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The Australian bee bulletin. Vol. 3, no. 32[a] December 24, 1894

West Maitland, N.S.W.: E. Tipper, December 24, 1894

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THE AUSTRALIAN

BEE BULLETIN.

A MONTHLY JOURNAL, DEVOTED TO BEE-KEEPING.

L. 3. No. 32. DECEMBER 24, 1894. PER COPY, 6d
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Single Storey Hive ..	6/9	5/6	5/-	
One-and-a-half Storey Hive..	9/3	7/9	7/-	
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per lb.

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Eighteen half sheets to lb.
per lb.

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5 lbs.....	1s 11d	..	2s 5d	..	1s 10d
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1 cwt. and over by special arrangement.

DECEMBER 24, 1894]

The Australian Bee Bulletin.

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QUIET, GENTLE AND FIRST RATE HONEY GATHERERS.

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QUEENS, QUEENS, QUEENS.

From Australia's Largest Breeder.

I have been breeding Italian Bees since 1883, and by careful selection of the best Home-bred stock, and constant importations of the best stock to be obtained from the principal dealers in Italy and America, have now a strain that for business and beauty is excelled by none. My Home yard is stocked with over 200 colonies (not including queen raising nuclei) of as choice Italian bees as were ever grouped in a single apiary. If you have not already tried this strain, send along your orders at once, and see what beautiful queens I can furnish. No other bees are kept within four miles of this apiary, and as it is stocked with thousands of choice Italian drones, the mating of my Italian Queens, as far as black drones are concerned, is practically under control. Carniolan Bees I imported in 1892, and they have since been despatched to all parts of the colonies. That they have come to stay is proved by the scores of favourable reports I have received in regard to them. All the Carniolan Queens I sent out are raised from Imported Queens, at my out-apiaries, and mated to Italian drones.

	one	three	five	ten
Untested Italian Queens ..	5/-	13/-	20/-	39/-
Tested " " ..	8/-	22/6	35/-	67/6
Select Tested Breeding Queen	15/-	42/-	65/-	—
Carni-Italian Queens ..	5/-	13/-	20/-	39/-

As I am a successful honey producer, and produce tons each season, my bees are bred for business as well as beauty. In addition to a number of superior home-bred Queens, that are excelled by none, my breeding stock consists of 8 of the finest imported queens that could be obtained from 5 of the world's most careful breeders. All queens sent post free by return mail, and satisfaction guaranteed, also safe arrival to all parts of Australasia. My strain of bees has long made a name for itself in all of the Australasian colonies, and the few reports I append (selected from hundreds of similar ones received) speak for themselves.

HOW THEY PLEASE AND THE WAY THEY GO.

N.S.W.—“Bees arrived quite safe, with only a few dead ones in each hive. I am very pleased with them, especially the queens, which appear perfect beauties. The workers are very gentle and appear to have plenty of energy. You indeed have a beautiful strain.” J. G., Paterson.

Vic.—“We received the 5 untested queens you sent us in good condition and as lively as if they had just been taken from their hives, and have much pleasure in saying they are a fine lot. We were successful in introducing them to their hives, where they commenced laying almost immediately, and have now got their hives well filled with bees, which are very quiet and apparently pure. We are so pleased with them that we intend getting another lot from you next year.” W. S. & H. J. W., Teesdale.

S. Aus.—“Queens came to hand safely, and, as you say they are a fine lot, and I have safely introduced them and they are now laying very nicely.” H. G., Barker's Gully.

W. Aus.—“Queen arrived safely yesterday, and is now introduced to a fair colony of bees. Only one of the attendants was dead and all the rest were as lively as if just put in the cage.” J. S., Drakes Brook.

N. Z.—“Received Carni-Italian queen in splendid condition (13 days in transit). Not a dead bee and all as fresh as if just taken from the hive. Must congratulate you on your method of mailing. When looking for a queen to introduce the Carni-Italian, I found that your Italian had swarmed a very good swarm, with the full ten frames full of brood. I may state that they are the pride of all beekeepers about here.” W. J. M., Parawai.

Remit by P.O.O. payable at Goodna. Don't neglect to send for my 50 page Catalogue of Beekœning requisites, which is sent post free and contains much useful information.

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H. L. JONES, Goodna, Queensland.

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I am now prepared to sell
**QUEENS OF LIGURIAN
STRAIN.**

At following prices. Satisfaction and safe
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Untested Queens	5/-	13/-
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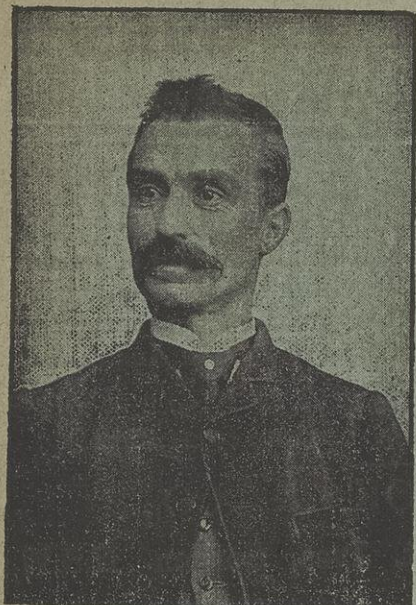
To be had of E. Tipper, Australian Bee Bulletin
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Hunter River Bee-Keepers'
Association.

MONTHLY MEETINGS.

TUESDAY, JANUARY 15TH.
Subject.—Size, shape and make of hives.

G. MANSFIELD, Hon. Sec.



Disappointment versus Satisfaction.

No More Untested Queens!

READ THE FOLLOWING—

Mr —, a large apiarist in an adjoining colony says—"Last season I bought over a dozen from a man at one time, untested, but they all proved to be *mismated*, and every one small."

Mr —, a beekeeper in this colony, says—"The six untested queens I got from you all proved to be purely mated with Italian drones."

For queen breeding my location is unequalled, as far as the eye can reach may be seen waving fields of lucerne, maize, &c., &c., and no bush bees to interfere. My apiary contains nothing but pure Italians, bred from imported mothers.

ONE BREED ONE YARD.

Ligurians or leather-coloured Italians will be bred in one yard and the American or five-banded in another three miles away, all from Imported Mothers.

Prices until Further Notice.

Warranted Ligurians (leather-coloured) 1 for 6/-, 4 for 20/-

Warranted Golden Italians, 1 for 6/-, 4 for 20/-
One gratis with each half dozen.

Choice Breeders, 15/- each, 2 for 24/- either breed.
Hives with Combs, Bees, &c., complete, 15/- extra.

Bronze Medal and Diploma for Honey at the World's Fair, Chicago, U.S.A.
First Prize for Purest Italian Queen and Bees at the N.H. & P. Association, Sydney, 1894.
Scores of flattering testimonials from all parts of the Australian colonies.

C. MANSFIELD,

HUNTER RIVER APIARY, LARGS, N.S.W.



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Italian Bees!

Colonies!

Nuclei, &c.

Send for Price List.

W. S. PENDER,

Drumfin Apiary,

WEST MAITLAND.

— THE —

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1	3	5	10
5/-	13/-	20/-	39/-

Per letter post, safe arrival guaranteed up to 21 days.

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THE CONVENTION COMBINATION HIVE

Is a great requisition to all Beekeepers, "large or small."
It prevents Swarming, Burr Combs, besides producing larger quantities
Extracted and Section Honey with less labour.
PRICE, 21s.

Queens—Prolific.

JUST ARRIVED FROM EUROPE IN GRAND CONDITION.

CARNIOLANS! CARNIOLANS!

NEW BLOOD

For our Celebrated Carni-Italian strain. Change your breed and avoid Bee Paralysis, by purchasing Queens from our Select Stock.

one	three	five	ten
5/-	13/-	20/-	39/-

Per letter post. Safe arrival guaranteed up to 21 days.

W. T. SEABROOK & CO.,

ORANGE BLOSSOM BEE FARM,
St. Ives, GORDON, N.S.W.

The Australian Bee Bulletin

A JOURNAL DEVOTED TO BEEKEEPING.

MAITLAND, N.S.W.—DECR. 24, 1894.

IT being now the great festive time of the year, we wish all our readers all the happiness that belongs to it. Many will be rejoicing in the bounteous goodness of Nature, in providing the nectar for their bees to gather, in seeing the well filled combs, and in working in the busy extracting room. Others, perhaps, will be lamenting over disappointing honey flows, or loss of bees through the different annoyances and diseases that worry the bee-keeper. To the first we would say, may the sunshine that now brightens your apiaries continue throughout the whole of the incoming year. To the latter we would say, never despair. Work on intelligently, make up your minds to deserve success. Read your *A. Bee Bulletin* thoroughly, and never be afraid to make enquiries. What Mr. Peterson has done you have a chance of doing. And let one and all strive for the common good by increasing the uses and consumption of honey in your own district. We wish you all a merry Christmas and a Happy New Year.

A discussion has arisen in our pages which, though a slight amount of feeling is being expressed, we feel it is well the matter has been ventilated. At the late Convention Mr Niven expressed a doubt, from what he knew of the locality, whether Mr Peterson had raised the enormous yields of honey he had been reported to have done. Mr Niven acted quite within his rights in doing so, and we believe only voiced what others also felt. In our October issue Mr Peterson wrote us offering to give every opportunity to any one desirous of doing so of fully proving the correctness of the

statements put forth in the press, and gave a lot of details in the matter showing their entire feasibility. In our last issue Mr Niven again replied giving further reasons why he doubted the statements, but stating how happy he should be in congratulating Mr Peterson in obtaining the world's record for Australia. Mr Peterson replies warmly in this issue and here we think the correspondence should stop. Mr Niven has done a good work by raising a question that was lying dormant in other minds, and by so doing has not only enabled all doubts to be cleared away as to Mr Peterson's large yields, but has been the means of convincing the world at large the vastness of Australasia's honey resources. Mr Peterson is under a debt of gratitude to Mr Niven for so doing. And Mr Peterson is to be congratulated at what he has done. For ourselves we have not had the slightest doubt that such results were to be obtained by any beekeeper in Australia who sets his mind to it. Mr Peterson has gone in for extracted honey only, and knows how to look after and manage his bees, and has made a record for himself and Australia that he may well be proud of and others may well strive to copy.

We would draw attention to advertisement elsewhere, that the time for taking shares in the Co-operative Supply Co. closes on Jan 15th. As this is a matter of the greatest importance to beekeepers, especially now when there is a likelihood of a glut in the honey market, we would earnestly urge on those who have not taken up shares in it to do so at once. Those who know anything of the trouble of disposing of honey when prices are low, and the new crop coming in, should surely push on this movement and do their best to make it a success. We cannot understand how it is that beekeepers have looked on it so indifferently as they have. It is the interest of every honey raiser to help it along, and take up as many shares as he can afford.

Foul Brood has been cured in France by drugs. See page 219.

A Beekeepers' Association founded at the Lacklan, N. S. Wales. All success to you.

The Government of N. S. Wales, have promised to pass a Foul Brood Act this season.

Mr Robert L. Pender, the supply manufacturer of West Maitland, has joined the ranks of the Benedicts, the fortunate lady being Miss Stevens, of Phoenix Park. We wish him all the joys and prosperity that this life affords.

N.S.W. FOUL BROOD ACT PROMISED.

Department of Mines and Agriculture.

New South Wales.

Agriculture,

Sydney, 30th November, 1894.

