



LIBRARIES

UNIVERSITY OF WISCONSIN-MADISON

The Australian bee bulletin. Vol. 2, no. XIII May 27, 1893

West Maitland, N.S.W.: E. Tipper, May 27, 1893

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

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

For information on re-use see:

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

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

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

THE AUSTRALIAN BEE BULLETIN.

A MONTHLY JOURNAL, DEVOTED TO BEE-KEEPING.

VOL. 2. No. XIII.

MAY 27, 1893.

PER COPY, 6d.

Per Annum 5s. booked 6s 6d; in Australasia, outside N.S.W., add 6d. postage.

BEE-KEEPERS' SUPPLIES.

1 lb. Spools of Wire, No. 30, 1/6 each, 16/- doz.
1 oz. " " " No. 36, 6d each.
Daisy Foundation Rollers, 1s.
Spur Wire Embedders, 1s.
Sections, 1 1/2 in. wide, 3s. per 100.
" " " 25s. per 1000.

Benton Mailing Cages, 4d ea., 3s dozen.
Green Wire-cloth, 24in. wide, 3d sq. ft.
Vandensen Hive Clamps, 4d pr. 3s doz. pr.
Bingham Honey Knives, 7s 6d.
Novice " " 5s.
Abbots " " 3s.

BEE BOOKS—*A.B.C. of Bee Culture*, 5/- each, 5/6 per post; *Langstroth by Dadant*, 7/6 each, 8/3 per post; *Doolittle Queen Rearing*, 5/- each, 5/6 per Post.

10 per cent. off all orders for Hives received this month.

Goods INDENTED at very reasonable rates.

R. L. PENDER,

Northern Steam Joinery Works.
WEST MAITLAND.

R. K. ALLPORT,

Little Arthur St., North Sydney.

MANUFACTURER AND IMPORTER OF

ALL KINDS BEE-KEEPERS' SUPPLIES

COMB FOUNDATION.

	Best bright yellow wax.	2nd Pure Beeswax but dull.
5 lbs.	1/11	1/10
10 lbs.	1/9	1/8
35 lbs.	1/8	1/7

1 cwt. Lots or over, special prices.

N.B.—Carriage paid to any Railway Station in New South Wales on Foundation only.

Illustrated Catalogue of Bee Supplies on application.

The Australian Bee Bulletin.



DO YOU WANT A REALLY GOOD, CHEAP & USEFUL PAPER?
THEN TRY THIS ONE! YOU CAN'T DO BETTER!

Its Articles are Short, Sharp and Practical.

100 ordinary pages condensed
 in 24.

Martin's Home & Farm

For the Busy Practical Working Farmers of
 Australasia.

Interesting & Instructive to the Wife and Children, as well as the Father.
 The Paper for every Home & Farm. It claims your support.

Home & Farm Publishing Co., 249 Clarence St., Sydney.

With Australian Bee Bulletin, 7s per annum.

Only

2/6

a Year

of 12 Issues.

HOPKINS TAKES THE LEAD.

Leather-Colored Queens,

FROM IMPORTED MOTHERS.

PRICES:—

1 specially choice tested queen, £1.

In 2-frame nucleus, £1 5s.

In 1-storey 10-frame Langstroth hive, £2.

In 2-storey 10-frame Langstroth hive, £2 15s.

I HAVE some odd-sized hives, containing colonies with good queens, which I will sell at £1 each.

J. W. HOPKINS,

Sunny Hill Apiary,

Tickhole, Wallsend.

— USE —

PEARSONS' CARBOLIC

SAND SOAP

For Scrubbing of Floors, &c., and Polishing
 Metal of all kinds

TONS OF HONEY!



Cyprian Bees!

My strain of Cyprio-Italian, specially bred for QUICK MANIPULATION in Heddon and Fixed Frame Hives, combine the GENTLENESS of Italians with the ENERGY and PROLIFICNESS of the Cyprians. Workers and Drones beautifully marked.

No brushing; no falling off combs; especially THE BEE for large apiarists. Try them. Tested Queens 10/-, Extra 15/- each. ESCAPE QUICK from many annoying features of beekeeping by investing in a supply of my two-way brass-spring Ventilating Bee Escapes, and my coiled-wire Cell-Protectors and Cages. Hatching cells in any hive, swarming suppressed, re-queening made easy. Sample of the three, 2/3 posted.

THOMAS BOLTON,

Grampian Apiaries, Dunkeld, Victoria.



BROTHER Beekeepers, if you want CHOICE QUEENS whose Bees will ROLL IN THE HONEY, and at the same time be GOOD-LOOKING and GENTLE, please write for my CIRCULAR and PRICE LIST.

Raising Choice Queens is my hobby. Fresh Imported Stock every season from Italy and America.

JAS. MCFARLANE,

ST. JOHN'S WOOD APIARY,

LYNDHURST,

VICTORIA.

THE SWEDISH
Institute for Massage and Gymnastic Treatment,
108 PHILLIP STREET,
SYDNEY.

INVALIDS & SUFFERERS

From Muscle, Nerve & Joint Diseases, Rheumatism, Lumbago

Sciatica, Paralysis, &c., should not fail to visit

The Swedish Massage Institute.

108 PHILLIP STREET, SYDNEY,

Diploma from the Royal Medical Orthopædic Institute, Stockholm.

Contents.

Doings for the Month	27
The Convention	27-28
S.A. Bee-keepers' Association ..	28
The Hawkesbury District B.K.A.	28
Hunter River B.K.A.	29
Shows	29-30
Lecture on Bees	30
The National Bee Farm Prizes ..	30
Correction	30
Bees for Business	31
Queen Rearing	31-32
Drunken Bees	32
Bees Absconding after the Flood ..	32
Punics, &c.	33
Foul Brood	33-34-35
The Rambles of Richard	35-36
An Interesting Coincidence	36
Robbing a Bee-hive	36
Questions Answered	37
Hives and Frames	37
Items from Germany	37
Our Letter Box	38, 39, 40, 41
Question Column	41
Bee Paralysis	41-42
More about the Convention	42
The Photograph	42

THE BLUE PENCIL MARK.

KINDLY note if such is on the wrapper of your *A. Bee Bulletin*. It means **YOUR SUBSCRIPTION IS DUE OR OVERDUE** and stamps or a Post Office order will be gladly accepted at the office.

Subscriptions to the **AUSTRALIAN BEE BULLETIN** are payable to Edwin Tipper, West Maitland.

Circulation going ahead. 33 new names to our Beekeepers' List since last publication.

A full report of the proceeding of the Convention, carefully revised by practical beekeepers, will appear in the July and succeeding issues of the *A.B. Bulletin*.

