars, we have only to turn the liquid into a close box containing the affected or suspected combs to be treated, in a perfectly air-tight enclosure. One pound is ample for 1000 cubic feet, or a room 10 feet each way; so we see it is not expensive. We must remember, however, to keep the cork—rubber corks should not be used—in the bottle or can holding the liquid.

It can be used with so much less trouble and danger than is required to fumigate by burning sulphur, that I feel sure its use is to become well-nigh universal.

The two cautions to be emphasized are: Be wary of fire; and exercise caution in reference to breathing the vapors.—PROF. A. G. COOK, in *American Bee Journal*.

WANTED, POSITION IN APIARY, by young person with eight years' practical experience. Guaranteed cure for Bee Paralysis. For particulars, apply,

M. WILLYAN,
Post Office, Echuca.

FOR SALE.

ON easy terms if desired, BEE SUPPLY and HONEY BUSINESS. Splendid opportunity for energetic man. Particulars

E. TIPPER, (*Bee Bulletin*)
West Maitland, or Willow Tree,
N. S. Wales.

TASMANIAN BROWN BEES,

ARE VERY

Hardy, & Good Honey Gatherers.

Young Laying Queens, 2/9 Each.

STRAND,
LONGFORD, TASMANIA.

SEASONABLE HINTS ON SWARMING.

[BY J. SUTTON.]

Providing that the bees have had plenty of stores, and have been kept dry and snug, they should not be showing an inclination to swarm. Now is the time to keep an ever-watchful eye on your best stocks. If it is desirable to increase your stocks, the best way is to obtain a good queen cell, and place this, together with a frame of brood and another of stores, or honey, in a separate hive. Five fairly good colonies may be made from one strong hive, and thus to a great extent prevent swarming.

As some, however, may prefer natural swarming, it is always best to clip one of the queen's wings. This done, you can wait the pleasure of the bees, and when the swarm issues the apiarist should be on hand to secure the queen, which will be found near the entrance, or hopping about, in a vain attempt to fly and join the swarm. When found, carefully pick her up and place in a cage—the Miller cage (to be obtained from any supply dealer) is a good and handy one for this purpose.

Having secured the queen, place her in some quiet, shady place, ready when she is wanted. This done, remove the old hive, with what bees are left in it, and put in its place a new hive, with frames of brood or full sheets of foundation; get the caged queen and push it into the entrance of the new hive, and you will soon find the swarm returning and entering their new home; let them get nicely settled, then go to some other colony and take from it a frame of open brood (cells having brood in all stages, but not capped). Be careful you do not take any bees; shake them all off the frame in front of their hive; place this frame in the centre of the new hive, close up; now open the cage and let your queen run in, and your work is done, so far as the swarm is concerned.

Now, to return to the old hive. Here three questions arise. If you want to

increase your colonies is the first. Next, you may not want to increase; and thirdly, you don't want to increase, but desire to replace the old queen with one of her daughters. We will deal with each case separately.

FIRST.—INCREASE.—Open up the old hive, carefully examine each frame, and find out how many queen-cells there are. Now, having done this, decide how many nuclei you will fix up. Cells may be found on several frames, or they may all be on a single frame, any number up to 20. At that, well, say you decide to make five nuclei, then pick the five best cells—and if on separate frames all the better—place one in each, another frame with brood, and yet another with honey, three in all. In this case you may remove them and place on any stand, and the bees, in most cases, would stop quite contented; but it is preferable to secure them as above, for a day or two. Having made up your five nuclei, cut out all the cells you do not want, and in case all the cells are on a single frame, you will need to cut out those you require in each nuclei. Be careful and cut them out with a sharp knife, place between two frames, and the bees will fix them up. After you have closed the frames together, just to hold them in position, now leave those until the young queen hatches out and gets fertilised. As soon as she has laid eggs in one or two frames, catch her and cut one of her longest wings. If you have other colonies and want to build up these nuclei quickly, take from any colony one frame of hatching brood, and give to each of the nuclei, being careful not to take along with it any bees. This will considerably strengthen and help to build up the same.

SECOND.—Where increase is not desired as above, carefully examine each frame in the old hive, and destroy all queen cells, then leave them until next day, or longer, only if left longer the frames will require to be gone over again for fear of new cells having been started; these

should be removed, when good brood frames may, after shaking all bees out of them, be placed in the brood nest, and empty frames taken out and placed in their places. This done, the old hive can be placed on top of the new hive as a super.

THIRD.—Where increase is not required, but it is desirable to replace the old queen with one of her daughters, in this case remove all queen-cells from the old hive except one, the **LARGEST**; place the hive on a new stand, that the young queen may hatch out and become fertilised; and so soon as she begins to lay and has a few frames with open brood, ready to make a good strong colony, go to the new hive, find the old queen and remove her; then, having disposed of the old queen, remove the new hive, and place the old one, in which you have the young laying queen, on its old stand. Place a honey board on top, when the new hive can be added as a super. [Note.—If desired to have the wing of the queen clipped, this should be done before building up.] Thus, you will have made a good strong colony, with a young queen, which will be ready to take full advantage of a honey flow, should such be available, and not any further trouble as regards swarming.

NOTE.—When building up for increase be careful not to give more frames than there are bees to cover them. Better to crowd them a little than to give too much room; and if you want a few good worker frames give starters, keep them a little crowded, and your object is gained. Where honey is preferred to increase, see your colonies are strong; five strong colonies will store more honey than a dozen weak ones will do in the same time.

Should it be the desire of the apiarist to prevent swarming, the only safe plan is to closely examine each hive every nine (9) days, and cut out all queen-cells. In cases where attention cannot be given during the swarming season, it is always best to use the Alley's Queen Trap. With those the swarm can come out, but the

queen is secure, and can be treated as described above.—*Journal Department of Agriculture, Western Australia.*

REPLACING QUEENS.

[G. M. DOOLITTLE.]

Replacing queens can be done at any time; but I find that the bees supersede more queens just after the main honey harvest for the season is over, in this locality, than at any other time of the year; consequently, where I wish to supersede queens for any reason I do it just after the basswood-honey season is over, as basswood gives our main honey-flow.