Sir,—I have the honor to inform you that the suggestions contained in your letter of the 31st. October to Mr. H. Rawes Whittell, have been referred by that gentleman to this department. In reply, the Minister directs me to inform you that he hopes to be able to introduce the Foul Brood Bill into Parliament this session.

I have the honor to be,

Sir,

Your obedient servant,

WALTER S. CAMPBELL,

for the Under Secretary.

E. Tipper, Esq.,

"Australian Bee Bulletin,"

West Maitland.

QUESTIONS.

29.—Now is the swarming time. A hive contains 8 frames of brood. They have not swarmed. By an accident the queen is killed. A number of queen cells are started. Some are capped sooner than others. Which are the best, those capped early or those capped late?

30. Do you use shade over your hives, and what?

A. F. RANK BURBANK.

30. We use no shade over hives, but gable lids settle the question.

MAJOR SHALLARD

29. The earliest queen cells are the best. Always choose the largest and roughest cells, which are the best.

WILLIAM NIVEN.

29. I would say those capped early, but am of opinion those capped later would make good queens.

30. Some are shaded with grape vines; others have no shade.

E. J. RIEN

29. I should be guided by the size of the cells, position, etc., but if I had to choose would prefer those capped early, as you will usually find these contain the greater amount of royal jelly.

A. AYLING

29. The last capped will I think always be found to be the best, as the larvae will be the right age. The cells first capped will, I have found, produce small and weak queens, or else drone breeders, either of which are worse than useless, as time is wasted on them.

J. D. G. CADDEN.

29.—If first cells capped were started with larvae only a day or two old, just as good as any but if queen killed by accident, no doubt first cells were from larvae 5 or 6 days old, and in that case prefer the later ones.

30.—Grape vines, trellised 5 feet apart, and vines let run 4 feet high, give both shade and fruit.

H. W. J. TAYLOR.

29. If all the cells are started at the same time those capped last will be the best; those capped first will be built on larva older than those last capped, and consequently not as good as a rule.

30. I use no shade over my hives. Hives with gable covers do not need a shade as much as those with flat covers.

J. MCFARLANE.

29. The cells last sealed over are generally best although queens out of best of them may not be much good.

30. Most of hives are not shaded in any way, remainder are under trees. The only difference I see is that ones under the trees are more comfortable to operate in hot weather.

W. J. DUMIGAN

29 I should say queen cells that are capped last. My reasons are, when a full colony of bees are left queenless in the swarming season, which at that time they are busy preparing for the honey yield, queen rearing is hurried on and therefore they do not devote the whole of their time, the cells are capped before the larvae is properly supplied with its nourishment, (royal jelly).

J. F. MUNDAY

29. Neither. From what I have long observed the cells first capped do not produce such good queens as those capped later, in fact they are sometimes worthless, and so are sometimes those capped last, but if the cell is a large, well shaped one, no matter when the bees under such circumstances cap it, the queen as a rule will prove a good one as to development.

H NANCARROW

29. Can be answered in more ways than one. In my opinion if the queen cells are left unprotected, I would sooner be the bee queen that was first capped, otherwise I would stand a poor show (if my elder sister got a fair start) for my life. Anyhow, being the progeny of the same queen they should be almost equal, whether capped early or late. I read with interest these questions and their many answers, which I consider one of the best lessons we can have.

T. M. H., LISMORE

No 29. I have not had very lengthy experience but I have found the cells capped late produce the best queens. The reason to my mind is the larvae in the first capped cells was too old when selected by the bees.

No 30. I do not use shade, but some of the hives stand under trees. I fail to notice any difference of the work of those in shade and those in the sun, but our summer is not severe. If one had plenty of room I have an idea a trellis of grape vines (say 8 ft high) would suit admirably for shade besides being profitable.

BINNI.

No 29. Depends largely on the race of bees. I once had a hive of Cypri-Ligurians that built 50 cells on removal of queen, 7 of which they capped in 36 hours. These were the first to emerge certainly, but only by a few hours, and I could see no difference in their qualities, while they remained with me. With Italians and blacks it looks odds in favour of those capped late, because the earliest capped may contain old larvae, but then again those capped late may have been started equally late.

No 30. No shade here, use paint, red in winter, white in summer.

G. STREATFIELD.

29. If the queen cells are properly supplied with the food necessary to produce a fully developed queen, I think it would not be of material difference whether capped late or early, but if the difference of time were definitely stated between the two cappings, then a better opinion might be formed, and a closer observation made as to the ultimate result of early or late capping of queen cells.

30. Yes, I put them under the cherry and quince trees, and place sheets of iron (galvanised) over the tops of boxes, taking care to put a piece of wood about two inches thick under the iron, to keep a space between top of box and iron, thus breaking the heat, and keeping the boxes quite dry.

ELLIOT J. RIEN, M.H.A.C.

29. I sent you my reply last month to this question. In it I stated that I preferred the cells first capped, as usually we find that cells built up later are out of shape, and the cells first capped appear to get an extra amount of royal jelly, and has all conditions just right for a good queen to issue therefrom.

30. I have the flat-roofed hive, and as a rule do not use shade. Sometimes I lay a few boards on top of the hives, which serve the purpose of shade, and though we have some very hot weather here, I have not noticed any difference between the hives so treated and those left uncovered. All my flat-roofed hives are painted white.

JOHN SKINNER.

29. Cannot say from experience, but fancy those that are capped first.

30. I have some of my hives under some mulberry trees, so that they get the sun before say 10 o'clock. If I was beekeeping on my own and not on rented land, I should plant trees to shade and shelter them, say such as peach or other similar trees, so that in summer they would have shade in middle of day, and in winter, when the sun is not too hot, the leaves of the trees would be gone, and they would get the sun. I might also state that my hives are protected with a gabled roof, with eaves to carry water well off from hive, and acts as shade for them as well.

W. S. PENDER.

29. The time the cells are capped will make no difference, provided the cells were started on larvae before they are weaned off the milk food. When a queen is accidentally killed there will be larvae and eggs of all ages. If a larva is selected that is just hatched from the egg it will produce as equally good a queen, and two days sooner than a larva selected two days later, but of the same age as the former when a cell was first started on it.

30. On all flat covers I use pine shade boards, such as is obtained from packing cases. I allow the boards to project on the east, north and west sides, to shade sides of hives as much as possible. On hives with gable covers I use no shade; the air space between cover and mat being sufficient to keep the hives cool.

G. JAMES.

No. 29. After many years of careful watching I do not think queens that have been allowed to be hatched and fertilized (under the conditions named in the question) are of any value, and generally are short lived and will be the mothers of inferior bees. Such has been my experience, others may differ however. If the questioner had no other means of obtaining a more valuable queen, I should leave the cell which I should judge to be the best as regards length and fullness, and capped not less than 5 days after the queen was missed or removed.

No 30. I use no actual shade boards, but have the natural trees cut off 8 feet from the ground, and allowed to shoot out into small branches, but this is not dense enough to cause any particular amount of shade, yet it admits of a certain amount of coolness as the glare is broken. I use all gable covers, allowing a 2½ inch space over the frames, and a 12 x ¾ inch space to the hives, and have had only one colony have a mishap by

rames melting down, and strange to say that was in the shortest day of 1893, when it was a very sultry day and not a breath of wind, and the colony had plenty of stores and not over strong force of bees at that time of the year.

N. Z.

29. I should not take much notice of the difference in the time the queen cells were capped, but would choose those for maturing which were the largest, longest, and most pointed. Some might say that those capped latest would contain embryo queens, which had been longer under the influence of "royal jelly," and on that account might be better; but all things considered, I would make my choice as stated.

30. No. Nor do we require any shade in N.Z., provided the hives are painted white, the ventilation properly attended to, and a cover used that allows of a considerable air space above the frames. Flat covers we consider abominable, for the reason that they do not allow of any air space, which tends to keep the hives cool.

Size and Shape of Hives and Frames.

H. W. J. TAYLOR.

Inside measurement of hives, 17 x 14 inches. I use my hives two stories. Inside measurement of frames, $12\frac{3}{4}$ x 8 $\frac{1}{2}$ inches.

A. FRANK BURBANK, Q.

We use the Langstroth frame and hive, but instead of ends and sides of the hives an inch thick, we have sides of half an inch, and ends $\frac{3}{4}$ of an inch in thickness. This makes the hive lighter to handle, it will dry quicker after rain, and will last just as long if kept properly painted. We also use gabled lids, because they stand the weather better than flat ones.

J. McFARLANE.

I use the ordinary Langstroth 10-frame hive, using 9 frames and a dummy in bottom story, and 9 frames above for extracting. By using only 9 above they bulge the combs over frames more and they are easier to uncup. By using a long bladed knife and the uncapping tank I use I can easily uncup as fast again as a 4 comb extractor can throw it out. In other words could keep two extractors (4 comb) going.

T. M. H., Lismore

I always recommend the 10 Frame Langstroth to anyone going in for beekeeping on an extensive scale, but for family use (a couple of hives) the Gallop. With the former, one (unless the season is a good one) will not get any; comb honey but the small frame of the Gallop is the very thing, holding 2 to 3 lbs. I have never tried the half size Langstroth (shallow extracting) frames, but I should say they would be in-

valuable in indifferent seasons or in localities where the honey flow is of short duration or uncertain.

ELLIOT J. RIEN, M.H.A.C.

I have the 8-frame and 10-frame hive, with Langstroth frames, the sizes of which are so well known. I have all the frames in use, and I prefer the old Hoffman frame with Root-Hoffmann bottom bar, or I should say "Root." I find the Root-Hoffmann frame, unless the hives are very well filled, the V edges will go past the square edge. I prefer the 8-frame hive, but 3 stories high for extracted honey, as I like the bees to ripen the honey, and the three-storey hive prevents "loafing bees," giving them plenty of room and plenty of work; it is also a good non-swarming hive. I prefer the flat-roof and Heddon bottom board. I am giving the shallow frames a trial this season, that is if we get any honey. I like the idea of the Heddon hive, and shall give it a trial at my first opportunity, as well as a few of the other patents (!) side by side.

G. STREATFIELD.

The size of hive I use is the Langstroth, viz.: hives 20 $\frac{1}{2}$ inches extreme length, width 14 inches in the clear, depth 9 $\frac{3}{8}$ inches in the clear. I give the extra $\frac{1}{8}$ to give plenty of room for bees to move under frames, and have not found the bees to build under frames. Frames 19 $\frac{1}{2}$ inches top bar, bottom bar 18 inches, ends 8 $\frac{3}{8}$ inches, leaving a space of 16 $\frac{3}{8}$ inches, which I divide in two parts, by putting in a centre piece, vertically, thus making two spaces of 8 $\frac{1}{4}$ x 8 $\frac{3}{8}$, or nearly a square. This without wires enables the comb to bear the strain of extracting very well, and does not seem to inconvenience the bees in the least. I get straighter combs, more easily worked, and combs rarely fall in the hot weather. I also use frames 7 inches deep for comb honey, as they are stronger to pack away, and are less liable to break.

WILLIAM NIVEN.

At the present time there are many different sizes of frames and hives in use, each one having some special advantage of its own, according to those who advocate them, and there is no doubt, with any kind of frame hive, there are men who could make a success of beekeeping. As a colony of bees do not remain at the same strength all the year round, a hive that can be enlarged or contracted to suit their requirements with the least amount of trouble must be an advantage. The hive we have had in use for the last six years and have no intention of altering, has 8 frames in brood chamber and 7 in super; both bodies are the same size. By having a frame less in the super the bees draw the cells longer to store honey. Frames are full size simplicity, made out of pine $\frac{3}{8}$ in. thick, 1 $\frac{1}{2}$ in. wide, same size all round.