The *Mudgee Post* has the following:—
Mr. H. Williams, of the Croidne Public School, is to succeed Mr. McLelland at Pipeclay. Mr. Williams is a thoroughly practical and enthusiastic beekeeper, and will be a decided acquisition in local apiculture circles. "*Cead mille failte.*"

THE great majority of leading bee-keepers are emphatic in their opinion that the Italian bees of northern Italy—the true ligurian or leather-coloured race—are not excelled by any bees in the world. I have dispatched orders for sixteen of these queens direct to the breeder in Italy, for breeding purposes in my apiary during the coming season. I have 100 queens of this strain, bred from queens imported this and previous seasons. Prices:—Queens 10s to 20s; Hives, with combs, bees, and queen, 30s to 40s.


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

*Gearing and Cages for Stanley Automatic
Reversible Extractors.*

4 Comb	40/-
6 „	60/-

The Bee-keepers' Supply Co.

FRANKLIN-ST., MELBOURNE.

 [We shall be glad to insert in this column Advertisements of dates of meetings of the various Bee-keepers' Associations.]

Hunter River Bee-keepers' Association.

MONTHLY MEETINGS.

—A^T—

Technological Rooms, West Maitland.

TUESDAY, MAY 30.

TUESDAY, JUNE 27TH.

TUESDAY, JULY 25.

MICH. SCOBIE, Hon. Sec.

The Australian Bee Bulletin

A JOURNAL DEVOTED TO BEE-KEEPING

WEST MAITLAND.—MAY 27, 1893.

DOINGS FOR THE MONTH.

Beekeepers in many localities will now be preparing their bees for winter. We cannot lay down any rule as to how this is to be done as one part of the colonies is so much different in climate to others. In some parts no preparation is necessary beyond seeing that the covers are watertight, in other parts very little short of packing will be necessary. In some of the coastal districts of N. S. W. honey is coming in from the white box, spotted gum and other eucalypti, so it is necessary to keep the extractor going. There will be no occasion to use queen excluders during the following month as the queen will not spread the brood as to render them so necessary.

Before leaving hives for winter care should be taken that every colony has a good queen, and plenty of honey; old queens that are likely to be superseded should be destroyed and these bees united with weaker colonies. All hives should be left strong in numbers and the bees disturbed as little as possible. It will require a little experience to know how strong a colony should be left to winter for it is quite possible to have them too strong to be profitable. The Italians will be found weaker numerically than blacks, the queens only laying sufficient to keep up the strength of the colony and not rearing useless brood to consume the stores, but when spring comes the Italians will be found strong in time for a flow.

THE CONVENTION.

Since last issue of the BULLETIN the circular, containing programme for the Convention and other information, has

been forwarded to upwards of 500 beekeepers in all parts of the colonies. The Secretary, with the help of Mr. R. Patten and Mr. E. Tipper, dispatched the whole on the one evening, taxing somewhat the resources of the local post office.

Attached to the circular is the railway certificate, which the intending visitor will fill in and present at the station where he joins the train, also a form which has to be returned to the Secretary by the 31st May, stating name of station at which the visitor intends to embark and signed by him. When these forms are all returned, a list will be compiled for the use of the railway authorities. The following is a copy of the circular:—

DEAR SIR,—It will be recollected that a Convention of Bee-keepers was held at Maitland in April last year, and a very pleasant and profitable time was spent during the three days on which the delegates assembled.

At the conclusion of the 1892 Convention a Committee was appointed to arrange for holding a similar Convention during the year 1893. As the outcome of the proceedings of this Committee, it has been arranged to hold a Grand Convention of Bee-keepers at Sydney, on the 28th, 29th, and 30th June, 1893, in the Girls' High School, Elizabeth-street, which has been kindly granted for the occasion by the Hon. F. B. SUTTOR, Minister for Public Instruction.

The Hon. T. M. Slattery, Minister for Agriculture, has kindly consented to inaugurate the proceedings.

The following programme of subjects for discussion has been arranged:—

1. Points in Judging, proposed by W. Abram, Beecroft; seconded by W. Nevin, Engowra.
2. Foul Brood and Diseases—Proposed by J. Sinclair, Kangaroo Valley; seconded by B. Naveau, Berry.
3. Organization of Beekeepers—Proposed by R. Patten, Bolwarra; seconded by G. Streathfield, Benere.
4. Conservation of Forests—Proposed by J. Ednie Brown, Sydney; seconded by J. Tucker, Paterson.
5. Adulteration of Honey—Proposed by F. G. Daley, Richmond; seconded by Magnus Smith, Tasmania.
6. Marketing Honey—Proposed by W. T. Seabrook, Sydney; seconded by J. F. Munday, Woodville.

Time Table for each day:—Morning Session, 10.30 to 12.30; afternoon, 2.0 to 4.30; evening, 7.30 to 10.0.

Each subject, after reasonable debate, will be put to the vote.

Arrangements have been made with the Railway Commissioners, by which delegates will be enabled to travel at a single fare for the double journey. Negotiations are also in progress to obtain reduced fares by the steamships from the Clarence, Richmond, and Manning Rivers.

By the kindness of Mr. Albert Gale, accommodation for as many delegates as desire, or do not make other arrangements, has been secured at reduced rates.

The Committee hope to see the 1893 Convention eminently successful and beneficial to the apicultural industry. To this end you are cordially urged to attend.

Please bring a simple package of your honey, labelled for market.

C. MANSFIELD,
Hon. Sec. Convention Committee,
Hunter River Apiary, Largs.

The return circulars signifying intention of beekeepers to attend are coming in very freely from far and near.

One correspondent—W. Shaw, of Mudgeo—suggests that the Agricultural Department be requested to publish the proceedings in the *Agricultural Gazette*, and also that steps should be taken to secure the publication of a photograph of the delegates in the *Town and Country Journal* and *Sydney Mail*.

Mr. F. G. Daly, of Richmond, has been entrusted with the task of making as complete a collection of apicultural implements as possible to be placed on exhibition at the Convention.

It has also been suggested that, in connection with the gathering, visits be made, say in sections, to apiaries in the vicinity of Sydney, such as Geo. James', Seabrook and Co.'s, W. Abram's, or M. Shallard's.

S A. BEE-KEEPERS' ASSOCIATION.

The usual monthly meeting of the above was held at the Chamber of Manufactures on Monday, April 10th. The President (Mr. F. W. Gee) in the chair. A large attendance of members were present.

Mr. Justice Boucaut presented to the Association a valuable collection of honey samples which he had collected during his visit to Europe. The samples consisted of honey gathered in Ireland,

England, Italy, and France. Mr. Boucaut was tendered a vote of thanks for his gift. It was decided that these samples should go to form a collection, and members were asked to assist in making the collection a success. Mr. W. Brooker, junr., showed some photographs of his apiary.