Where a change of the breed of bees is desired, then, of course, the apiarist must do it. The plan I use most and like the best, is to start queen-cells just before the basswood-honey yield closes when the bees are in the best possible shape to raise extra-good queens; then two days before these cells are ripe, or two days before the queens will emerge from them, I go to the colonies having queens which I wish to supersede, and hunt out the queens and kill them. Two days later the nearly mature cells are placed in queen-cell protectors and placed in these colonies.

Queen-cell protectors are a sort of cone-shaped affair made of wire cloth or wire wound in a coil just a little larger than the cell, and having a hole about the size of a lead pencil in the small end for the queen to come out through when she bites the covering from the point of the cell. They are used to keep the bees from destroying the cell before they fully realize they are queenless, or for any other reasons."

In nineteen cases out of twenty, young, thrifty, vigorous queens will be found laying in colonies thus treated, fifteen days later.

If you do not wish to raise the queens, that is your privilege; but the apiarist who raises his own queens is independent, and no one is a full-grown beekeeper till

he or she learns to do this. But you can send away for the queens if you so think. But I would advise you to raise a few queens, in any event. It is something you will enjoy after you once try it, and will be time profitably spent besides, as there is little or no worry over the introducing part with the cells.

With the old veteran there is little loss, and with the directions on the cages containing the queens there is little trouble. In this we are ahead of what they were a quarter of a century ago. As a few days without a laying queen is of little consequence at this time of the year I would advise, to insure against loss in introduction, that the old queen be killed from nine to ten days before we try to introduce a new queen to the colony, to prepare them so they will want a queen so badly that they will surely accept the new queen when given. During these nine or ten days they will construct queen-cells from which to furnish themselves with another queen, and also perfect and seal all larval brood, so that they cannot construct more queen-cells should all of these cells be taken off. Knowing this we proceed on either of these days to open the hive, shake the bees off the combs, so we can readily see all the queen-cells which may have been started, cutting or breaking every one off. This makes the colony 'hopelessly queenless,' as it is called, so that they are glad to take any queen that is offered them, so that the existence of the colony may be preserved. Now follow the directions sent with every queen, letting the bees eat the candy away till the queen is liberated, according to the instructions accompanying the queen.

If you do not wish to go to this trouble there is another way, which is usually successful. It is, to remove the old queen in the forenoon of a pleasant day; and at night, after the bees have all returned home, give them a little smoke; and when they are filled with honey allow the new queen to run in at the entrance, blowing in a puff or two after her. Do not open the hive in four or five

days, in either case, and you will rarely fail.—*Exchange.*

GETTING BEES INTO SECTIONS.

Usually there is no great trouble if conditions are favourable. The sections should, of course, be easy of access, preferably directly over the brood-nest, and as soon as there is any surplus to store the bees are likely to store it. Remember, however, that it is only the surplus that will be stored in the sections, and as long as there is plenty of room to store honey in the brood-chamber it cannot properly be called surplus.

There are, however, times—perhaps it would be better to say there are bees—which will continue to crowd honey into the brood-nest, when in all reason it ought to be putting it in the super. It will help very much to make them change their minds if you will give them a super filled with drawn out comb. Even a single "bait" section—that is, a section containing comb more or less drawn out, either with or without honey in the bait—will have the effect to hasten the work in nearly every case. In a season of failure I have had many a case in which the bait was filled and sealed and not a drop of honey in another section in the super. In some cases a single bait may have the effect to start the bees so much sooner that it will make all the difference between swarming and not swarming. It would take a good deal of money to induce me to put on supers without having at least one bait in the first super given to each colony.

Another way recommended by some is to take a super or a section, bees and all, from a colony that is working well at storing, and give it to the balky colony.

In tiering up supers of sections on the hives there is not entire uniformity of practice. There are some reasons why each added super should be put under those already given, and some reasons why they should be put over. If they are put under, the bees will be more prompt about beginning work in them,

and there is less danger that sections will be darkened by being on too long if they are some distance above the brood-nest than if they are directly over it. If the additional supers be placed over, the filled supers under them will be more promptly finished, and there will be a smaller number of unfinished sections at the close of the harvest.

Perhaps the best plan is that followed by many of the veterans, to put each additional super under if there is a fair degree of certainty that it will be filled, and when it is a matter of doubt to put it over.

When the flow begins to slacken, place the empty super on top, which will in a great measure prevent having so many partly filled sections, as the bees will usually finish the lower ones before going above, especially during a light honey-flow.—*Exchange*.

HUMOROUS.

Drones are brought forth in large numbers—too large, it would seem, since a colony with 6,000 or 8,000 drones will perhaps rear no more than two queens that mate but once in their lives. But it is necessary that the queen shall certainly meet a strong-winged lover when she flies forth. Her embrace is fatal to him. As for the other idlers and Alphonsos, they are killed off when summer roses fade. The workers come back to the hive almost empty.

"My!" puffs one bee, "I'm about tuckered. Hunted high and low and look what a little dab I got."

"Me, too," answers another. "In all my life, and I'm nearly four weeks old, I never saw times so hard and honey so scarce. Here, you get out of the way till I put my honey in that cell."

The drone takes his time about moving.

"Why'n't you get your own honey?" snaps the worker.

"Huh?" grunts the drone, stupidly, wiping his mouth.

"Why'n't you get your honey? Lazy, good-for-nothing thing! Us poor girls

has to slave early and late just to feed you, you loafer."

"A-a-a-h, go chase yourself! You're too fresh!" snarls the drone, shambling away.

"What's that? Did you hear what he said to me? Well, of all things! For half a cent I'd—I will, too. Get, now, Clear out o' this!"

"Got as much right here as you have," growls the drone.

"You have, eh? Well, I'll show you just how much right you have here. Come on, girls, 'Raus mit ihm!"

The crowd gathers, angry and resentful. They seize the luckless drone, by the coat collar and hustle him. The cry, "'Raus mit ihm!" becomes general.

"Don't be afraid of 'em. They can't sting. Lazy loafers! They'd eat us out o' house and home. There goes one! Head him off, somebody, catch him!"

The fanners, on duty at the door, clutching the floor with their claws and working their wings as if flying, thus making the air as sweet and pure inside as out, look up from their work and grin. "Serves 'em right," they say, "'Raus mit 'em!"