J. D. G. CADDEN,

Already the different kinds of hives used in different localities must be many, and no doubt each person claims that the make of hive used it

the best of any for the simple reason that each one prefers that particular hive to any other, or because someone else uses that hive. Personally I think the 8-frame hive large enough to handle, and for most queens large enough for brood nest. Some queens will fill more frames, and for such put on two bodies and join 16 frames for brood nest. I am just satisfied with size and shape of Root-Hoffman frames, because easily handled and being in more general use, can easily be purchased, and extractors, &c., so take that frame so that no extra or out of the way sizes are required, but whilst I do not desire a change, I think we should let the bees have a say in the matter, and if those who go bee-hunting in the bush will be careful to note how and in what position combs are built whether across entrance or towards it, and position of brood and then let us give them halves allowing same position, I think we shall secure better results than by compelling them to adopt any fancy line.

BINNI.

You are certainly a lover of broad questions. Every man thinks his own ideal hive and frame "the best." So it is, no doubt, to him. Climate, honey-flow and manipulation are factors that influence individual opinion on this subject. My own preference is for a frame deep enough to allow a queen to go her rounds without breaking a circle, but not so deep as to encourage the bees to place honey along the upper portion above the brood.

I want as many of these frames in a hive as an average queen can keep banked out with brood, and one or two others to hold the pollen and honey necessary for the maintenance of this brood. They must be movable, but not so movable, that special attention has to be paid them in order to put them in travelling trim.

They must be so made that I can see the approximate condition of each without putting a hand to one, when in the hive—a *sine qua non* with me—. They must offer the least inducement to bees to build burr comb.

Their cost must be "way down."

They must be readily obtained.

This is my ideal frame, and the nearest approach I can find to it is the "Root-Hoffman."

The hive that suits me best here is one that takes 8 of the above mentioned frames for brood chamber or extracting. It must also hold 2 crates, that takes 24 sections each, when worked for comb honey.

The bottom must be moveable and contain the entrance.

The cover must so fit that no water can enter either by directly or by capillary attraction and must stand 1 inch above the frames, to allow of a mat being placed over them in summer and a proper absorbent in winter.

This cover must be flat on top without cleats, that prevents water from running quickly off and often causes the ends to rot.

JOHN SKINNER.

When the British Beekeepers' Association started, they found various sizes of frames in use, which led to great confusion at the various shows where prizes were offered for best hives, and so to alter the state of affairs, a committee of bee-hive makers, and beekeepers was appointed to ascertain the best all-round size for frames. The result was that the B.B.K.A. standard size was introduced, and I do not suppose that the size so introduced has been excelled by any maker, and I believe it to be the best all round frame, for breeding especially also for extracting, as it requires no wiring, and if these are used for supers, as they should be as well as for brood, they are interchangeable, a great advantage in getting bees to start in supers, and you can also use the old combs in supers for extracting. The size of frame is 14 inches long x 8 inches deep from under side of top bar, size of stuff $\frac{7}{8}$ inches wide. I always use them with broad shoulders to keep them the right distances. Now as regards size, &c., of hives, that's where the difference of opinion comes in. One sort that I make up and that answers well has inside dimensions $14\frac{1}{2}$ x $13\frac{1}{2}$ x $8\frac{1}{2}$ deep, with bevelled plinths round the joints to keep out wet, &c., as wet does more damage to bees than cold. I make these hives interchangeable, so that either goes on top or bottom; but I might state that these are only for sale—I do not keep my own bees in such hives, but the ones I use are too expensive for sale, but I cannot state full particulars as to construction, &c., as that has cost me a considerable amount of study. They can be so used so as to prevent swarming if necessary, but I might say that I am always pleased to show them to anyone that desires to see them. The outside dimensions of them are 2 feet long x 19 inches wide, made with lifts for storifying, and made so that the lifts can be taken off, and the roof (which is gabled, and felted on the outside) can be fixed on the body of the hive. They stand on four legs, which are securely fastened to a movable floor. They are also double-walled, a great advantage in this hot, as well as in a cold climate, as there is an air space left between the walls, the joints are rabbetted together, and last but not least, a porch over the entrance, and slides to close entrance. I might state that the largest I have worked here yet contained 42 frames, and I obtained the largest amount of honey from that one that I have had from any hives here yet.

Professor Taylor, speaking of foul brood says—It is too early to affirm that the disease may die out of itself, but it has certainly decreased in this colony (Michigan) within two years, and appearances favour the opinion that its eventual extirpation is possible.

SPECIAL SUBJECT NEXT MONTH.

31. Should the queen be allowed the full use the hive for brood rearing, or should she be confined to the brood chamber, and in what manner?

QUESTION NEXT MONTH.

MR. JOHN ROBINSON, NEW LAMETON.

On the 15th December, I had three young queens fertilised, two were balled, one was killed, I had to cage the other, one the third one was all right. Last year I had young queens killed the same way. What is the cause of this balling and killing them.

SAROPODA BOMBIFORMIS.

A correspondent at St. Peter's writes: A few lines to let you know how we are getting on among the bricks. One colony with half-depth super on filled, another put under that last week. What is the average age of young queens before they lay? I have a colony that has done little but swarm and rear queens. I was speaking to a friend the other day, and he has got a little mixed about foul brood—says "I see they are going to pass an Act to stop Fowl Brood. If that's the case I shall give up keeping fowls and go in for bees." Send him a journal right away. I am sending you an insect much like a bee; perhaps he is an old friend. I have not seen it before. It has a tongue about 7-16ths of an inch long, or half an inch. I should like to get its head grafted on to that golden queen I have; she might then do a little good, and not so much swarming. Do the workers sting the drones when they are trapped, or do they die quick? They smell very much of the poison after.

Young queens commence to lay when they about nine or ten days old. We sent the specimen to T. H. Maiden, Esq., of the Technological Department, and append his reply. It is a doubtful question whether the drones when trapped are stung to death or die of starvation or worrying to get free.

Department of Public Instruction,
Technical Education Branch,
The Technological Museum,
Sydney, 10th December, 1894.

Dear Sir,—The large yellow bee forwarded with your letter of the 4th instant is the true

honey bee (family *Apidae*) and is not uncommon in N. S. Wales. Its scientific name is *saropoda bombiformis*. I do not know if it has any other popular name.—Yours truly,

J. H. MAIDEN,
Curator.

E. Tipper, Esq.,

"Australian Bee Bulletin,"
West Maitland.

[Will some of our readers tell us something more about this bee.

THINGS IN GENERAL.
AND MAILING QUEENS "ONCE MORE".

GEORGE JAMES.

Dear Editor,—As the purchasing of queens from foreign countries appear to cause friend Abram some alarm lest we may next get the "last new bee disease," I am sure his warning is quite right and should be borne in mind, but what I desire to object to is the bee paralysis being put down entirely to American blood. Is friend Abram prepared to swear positively that bee paralysis did not exist in N. S. W. before even a queen bee was imported from America; also will he say that paralysis does not exist in Italy? I mean no slurs, friends, only the truth. I am not interested in the Golden Beauties, as without a doubt they are most subject to disease, deny it who likes. Friend Jones is a little late on the mailing cage with plenty candy holes, as in back numbers of *A. B. B.* I mentioned that queens mailed to me at my request in cages with 6 or 8 candy holes arrived in good order, but this mail I received 5 Carniolan Queens in the same cages all dead, and to my mind the mail bags must now claim our attention.

I do believe one and all the five queens died at the same time; and also 3 arrived in the exact same state by the October mail, so let us have the next plan please Mr Mansfield. Say Friends, how is it now turning out re bees moving, transferring, or stealing eggs? Read up last numbers of *Gleanings* and I can assure any doubters I have had one more case this season, and I am myself quite satisfied that the bees can outwit us.

WHAT FOUL BROOD IS.

We have been asked the above question by several of our correspondents. Dr. Dzierzon, who once lost 500 colonies by it, describes the symptoms as follows, with a few alterations which we have made in the terms, as more in accord with those now used.

"An infallible symptom of the presence of foul brood (*bacillus alvei*) is the discovery of dead, dried-up, shrivelled larvæ or nymphs in separate cells amongst healthy brood. These dead larvæ have passed into a pap-like or tough mass, and later on into a greyish-brown or coffee-colour crust on the floor or the lower surface of the cells. If the majority of the cells are in that condition, the infection took place some time ago, and the evil has become very great. Because a stock with foul brood generally ventilates considerably, the evil may be recognised in hives with immovable combs by an unpleasant smell proceeding from the entrances; the smell is similar to that of putrid glue or meat. As the bees take the trouble to bring out separate larvæ that have not yet entirely rotted, such will be found sometimes on the floor of the hive affected. The bees take the trouble partially to remove to the outside the coffee-colored crust forming finally from the rotten matter. There are therefore found on the floor a dark-colored dust and entire skins torn off, which, when rubbed down between the fingers, give off the same unpleasant smell. In Spring, when other stocks are already diligently building, the foul-broody do not generally make any preparation for it; at most they will only do so when they are fairly strong and unusually good pasture sets in. If the combs are examined, the sealed brood is never found *en masse*, but standing in isolated patches. To be thoroughly satisfied, a piece of brood comb must be cut or torn out; and if it shows cells with the matter described above foul brood is certainly present."

The most certain sign, however is, that on the coffee-colored mass being pricked, it adheres to what it is pricked with, and stretches out like a piece of india-rubber.

CAPPINGS.

From Gleavings, American Bee Journal, Review, and Canadian Bee Journal

Half an ounce of comb on the average will hold a pound of honey.

J. A. Green claims that it injures honey to have it stored in combs in which brood has been reared.

Doolittle puts the *maximum* gatherings of one bee during its lifetime as one-third of an ounce of honey.

Frank R. Cheshire, author of "Bees and Beekeeping, Scientific and Practical," died on the 16th September.

Professor Taylor's experiments at Michigan go to show that thick foundation give more satisfactory results than thin.

Mrs Atchley holds a meeting of prominent beekeepers at Beeville Dec. 27th and 28th. Half railway fare, free hacks and no hotel bills.

A German writer asserts that wax is not manufactured by the bee, but is obtained, ready-made, as a covering on the grains of pollen.

T. M. Cowan says:—The honey bees-wax, when pure, is pale yellow, but sometimes nearly white, and the colouring is due to pollen consumed by the bees.

A report in the *British Bee Journal* reports that some thin honey standing in a galvanised iron vessel for a month, to which sugar syrup had been added, on being fed to the bees, killed all the young brood in 40 hives.

A Mr Post has an easy test for tallow in wax—If I suspect impurity through an admixture of tallow, I scrape a portion of the cake clean. If pure wax you can write on it with ink and pen, if adulterated with tallow the ink will run in globules.

E. R. Root says—The cutting of queen cells only discourages swarming. For normal colonies run for comb honey, I know of no method that will absolutely prevent swarming invariably. For extracted the matter is far easier. Giving lots of room, both to the queen for brood-rearing, and to the bees for the storage of honey, will generally prevent swarming.