Mr. W. O. Hipwell then read a very interesting paper on "Handling Bees." A long discussion followed. There being no further business the chairman closed the meeting.—*Garden and Field*.

THE HAWKESBURY DISTRICT B.K. ASSOCIATION

I should have written you some time ago, informing you some of the Beekeepers of the Hawkesbury have formed an association called the Hawkesbury District Beekeepers' Association. The Rev. Mr. Ayling was appointed president, and Mr. Rodda, (of the Bank N.S.W.) treasurer, and your humble servant, secretary. We have so far a dozen members, including Principal Thompson of the Agricultural College. There is every prospect of it being a strong and important Association, ere long, as the right class of men are members. We meet alternately once a month in Windsor and Richmond, meeting on the Wednesday night, nearest the full moon. Our next meeting will be in Richmond on the 31st inst. At our last meeting we had the pleasure of Mr. Harrison's company, late of your district. He gave the meeting some of his experiences in beekeeping, together with some practical illustrations which were very instructive and interesting. Our show of '93 is now to be numbered with the past ones, it was a success in every way, with the exception I am sorry to say of the apiarian class, there being only two exhibits, Fagan and Sons, taking 1st for extracted honey, and Cadden 1st for comb honey. The Rev. Mr. Ayling was appointed judge, but his task was not a hard one. The Agricultural College and Mr. B. Conlan, showed both extracted and comb honey,

but non-competitive. The grand display Mr. F. G. Daley always makes at our show, was sadly missed this year, he not taking any part this time. However, I have every reason to believe that things will be a bit livelier at the show of '94. I think there will be a fair number of our members put in an appearance at the forthcoming convention, to be held in Sydney. The honey season in this district has been a very poor one, owing to the wet weather, though the bees are storing honey now, and I do not know where they get it from, unless it is from the under scrub; the box is just done.—W. C. BARKER, Windsor.

HUNTER RIVER BEEKEEPERS' ASSOCIATION

The usual monthly meeting was held on Tuesday, May 2nd. In the absence of the President and Vice-Presidents, Mr. R. Patten was voted to the chair. Mr. M. Scobie, secretary, read minutes of previous meetings, which were confirmed.

Mr. J. F. Munday wished to correct an error in the BULLETIN's report of the previous meeting. He did not think he said bread made with honey was superior to any other, but that he liked the bread sweetened with honey that his mother used to make. He liked that better because it was better. He laid on the table samples of bread and scones in which honey was an ingredient, and bread in which sugar was an ingredient, for the members to taste.

Mr. Tipper moved and Mr. Mansfield seconded, that the best thanks of the meeting be given Mr. Munday for his bringing of honey bread and honey cakes.—Carried.

Mr. Munday in responding, said his object was to show the effect honey had on bread, either by way of flavour or lightness and heaviness. Honey causes the bread to be more moist and heavier, and there was a perceptible difference in the flavour.

Mr. Munday moved that a special meeting of the members be called for

next meeting night to discuss the advisability of altering the bye-law relative to association's label and the price of honey. Mr. Noad seconded. Carried.

Attention was called to a very inaccurate report on bee matters in a Sydney periodical. Conversation ensued, in which Mr. M. Scobie, the secretary, stated the Hunter River Beekeepers' Association numbered 68 members, and was one of, if not the largest beekeepers' association in the world.

SHOWS.

The following were the apiarian prizes awarded at the following Shows:—

MUSWELLBROOK

Honey in comb, clear honey, and beeswax, not less than 6lbs. of each, 10s second, 5s. Mrs. Forrest, prize. Six entries.

National Prize—Appliances, and working products, exhibits, £5—R. L. Pender and D. Grant divided.

DUNGOG.

Beehive—H. Jupp, 1; 3 entries.

Honey Extractor—P. J. Fitzgerald, 1; 2 entries.

Beeswax—A. Henny, 1; 3 entries.

Honey, 6 bottles—A. Henny, 1; 9 entries. Exhibits excellent, and difficult to decide.

Best exhibit of honey in comb—H. Jupp, 1; 4 entries.

MUDGEES.

Special prizes, given by Mr. H. A. Lowe, 10s for the best three bottles of honey—C. Casimir, 1.

Section I, Apiculture. District National Prizes. Appliances, products and working exhibits—Wm. Shaw, 1; C. Casimir, 2.

Class 6—6 Sections honey—C. Casimir, 1; W. Shaw, 2.

Class 7—Best large frame of honey. Mr. P. Rheinberger's special, 7s 6d—W. Shaw, 1; C. Casimir, 2.

Class 8—Best three jars or bottles of honey, any size—C. Casimir, 1; W. Shaw, 2.

Class 80—Best 3 bar-frames of honey. Prize 10s—W. Shaw, 1.

Class 81—Best 3 bottles honey—C. Casimir, 1.

Class 82—Best 5lbs. beeswax—C. Casimir, 1.

BYLSTONE.

Best exhibit of honey in comb, Mr. J. Jones, 2.

Best bottle of honey, raw, Mrs. Dunbar, 1.

Best bottle of honey, boiled, Mrs. Cannary, 1.

Best prepared cake of beeswax, not less than 2lbs., Mrs. J. Jones, 1.

LECTURE ON BEES.

On Monday night, Mr. A. Gale, lecturer on horticulture and beekeeping, of the Sydney Technical College, delivered a lecture on "Bees and their Management," at the Council Chambers, Wellington. There was a large attendance, more than the hall could accommodate. The chair was taken by T. H. York, Esq., M.L.A., who introduced Mr. Gale to the meeting.

Mr. Gale then delivered a lecture of some two hours duration, in which he gave a history of bees from the earliest days of the world that they were known down to the present time. He then gave many interesting particulars about and the way to manage them, ending by showing the profits to be made out of them, and advising all to "keep bees."

Mr. Thos. Quirk, J.P., spoke of the lecture as most instructive and interesting, and moved a vote of thanks to Mr. Gale.

Mr. R. Porter, J.P., seconded the proposition.

The President called upon the meeting to carry the proposition by acclamation, and there was prolonged applause.

Mr. Gale returned thanks, saying he was only doing his duty. He then invited all persons interested to ask questions and explanations upon any part of bee culture they wished to know further about.

Fully half the meeting remained, and Mr. Gale was kept another two hours giving lessons from the models before

him. Next day his advice was sought by many people who waited upon him at his hotel.

Mr. Gale lectured at Maryville on Saturday night, and was to lecture there again on Wednesday night. There was one thing worthy of notice at his lecture at Wellington, and that was that during the whole two hours nobody left the hall. —*Wellington Gazette.*

THE NATIONAL BEE FARM PRIZES.

To the Editor Australian Bee Bulletin.