"Quit, now! Quit, I tell you!" The drones bawl. "I didn't do nothin'!"

That makes the workers laugh. "That's no lie," they chuckle. "'Raus mit 'em!"

The ejected drones coax the door keepers to let them back. "You know me. Let me in, won't you? Aw, now, I think you might."

"Nup," say the sentinels. "Can't do it. Orders, you know. Move on, now, or I'll——"

The chill night kills them, and the toads about the hives lay on fat for winter. Sometimes if the weather warms up and the honey flows again the drones get back, but as soon as expenditure exceeds income out they go for good and all.

When human society, now so imperfectly adjusted, shall have become as completely organised as that of the bees,

is this to be the fate of us men-folks? Let us be thankful that we live in these times, troublous though they be!—*Ainsley's Magazine.*

ON WOMAN'S DRESS FOR BEE-WORK.

In advising woollen skirts we lose sight of the fact that the honey-bee has implementations on the three little claws of its hind legs shaped like a hoe, a trowel and a rake, and these delicate little implements catch on the wool and cause no end of unnecessary annoyance to the bees. I know if I wore woollen skirts in the apiary the back, though "the apron covers the front," would be full of struggling, stinging little prisoners, caught on the fuzzy material. Nothing annoys me so much as to see somebody enter my apiary with a felt hat on. I always keep two or three straw hats and suggest an immediate change, with an extra veil.

Clean, starched clothes, and why not duck, short skirt with bloomers, no matter what color, so they are clean? I wear black cotton shirt-waists (because light colors fade and white soils so quickly), and clean cotton skirt. I rarely ever get a sting. I became so conceited about my method of handling bees that I rolled up my sleeves and went at a three-story hive with about 40,000 bees in it, and I got three or four stings. I reasoned it out and came to the conclusion that the arms and hands perspire more or less when warm, and the little bees in constant contact with the exquisite perfume from the flowers quickly discern that it is living flesh, and sting immediately. So I tried this experiment: I got an old pair of kid gloves, 3 or 4 buttons, and a size too large for me, so they will come well up on the wrist. Then I cut the finger-tips off to the second joint, and warmed beeswax and rubbed it well in, and then placed them in a warm oven so it would soak and permeate the gloves thoroughly. I have worn these gloves

for three years, and rarely ever get a sting. They never sting the gloves, and I can wash my hands, as the wax protects the kid.

The reason I cut off the finger-tips is, I cannot understand anybody handling the delicate little bees without being sensitive to every little creature that flutters on the hand; I should smash dozens, and could not work with despatch.—Mrs. F. S. A. Snyder, in *American Bee Journal.*

Rearing Choice Queens in a Super-seding Colony.

"If you can find any colony which shows by its building queen-cells outside of the swarming season that the bees are about to supersede their queen, you can rear as good queens from that colony, during the time that the old queen lives, as can be reared under the swarming impulse." "I am glad to hear that, for I found one of my strongest colonies building queen-cells yesterday, some having royal jelly and larvæ in them. But this colony has not my best queen in it, and I wish to rear my queens from my best queen. How can I overcome this difficulty?" "By doing what is known as grafting the queen-cells, which is simply transferring larvæ from your best queen over into the royal jelly in the queen-cells the bees have started, after first removing the larva that floats on this royal jelly. In this way you fool the bees, and they go on and perfect a queen from the substituted larva, the same as they would have perfected their own."

"But how can I be sure that the grafted cells are not torn down, or that others are not completed which I have not grafted?"

"By sticking a slim 1½-inch wire-nail through the comb immediately over the grafted cell you can tell all about this; and if you wish to secure as many queens from this colony as possible, while the old queen lives, you will open the hive twice a week and graft all cells having

royal jelly in them at each time of opening, and, later on, take out the ripe cells before the queens emerge. In this way you may get as many as from 25 to 100 splendid queens from this colony before the queen dies."—G. M. Doolittle, in *Gleanings*.

Beekkeeping in South Africa.

I may say at starting that my personal experience has been confined to the coast during seven years' bee-keeping, but I have travelled inland, so have met beekeepers and seen apiaries in other parts, and gained some knowledge of the circumstances in the different districts.

Most people coming out are not bound for any fixed spot, and the climatic conditions are so varied, owing to the broken nature of the country, that preparations cannot well be made beforehand. The country, too, is very little known from a beekeeping point of view, but there are districts where good results can be expected, whereas many other parts will furnish little surplus. They seem to do best in the bush country, where there are good streams and open grass plats, such as is found between the high veldt and the low country. This is very healthy for Europeans, but land is, therefore, difficult to get.

The indigenous bees would no doubt be the backbone of the apiary, as they are very numerous, and can be obtained by extracting from trees and holes or by capturing swarms. There are, however, difficulties to contend with owing to their frequently being of a savage nature, and to the fact that they almost invariably swarm out of the hive a day or two after being transferred into it. These are things, however, which the apiarist can deal with.

Under these circumstances it would, I think, be inadvisable to go in for the business with a view to making a living out of it immediately, but rather treat it as an adjunct to something else and build up the apiary as circumstances allow.—Correspondent of *Beekkeepers' Record*.

CAPPINGS.

From American and other Bee Journals.

HOW TO TELL FAILING QUEENS.—At any time when bees are all supposed to be breeding up, or at least to have some brood, a good queen will be found to lay her eggs regularly in the cells, beginning, preferably, in the centre of the combs and gradually extending until the outside edges of the combs are reached and in the same manner extending outward until the combs next the wall are reached. As soon as the first bees in the centre have hatched she will again fill the cells with eggs and so continue. A failing queen will not lay her eggs in the order above stated and she may scatter her eggs about in the combs so that when part of the larvæ is capped the brood has a very uneven appearance. A failing queen will also, upon the whole, be contracting the brood nest because she is no longer able to lay to the full capacity of the bees to care for larvæ. A failing queen will also be found laying in drone cells, wherever she may find them, in undue proportion and at any season that she may be failing and sometimes they will cease to lay worker eggs and lay drone eggs entirely. A failing queen can also be told, by the practised eye, from her general appearance, as she will become darker and smaller as the end of her days approach. Also she will be found moving more slowly and I have sometimes found them barely able to crawl. While the experienced eye may not be always able to tell just how old a queen is or just when she is beginning to fail, yet upon the whole they can do so, especially when their failing signs have become quite noticeable. Bees supersede their queens usually before they are too old for service, and when an apiary is once stocked up with a good grade of queens of a good stock of bees, the bees can, as a rule, be depended upon to supersede their queens at the proper time. Italians are very much better than

blacks in this regard and Holy-Lands and Cyprians can almost invariably be depended upon to do so.—H. H. Hyde, in *Lone Star Apiarist*.