The Messrs. Root have concluded, from letters received and careful enquiries made at various apiaries, that 5-8 inch is thick enough for all practical purposes, and that top-bars of that thickness, 1 1-16th or 1 1-8 inches wide, come so near barring out burr and brace-combs that the occasional spurs built during an exceptional run of honey will cause no trouble.

Professor A. J. Cook, writes :—The present season a new malady was discovered in our apiaries in Southern California and several other States. The brood died in the cells in all stages of growth. The black or discolored larvae of all sizes and the dead pupæ were found scattered, often thickly, throughout the maturing brood. I secured several colonies, all showing the disease to a greater or less degree, and fed them honey or syrup, variously medicated, and also that which was not medicated. All recovered wholly in a few weeks. Other colonies in the same apiary, where I procured mine, did not recover. Upon close examination I found two colonies among the twenty in the apiary, which had abandoned honey, and neither showed any sign of the disease. Thus I have wondered if this disease was not owing to a sort of partial starvation. If bees have not sufficient stores to properly feed and breed, we can readily see that many immature bees might fail to develop. I am inclined to believe that our recent trouble came wholly from this condition. We have never heard of any such disease in sunny Italy, or previously in our own country. We have rarely had such an utter honey-dearth in Southern California. In many apiaries, those well-cared for, when stores are abundant, there has been no show of the disease. All of these facts, together with my own observations and experiments, lead me to conclude that scant stores, too meager nourishment, and, consequently imperfect nutrition, caused the mortality so much commented upon the past few weeks. The obvious suggestions are, more care and attention, more honey left in the hives at the close of the season, and careful attention, and if necessary, feeding in such years of honey-dearth as the present has been.

TAMWORTH NOTES.

T. B. PEEK.

The season is later than usual here. but the greater part of swarming is over. Although cold, the winter was all that

could reasonably be expected. There was a good honey flow throughout, and the bees were free from disease, and, now there is every prospect of a good honey crop this year. The Tamworth district, with its dry hot climate, seems to be peculiarly adapted to bee-culture. Throughout the entire year there is a continual honey flow, perhaps weak at some times, but still there is plenty to keep the bees going.

The principal sources of the honey flow are, the "Box," which usually begins to bloom in April or May and continues during the winter and spring. Then come fruit blossoms, clover (trefoil), and in some localities wattle and stringy bark. Then follow the yellow jacket and gum (mostly red gum), then lucerne and other flowers.

There are a good many beekeepers in this district; but frame hives and extractors are the exception not the rule.

Referring to Question 28 in October Number of A.B.B. I may state, that I have had black bees, Pure Italians and Hybrids, side by side and equal in every respect, and judging by results I would class them thus: Hybrids 1, Pure Italians, 2, and Black Bees 3. The hybrids are very vicious but there is no beating them for honey gathering, as far as my experience goes.

Perhaps some of your more experienced readers can explain, why an Italian queen bred from a pure mother will at the same time produce both black drones and yellow drones. I cannot understand it as it is a commonly accepted theory that the eggs which produce drones are not impregnated.

HASTINGS RIVER BEE-KEEPERS ASSOCIATION.

A meeting was held on Thursday night, 20th December, at Mr. T. Pepper's, Wauchope, and it was decided to form "The Hastings River Beekeepers' Association."

The Rev. H. L. Bantive was elected president, and Mr. R. Selkirk kindly consented to act as Hon. Sec.

Monthly meetings were arranged for. Apiculture is being enthusiastically entered into here, in a small way and it is anticipated that the locality will prove very favourable.

[We heartily wish you every success.]

THE LACHLAN BEEKEEPERS' ASSOCIATION.

We are indebted to Mr. Niven for the following:—

There was a meeting held in the School of Arts, Eugowra, 7th December, to form a Beekeepers' Association, which was successfully accomplished. The evening proved wet, which prevented many who are interested in apiculture from being present, otherwise we would have had a much larger meeting.

Mr N. E. Osberg, J.P., presided. In opening the business of the meeting he reviewed beekeeping as it was a few years ago, shewing the great advance that has been made, and the benefits to be gained by beekeepers forming themselves into an association. He then called upon Mr Niven, the promoter of the object, to address the meeting, which he did by reading a paper shewing the many advantages to be gained by beekeepers in their district being united in an Association.

Mr Taylor, of Cowra, addressed the meeting, showing a bee-keepers' association would do good if supported as it should be. He said he came to join as a member, and would give it his hearty support. He gave incidents and information about bees that were appreciated by those present.

Mr Wright, Forbes, expressed his views, and said he heartily endorsed the words said by the previous speakers; that he was quite in accord with the object, and would give it his support, and always make an effort to be present at the meetings.

Messrs Cheshier, Kirby and others expressed themselves in favor of the object of the meeting, and would give it their best support.

The following officers were duly elected:—President, N. E. Osberg; vice-presidents, T. A. Rushton, H. Wright; secretary, W. Niven; treasurer, Mrs Kirby.

The Association was named "The Lachlan Beekeepers' Association."

A number of ladies and gentlemen were enrolled as members, and amid

many hearty votes of thanks the meeting closed.

MUSWELLBROOK B. K. A.

[By A. A. R. in the *Muswellbrook Register*.]

The usual monthly meeting of the Muswellbrook Beekeepers' Association, was held in the School of Arts on Saturday night the 8th December, when there was only a limited attendance.

Some accounts having been passed for payment, and there being no further business of a routine character to transact, Mr Alick Weidman proceeded to read his paper on transferring, which was very interesting and instructive, the author quoting such men as Heddon, and giving his own practical experience, which I think was the most interesting part of the paper. I am sorry I am not a short hand writer, so that I could give the paper in full. It would be a great interest to all bee-keepers, and well worth reading.

The following members spoke in very complimentary terms of the paper:—Messrs. Grant, Roberts, Gardiner, Clarke and Ellerton.

It was moved by Mr Roberts, and seconded by Mr Clarke that a hearty vote of thanks be given to Mr Weidman for his paper. This was carried and conveyed to Mr Weidman by the chairman.

Mr Weidman then responded in suitable terms.

Mr Grant proposed that Mr Clarke be asked to write a paper, the subject to be "Should the Queen be allowed the fullest use of the hive for brood rearing, or should she be confined to the brood chamber?"

Mr Clarke said he was very sorry he could not undertake the task at present, but would be pleased to write a paper at some future date.

Mr Roberts was then asked to contribute the paper on the above subject, which he consented to do at the next general meeting.

That concluded the business and the meeting terminated.

H. R. B. K. A.

The usual monthly meeting of the above was held on Tuesday, Dec. 11th, at Technological Museum Rooms, West Maitland, Mr M. Scobie in the chair.

The minutes of previous meetings read and adopted.

Mr Tipper stated he had received a letter from Walter S. Campbell, Esq., Under Secretary for Mines and Agriculture, stating he had been directed by the Minister to inform him (Mr Tipper) that he (the Minister) would introduce a Foul Brood Bill into Parliament this session.

Mr W.S. Pender reported that the committee had resolved on giving nearly £5 towards prizes at the forthcoming H.R. A. & H. Association Show, being one-third of the apiarian awards offered. The committee had also, at the request of that association, formulated a schedule for their approval.

The chairman asked the members to give their reports of honey prospects.

Mr Tipper laid on table sample of nice light colored clover and mangrove honey which he had extracted a fortnight previous. In the neighbourhood of Cockle-creek and West Wallsend red gum was blossoming well, and white gum and ti-tree both well forward.

Mr Munday said last year's flood destroyed all the old lucerne, and the young lucerne does not yield much honey. The martins which were eating his bees had taken their departure, and bees were doing well. Had no swarms, but the bees were increasing in strength nicely. Honey was not coming in, and he had not extracted yet. He had heard Mr Tucker's bees at the Paterson were also doing well.

Mr W. S. Pender's bees at Drumfin were doing very well. He had formed many nuclei for queen rearing, and only allowed three colonies to store, but they were doing well. At the out apiary they had made a very good start. Eight days previous they were bordering on starvation. Now they had half the combs half full of honey, and on next visit he expected to find them sealed.

Mr Mansfield said, so far as the honey flow was concerned at the present time if there were plenty of strong hives he believed he would have plenty of honey. Three weeks ago the lucerne began to bloom freely. He had divided to the utmost limit for the purpose of queen raising, but the honey was coming in so fast there was a difficulty in getting eggs from the queens for queen raising, the cells being blocked up with honey.

Mr Scobie had not looked into his hives at Oakhampton lately, but there was a strong smell of honey. At Bishopsbridge three weeks ago they were actually starving, and he had lost many. But now the iron barks were in bloom and the bees were making a start at Blackwater Hole, quarter of a mile from where his bees were, but with an intervening hill, he heard they had plenty of honey.

The discussion of the evening then commenced—"Is shade of any kind desirable? If so, what?"

Mr Munday had come to the conclusion there was no place like the open air for an apiary. Bees in sheds were very apt to be savage. It was not pleasant to work in the broiling sun, but the effect of light coming in suddenly has a tendency to quieten the bees, and made them more easy to handle. Had some 50 or 60 in a shed once, but got more stinging in the shed than ever he got since. When bees are in the open paddock you can see what hives are swarming better than in a shed. He believed in flat tops, and a board on top of hive, so there was always a space between that and the top of the hive. He used 4-inch palings, which gave a good shade back and front and his bees never suffered from heat. If the hives were under vines it caused dampness, and a continued shower of rain caused dripping.

Mr W. S. Pender said Mr Munday left very little to be said. He agreed with all he said except about palings, which were too weighty. Drapery cases cost much less, and were much more easily handled. Vines prevented circulation of air about the hives.

Mr Scobie agreed with the previous speakers as to the use of shade boards,

but spoke of their liability to blow off, one brick not always being sufficient to prevent same. Alluded to an idea of Professor Cook's in which the brick was fastened under the shade board. Bark made very suitable shade, and in the bush was easily procured.

Mr Tipper had used bark weighted with scrap iron. Bees in a state of nature were well shaded in their tree hives. He had visited a number of large apiaries, and had photos of many others besides, and except from trees in a very few, they were all without shade boards or other protection.

Mr C. Mansfield said to his fancy the bees liked sunshine. They were affected more by the temperature inside than outside the hive. Shade boards gave unnecessary labour. Speaking from experience bees don't require shade. Bees in shaded hives were more free to contract foul brood. Judging from his general experience he had come to the conclusion that bees don't object to warmth if the hives are alright, but more to impure gases. The bees feel the heat just as much in the shade as in the open. For pleasure in working among the bees it might be well if there was time to develop trees in the yard; not enough to be in the way—not too thick—because in the winter there would be a nasty dripping. A matter of far greater importance both to the bees and their keepers was shade from cutting winds.

Mr Munday replied to Mr Mansfield. His experience differed from Mr Mansfield's. Bees would swarm from no other reason than the heat of the sun. Shade boards also preserved the tops of the hives. It was a mistake to put bees among trees. He gave an instance in which he believed a queen was killed by the sun while confined in a cage.

Mr Mansfield said she would be more likely to be killed by the confinement than by the sun.

Mr Scobie said if Mr Mansfield's bees did well without shade that was no argument that they would not do better if they were in shade. Shade was a very important factor in preserving the welfare of the hive.

Some further discussion ensued, and it was ultimately decided by majority that shade was an advantage.

It was decided that the subject of discussion at next meeting be "Size, shape, and make of hive."

Mr J. W. Pender reported that he had attended a meeting of Provisional Directors of the Beekeepers' Co-operative Supply Co. in Sydney, but there was not enough present to form a quorum. The shares had been very poorly taken up.