SIR,—Aware that some surprise may be expressed respecting the exclusion of my name from the list of prize winners in the late National Competition of Bee Farms (which list was published in the last issue of your journal), I would wish, sir, to inform any of your readers who may be interested, that though I more than willingly assented to my name being entered for, and was sincerely anxious to acquit myself with credit in this National Competition, I WITHDREW IN PROTEST from it at the very last instant. It will be apparent that this withdrawal precluded me from the possibility of prize winning.

On what were surely very justifiable grounds I took this step, though for prudential reasons I may not announce in your columns the motives which compelled me, regretfully, to such a course. I am sir, yours faithfully,

J. R. H. GAGGIN.

Lismore Apiary,

Lismore, 10th May, 1893.

CORRECTION.

Re the article on "Swarming," which we inserted on page 231, Vol. I, Mr. Munday has informed us it was not written by him. So we hunted up the copy and find the error arose as follows: We were supplied with several reprint articles, some of which had Mr. Munday's name as the author. The compositor, seeing the similarity of print with those written by Mr. Munday, took he liberty

of supposing it also was Mr. Munday's, and without other warrant placed Mr. Munday's name on top of it. As Mr. Abram informs us he is the author, we have great pleasure in giving honor to whom honor is due, and complimenting Mr. Abram as the composer of a well-written, pithy and valuable article.

BEES FOR BUSINESS.

[BY J. F. MUNDAY, IONA, WOODVILLE.]

No doubt every beekeeper of any experience has noticed the fact that the bees of some hives are much superior honey gatherers to others, and it may seem hard to account for this difference, for the other hives in the apiary are to all appearance equally strong and have had the same chance of obtaining the honey. Why then the difference? My humble opinion is that it is not so much in the kind of bees as to name and color, but to the *individual character* of the bees of that particular swarm. They have naturally better abilities and desires for gathering and storing honey, and moreover keener instinct for discovering it. Now we know this trait for activity and usefulness can be noticed in families, especially among ourselves, as well as all animals. The members of some families are naturally much more active and industrious than others; color, size, or country are not the chief reason for the difference, but rather the spirit which animates them.

I have had very indifferent, in fact, almost worthless bees for honey gathering purposes of the pure Italian race—bright yellow fellows; and I have also had hives of the same kind of bees, to all appearance—remarkable for their good honey gathering qualities; and I can say the same for the dark or leather coloured Italians, and likewise for the black or German bee.

Now I think it is generally allowed that the cross or hybrid bees are remarkably good honey gatherers as a rule. By this we may learn that it is very desirable to keep the relations of our bees wide apart.

I know a beekeeper who thought he was going to do a good stroke in bee-rearing. He obtained a bright yellow queen, reared a lot of drones from her, also queens, then reared queens from these brothers and sisters. Any young queen that hatched, which were not up to his standard as to color, were duly dispatched. Well, in a short time he had some very pretty bees, but when he wanted to extract honey, some how or other, his bees had not got so much as his neighbours, and, moreover, he observed to his sorrow that his bees kept dwindling away. I had a similar experience, only on a much smaller scale, some years ago. I have also had some mongrel cross-bred bees, very prolific, but worthless as honey gatherers.

Well, then, I have learnt that to breed bees for "business" they must be as distantly related as possible.

QUEEN REARING.

[BY W. S. PENDER.]

Continued from page 233, Vol. 1.

If we have been successful with our cell building colonies we will now have some mature queen-cells to look after. What are we to do with them? If all went well all the cells will be of a good size; if any should be small destroy them, for a small cell indicates something wanting in the development of the queen. These small cells may do if a queen is urgently wanted for a hive, and the queen may be prolific for the first season, and if she is not superseded in the Autumn the colony is likely to become queenless during winter, so it is best to avoid those small or badly developed cells and make sure of long-lived queens. The bees from small queens do not appear to be any different from those of well developed queens, but a poorly developed queen should be avoided to breed queens from. If a person is Italianising a few hives only, a few days loss of a queen in a hive will not be noticed, so he need not form nuclei, but can introduce the cells direct to the hives. The best way is to

take the queen away from as many hives as there are cells to introduce, then take each queen-cell, place it in a cell protector and place between two combs of brood. By this method the cell can be introduced as soon as the queens are removed, and cells need not be introduced until within a few hours of *hatching*. If a protector is not used, it is necessary for the hive to be at least 48 hours queenless before giving the cell—this means a loss of the laying of a queen for this length of time. The queen should be out in a few hours, and laying in eight or ten days. During a honey flow, a hive being without a queen for so long affects the quantity of surplus honey very materially—then it will be better to form nuclei and have queens introduced when they commence to lay. The easiest method of forming nuclei is to divide colonies up into two or three frames each, giving each nucleus a quantity of brood and honey, with sufficient bees to cover the brood. One strong colony in this way will make from five to ten nuclei. If every frame has brood and honey, an empty comb or combs can be used to complete each nucleus. These nuclei should be made 48 hours at least before the queen-cells are to be inserted, and the bees confined in each hive, releasing them at just before dusk after the lapse of the 48 hours. While the bees are confined give plenty of ventilation and keep in a cool, dark or shady place. When all is ready place the nuclei on the stands they are to occupy, have the cells at hand, and as the bees in each nucleus are liberated, insert a queen-cell by placing it between the two combs and right amongst the brood; draw the combs together so close as to hold the cells in position. If all goes well, and time carefully calculated, a young queen will be emerged the following day. When the young queen commences to lay she can remain in the nucleus until tested, to see if she is purely mated or introduced to a hive, if the beekeeper is not very particular as to purity. In large apiaries nuclei are always kept, and as soon as a queen has been removed another nearly

mature queen-cell is given, making it unnecessary to form nuclei every time, *i.e.*, keeping nuclei always running to have queens fertilised. In time these nuclei would become too strong, and are divided if more are needed or several united to form a colony, and others divided to take their place, or brood taken from them and given to hives. In my next I will speak of introducing queens, and will give the methods I have found most satisfactory, and use in the Drumfin Apiary.

DRUNKEN BEES

Some few years ago, when Mr Mark Burley kept the Belmore Hotel, West Maitland, he had a box hive in his yard. One day one of the lodgers noticed something strange with the bees. They would fly, not into the proper entrance, but against the hive and then fall or stagger into the entrance. A number of them were fighting. At night time they swarmed out, and in a couple of days they were all dead or gone. The cause was ascertained to be some spoilt beer had been spilt in an adjoining brewery, and to which the bees had gone feeding.

BEES ABSCONDING AFTER THE FLOOD.