How to ship virgins successfully is a mooted question, and while I believe it impossible to mail virgins without some damage to their longevity and egg-laying powers, yet I believe that with the right preparation they may be mailed with very little damage. My method is this: after virgins have hatched I allow all of them to take a bait of the fresh honey from the cells and after they are thoroughly filled put them in a small size cage and in which had been caged young bees that have themselves had a cleansing flight and are filled with honey. I fill the cage as full of bees as can be conveniently done, and when virgins are caged this way and do not have to go too long distances I believe that the majority will go through with little damage.—H. H. Hyde, in *Lone Star Apiarist*.

To ship comb honey safely put in starters so that the combs will be built better; and don't ship any combs except those that are fastened well to the wood. There is just one way to ship comb honey so that it will always get there right, that is, to make a crate to hold six or nine 24-pound shipping cases, with handles the whole length of the crate, so that two men can take hold, one at each end, and carry it out of the car without dropping it or kicking it around, or dumping it down. I have seen persons handle large amounts and not have a section break. Handles should be at the top of the box.—*Exchange*.

The best time in the world for the honey-producer to rear queens, and a very choice lot of them too, is during the swarming season. He can well afford to take the time to graft some of his swarming cells with larvæ or eggs from a choice breeder; then when those cells are capped, cut them out and put them in nuclei. This is a very simple and easy way to raise queens, and is, in fact, if I mistake not, the one practiced by some of our

most successful honey-producers who have become convinced that such queens are remarkably strong and vigorous. The next best colony, according to our experience, is the one that is trying to supersede queens. Indeed, we consider such a colony a prize, and set it apart and keep it breeding and filling out cells.—*Gleanings*.

Prime swarms usually come out from 10 to 2 o'clock and need close watching. I manage the issuing swarm with water, and can drive them so that they will not cluster out of reach. Last summer I used a dipper to throw the water, but a spraying bucket is better. When the swarm has clustered I take and shake them on a white cloth in front of an empty hive. Then may be seen a wonderful sight. A moment after the tumultuous fall, you will see them as if obeying some order, turn their heads toward the entrance of the hive and march like a vast army in and upward until they reach the top of the hive, hanging on to each other until they form a dark curtain, and wait for the mysterious secretion of wax to take place with which to build the walls of their new city. Some of the swarm are detailed as guards to the entrance, and some inspect every crevice of the hive and clean and glaze the walls and fill every seam with propolis. The guards at the entrance keep out intruders, and woe to the stranger who comes. But if any of the worker bees come from the field with soiled wings these guards act the part of dressing-maids, and carefully attend to their toilets, for no bee may enter the immaculate city of the queen with soiled garments, for bees are almost fanatically cleanly.—Mrs. C. A. Bell, in *American Bee Journal*.

Bees are creatures of habit and after storing in a certain place, other things being equal, they will go on in that place more readily than they will commence in a new place. But always the desire to have their stores near the brood-nest is stronger than the habit of storing away from it, and they will store elsewhere

only when compelled for want of room in the brood chamber. What I mean is, that after filling up two or more combs in the brood-chamber they will then as readily form the habit of storing in the super as they would have done in the first place if they had not had those two or more combs to fill. Give a colony an extracting super, and keep it restricted to that one story, emptying it often enough to give them room, and after having the habit of storing in that one story continued during three weeks time give them a second story without emptying the first, and see if they will not as promptly enter the second super as if it had been given two weeks sooner.—*Exchange*.

Dr. Miller, in a "Stray Straw," in *Gleanings*, comments on the danger of Cuban honey deluging the markets of the United States, in part as follows. "But we ought not to be selfish. It would be a great blessing to the country if honey were so cheap that it would take the place of half the 65lbs. of sugar annually used per capita, even if it drove us all into some other business." A writer in the *Canadian Bee Journal* says:—That may be alright for an unselfish man like the Dr., but I just wonder how many of us selfish fellows would like to be driven into some other business by honey at less than 3 cents. per lb.

HOW THE BRITISH BEEKEEPER THINKS. —May I here, in view of the harvest that is drawing near, express the hope that no B.B.K. will enter into competition with the foreigner in disposing of his honey? While some people will buy the imported article because of its cheapness, British honey of good quality commands a price that makes beekeeping from a monetary point of view worth labouring for. I have occasionally obtained 1s. 6d., frequently 1s. 3d. for 1lb. jars and sections, never less than 1s. Rather than sell it for less I would—eat it.—Correspondent *Beekeepers' Record*.

Last year, was an exceptionally hot and dry season, and the honey season was

scant and slow. The bees simply went crazy, and when I raised the extracting supers and put in sections they just made queen cells on the brood in the upper story, and left without beginning on the sections at all. We began as usual hiving swarms on starters in a new hive on the old stand, but usually the swarms would come out again the next day. Sometimes they would loaf in the hive two or three days, gnawing off the starters, but doing nothing else. Sometimes a little comb would be built, a few eggs deposited and the queen cells started, and the swarm would come out again. We tried hiving on old combs and on full sheets of foundation, but got no better results than with starters. I exhausted my ingenuity, patience and resources in trying to satisfy them. Near the end of the season I began killing every queen that came out the second time, and giving her bees either a newly hatched queen or a frame of brood with a good queen cell the next day after the old queen was destroyed.—Correspondent of *Rocky Mountain Bee Journal*.

At present Jamaican honey gravitates toward England, and more of it would go there if more attention were paid to quality. Here is where the tropical bee-master comes to grief. Even as I write, Jamaican honey (best quality) is selling in England at 5 to 6 dollars per 100lbs., while best California is bringing \$10 for the same quantity. And I may add, without offence, that California depends very largely on foreign markets; and if Great Britain were to adopt a protective tariff the former would be hard hit.—*Gleanings*.