Mr Munday moved, and Mr Mansfield seconded, that Mr Robert Pender, having just entered the married state, as a member of the association, they wish him all joy and prosperity in his married life. Other members present spoke of Mr Robert Pender's good qualities, and the motion was carried by acclamation.

A TRAMP.

E.T.

Our American friends delight to talk of their trips on bicycles, and how many miles they traversed between dinner time and tea time, arriving jaded, hungry and unexpected at the end of their journey. Townsfolk, confined day after day in the counting-house or behind the counter, delight to have a drive in the country. But no pleasure equals the good mountain or country ramble on "Shanks' ponies." It is then you observe all the little, yes and the great beauties of nature, far more minutely than from the windows of a railway carriage, slaving along on a bicycle, or carefully watching the horse's head to guide him along this bit of bad road, or down that nasty steep; and nature's sweetest sanctuaries, her loveliest little waterfalls, in the coolest and shadiest of gullies, sheltered by heath or honeysuckle, the prettiest and choicest of ferns, or the tallest and most graceful of gum trees, with a stone boulder in the sandy bed, seemingly placed purposely for a sheltered seat for us where the cool waters would lave our feet—are not on the beaten tracks. See from the mountain's brow, as we look down on a wilderness of forest, stretching away as far as the eye could

see, the all-prevailing green being diversified here and there by patches of greyish white—yes, beekeepers, the gum-trees are “out,” and if you but go near one of them you can hear the well-known “roar.” But just look at that red gum, with its bright coppery colored tall straight stem; with its graceful, masculine, gnarled branches, of the same clean, bright hue, its bright green foliage, and its crown of blossoms! Or that other tree beside, most appropriately named the white or silver gum, its 100 feet of straight clean silvery shaft glistening in the evening sun, and with its light and less masculine foliage, looking like the bride of its red gum companion. “A thing of beauty is a joy for ever.” These two trees are “things of beauty.” Other lands may boast of their oaks, their palms, their lindens, but the Australian gum shall not, if we can help it, play second fiddle for beauty or utility to any. Oh that Australia’s sons would appreciate their splendid qualities more! We descend the hill to the historic mining township of West Wallsend, have a yarn with the genial postmaster, Harry Woods, whom we have known for many years; he shows us his newly-acquired log-hive of *apis trigona*; and then we follow the railway line for some two miles, cut through dense scrub and forest, over scraggy creeks, mild and picturesque now, but the newly-made railway fixings adjoining giving ample evidence of their power when backed up by the mountain torrents after heavy rains. We had traversed this line some two miles, when gates crossing the line and a siding apprised us we were nearing civilisation once more, and we soon discovered, some hundred yards on our left, quite a little nest of cozy comfortable residences, all inhabited by members of the Johnston family, who own a large portion of the land around, and have resided here for the last forty years. We were not long before we had a hearty shake-hand with Mr Longworth—one of the family—and invited out to look at the bees, one hundred good strong colonies, many of them

three stories, very few one story, and all either good Ligurian or good hybrids. The bees were “busy as bees,” bringing in the nectar from the neighbouring hills, some of the supers containing, he estimated, as much as 80lbs. Mr Longworth thoroughly believes in the dark Ligurian—the darker the better; does not see the necessity of self-spacing frames; and intends to devote more time than ever to beekeeping. An introduction to the venerable patriarchess of the hamlet, the oldest beekeeper in the district, who kept bees in Scotland 50 years ago; a short trip across the springy turf, soft with the recent rains, and lightly timbered with the now budding ti-tree, through which the evening sun-rays sparkled; promises to spend a day, &c.; the coming train is signalled to stop; we’re away. Yes, and we thought the old “Sundowners” we have so often pitied, and perhaps scorned, shared a lot of God’s sunshine, and many hours in paradises that ordinary human toilers know nothing of.

SHIPPING QUEENS FROM AMERICA.

Contributed by J. Smith, Mount Cotton, Queensland.

On August 8 I wrote Mr. G. M. Doolittle on the above subject, calling his attention to the experiment recorded in *A. B. B.* July number, page, 102 and suggesting that the candy might probably be the cause of failure and pointed out that one reason why Mr. Jones of Goodna, succeeded in getting his queens safely to America might be that the sugar in his candy was pure, as it does not pay to adulterate sugar in Queensland. I also suggested that queen breeders in America might advantageously try one or two experiments in this wise. Fix up 3 or 4 cages of queens and bees *exactly* as if they were going to be mailed to Australia. Use different sized cages, &c. Put 30 bees in some and only a dozen in others. Put half the cages in bags (as if in the mails) and keep the other half outside, examine

every day and the question would be solved—1st, Whether they lived long—est in bags or out of them;—2nd, If any lived 35 days—length of voyage to Australian towns. I thought Mr. Jones, had only sent seven bees with queen in a cage, but Mr. Doolittle thinks he sent 30, but only 7 arrived alive. Perhaps Mr. Jones will correct and give us exact number, and at the same time also say if all the accompanying bees were young ones. In my experiments the bees were of all ages. As Mr. Doolittle's reply is of vital importance on this subject I send it with this as I do not think the "grand old beekeeper" will object to its being made public.

Borodino, N. Y. October 5th, 1894.

MR. JOHN SMITH.—Dear Sir,—Your letter August 8th came too late for me to reply to it so it could reach the Sept. 20 steamer, so I waited till now, as this will go on the Monowai, leaving San Francisco, Cal. on October 18th. I wish to thank you for your good letter and the interest you take in the mailing of queens to and from America and Australia. I went through all the experiments you mentioned years ago, and the longest I could get any queen or bee to live during these experiments was 26 days, and after arriving at these results, during two years of experimenting, I wrote to our bee papers, that it would be impossible to ever get queens through alive to a foreign country where more time was needed than 25 to 27 days. My line of reasoning was this. The bee only lives 45 days when it has its own sweet will during the summer months, and when we come to confine it out of the hive and away from its natural surroundings where it would worry for freedom all the while it must of necessity wear out all the sooner, so die from worn out vitality in the 26 days above mentioned. This seemed reasonable to me, and I ceased experimenting further. In 1890 I received orders for queens from Australia, and I put them up the best way I knew how, writing the parties that it would only end in a failure. But strange to say, in spite of my experiments and theories which seemed reasonable, sixty per cent of the queens reached Australia alive. This gave me new hopes, and in 1891 and 1892 I succeeded in getting 75 per cent and 40 per cent over alive, respectively. I could not see why I did better in 1891 than any other year, but thought I could do as well in 1893 as I had done in 1890, at least, but for some unknown reason 1893 was the nearest to a failure of any of the whole, and what to think of it I do not know, for as far as I could see, the candy, cages, and

everything was as nearly perfect as I had ever used. So far this year I have not heard how any have arrived which I have sent, [about 40], but I hope to hear in a few days when the mail from the Monowai arrives. You are mistaken in thinking that only one queen was landed on your shores alive from America last year, for if Mrs. Atchly got one there alive, there were at least six went alive, for five were reported as coming alive from me and introduced safely. Then I think that you are mistaken in stating that Mr. Jones of Goodna used only 7 bees instead of 30, for if I am correctly informed, there were 7 bees and the queen alive when the cage reached here, all of the rest of the bees put in having died. I may not be correctly informed but that is the way I understand it now. Now why not you try sending queens to this country, and thus help along in the matter. If you will get a queen alive to me during the months of May, June, or July, using any ordinary queen for the experiment, I will send you a 6 dollars for every one so gotten through. I am glad Mr. Jones succeeded so well. He did something Mr. ——— could not, for he has sent me 4 queens, and every one arrived dead, and by the looks of things none of the bees in any cage lived to exceed 10 days from the time he put them up. He has become discouraged and says it is no use trying farther. When the question can be solved why some queens go through safely while others do not, then we will have something to base our hopes upon, but so far we are at open sea, and do not know for certain anything about the matter. This year I have been using a piece of comb in each cage, so as to make the bees feel more at home and give them a place to store the liquid should the candy take on too much moisture. In others the piece of comb has contained some honey to help the bees moisten the candy should it become too dry. So you see I am still at it.

Truly yours,
G. M. DOOLITTLE.

MR. PETERSEN'S RETURNS

To the Editor.

SIR,—You published a letter from Mr W. Niven, Eugowra, in the last number of the *A.R.B.*, concerning my crop of honey in 1891-2, and I am under the necessity to reply to same as it contains several mis-statements. Mr Niven denies having said at last Convention, as reported in *A.B.B.*, "that he kept bees near Mr Petersen for 25 years." He also acknowledges that he left here nearly 17 years ago, and knows nothing about 91-92 crop. I suppose the reporter is to

blame, as he gets the blame in a good many instances, but why didn't Mr. N. have the report contradicted in the next number of the *A.B.B.*, as he was well aware that this report,* if not contradicted, would injure my character and reputation for veracity. If I had not read the report, and contradicted it, you, Mr. Editor, would be sure that he was my neighbour in 1891-92, and could speak with authority. Instead of this he absolutely knows nothing at all, but simply discredits my report.

Again Mr. N. says, that he looks upon Mr. Peterson's proposition for him to send his cheque for £5 to assist Mr. P. in clearing up his difficulty as rather a ridiculous thing. "I simply proposed for Mr. N. and me to deposit £5 each with you, Mr. Editor, you to send a gentleman to make enquiries re my statements, and I would pay expenses if I was wrong, and Mr. N. to pay, if I proved to the gentleman's satisfaction that I was right in my statements. This was fair, and I don't see how Mr. N. would assist me in "clearing up my difficulty" as he terms it, for he is so very sure that I have been stating falsehoods, and knows, or pretends to know that my farm is in a poor honey district.

Mr. N. is evidently no reader of foreign Bee Journals, else he would be aware of far larger yields than mine, taking their short honey seasons in consideration. I have read plenty reports in *Gleanings* of 150-200lbs. and over per colony, Spring count, for large apiaries collected in from three to 6 weeks, also reports of scale hives, Doolittle reporting 66lbs in three days, Manum over 100lbs in three days, and Poppleton 400lbs. in 2 months, some days over 20lb. Mr. Poppleton secured 50,000lbs. from 280 colonies, Spring count, in two months, and Mr. Doolittle secured 330lbs from one colony of Italians in a "long idea" hive in 3-4 weeks flow, from white clover.

Mr. Gale informed me of a

bee-keeper on one of the Northern rivers securing 120lbs. from one colony in one week.

I have also read of large averages in South Australia, up to 450lbs. per colony, the same party securing a 70 ton crop, and no doubt there are plenty of bee-keepers in N.S.W. making large averages, but don't publish it, for fear of having their location overdone.

Mr. N. entirely ignores the most important factor in successful bee management, viz., the kind of bees employed. I use a hardy race of Italians and first cross Hybrids, and have been breeding queens from my best honey gatherers for years, and I consider my bees hard to beat for honey gathering. Mr. N. has black bees, and don't know what a good strain of Italians bees can do in a good season.

There is another error, Mr. N. makes in not being a conversant with apicultural terms. I have reported my yield as 48,000lbs from 63 colonies, *Spring count*, and that I increased to 120 colonies, or 750lbs average per colony, Spring count. He evidently don't know that Spring count average means the average of the colonies in an apiary beginning of spring, and *their increase during the season* in this instance from 63 to 120 colonies.