Mr. J. R. H. Gaggin had to remove about ninety hives in his Lismore Apiary from the flood waters, which rose nearly six feet deep over the site of the Apiary. We are glad, however, to state that no loss of any consequence occurred, except that—the flood having subsided—when the hives were replaced and the inmates released from their enforced confinement, several swarms issued. We hear that Mr. Hewitt has also lost some in the same way. Mr. Gaggin thinks that the abnormal swarming was most likely occasioned by the temporary imprisonment (necessitated by their removal to safe quarters) of the busy little creatures, for it is well known that bees shut up within their hives and thus involuntarily restrained from work often fill their

nectar sacs with honey and exhibit intense excitement, and precisely a similar phenomena invariably preceded swarming. The symptoms of swarming being present, therefore, the bees evidently considered themselves justified in absconding from their hives like ordinary swarms, despite the unfavourable external conditions, for of course it is long past their usual swarming season, and scarcely a flower is blooming. These vagabond swarms have thus probably, ere this, paid the penalty of their imprudence and perished from starvation—victims of our big flood. Let us hope that they are the only ones it has had a fatal issue for.—*Richmond River Herald.*

PUNICS, &c.

The following is written in the *American Beekeeper* by F. A. Lockhart :

The following is my experience with these wonderful Punic bees. I find they have the following qualities. They winter extremely well. The queens are very prolific, but not noticeable till after settled warm weather. They are the best bees I ever saw to defend themselves against the attacks of robber bees. They are good workers, but a good share of their time is taken up in gathering propolis. Of their bad qualities I will say they are slow in building up in the spring, not rearing much brood until settled warm weather. They are the worst bees to manipulate I ever saw, Cyprians not excepted. Tobacco smoke is the only kind that will subjugate them. They gather enormous quantities of propolis, even sealing the cappings of their comb honey with it. As for robber bees, the Punics take the lead. A robbing rampage is part of their occupation. To sum up with I would say that they are anything but a desirable race of bees.

ROBBING.—Take a small bunch of asparagus tops (I use asparagus tops because I have never found anything better that answers as well for the purpose) and sprinkle the same well with kerosene and place the same before the

entrance and robber bees will not pass through it but will give up in disgust in a very short time. Bees dislike the smell of kerosene very much. Be careful and not use too much kerosene, as it is sure death to bees if they get enough of it on them.

A simple and sure cure for hoarse colds or hoarseness consists of the following : The white of an egg beaten with the juice of a lemon and sweetened with enough honey to make it palatable. It should be taken by the teaspoonful every half hour until the hoarseness is cured.

FOUL BROOD.

[FROM THE CANADIAN BEE JOURNAL.]

THE FOUL BROOD BACILLUS (*B. ALVEI*), ITS VITALITY AND DEVELOPMENT.

Read at the Fourteenth Annual Meeting of the Ontario Agricultural and Experimental Union held at Ontario Agricultural College, Guelph, Ont., Canada.

By J. J. MacKenzie, B.A., Bacteriologist of Prov. Board of Health, Ont.

PART II.

I have repeated these experiments several times with the same results, so that I would conclude that to destroy the foul brood in wax it is necessary to heat to a temperature of at least 194° F. for at least three hours. Now the question arises, does this take place during the process of manufacture of comb foundation? In order to get as much data as possible on the subject I wrote to Mr. Larrabee, of Michigan Agricultural College, as he had kindly offered me any assistance in his power. He applied to two prominent foundation-makers for the information. From their replies it is apparent that for a short time at any rate during the refining and purifying of the wax, it reaches a temperature quite or at near 212° F. During sheeting, however, it apparently does not reach a temperature much above the melting point, say 175° F. They both seemed to agree that steam heat for too long a time injures the quality of the wax.

In the *American Bee Journal*, 1891 page 470, we find some statements on the subject in a reply by two prominent foundation makers, to an article by Mr. Corneil upon the dangers of infected comb foundation. One of them, Mr. Dadant, states that in refining it is heated for sometime at 212° F., and is kept liquid for twenty-four hours. The other, Mr. M. H. Hunt, states that it is kept at the boiling point for six

or seven hours. If these are the actual temperatures reached during foundation making I am inclined to think there is little danger from foul brood in that direction.

I thought it possible that the whole question could be settled by introducing a certain amount of some disinfectant, say Beta Naphthol, into the melted wax, but my results have not been satisfactory. Apparently even the introduction of one per cent. Beta Naphthol into wax did not hasten materially the destruction of the spores. I was able to demonstrate the presence of living spores in wax, containing one per cent. Beta Naphthol, and heated for two hours to 194°F .

From these facts, and taking into consideration also the physical fact of the settling of the bacilli to the bottom, I should think that, with reasonable care in the preparation of comb foundation, the dangers of infection from this source would be slight. But that the spores may germinate after being mixed with the wax, I think I have shown.

Why the spores of the bacillus alvei are killed so quickly in the melted wax, I am not able to explain; but it may be due to the fact that the wax itself, when heated to such a temperature, has antiseptic value. That the spores resist other antiseptics as strongly as do the spores of anthrax, I have proved by testing.

Cheshire and others recommend a solution of two per cent. carbolic acid for disinfecting the hive after removing infected comb, but on actual experiment with the infected silk threads, I found that two per cent. carbolic acid did not kill the spores in six days. These results are similar to those obtained by Koch for the spores of anthrax, and show that two per cent. carbolic acid cannot be relied on to destroy the spores. However, the question of the value of antiseptics I will take up more in detail later on in this paper.

I would like to say a word or two now on the methods of treating the disease. There are practically two methods; first, the starvation method, and second, the method by medicated syrup. Mr. McEvoy's method of treatment seems to me, practically a modification of the starvation method. The first method is widely used both here and in the United States, whilst in England and in Europe generally the second method is adhered to.

Considering the vitality of the spores of foul brood, it would seem at first sight useless to try any process which did not recognise as its foundation the destruction of the germ. I find, however, that many prominent beekeepers who have had practical experience with the method of starvation, or Mr. McEvoy's method, accept it as successful. I have not had an opportunity to examine colonies which have been cured in this manner, and so cannot say that the bacilli have disappeared; I hope next summer to test this question more fully. We may, however, examine into the rationale of the method. In conversation with Mr. Corneil, of Lindsay, he

made a suggestion which may be quite familiar to you all, but which seems to me the only explanation. That suggestion was that either starvation or comb building carried the infected nurses past the period at which they act as nurses, and give them a chance to rid their intestines of the germ. If this is combined with a removal to absolutely clean hives with new foundation it may succeed; but I must say that absolute cleanliness in this respect must be insisted upon.

As I said above, I have not had an opportunity of investigating the results of these methods practically, and so cannot speak with certainty.