California and Colorado produce large quantities of honey in comparatively small areas, hence the conditions are more favorable for the formation of an Exchange or Association than where there are many, less extensive, producers, scattered over a large extent of country.—*Rocky Mountain Bee Journal*.

For retail purposes the larger the town the smaller the saleable packages. *Each'e*.

MORE GOING FROM HOME TO HEAR NEWS.—“*Bienenvater*,” a German bee journal, has the following: Australia—Bees are very successfully and profitably kept in Australia as is well-known. Of late years a new enemy, a beetle, *Thilothus Macleayi*, has been discovered troubling the bees. Formerly this beetle secured his sustenance from certain nectar-secreting blossoms, but the Entomologist, Fraggelt, has observed that for two years past it has found an easier way to secure his living. He enters the hives and takes the honey from the comb. The insects make their raids after sunset and during the night, sometimes in large numbers. One beekeeper, in Rumpung Cooma, caught in one night seven liter full of the robbers by trapping them in dishes filled with honey water placed at the entrance of his hives.

“Do this as rapidly as possible,” says Adrian Getaz, in speaking of finding a queen. I’m not sure that I ever saw that in print before, but *rapidity* is an important factor in the case. The queen is constantly trying to get away from the light, and if you work *slow enough* you may be pretty sure of having to lift out every comb before finding her; whereas if you had been lively you might have found her on one of the first combs.—Dr. Miller, in *Gleanings*.

G. M. Doolittle says in *American Beekeeper*:—I would always advise leaving honey on the hive till it is sealed, with the exception of times when other honey of different colour or inferior nature is likely to be mixed or stored with it. Other things being equal, the fewer unsealed cells there are in any section of honey, the better price it will bring in the market, and all should strive to put their honey before the people in the most marketable shape. But where there comes a time or season where dark or inferior honey is likely to be mixed with the white or best, the “other things” would not then be equal; hence I think it better to take off all sections, whose combs in which are three-fourths sealed,

when this dark honey is about to be mixed with it, and try to ripen them so that they will be fairly good for market, for such sections of honey if properly attended to will bring very much more than they would after they were left on the hive for completion. The “properly attended to” consists, in my opinion, of storing said honey, as soon as taken from the hive, in a dry airy room, which can be kept at a temperature of about ninety degrees, for, in such a place the honey will be growing better all the time, whether sealed or unsealed. In this way honey soon becomes so thick that the honey in these unsealed cells will not run out in crating or marketing, and if tipped over so that the cells stand on end, as it were, not a drop will be found to daub other sections or the case or counter where it is stored. If the reader has been a close observer he has noted, that it is the “dauby, sticky mess,” that is always used as the reason why honey that is unsealed should not be taken from the hives. Why honey in unsealed cells seems to swell, and gets thin and sour, and runs all over things, is because the honey is kept in an improper place, such as a cellar or other cool damp room, where the best of honey will deteriorate in time and become unfit for food.

A PAPER HONEY-HOUSE.—I have an 8x8 paper shanty, tarred paper without and resin-sized within (both outside of the framework) with a lath roof to hold the paper up, but no laths in the walls nothing but the paper and the frame-work and it has stood fifteen months, and seems almost as good as ever. It seems likely to last two or three years without renewal; and then I would simply add another layer of tarred paper and let it stand another two or three years. The framework is permanent, and the cost of the paper is so trifling it hardly matters. I much prefer that kind of a makeshift to a canvas tent over a framework. I have had two tents two years, and they are now full of holes. By using only laths, with not too many smooth nails, which

can be stripped off in short order, the work of renewing a panel or covering the whole thing anew is made swift and easy; and the laths hold it well enough. It does get hot in summer, but the colour can be fixed. See this panel, which I painted a few months ago with water paint for an experiment. You see it sticks all right and is perfectly white. The tarred paper gets so dry and fuzzy after a short time, it seems likely any sort of a wash would stick. I shouldn't wonder if common whitewash would do; if it won't, the water paint will. If the staring white is objectionable, you can tint it any colour you like.—MR. THOMPSON, in *Progressive Beekeeper*.

As a boy I was a great and intense fancier of pets. Some 12 years ago I went into the Brown Leghorn business, paying five dollars for a sitting of premium eggs, and had a good hatch. But all got the swelled head. That was easy to get along with. I had lots of sure cure, warranted to cure swelled head, so I cured up a trio—two pullets and a cockerel. In breeding from those I had lots of swelled heads for five years, and, by the way, I had one chick hatch from that first setting with as beautiful a swelled head as I have ever seen. I went into fancy pigeons; purchased a pair of Nuns, kept them three years and never raised but one young one—all died with canker when from one to three weeks old. I exchanged eggs with other pigeons, and the Nuns could raise the other pigeons every time, but the other pigeons could not raise Nuns. I had lots of fun trying to cure canker with "sure cures," and I learned that the disease was transmitted in the egg. Cut the heads off; don't breed from diseased chickens that you have cured. I have had no diseased chickens of any kind for five years. I have had several cases of bee-paralysis. Take an axe and cut the queens head off, introduce another queen and the cure is complete—providing you do not introduce another diseased queen. Rear long-lived healthy queens, and rear them in a

natural manner. I care not how long you get their tongues or tails. We want bees for business, not for fancy.—DR. E. GALLUP, in *American Bee Journal*.

INTRODUCING BY TOBACCO.—Briefly, after receipt of the new queen, dequeen your colony or colonies and send four or five strong puffs of tobacco smoke in at the entrance to the hive. Do not smoke them too much, but just enough to be sure that all the bees get a good dose of it. Liberate your queen immediately and let her run down in between the combs and send a puff of smoke after her. Let them alone for about five minutes, and then give them another dose of the smoke equal to the first. This will intoxicate the bees more or less, and by the time they have recovered from the spree they will forget that there has been a change of queens. This method is a good one, but is not always infallible.—Writer in *Rocky Mountain Bee Journal*.

Little ants can be got out of hives and supers by a piece of gum camphor, about the size of a common bean, tied in a piece of cotton or calico rag, placed in their nest and the hive closed.