In America, bee-keepers treat each other as gentlemen, and I have never read of a bee-keeper reporting a large yield attacked, and his probity and his veracity doubted. It appears that in N.S.W., a bee-keeper reporting a good crop is considered a fraud by some people, and has to prove to the satisfaction of any one, that he is truthful (no liar)? Mr. N. having been a resident of Wattle Flat previous to 1878 had, and has a good opportunity to find out whether I am correct or not, by simply inquiring of some of his former acquaintances, and why he hasn't done so is a mystery to me.

I hear Mr. Gale is going to lecture on bee-keeping in this district, and I have

asked him to visit my place and enquire into my statements. Yours &c.,

H. PETERSON,

Nuggety Hill Bee Farm.

P.S.—Mr. N. ignores your footnote, Mr. Editor. I suppose my confidential statements re 21 tons honey sold in 93 doesn't agree with his preconceived notions.

(On reference to our shorthand notes, we find them exactly as published).

FOUL BROOD IN FRANCE.

Gleanings contains some articles, translated from the *Revue Internationale d'Apiculture*, from which it appears the French have—contrary to the general Australian and American experiences—been successful in curing foul brood with drugs. We reprint the articles believing they will be read with great interest by Australasian beekeepers.

Mr. Charles Vielle-Schilt reports two cases of foul brood which he cured by the antiseptic treatment. I remark, however that in both of them, the disease was just in its incipient stages. In the first case he commenced with cutting out every particle of sick brood, leaving of the cells whatever could be saved, and cleaning them well. Then after brushing off the bees, he put these cleaned frames as well as those which contained only honey, into an empty hive, where he exposed them to the vapours of sulphur for several days; this hive was to receive the colony afterwards. As to the other, in the affected hive he killed the queen and confined the bees to the frames which contained healthy brood. Then he fed them an antiseptic food, a treatment that has to be continued for a long time—at least till the bees hatch from a new queen. The food consisted of two kinds of syrup, which were given alternately, every other day each. The first mixture consisted of a litre of sugar or honey syrup, to which a gramme of naphthol dissolved in rectified spirits of wine had been added. For the second mixture, instead of the naphthol a little stronger dose of camphorated alcohol was used. The second mixture had to be administered because the bees, "on account of the remedy, have pains" to take the first. At the same time, pieces of camphor, enveloped in cloth, were placed under the frames. The same precaution was also taken with the hives near the diseased one. For twelve days the colony was left undisturbed, when an open queen-cell was found and all the others were destroyed. On the 21st day the colony was despatched into that hive which contained those sulphured frames and which had previously

been exposed to the air to remove the odor of the sulphur. Having a better queen than the one reared by the colony, the latter queen was killed and the other one introduced in a cage. How long the colony is fed with those mixtures is not stated; but Mr. Vielle-Schilt asserts that the colony, as well as its stores, increased fast; that the bees when put into winter-quarters, did not show any sign of the disease, and that in spring they prospered and were in fine condition.

The other case, found in a straw hive in fall, at the end of September, was treated differently. All the brood that could possibly have been diseased was cut out and destroyed, and pieces of camphor, enveloped in cloth, were placed in that part of the hive where no combs were. The colony received no other care. In April the smell of the camphor was still perceptible; some fine brood was to be seen in newly constructed cells, and the disease had entirely vanished. A correspondent reports that, on that on the 18th or 19th of July, when opening a hive, he noticed that the colony had foul brood. He directly administered a dozen pieces of naphthaline. Four days later the disease had increased, for all the four combs that contained brood were attacked and all cells burst. He then removed the naphthaline and gave a mixture of syrup and eucalyptus tincture, the latter consisting of one part of essence of eucalyptus and nine parts of pure alcohol. At the commencement he used one teaspoonful of tincture to a litre of syrup, then he gave two teaspoonfuls, then three. After eight days of this treatment the middle of the diseased frames was clear, and filled with eggs; and besides the original four frames of brood and eggs, two more frames of eggs were seen. A fortnight later, the colony had ten frames of perfectly healthy brood, and eggs (the frames were small, only six decimeters square*); on only one of those four originally diseased combs, a few larvae were doubtful. A week later the foul brood had entirely disappeared, the hive contained considerable honey, the colony was active and wintered splendidly. Some camphor was placed in all the other hives, and a tea spoonful of eucalyptus tincture added to the winter food of each. A neighbour of the correspondent also used eucalyptus tincture with the same good result. In April the same correspondent reports that said colony wintered best of all his colonies, and that it was one of his very strongest. He adds that he had forgotten to mention that before treating the colony, he removed it from its hive and washed the latter in boiling chlor., after which he returned the colony to the hive. His neighbour had washed his hive with sublimate. Mr. Bertrand remarks in a footnote, that said treatment is the one introduced by Messrs Delay, Bauverd, and Auberson, and recommended in his (Mr. Bertrand's) book, "Conduite" (Management,) and that on account of its "pronounced" savor, the dose of eucalyptus tincture (like phenyl

naphtol, etc.) has to be augmented gradually.

Mr. Ulv. Gubler writes about formic acid. "It is," he says "perhaps the most powerful antiseptic known. Thanks to it, the honey preserves itself indefinitely. There has been found at Dresden, in the eaves of an old house, some well-preserved honey, dating back to the fifteenth century!" Thanks to the formic acid with which the air of the hives is always saturated, the frames, the pollen, and the nourishment of the larvæ, keep without fermenting. Mr. de Planta relates an experience of Prof. Erlenmeyer, at Munich, who put a little formic acid which had been well diluted in water, into a certain quantity of beer in full fermentation. It immediately arrested the fermentation. It is quite natural that the apiculturists said to themselves, "If the formic acid is powerful enough to kill the ferment of the beer, would it not likewise annihilate the germs of foul brood?" And really, many practitioners pretend that it is the best means to arrest and cure that terrible disease of the brood.

The *Schweizerische Bienenzeitung* (Swiss Bee Gazette) cites some experiments which have been successful. One proceeds thus: "The bees of a diseased colony, as much as possible, contracted on some frames. All the other frames are set aside. In a frame with empty combs, there is let drop from a certain height, in a thin stream, 100 grammes of formic acid at 20 per cent, and then it is placed in the middle of the infected colony. If the weather is fine, and permits the bees to fly, all the attacked brood will be abandoned in eight days, the cells will be cleaned, and all bad smells will have disappeared. Seldom is one obliged to repeat the operation. To preserve the other colonies, it is well to place in them a small bottle with the acid, corked lightly with a little cotton. To hasten the cure, one can, without fear, mix the remedy with the food of the bees, a teaspoonful to the litre." Three of our friends, in whose apiaries the foul brood had appeared, have applied the remedy with success. When we visited them we noticed a good deal of brood in a state of complete putrefaction, while a few days later, these colonies were already better. When they had to be put into winter quarters they were strong and in good condition. After this, Mr. Gubler speaks of the origin of the formic acid, and says that according to Mr. de Planta's scientific and irrefutable researches and analyses, it is neither contained in the nectar of the flowers nor does it come from the air in the hives; but its origin is to be found in the blood of the bees.

The Americans are beginning to think the expansion of their own home market is more important than the foreign markets.

FOREIGN MARKETS.

HAWAIIAN ISLANDS.

Mr Wm. D. Russell, Fyan's Creek, Victoria, writes:—You will find enclosed a letter I received from Rev Mr Horsfall, Hawaii, and which I am indebted to you for having forwarded to me, as it was addressed to your care. If it is of any use for publication it is at your service, as I mentioned to Mr Horsfall I would hand it to you. Re my offer to go to England, or also to contribute £10 towards someone else going. No comment or suggestion has appeared in reply through your columns. What are the beekeepers thinking about? Does no one care whether honey is ever exported? I beg now to withdraw my offer, but at the same time will be pleased to assist in any scheme that may be set on foot. I note Mr Bradley's letter in your last, and would say to Mr Bradley I am willing to assist you. Kindly communicate with me if I can be of any help. Will help as far as possible any bona fide effort to export.

Mr Editor, do not our beemen know that this is our *greatest* question to be settled. Foul brood is next, but far less important (though I don't underrate it, bear in mind.) All the trifling arguments that so long filled the columns of the *Bulletin* would be well replaced with suggestions, and *more particularly offers of help* to get a good foreign trade for honey opened up. It will be hardly fair for those who don't help in any way to benefit by the exertions and expenditure of those who do, and yet, Mr Editor, there are those who will be only too glad to take the benefits after others have opened the way. Perhaps if you would open a subscription list some would make an offer of help; then when enough is secured a meeting might be called to get the thing going. In that case I will allow my former offer to hold good.

Re Mr Russell's remarks about foreign markets we ourselves called attention to it, not only in these pages, but at the Sydney Convention in July. Considering, however, the little interest taken in the Honey Supply Company then inaugurated and its almost certain probability of

falling through, Mr Russell must not wonder at his offer being overlooked, but we shall only be too glad to do our best to further any movement in this direction.

Letter referred to above.

Lahaina, Mani,

Hawaiian Islands,

October 23, 1894.

Mr W. D. Russell.

Dear Sir,—You do not give me your full address. So that you may get this letter safely I am sending it to you c/o the Editor *Bee Bulletin*.

I will try and answer your questions to the best of my ability.

(1) The climate here is equable all the year round, and there are no distinct seasons. It is, in fact, perpetual summer. The windward side of the islands has a heavy rain-fall, and plenty of vegetation; the leeward for the most part dry and barren. Lahaina is on the leeward, so is Honolulu, though the latter place enjoys occasional rains, drawn there, doubtless, by the vegetation.

(2) No definite seasons.

(3) There are many white people, principally of American extraction. They are engaged chiefly as sugar planters, and in various professional pursuits.

(4) There are good schools and churches in Honolulu.

(5) Expenses of living are high, and all luxuries are expensive. I could live well in Australia or New Zealand on a quarter of the money which I am obliged to spend here.

(6) Some people keep bees, but whether profitably or not I cannot say. There is no foul brood.

(7) I should think it unwise of any white man with a family to come to this special group. The experiment of starting a bee-farm in this country; I am afraid, would be a risky one. It might be different if one had a capital of £200 or £300. Outside of plantations and professional work, there are very few openings for white men.

(8) There may be districts which would support large apiaries. Laheina, where I live, could only, at the extreme, support

50 hives—the vegetation not being sufficient. I only possess two hives, and at present they are doing next to nothing. Hives could be imported here from San Francisco, or from Root's, Medira.

(9) There is direct traffic with England by the Canadian-Pacific steamers and the Canadian-Pacific railway.

(10) I can sell sections at 25 cents each, but then they are at present a novelty. Wax would fetch its price in San Francisco, but the freight would reduce profits.

I would not, however, try and discourage anyone from coming here to start an apiary, but, to be candid, there are many reasons which make this country a disagreeable one to live in—chiefly political. The feeling here is anti-British. For my part, I prefer a land over which the Union Jack waves.

W. HORSFALL.

SPECIAL WORK FOR DECEMBER.

N.Z.

When writing last month I mentioned an agreeable change in the weather for the previous 10 days had taken place. This change I am glad to say settled into a spell of fine bee weather which has continued pretty well ever since. In the northern part of New Zealand the honey season so far has been one of the best experienced for several years, making glad the hearts of our beekeepers. There has not only been an increased yield, but the honey is of much better quality than usual, and I trust the same state of things may prevail later on when our southern beekeepers look for their honey harvest.