The fact of the presence of the bacilli in the workers and in the queen bears to a certain extent upon this question. Cheshire and others make the statement that the bacilli are found in the intestine of the workers and in the ovary of the queens. My own experience confirms this. I have found them repeatedly in the workers, and in five queens from infected hives I succeeded in obtaining the bacillus from the ovaries of three. That they are not always present in the ovaries of the queens from diseased colonies is certain; their presence there is apparently accidental. For instance: in the case of one of last year's queens; in a hive rather badly diseased, I was unable to find the bacillus, whilst in a six week's queen from a hive in which there were only a few diseased cells I succeeded in finding it. Cheshire's statement that he found a bacillus in an egg of an infected queen seems to me to require confirmation. I have not been able to find the eggs infected myself, but it is a question which would require very long and careful investigation before one could be able to deny or confirm such a statement. In the second method of treatment by medication I do not think that an absolute destruction of the spores takes place any more than in the starvation method. As I have shown above, two per cent. carbolic acid was not sufficiently strong to destroy the spores; consequently it is not likely that 0.2 per cent. (one pint in 500) would be strong enough. I tried 0.2 per cent. but found it quite unsuccessful. Its action then must have another explanation. To test this I made up a sterilized beef broth containing one per 500 of carbolic acid and in it placed my infected silk threads. I found that there was no indication or growth. These threads were then taken out and placed in ordinary sterilized beef broth and I obtained a luxuriant growth, i.e., the 0.2 per cent. carbolic acid in the culture fluid, although it did not destroy the spores prevented their germination. That then is the explanation of the value of carbolated syrup in the treatment of foul brood, it prevents the germination of the spores. The bee journals contain numerous examples of cases where carbolated syrup produced an improvement, but as soon as it was stopped there was a relapse. It is evident that here again as in the starvation process there must be combined an extremely thorough cleaning up, so that the best

possible results may be obtained from the treatment. Medicated syrup does not destroy the spores, it simply prevents their development and gives the bees a chance to rid themselves of the infection, and in that respect I certainly think resembles the starvation process. Its advantage over that is that it can be carried on for a longer time.

In the course of these experiments I tried another substance which has been much used since Lortech's work on the subject, viz. : Beta Naphthol. I do not think myself, from recent work on this substance, that Beta Naphthol should be ranked very high as an antiseptic, mainly on account of its insolubility in water. I found, however that a beef broth containing 1 per 1000 Beta Naphthol would not allow spores of *bacillus alvei* to germinate, and consequently had an equal value with 1 per 500 of carbolic acid. It has an advantage over carbolic acid on account of the disagreeable taste of the latter, and I think would be more acceptable to the bees. Salicylic acid in syrup has apparently the same effect, and I would not recommend the addition of borax, as it has been shown that borax lowers considerably the antiseptic value of salicylic acid. I tested also formic acid in the same way, but my results so far have not been satisfactory, owing to the uncertain strength of my sample of formic acid. I prefer to reserve a report upon it and other substances, which I wish to try, until later.

Mercuric chloride I have not tested, as I do not think it wise to use it around the hive. The idea of using a 1 per 1000 solution to spray the diseased combs, as suggested sometimes, is, I think, absurd, and would be a rather serious operation for any living brood.

You will see that I consider all these methods of treatment do not in themselves necessarily presuppose the destruction of the spores, but depend upon the fact that for a longer or shorter period the spores are prevented from germinating and in this period they are eliminated from the infected bees. Whether the vitality of the bees themselves has an effect upon the elimination or destruction of the spores is a point which would be extremely interesting, but one on which at present we have no definite information. From the results of bacteriological work on other diseases, we know that the animal body is engaged in a constant warfare with the diseased germs which may be introduced, and this also may be the case in foul brood. Much more extended investigations, however, would be necessary to prove this. It is much safer for apiarists to accept the possibility of a recurrence of the disease after a course of treatment, owing to the lodgment somewhere of some of the spores of *bacillus alvei*, and by care and cleanliness remove this possibility. To do this, the hives and frames in which a foul broody colony has lived must be sterilized, and this may be done in various ways. For the sterilization of material by disinfectants, there was a tendency formerly

amongst bacteriologists to run to such disinfectants, as corrosive sublimate, carbolic acid, etc., but later work has shown that there are a number of chemicals which will act just as well, or perhaps better. Corrosive sublimate has lost much of its reputation as a disinfectant within the last few years, and carbolic has been shown to be not nearly so powerful as at first supposed. For cleaning hives and frames which are suspected to contain the spores of foul brood, a hot 10 per cent. solution of soft soap is perhaps as effectual as any that can be recommended. A good strong solution of washing soda when hot is also very active, destroying the spores in a few minutes. Both these are certainly better than five per cent. carbolic for disinfecting the hives and frames, as their cleaning properties are so much better than it, and Belwing has shown that five per cent. carbolic requires at least three hours at blood heat to destroy the spores of anthrax. In case the soap or the washing soda is used, however, it must be used as hot as possible. Of course, anything which is of no value should be burnt.

I trust that in this paper I have thrown a little light upon some of the facts in connection with the disease of foul brood; but as I stated in the beginning, I reserve the privilege of submitting to you, at a future meeting, the results of next summer's work. Before closing, I desire to express my thanks to your able secretary, Mr. R. F. Holtermann, for the assistance he has given me, and also to Mr. S. Corneil, of Lindsay, for advice and for the use of volumes of all the principal Bee Journals, which he has supplied me with; also to Mr. H. H. Larrabee, of Michigan State Agricultural College, in connection with the subject of comb foundation.

Use Foundation from the Drumfin Prize Apiary.

THE RAMBLES OF RICHARD

AT MOSS VALE AND MITTAGONG.

One beautiful Saturday afternoon I sprang a surprise visit on Mr. Harry Jervis, of Moss Vale. He carries on a first-class boot and shoe business in the main street, and in an ample yard of about three-quarters of an acre at the rear runs some two dozen colonies of Italians in New Zealand pattern hives, raises over 100 canaries and nearly as many English pheasants every year, and during the winter months manufactures a few cwt. of foundation, besides which he is an expert rifleman, cricketer, and angler; and all he does he does well.

I had an enjoyable time with him till

Monday morning, viewing his sources of honey, among other things clover, dandelion, thistles, and a good variety of eucalypti, amongst which was a sort of white gum, whilst from its brittleness, is known there as "snapping gum."

I took a week's run round the district to Berrima, Mittagong, and Robertson, and was again quartered at the Vale for Saturday night and Sunday, during which holy day "the gentle dew of heaven" fell till the water in the street in front of Mr. J's. shop was three feet deep, whilst further down the road it was some 10 feet. During three hours about a dozen creek bridges and road culverts were washed away and great damage done generally. This was a couple of days before Maitland had her last flood experience. Mr. Jervis sustained but little damage, but some shops were entirely swamped out.

At Mittagong I found Mr. Frank Archer, telegraph instrument repairer on the Govt. Railways, with over 41 hives, mostly New Zealand pattern, but a few of the Berlepsch with which he started and has not yet sold. His bee forage is similar to that of Mr. Jervis's, but up to the time of my visit (March) the season had been very poor with both.