Generally speaking a young queen cannot be heard piping, but on a very still evening a queen may be heard when you are standing some little distance from the hive. The right way is to go to the colony after bees have stopped flying in the evening, and put your ear tight against the hive. You may then hear the free queen piping in a shrill voice, and the queens yet in their cells quahking in reply, in a coarser voice.

BETTER NOT ESTIMATE.—As the bee business differs so much from other kinds of business it is well not to depend too largely upon figures. It is an easy thing for a person to sit down and figure out just how much his bees will net him. If these figures alone could be depended upon the bee business would soon make a man rich. If a man should gauge his expenditures according to what his figures would seemingly allow, he would soon be ruined. It is best not to look at these

figures too much. We have all heard of the bee-fever, and it is most generally with a person thus possessed that trouble and disappointment comes. Glaring estimations will lead them astray; in fact, just such estimates and figures have been the cause of many a bee-fever. Then there is the danger in that such a person cannot be advised. All the advice in existence cannot save him. It is well enough to plan ahead, and keep account of sales and expenses, but if the inexperienced should base everything on figures disappointment will be the result.—*Lone Star Apiarist*.

Transposing a strong and weak colony for the purpose of strengthening the latter, causes a disturbance of the natural balance of parts of the populations, but the results are seldom appreciably harmful. Each lot of field bees on returning to the old stand and entering the now strange hive will run about as if queenless, often continuing such actions for twenty-four hours. If the lesser of the two colonies chances to be very weak its queen is often killed by the alien bees.—*American Beekeeper*.

Bees have some discrimination in the matter of collecting pollen, and if there is an over-supply in the hive they will let up on the gathering, no matter whether they have a queen or not. When a colony loses its queen, the workers keep right on gathering pollen just the same, but when the combs begin to be well supplied with pollen then they desist from gathering. So when a colony is carrying in no pollen, it shows that it has been queenless for some time.—*A. Bee Journal*.

A method that did in all cases prevent strong colonies from swarming, whether they had contracted the swarming fever or not, was to remove all the brood, give empty frames below, and use either drawn comb or full sheets in the upper story; and when this was done the bees drew out the foundation more readily than they did when there was brood below, probably because they had no intention of swarming, and this method gave us the largest amount of surplus of any plan

I tried. But almost all the colonies so treated built a large amount of drone-comb below.—G. W. Demera, in *Gleanings*.

The best redgum forests now left in Victoria are along the valleys of the Murray and Goulburn Rivers. The Barmah and Gunbower state forests are about the best. The frontages of all the permanent streams in the North and North-Eastern districts have been reserved, and on many of these are fine belts of box timber.—*Australasian*.

To get bees to remove honey from the brood chamber to the supers take a three tined fork, and tie the tines together with wire, if they are not of the right distance apart. Make it so the three tines will strike about the centre of the cells of honey, and scratch the combs of sealed honey with that. It will make the bees empty it. Another way to get the thing done is to take a wire hair brush, and just tap the comb all over, so as practically to open all the cells, and then the bees would be tempted to empty that. If the queen is so old that she is not doing any work at laying, that will make no difference, but if she is a queen two or three years old, the likelihood will be, if the honey is coming in plentiful or not, that will help to take it up.

Does clipping queens' wings cause them to be superseded by the bees? Yes, if done in a bungling manner; no, if done rightly. Only half of the large wing, on one side, should be clipped. If both wings on each side are clipped close to the queen's body she is most certain to be superseded very soon after such clipping.—J. K. MASSIE, in *Beekeepers' Review*.

A site in the Cork Exhibition grounds has been selected, and upon it the Department will erect a mammoth straw skep, within and around which will be collected specimens of all things, great and small, associated with the culture of the Honey Bee. The skep will raise to a height of twenty feet. It will be lighted by electricity. It will contain exhibits of bees and bee-flowers, honey

and wax, mead and vinegar, hives and requisites. It will be the biggest thing of its kind Ireland has ever seen. Thousands of visitors from all parts of the world to the Cork Exhibition will, for the first time in their lives have the interesting experience of walking boldly into the old-fashioned home of the bee, there to examine the best that Ireland can produce of the products of apiculture."—*Irish Bee Journal*.

Another great drawback to beekeepers is the (we think) mistaken idea of cutting alfalfa before it blooms, with the desire of getting three or four crops. Such early cutting gives less hay and of an inferior quality. A less number of cuttings would really give more hay and of a better quality. Alfalfa cut before it is in full bloom must be so thoroughly dried before stacking that a great many of the leaves are lost in the handling and the balance bleached or it will stackburn, and in either case a poor quality of hay is the result—a hay that neither measures nor weighs well, nor will it give any satisfaction to either buyer or feeder. I think beekeepers should get these facts fairly before the farmers, as it is so clearly to their advantage to heed them.—*Rocky Mountain Bee Journal*.

An American says:—If I were in the queen-rearing business, I would advertise my bees as having unusually short stings, and an unusual inclination not to use them.

Is a bee a domestic animal? was the question that came before an Essex bench last summer. A man applied for a warrant to restrain his neighbour from pasturing his bees upon his—the plaintiff's—flowers. He complained that bees invariably stung him whenever he came near them, and that, fond as he was of his flower garden, his neighbour's bees prevented his getting any enjoyment out of it. The magistrates decided that they could not interfere.

Some beekeepers will not place the escort bees received in a cage with a queen, the reason being that the presence

of strange worker bees would hinder the cordial reception of the queen. The deportment of the queen herself has something to do with her reception, and she may not be so ready to make friends with strange bees so long as some of her own daughters are at her side. Besides, the bees of the queenless colony might have some animosity to the strange workers, which would make them less friendly to the queen. In most cases, however, the queen will be received kindly without her escort being killed. If the escort is to be killed, it should be done before the cage is put in the hive at all.—*Exchange*.

Black tarred paper is recommended by A. C. Miller, in *American Beekeeper* for winter covering of hives. The black surface of the paper absorbs the sun's rays, and the hives are warmed through and through, and yet the bees do not seem to fly abnormally or in unseasonable weather.

A hive may be apparently queenless, yet have a virgin queen. In such cases give a frame with larvæ. If queenless they will raise queens from this larvæ. If not queenless it will prevent the swarm going out when she goes to mate.