SWARMING

Swarms should be looked for during this month, especially where the usual precautions for preventing them coming off has not been adopted. I would advise returning them according to the instructions given last month where swarms are not wanted. Swarming is just about the worst thing that could

happen in the height of the honey season where surplus honey is the object in view.

SURPLUS HONEY

I would strongly advise all beekeepers who can raise honey that will extract to do so in preference to raising comb honey, more particularly honey for market. In the first place, extracted honey is much the cheapest to raise as there is no destruction of combs. In the next place, nearly or quite double the quantity of extracted compared with comb honey, can be secured with less risk of swarming; and in the third place, which is perhaps the most important of all, it can be kept any length of time without deteriorating, and can be transported any distance with very little risk. It is also more saleable. There are districts where it is almost impossible to raise extracted honey owing to the flora yielding a very thick nectar which cannot be thrown from the combs after being stored. Much of the native flora of New Zealand yields nectar of this kind, and in such cases the beekeeper is compelled to raise comb honey. Nectar from the same flora differs greatly in different seasons, but as a rule, there is some part of each season when honey will extract, even in the worst districts if taken in time.

RIPENING HONEY

One of the most important points in raising extracted honey for market is to see that it is thoroughly ripened before having it put up in marketing packages. Numerous instances have come under our notice where the want of proper attention to this matter has resulted in a considerable loss, and tended to give the brand of honey a bad name. It is very little trouble to so thoroughly ripen honey that there shall be no risk of its ever after fermenting. Honey usually contains in its natural state from 12 to 20 per cent. of water. When there is 15 per cent. of water or over it does not granulate freely, and if put up in that condition is likely to ferment. After extracting the honey should at least pass through a couple of strainers—the

first one rather coarse, consisting of perforated zinc, for instance. This catches all dead bees, larvae, and large pieces of wax, and should be made so as to easily lift out for cleansing without disturbing the finer strainer made of fine wire gauze (16 meshes to the lineal inch) through which the honey passes slowly into the tank. This process is to ripen it considerably, but it should be left in the tank for a day or two at least before being put up for market, in order that the air bubbles and scum may rise to the top and be skimmed off. In fact the longer it is exposed to a warm dry atmosphere the better, provided, of course, it is put up before granulation takes place.

MISCELLANEOUS WORK

The main sowing of buckwheat should take place this month to come in for Autumn forage when the latter is scarce. Everything should be done to facilitate the work of the bees in order that they may give greater returns of honey.

SPECIAL WORK JANUARY.

The present season promises to be one of the best, from a beekeeper's point of view, that we have experienced for many years past; the white clover is blossoming splendidly, in fact the paddocks and roadsides are covered with it. Sections have been sent to market phenomenally early, and in all cases where full sheets of foundation have been used, have been well filled, many of them containing considerably over a pound in weight. In many apiaries the extractor has been kept busily at work, so that should the season hold out as promisingly as at present we may expect to hear of a very large output of honey of both kinds at the end of the season.

SWARMING.

Swarms may still be expected during the present month and every precaution should be taken to prevent them coming off, both by giving additional room when required, and also by searching for and cutting out queen cells; swarming materially lessens the honey crop and should be prevented by all means possible.

Should however a swarm issue they should be at once returned as described in the *Bulletin* for October last (page 178).

EXTRACTING FROM THE BROOD CHAMBER.

In a good season like the present with the honey flow so plentiful the bees are sometimes apt to store so much honey in the brood chamber that the queen is curtailed for space for breeding purposes. This is likely to occur in cases where queen excluder zinc is used between the upper and lower story, and as a matter of course, will tend to induce swarming. In order that the queen may have plenty of empty cells in which to deposit her eggs it will be well to occasionally examine the brood chamber and run some of the full combs through the extractor, two or three of the combs containing capped brood may (after brushing off the bees) be transferred to the upper story and their places filled with empty combs, or frames filled with full sheets of comb foundation. In extracting honey from combs partly filled with brood, great care must be taken and the extractor worked as slowly as possible, otherwise, the young brood may be thrown out and destroyed.

REMOVING SECTIONS.

Those should be removed from the hive as soon as completely sealed over, otherwise if left on the hives they are apt to become stained by the bees travelling over them. After removal from the hives all propolis should be carefully scraped off the edges. This can easily be done by making a stout frame of wood, about one inch in depth, and nailing thereon a piece of wire cloth. When the propolis becomes dry and cold the section should be rubbed carefully over the wire cloth and the propolis will easily come off and fall through the perforations into any receptacle placed below. Previous to sending the sections to market, they should be stored in a dry, well ventilated room for a few days. Sections travel best when packed in small quantities, a small crate holding one dozen is the most convenient package. They will travel in greater safety in this, than they

would if packed in larger crates or cases.

It should be remembered that comb honey requires just as much care and taste in the get up as extracted, and it is of the first importance to have the section boxes properly filled and all the cells capped. Nothing can look more slovenly than a section box about three parts full and a number of the cells uncapped with a leakage of honey, yet this is the way a greater part of section honey reaches the market. No wonder the shopkeepers will not give more than 3s per dozen for it and quite as much as it is worth. If beekeepers will not go to the trouble of producing a decent article then they ought not to grumble if they cannot get a good price. Shopkeepers I am sure will always prefer and are ready to pay a higher price for an article that they can without scruple place before their best customers. I have often been surprised that the grocers buy much of the section honey sent into market.

MARKETING EXTRACTED HONEY

In some districts the honey is so thick that it is impossible to use the extractor. When such is the case there is no alternative but to raise comb honey in sections. However where the extractor can be used I strongly advise that method of obtaining the surplus honey in preference to raising honey in sections. Extracted honey is much the cheapest to raise as there is no destruction of combs, and nearly if not quite double the quantity of extracted compared with comb honey can be secured with less risk of swarming, and most important of all it can be kept any length of time without deteriorating and can be transported any distance with very little risk. It is also more saleable. With regard to the extraction of thick honey a correspondent in the *Canadian Bee Journal* some short time ago gave the experience of a friend of his in the extraction of thick honey, which I think I cannot do better than reproduce here for the benefit of those who happen to live in districts where the flora yields such a thick nectar that cannot be thrown from the cells after being

stored. He is possessed of some 35 or 40 of his own, and being busy in out aparies neglected his own colonies till very late. He found on examination for wintering that he could take 800 or 1000 lbs of honey off and still leave sufficient for wintering purposes. He took out all the combs containing the stores and piled them up near the stove in a very hot room. He tried to extract them after allowing them to become thoroughly heated as he supposed but found he could get out very little, the honey being so thick.

Casting around for ways and means he tried the following experiment which worked with great success, enabling him to extract the comb very clean :

He first set on the floor a second story (the ordinary brood chamber will do) and inside this placed a large iron pot filled with hot water ; he took a large piece of iron and heated it red hot, he filled another second storey with combs containing he thick honey. When the iron was well heated he lifted it out of the fire and placed it in the pot of hot water, then quickly lifted the second story with comb into position on the first story and covered the whole with a coarse cloth, which allowed sufficient draught. He left the combs in this position for ten minutes took them out and placed them in the extractor with the results mentioned above.

Mr James Dillworth writes—I like the *Bee Bulletin* very much, and wish it every success.

A correspondent from Pakenham, Victoria, writes—Foul brood is rampant here ; the bush is stinking with it.

Mr W. Abram writes—Never have I seen such an abundance of red gum blossom as this year, but the weather having been so dry they secreted very little honey, and faded in a few days. Iron bark is now out, with black butt and grey and blue gum to follow. Thus far queen rearing is a pleasure this year. Almost every queen becomes fertilised, whereas last year about 40 per cent. got lost before they started to lay.

THE ENGLISH MARKET.

Dr J. B. Mason, Longford, Tasmania, writes :—" Mr E. Tipper,—Dear sir,—I shall be obliged if you will forward me (6) copies of the pamphlet on uses of Honey in Cookery (Economic). I enclose P O for 3s 6d. Also a letter forwarded to me by a relative in London who I asked to make inquiries about sale of Australian Honey. Neighbour & Sons are a leading bee supply firm, and you will readily perceive how unscrupulous is the opposition exhibited by English brokers to Australian honey, or indeed to all other products which are expected to diminish their profits. I was sorry to see my friend Peterson of Wattle Flat subject to an attack in your journal. His sons reply was fair and straight, books and sale receipts offered for inspection should be sufficient. It is most desirable to elevate the tone of discussion in Bee Associations. There is too much personality and positivism displayed "Let brotherly love prevail"

London, W.C., Sept. 26, 1894.

To _____
 Sir,—In reply to your letter, we have already seen many samples of Australian Honey, and a large quantity has been on offer by brokers who have had some placed in their hands for sale, from what we have seen the Australian Honey is not acceptable to the British public, it is so strongly flavoured with the Eucalyptus, as to be objectionable to the palate, for this reason we have never taken it up. There appears to be no exception to this peculiarity in the samples we have had submitted to us from time to time And about the price, we could have bought at our own price if we had cared to entertain it, we therefore conclude that your friend would do better to dispose of his surplus honey in the colony, if he can obtain as much as 4d per lb for it and not trouble about sending it to this market. We are, Yours respectfully,
 for Geo Neighbour & sons,
 J. H. BLACKMORE,

Mr I. Hopkins, Auckland, N.Z., writes—Our bees are doing splendidly here just now—grand weather, not so hot as N.S.W. My trip has done me a lot of good, and so it has Mrs Hopkins, and I hope the time may come when you can take a trip across here.—We hope so too, most fervently.

Mr F. Nicholls, Harwood Island, writes—I have 50 colonies of bees (hybrids.) Having a farm to work I cannot attend to a larger number, so if you can give me some hint as to my best way to keep them from increasing. What is a fair price for 11b sections?

To prevent increasing your colonies we would give them plenty of room by putting on supers as soon as needed; cutting out queen cells and returning swarms by rehiving them on supers on top of hive they swarmed from. Have you neighbours who will buy your swarms? Re the price of sections write to the supply dealers who advertise in our pages.

A. I. Root says—I am coming more and more to believe in the prevention of swarming by the use of large hives, or two eight-frame stories as one hive. At our out yard those colonies whose queens were allowed their freedom in both upper and lower story stored considerable more honey in *proportion* than those confined to a single story.

T. H. M., Lismore :—writes under date Dec 8th. The season in this locality has failed to come up to expectations. We had a good flow of clover, in my experience exceptionally good, but little since. This month is always dry, so I do not anticipate anything great till the new year. Of course we, beekeepers especially, live in hopes (very often blasted) but I think we can fairly count on a fall crop. Those beekeepers who left the clover honey with the bees to get swarms find themselves left, as up to the present they have failed to secure any honey.

Mr F. Nicholson, Harwood Island, asks—I have 50 colonies of bees, hybrids; having a farm to work I cannot attend to a larger number. Will you give me some hints as to the best way to keep them from increasing. What is a fair price for 11b sections?

To prevent increasing your colonies we would give them plenty of room by putting on supers. Have all swarms on foundation, alongside parent colony and unite in about 3 weeks. Perhaps you have neighbours who will buy your swarms. Re the price of sections inquire of the different supply dealers who advertise in our columns.

Mr D. Hazelwood, Sydney, writes—I like the *Bulletin* much, and think it a credit to my native town. There is much to interest, but very much in the difference of opinion and warm controversy on some topics to confuse and leave one in a delightful state of uncertainty. I was much exercised about three weeks ago what to do about artificial swarming, or dividing, the bees having swarmed on two days successively, but returned to the hives, as the queen's wings were clipped. I am told I did the wrong thing, but as both hives are doing well in eggs, larvae and honey, I suppose "all's well that ends well."