Thence I wandered eight miles into the bush. At her father's large farm and apple and cherry orchard I met Miss Maguire and her brother Joe, a pair of very enthusiastic and carefully observant beekeepers, who, though with only a season's experience, are already past the neophyte stage. I had the pleasure of being shown through their dove-tailed hives with Root-Hoffmann frames, the first I had found in use during the whole of my southern ramble.

A curious point in regard to the flower of the English ivy was here related to me, and as it is now about flowering again can be verified. The bees worked strongly on it in the early morning, but would leave it when the day became warm, when examination showed large crystals of sugar in the nectaries.

Mr. Maguire was the pioneer of the cherry growing industry in this part, and has about 50 acres in cherries and apples,

and his land adjoins the now famous Mittagong ruby fields.

AN INTERESTING COINCIDENCE.

Mr. C. Mansfield, Hunter River Apiary, Largs, writes:—A friend of mine, a neighbouring beekeeper, having lately purchased a choice queen, was desirous of producing a few young queens of her breed. Being late in the season and having no drones in the hives, he sent out the young queens to my apiary for impregnation, as I had a number of good drones in several hives. On Friday last May 12th, about 1 p.m., in walking among the hives I desecrated one of these virgin (doubtful at that moment) queens just returning from her flight, and, walking a little further, to my surprise another sister queen had at the same instant almost returned to her hive and was just entering.

I am reminded by the above of a somewhat similar case which came under my notice last season. A beekeeper had black bees and wished to Italianize cheaply. He made nuclei from his blacks, and begged queen cells raised from pure stock by a friend. Business necessitating his stay on the way home in the neighbourhood of an apiary of Italians, he placed his nuclei near by, and was successful in getting his young queens mated.

ROBBING A BEE-HIVE.

Mr. William Pacey, writes:—As you invite correspondence to the A. B. B. I gladly avail myself of the opportunity of relating an incident that has come under my notice with reference to robbing a beehive. It may prove interesting to readers of the A.B.B. I am not aware as to any benefit being derived from its publication, but it will illustrate as to what an opinion some people have concerning bees and their management. Well, Mr. — one day chanced to catch a swarm of black bees; he hived them in a gin case; took them home, and put them

on a stand. Being a good season for honey, the gin case was in due time filled. A serious difficulty arose as to how these bees were to be robbed without getting stung. Himself and family finally decided to rob them at night, as they thought the bees would be asleep and success was sure to crown their efforts. The night for operations came; the hive was carried into the front room, and placed on the table bottom side up. A light was drawn close up to the hive, so as the honey could be seen to be taken out. Whew! the bees woke up! out they flew all about the room! The bee man and family beat a hasty retreat to the hay stack. The room was alive with enraged bees, fully bent on stinging. The bees had full charge of the house that night. Extreme measures had to be resorted to in the morning to eject the bees, which was done under very trying circumstances. Mr. Editor, what a pleasure it would have been to that man if he had been a subscriber to the A.B.B. it would have told him that bees are not always asleep. That man is alive yet but he has no bees now.

HIVES AND FRAMES

Mr. R. J. Cribb, writes: I notice that a convention of bee-keepers is to be held in Sydney on the 28th of next month, and would suggest that the convention considers the matter of hives and frames mentioned on enclosed letter. Also construction of hives, especially the *Bay State Hive*, as made by Henry Alley, of America, I consider its principles the best of all hives. It seems to me that serious trouble is looming in the near future, if a standard measurement is not fixed, for the size of frame in use, and more particularly the length of the top bar. We have in Queensland three different lengths of top bars to the Langstroth, namely (1) Root's, (2) New-Zealand, and (3) a size between the two named. At first sight, this may seem a trifling matter, but personal experience, *with one hundred or more hives, to alter,* makes it desirable to have this matter settled, once for all. Another matter worthy of consideration is the various sizes and styles of hives in use, which will some day cause confusion and trouble, making bee-management a burden, instead of a delight. If the readers of the "*Bee Bulletin*," would answer the following questions, it would at least be valuable information, and most probably be a great help in elucidating the above difficulties.

Yours,

R. J. CRIBB.

QUESTIONS ANSWERED.

DEAR SIR,—I would be obliged to you if you obtained answers to the following questions:—

1. Should the unused frames of comb be removed from hives?
2. How could empty frames of comb be kept free from the moth?
3. What is the method of stopping swarming?
4. How long should honey be left in comb before extracting?

Yours truly,
EDWARD E. LARCOMBE.

1. In winter weather bees should be as close as possible together, all empty frames removed, and the dividing board put close up. Empty frames of comb do not add to warmth.
2. Keep the combs in a cool place and well apart.
3. See page 280 of vol. 1.
4. Some beekeepers extract the honey as soon as the bees commence capping the cells; others wait until every cell is capped. Honey improves by being left in the hive.

(1) *a* What size of frame do you use and prefer?

b What is the length of top bar?

(2) *a* What style of hive do you use and prefer?

b What is the thickness of the sides of the hive.

[Will some of our specialist hive men reply to above.—Ed.]

ITEMS FROM GERMANY.

BY H. REEPEN.

A NEW FOUL BROOD REMEDY.—Creoline has turned out to be a good remedy for foul brood. Take a bottle of water

and put some Creoline into it, so that the mixture is about 4 per cent.; sprinkle the hive, combs and bees once or twice a week. If the foul brood is very bad, sprinkle all the bees going in the entrance, three or four times a day, so that the antiseptic is constantly carried through all parts of the hive.

QUEEN LAYING WORKER-EGGS IN DRONE CELLS.—Rev. Faylor says in the *AMERICAN BEE JOURNAL*, "If you want drone bees, give a good colony nothing but drone-comb. All eggs layed in drone cells produce only drone bees." Pardon, but that's not correct. The queen is more clever than many think for; she does not like too many drone bees, and if you give her nothing but drone comb, she will soon lay fertilized eggs, notwithstanding the drone-cells; and it is strange that the worker bees, which come from them, are not a bit larger than those fed up in worker bee cells.

Use Foundation from the Drumfin Prize Apiary.

OUR LETTER BOX

Mr. Tom Rushton, Eugowra:—I consider the *BEE BULLETIN* a boon to all beekeepers, and should be supported.

Mr. Joseph Robinson, of Paterson, says:—"There are swarms of green-leeks—quite a plague—destroying the bee fodder in the Paterson district.

Mr. W. S. Pender writes us:—I have received a communication from Mr. G. M. Doolittle stating, that the size of queen mailing cage is not now restricted to 5in. x 2in. x 1½in., which was the old ruling. Mailing cages, if I understand Mr. D. rightly, of any size, may now be used.—Drumfin, W. Maitland.