There is nothing better than enamel cloth over sections when on the hive. The bees do not glue it so tight as they do a board, and if you wish to see how the bees are progressing, just fold back one corner and peep in, keeping the bees back with a little smoke.

C. Meyer, in *Centralblatt*, quotes from Cowan's Guide Book (although I do not find it in my English edition) the following plan to prevent swarming: Having two strong colonies, take from the first all brood, replacing with empty combs or foundation, and put the combs of brood in a second story over the second colony. This seems based upon the paradox that a sufficient increase of unsealed brood will prevent swarming.

Rubbing whisky on the stung place is said to cool the fever of bee stings, and ease the pain at once.

QUESTIONS NEXT MONTH.

14. What is the best Colonial timber for making hives and frames?

15. At different times we have come across cases in which the bees have disappeared from the hive, though the latter was full of honey. Would the amount of honey have restricted the room for the queen to lay in, and thus caused the extinction of the swarm?

16. Mr. Beuhne's disappearing trick, page 126

SOMETHING VALUABLE.

Mr. A. Wyton writes us the following:—In the "A.B.B." page 160, for Oct. 1900, the use of diluted honey instead of tea, coffee and sugar is recommended to persons suffering with kidney trouble. I for many years have suffered more or less with kidney trouble so I put it to the test, and in a very short time I was greatly benefitted by it. I used it at once and still use it and intend to do so, and can honestly advise all beekeepers who have pains in the back to use the same themselves, and recommend it to any person so afflicted. By so doing they will benefit themselves and the honey industry.

WAX AND HONEY PRESSES.

Mr. C. H., Waikato, New Zealand, writes:—Will you kindly give description of best sort of honey press for capping.

[In reply to the above we have had every satisfaction for the past two years with Mr. Pemberthy's press. This year, however, we have an early spring flow, and the honey has candied in the cappings, so that the press would not work, and have now got a strong solar extractor from Mr. Anderson, of Hexham, N.S.W. Probably Mr. Burke's complaint in a recent number of "A.B.B." was honey in cappings candying in cold weather. From what we have seen of it it is an improvement on any solar extractor we have had previously. We will speak more of it in our next issue. Mr. Pemberthy's press is all one could wish for in warm weather and with honey that won't soon candy. The cappings we could not work with the press we washed in rain water, and put in barrel with top covered with wire cloth, only to make vinegar. Mr. Pemberthy's press might be improved by means of a lever live with a cheese press instead of a screw.]

CORRESPONDENCE.

G. L., Jamison Town.—If we had many seasons like the one we have just passed through, there will be no need to us of bee papers.

A. W., North Killarney, Q., 9th Sept., 1902.—I have not received any benefit from bees yet, and the few bees I had died from starvation in June 1901, but I intend to have bees next month.

W. H., Tarcutta, 5th Sept.—I had a very bad season last year, but hope for a better season this year. Trees have plenty of bud, but I am afraid they won't come to much if we don't get more rain. We have had a nice fall last week but that will soon be gone if we don't get more. I have got about 50 hives and I only got 13 60lb. tins, the year before I got nearly 100 tins from 40 boxes.

E. J. W., Boggabri, August 25, 1902.—I have been kept so busy during the dry weather trying to keep my stock alive that I have had very little time for anything else. We had a very nice rain last week which has given everything a start. The bees did very well with me last season and are building up well now, in fact some of them want a little honey taken from them to give the queens more room for laying. I have always received the "A.B.B." regularly, and would feel quite lost without it now.

A. H., Tarcutta.—The "A.B.B." comes along regular every month, full of information for the beekeeper. The past season with me has been a severe one. I only extracted 500lbs. of honey, but they have gone through this winter without any casualties so far, and should rain come this month, we will have an early flow as the buds on the gums are ready to burst. I have sold a good many 60lb. tins this winter at 17s 6d per tin. I am now selling at £1 per tin. Now we are getting a good price for honey we ought to try

and keep the price up, and not sell under 3d per pound, but I believe that there are men who follow beekeeping would sell at just whatever they are offered. Those kind of beekeepers ought to throw the business up, and give the man who makes his living at beekeeping a chance.

F. B., Broadwater, September, 1902.—I am away from home and bees too from one week end till another and have to take an occasional look at them on Sunday, but they have all pulled through so far, and are fairly well supplied with stores and a fair amount of brood. Can you form any opinion why it is that candied honey fetches a penny a pound less than liquid honey, that is by sending it to the commission agents, and yet when you sell it privately your, or rather my, customers always cry out for candied honey in preference. I sent candied honey to Sydney, it fetched 2½d per lb., and the agent informed me he had a ready sale for liquid honey at 3½d per lb. I sent him down some two days after it was extracted, it was a first-class honey and very clear. I received no reply from them, and five weeks after I wrote to them asking had they ever received the honey, when they sent a cheque back 2½d per lb., as it must have been candied. That is their yarn. So it seems we are at the mercy of Sussex-street agents, and their advertisements are not to be relied upon; such are the misfortunes of the poor beekeeper. We have been very fortunate this last winter in regards the weather. The district is looking remarkably well, and every indication of a splendid season. Trusting you will have success in every way.

[We take it the customers of the Sussex-street people don't like the trouble of getting the honey out of the candied state. It would perhaps be better for honey liable to candy to be put up in retail packages for grocer's purposes. We find our customers are often asking for candied honey, some preferring it to liquid.]

F. W. P., Elsmore, September 24th.—White box bloomed with us last winter. Ironbark is blooming, but my bees have not found it yet, it being four miles away.

I got quite a crop from there four years ago. The bees at present are doing badly, a few yellow box trees out in bloom and not much in it. They are taking flour very eagerly for a month past, have taken nearly 500lbs. flour; some hives do very well on it, but a great number of them have irregular and pinched brood. It is hard to get any other meal here as the millers won't be bothered with it. We want a little more rain now to push on the grass etc. that has made a fair start. We have had four inches of rain which will insure a fair honey crop if the bees get a chance to build up.

Algeria is reported in the *Leipziger Bienenzeitung* as having 24,776 beekeepers, with 229,143 colonies of bees.