Mr W. S. Goard writes :—I am sending you by to-day's mail a small piece of brood comb which I cut out of one of my hives (a Berlepsch). I want you to let me know as soon as possible whether it is a case of foul brood. The hive from which it was taken showed symptoms of a disease of some kind or other during the winter, but breeding went on all right until October, when it threw off a very large and apparently healthy swarm. Since then the bees have been dying. They are not paralysed, but seem to have very little life, and hang about the hive almost motionless. You will notice I inserted a piece of comb with eggs from another hive to give them a chance of raising a new queen or superseding the old one, but that was not what they wanted, evidently; for every cell was filled with worker brood, most if not all of which you will perceive is quite dead. Some of the cells have as many as, I suppose ten or a dozen eggs in them, none of which have hatched. Others have reached the capping stage, and then have died.

The sample of brood to hand, but is not foul brood. We rather think it is a laying worker you have. Have a good look if there's a queen. One cure for laying workers is to remove the hive to a distance. Place a new hive on the old stand, with a frame of brood and eggs and a laying queen. The bees from the defective hive will all go to the old stand except the laying worker, who will stick to the old combs.

Trapped drones will not live more than a few hours after being trapped. They will worry themselves trying to pass the metal, or probably starve to death. If desiring to capture select drones for an out yard they should be fed and taken care of at once.

A Bega subscriber writes :— If the following lines are of any use, you may insert them in the A. B. B. Many thanks to the kind gentleman at Casino, who answered my questions in such a good and friendly manner. Has any of our beekeeping friends ever noticed their bees feeding upon and carrying away waste oil from steam engines? I am greatly surprised at seeing mine doing it.

Mr Alfred Sheather, Gundagai, writes — Bees are doing very well here just now, from forest gum, yellow box, blue thistle (known here as the Murrumbidgee thistle.) I started beekeeping six years ago with two colonies of bees, and I have at present 90 colonies of hybrids and Italians. I am very pleased to hear a Foul Brood Act is likely to be put through Parliament soon. It will be a great boon to beekeepers in checking a lot of gross carelessness, which some who keep bees seem to display; and also with the Honey Supply Co., which, if it works even fairly well, will be the means of finding custom for a lot of honey. I think it would be a good plan to try a little confectionery and biscuits made from honey in connection with the above. It is claimed that honey is more wholesome than sugars. If so I think that the Supply Co. would not be long before they would have a great demand for confectionery, &c., which would be the means of working off a considerable lot of honey. Wishing you the compliments of the season, and also wishing your paper all the success it deserves. I am well pleased with the design of the honey labels you sent me.

Dr. C. C. Miller has an article in *Gleanings* on "Queen Cells of two kinds" pre constructed cells, and post-constructed cells. The former are constructed by and with the connivance of the queen in

process of natural swarming, and Cheshire has an engraving of such, springing out from the edge of the comb. Cheshire also says that with post constructed cells their surrounding cells are obliterated. Dr. Miller objects to the latter statement, and says in the case of a post constructed cell, the bees fill out the worker cell with jelly, the larvæ swimming out to the surface, so as to speak, the enlargement beginning only at the mouth of the worker cell. Such being the case, it would hardly seem necessary that adjacent cells should be "cut back" I am not prepared to say such is never the case, but I have found fully matured worker-bees in cells below the queen cells and covered by them, there being no "cutting back." He concludes the article by stating "The base of a pre-constructed cell is larger than a drone cell and has no angles in it, while a post-constructed cell has for its base an ordinary worker cell, with six sides and angles." A lively discussion is likely to ensue on the matter.

Mr Munsch, writes :— I have commenced keeping a few hives of bees and at present have ten swarms of Italians. I have been recommended to become a subscriber to your bee journal as it contained a lot of seasonable information. I herewith enclose postal note, value 5/- which I believe is the price for 1 year's subscription. As it is so near the end of the year perhaps it would be better to commence from the first of January, but if you have a copy of this month's to spare I would not mind receiving one to see what it is like. I am given to understand that you are at all times willing to give information to anyone requiring advice and as I am only a beginner and have not gained much experience in this line yet would like you to furnish me with a little. My hives are all 8 frame ones with thick top bars 1 1-16th wide and are provided with a tongue or starter and are spaced $\frac{3}{8}$ apart. I was told the bees would build straight combs in these and it was not necessary to provide any foundation, I however found (in some of the hives), that at first they

built them straight, and before the frames were full, commenced joining them together. and it is now impossible to remove many of the frames without cutting. Thinking they might be pressed for room, I put on the supers with sections, about four weeks since, and it is only now that they have commenced operations on it. After I found them joining the combs in this way, in subsequent hives I used the same kind of frames, but provided them with a strip of foundation about two inches wide, and now find they have all built nice straight combs. What I wish to know is whether it advisable to remove the frame from the hives so affected provide them with fresh ones with foundation, or if it is best not to interfere at present, and let them work in the sections, also whether it is good policy to remove frames from the brood chamber, or leave it untouched, if the former, what is the best time (month) to do so. Thanking you in anticipation.

Your main enquiry is whether it is best to remove the combs that have got built wrong at once. We should cut them out at once, and fix them straight into frames, securing them with bent wires or pieces of string tied over frame and all. Some bore holes through the frames through which they push pegs through, and into the combs, and so hold them secure. They will never be good frames, but as they get filled with capped brood, you might remove them into the upper story, where, as the brood comes out, they would be filled with honey; when the latter is extracted melt them down.

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HALF PAGE, per annum, £5; half-year, £3; per quarter, £1 15s.

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This Season's Breeding.

**FIVE SHILLINGS PER
QUEEN UP TO FIFTY.**

ANY desire to provide you with pure Italian queens cheaper than you could produce them is being appreciated, and I beg to thank my numerous customers for their favours. I shall continue in my efforts to give satisfaction and supply these beautiful queens as heretofore. It pays any bee-keeper to get as many queens as he wants from me, because I breed from the Best Stocks, for Excellency of Qualities, Beauty, Industry, Docility, therefore my queens excel all others.

W. ABRAM,

Italian Bee Farm, Beecroft,

NEAR SYDNEY.

P.S.—It is preferable sending queens per railway or steamer parcel, where practicable, instead by post, and I would respectfully request to add parcel freight and 6d for packing with order.—W.A.

All Queens Post Free.

And Safe Arrival Guaranteed.

HAVING a large number of colonies devoted solely to Queen Rearing this season, prices are way down.

Send your orders along, but remember I breed no more Golden Italians, only Pure Ligurians.

Untested at 42/- per dozen, 22/6 per half dozen.

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DEC. 24, 1894]

The Australian Bee Bulletin

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Where your Orders shall receive prompt attention. Price Lists on application.

DILLEY & HOGAN
Tinsmiths,

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Received Alive

And in grand condition, per steamship "Mariposa," on the 15th of October, 1894,

One of A. I. Root's

Select Tested Italian Queens,

And she is doing splendidly.

I can supply queens reared from the above stock at the following rates:—

	s.	d.
Untested	5	0
Tested	8	0
Price of Comb containing eggs	5	0

A. E. AYERST,
CEDAR HILL, MINMI,

— N.S.W. —

TO BEEKEEPERS.


JUST ARRIVED!

A CONSIGNMENT OF

Root's Dovetailed Bee Hives

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And all other Appliances.

 APPLY

JOHN PEASE

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Indents for next Season executed on favourable terms.

DEC. 24, 1894

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Try some of my Queens, imported from Italy, which are leather-coloured from queens imported from Doolittle. These are a queen imported from gentleness, are bees, for honey gathering and equal to any.

	one	two
Untested, from either strain	5/-	9/-
Tested,	8/-	15/-

Should you get one of my tested queens that does not give you satisfaction, let me hear from you.

H. W. J. TAYLOR, Mountain Apiary MINMI.

To Editor A. B. B.

Sir,—Having had occasion last season to send to Australia for a tested Italian queen, my choice fell on Mr. H. W. J. Taylor of Minmi, his advt, in the A. B. B. being to my mind, the most unpretending.

In due time the queen arrived safely, with not a dead worker, and I introduced her successfully. After some months Mr. Taylor wrote asking me how she turned out, whether quite satisfactory or not. I was sorry to state that she was not quite up to expectations, whereupon Mr. Taylor at once sent me one of his best queens to replace her; for which I have to tender my best thanks to him through your Journal.

Indeed such generosity on the part of all breeders would be much appreciated by the non-breeders. Mr. Taylor informs me that it is nothing but what every breeder of bees should do in similar cases, but I am sorry to say that according to reports I have had from others that such is not the case.

I am, &c.,
W. J. MAY.

An illustration of a vintage 'NOVICE'S HONEY EXTRACTOR'. It is a cylindrical metal can with a handle on top and a spout on the right side. The text 'NO. 5' is on a small label at the top. The main text on the front reads 'NOVICE'S HONEY EXTRACTOR' in large, bold letters. At the bottom, it says 'MADE IN U.S.A.' and 'W. H. H. & CO. NEW YORK'.

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2-Frame	Novice	Extractor (side gear)	with 100 lb. capacity	£2	2s	6d.
2-Frame	"	"	with 25lb. "	£2	0	0
2-	"	"	To suit both Munday and Hoffmann Frames	£2	4s.	
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2-	"	"	"	£3	2s	6d.
2-	"	Cowan's Reversible (side gear)	"		12s.	
Single	Frame	Slingers	"	"	"	

SEE OUR ADVERTISEMENT ON FRONT PAGE.

4

Just Landed, from Mrs Atchley, Texas, United States, America, four fine Tested Italian Queens. I am going to breed from them right off, and will now book orders for daughters from these queens, to be delivered in rotation.

I have altogether received 23 queens from America, and all arrived dead until this lot, so I have had success at last, but at considerable cost. I will supply daughters at same price as Ligurian queens.

	One.	Three.	Five.	Ten.
Untested Italian Queen.....	5/-	13/-	20/-	39/-
Tested " "	8/-	22/6	35/-	67/6
Select Tested Ligurian Queen ..	12/6	36/-		

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FINE BREEDERS, either race \$6 each.

Tested Queens, \$1.50 each. Express prepaid on each queen \$1.50, and safe arrival guaranteed. I have made arrangements so that I can send queens by express to Australia for \$1.50 each extra. By mail same price, with no guarantee of safe arrival. I am preparing to have a fine lot ready to go on in September, October and November. If you want a fine queen give me your order. My Money Order Office is Victoria, Texas, U.S.A.

I can now prepay queens by Express to Australia for \$2.50 each (exchanges), or when 6 are ordered at one time, I can prepay at \$1.50 each.

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I attribute my success to the fact that I have obtained the past seven or eight years fresh breeding queens every season from different places and most noted breeders in Italy and America, and have just landed two very select breeding queens from A. E. Manum, Bristol, Vermont, who gives them a very great character, and adds that they are descended from a queen that filled 312 1lb. sections in the one season, besides drawing largely from her for eggs.

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I CHALLENGE any one to show up a strain of bees superior to my

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Gentle, industrious, good comb builders, not inclined to swarm, and perfect beauties.

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Say, friend, what strain does this for you?

For me, I'm "sarten," "GOLDENS" do.

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The Australian Bee Bulletin.

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