Doolittle says queen-cells should be rather more than five-sixteenths in diameter. Call it five and a half sixteenths—that just a third of an inch. Then we have: worker-cells five to the inch, drone-cells four to the inch, and queen-cells three to the inch.

Question at Ontario Convention—Which is the best race of bees? Mr. Hall: All of them. I haven't a pure bred bee in the apiaries and don't want them.

In and in breeding is not harmful. It is the lack of ability or experience to apply it that results badly.—Professor Benton.

BEE-FARMERS' *Wm* *Wm* ASSOCIATION.

WILL those who EXPORTED HONEY last year through Farmers' Co-operative Co., communicate with undersigned with a view to united action re loss on consignments.

W. HESSEL HALL, M.A.

President Bee-Farmers' Association,

EMU PLAINS.

IF YOU KEEP FOWLS,

—YOU SHOULD READ—

The Australian Hen.

THE ONLY POULTRY PAPER
PUBLISHED IN AUSTRALIA.

—):o:(—

Send for a sample copy (a post card will do)
which will be mailed free by return, if you
mention this journal.

—):o:(—

Address—THE MANAGER,

‘The Australian Hen,’

204 George-Street, Sydney,

And Woy Woy, N.S.W.

Superior American Breed

ITALIAN QUEENS

From “THE LAND OF FLOWERS.”

THESE I breed being situated in the southern
parts of U.S.A. I make it a specialty to
breed queens unsurpassed for business, etc.; these
are the long-tongue strain according to E. R.
Root (Editor “Gleanings”) and other measure-
ments. Choice breeders, 6 dollars each; Tested
and other grades quoted in my 1901 free catalogue
10,000 names wanted, so write and find out
particulars concerning free 3 dollar queens.

Trial orders will prove satisfactory, and that
my strain is not surpassed. To avoid rush have
orders booked early. Safe arrival. Satisfaction
guaranteed at prices quoted.

PORTER A. M. FEATHERS,
SUPERIOR QUEEN BREEDER,

Oak Hill, Volusia, Co., Florida, U. S. A.

Mention “Bee Bulletin” in replying.

TO BEEKEEPERS.

FOR HIGHEST PRICES and PROMPT
RETURNS CONSIGN YOUR HONEY,
WAX, Etc. to

P. J. Moy & Co.,

161 SUSSEX-STREET,
SYDNEY.

SCALE OF PRICES.

FOR
ADVERTISEMENTS

IN THE

Australian Bee Bulletin.

HALF PAGE—Per Annum, £5.

“ Per Half Year, £3.

“ Per Quarter, £1 15s.

QUARTER PAGE—Per Annum, £3.

“ Per Half Year, £1 15s.

“ Per Quarter, £1.

NE-EIGHTH PAGE—Per Annum, £1 15s.

“ Per Half Year, £1.

“ Per Quarter, 12s.

SINGLE INSERTION—First Inch, 3s 6d.

“ Succeeding, 2s 6d.

If booked, 10 per cent. extra added to the
above rates

SEND
YOUR
VOLUMES



—OF—

A. B. B.

—TO US—

For BINDING.]

 Post Paid for 3/6.

WESTERN AUSTRALIA.

MR. J. B. KLINE, Guildford, SADDLER and
HARNESS MAKER, and Secretary of the
Western Australian Beekeepers' Association, is
Agent for the “A. BEE BULLETIN,” and is
authorised to receive Subscriptions and Adver-
tements for same.

E. TIPPER,

“A. BEE BULLETIN.”

ALLAN & CO. COMB FOUNDATION

—MADE OF—

COMMISSION AGENTS,

242 SUSSEX ST.,
SYDNEY.

Special Attention Given to
Consignments of
HONEY AND WAX.

HONEY TINS SUPPLIED

SEND FOR PRICE LISTS.

BEST ITALIAN QUEENS.

Having gained the high reputation that my knowledge and experience in Queen breeding, enables me to supply QUEENS SUPERIOR TO ANY. As I breed for MOST DESIRABLE QUALITIES COMBINED (Tongue included—not tongue alone), and desiring to maintain that reputation, I again submit for your consideration, the fact, that I can supply to satisfaction :—QUEENS (Untested), 5/-.

Tested one, 10/-; three, 25/-; six, 45/-
Select Tested „ 15/-; „ 40/-; „ 70/-
Extra Choice „ 25/-; „ 60/-;
Also Swarms, Stock Hives, and Implements.

W. ABRAM,
THE ITALIAN BEE FARM,
BEECROFT, NEAR SYDNEY.

The First Bee Farm in Australia. Established
22 years. Always Winner of Most Prizes.

The Lone Star Apiarist.

For Bee-Keepers
By Bee-Keepers

A Monthly Journal. One Dollar a Year.

Published by the

LONE STAR APIARIST PUBLISHING Co.,

Floresville, TEXAS, U.S.A.

* PURE + BEESWAX.*

Langstroth size :—6, 7, or 8 sheets to 11b, 1/10;
10lbs, 1/9; 20lbs, 1/8.

Section foundation, 12 sheets to 11b, 2/6.

Special quotation for large quantities of foundation.

Beekeepers' own wax made into foundation at
1d per sheet. Section foundation, 1½d.

A perfect article, samples on application.

THE RAPID NOISELESS FOUR COMB EXTRACTOR,
with brake and removable comb baskets, £7

HONEY & WAX-PRESS, new superior pattern £2 10s
No other supplies kept.

R. BEUHNE,
TOOBORAC, VIC.

Agent for "A. B. Bulletin" in Victoria.

Why not have your honey sold before
it leaves your Honey Room?

Why allow it to granulate while waiting to be
sold on the market?

W. L. DAVEY,
Beekeepers' Representative,

Secures Highest Prices for Honey and Beeswax,
also Furred Skins.

Prompt Settlements Always.

Send Samples Only

If you want Good Honey Tins write for Price
List. The best Tins at the Manufacturers'
Prices. No middle profits.

W. L. DAVEY,
Plenty Road, South Preston.

NOTICE.

MR. R. BEUHNE, Tooborac, is appointed
Agent for Victoria for the AUSTRALIAN BEE BULLETIN, and is authorised to receive subscriptions and advertisements for same.

E. TIPPER.