ANOTHER CONVERSION.—Mr. George Packham, Molong, states,—"We have had a very bad season for honey in this locality since October, only Italians and hybrids being able to hold their own. I was one of those who thought that the Italian was puffed up for the sake of the gain by selling queens, but I have found from experience that the Italians will get honey from something, while the blacks will starve.

The *Bligh Watchman* says:—Mr. S. Shumack's bees at Binnaway, and his great variety of hives and ingenious contrivances for the management and comfort of his pets, are well worth a visit from any passer by. It is certainly a labour of love with him.

Mr. Nicholas Bornholt, Bareena Creek, Narandera.—I am happy to say it is raining while I am writing. This is the first rain we have had of any note since last October. Many tanks have run dry On Tubbo station, where I am on—they are working nine wells. The *Bee Bulletin* is interesting to me, and I get in touch with practical bee-keepers.

Mr. James Potts, Wingham, writes:—I received the Italian queen bee which I applied for from Mr. Mansfield gratis, on condition that I kept a record of same one month after introduced. I introduced her on April 2nd and on May 6th her progeny were gathering honey. The hive is doing very well and the bees are very quiet they are quieter than my black bees.—ADVT.

Mr. J. R. Gaggin, Lismore, writes:—Please find enclosed 5s in stamps as my subscription to the *A.B.B.* to next April. I am glad to see that it has notably increased in vigor since the new year, altho' though it always been very interesting. I am sorry to inform you that every bee-keeper in this district reports a poor honey crop for the past season. The explanation is to be found in the prolonged cold of last spring and early summer, and the continuous and excessive rains succeeding this, experienced by us during the past four or five months; the first condition checking a large proportion of early flower buds, and the second causing the trees to produce a luxuriant growth of young wood, but little blossom. The bees had small chance to avail themselves of even this scanty supply, as it generally happened that whenever a little bloom appeared, a downpour of rain either swept it off or washed the nectar out of it. Speaking for myself, from 122 colonies I have not extracted this season quite 5000 lbs. of honey.

H. Petersen, of Wattle Flat, says:—Your starting a "letter box" to publish reports of last season's honey crop ought to be of great advantage to bee-keepers. My report is:—Started with 122, increased to 160 colonies; crop, about 14 tons, or very nearly 32,000 lbs., 262 lb. average—spring count—white and yellow box honey. Season very unfavourable, cold, windy, wet.

Mr. Frederick Whitehead, Tenterfield:—This year has been bad for bees. I have only taken about 40 lbs. from seven colonies, and I am now feeding three of them, as there is no honey in the hive; too much rain. Other bee-keepers here have fared no better than myself. Wishing the *B.B.* every success. I have tried to persuade other bee-keepers to take the *B.B.*, but all complain about the bad times. However I will try again.

Mr. H. W. J. Taylor, Mountain Apiary, Minmi.—I am very pleased to hear that my namesake, Mr. Taylor, has won the National Prize. He will be quite jolly now and will tell us something about the queen-cups. The gum trees are in blossom splendidly and the bees are working like niggers, but they are gathering very little honey. We have had a great flow from the ironbark this year. I am very glad to see the *Bulletin* improving, and I believe if we stick to it and help our good Editor, we will have a real good paper.

Mr. W. Shaw, of the *Western Post*, Mudgee, writes:—I intend to devote a considerable portion of the *Post* to bees and honey in the future. I find that it is beginning to take. Next issue I intend to publish the Convention circular. The bees are at rest now, and some of the queens have left off laying entirely. I am looking forward to our next Convention. It promises to be a really good one.

[Your publishing bee matter is a good idea. The more people know of bee matter the better chance of good honey going to market and securing other markets.—Ed.]

Mr. W. H. Smith, Sydney.—I have been recommended to apply to you for information about bees. I live about 100 miles from the railway terminus at

Narrabri, which is 350 miles from Sydney. We have no domestic bees away back where we live, and I wish to try a hive if they could be carried so far with any hope that they would live through the journey—for the last 100 miles of the journey might have to be performed on a horse dray over very rough roads, which will take about a week. We have honey yielding flowers all the year round in our part.

[Most bee supply dealers can pack hives, bees, and all so that they can be carried safely hundreds of miles if necessary on a pack horse.—Ed.]

Mr. John Smith, Teralba:—I am very pleased with the paper; it is always full of good information. I would like to see it published fortnightly. Honey has been very scarce here this season. I had 13 colonies, spring count, and have increased to 28. They are in good condition for winter. I have scarcely taken 4 cwt. of honey this season. I will be at the Convention, health permitting.

Mr. Chas. W. Leah, in the *American Bee Journal*, gives the following plan for introducing queens:—Take a nucleus with its queen and introduce to any colony that has no queen, or you can go to the colony you wish to introduce to, and remove the old queen. Now, have with you a sheet of paper—any kind of thin paper will do, or a newspaper is good. Lay it over the top of the hive, and place the nucleus with the queen on top. The bees will do the rest. I suppose these plans are as old as Adam, but I have never lost a queen with either way, but I have with all other plans that I have tried.

Mr. J. Bailey, Canley Vale:—We have had very bad weather—only one fine day in the week—for this last month, and there is no sign of bloom in the bush. There is a patch of red top clover growing near by, which is largely visited by bees from noon till night, and is the only honey plant in bloom. Can you tell me the reason why a hive with last year's Italian queen has stopped laying?—not a single egg or bee in any of the combs; they still having enough honey to carry through the winter. I find in general all the hives are very weak. All through

the district I do not hear or see anything of foul-brood. In going through my colonies to-day I find one hive queenless and without means of rearing one; also another very weak. I united the two together by using plenty of smoke, and they are working away quite happy.

[Italian queens often stop laying altogether in winter, reserving their food for rapid building up in the spring.—Ed.]

Mr. R. H. Jervis, of Moss Vale, sends us an account of how Foul Brood becomes propagated:—A's Italian bees swarmed and clustered close to his neighbour's bees, who keeps blacks. A was not very particular in hiving the swarm, and left a considerable number behind. In a week or so B sends word to A to say A's Italian bees were robbing his. A goes down and finds a considerable number of his pure Italians amongst B's blacks, which were queenless, with no brood or eggs, and foul brood as bad as they could have it. B's neighbour C keeps black bees in frame hives. I was looking at C's bees and saw a few Italians, which must have come from his neighbour B, and in about a fortnight C had Foul Brood. So bees do mix to a greater extent than people think under certain circumstances. A was very much afraid when he knew B's bees were queenless and no brood; thought some of his truant bees would return and carry back the infection, but such was not the case.

Mr. A. Kendall, Bibbenluxe:—I have a queenless hive which I took from a tree. On 19th April I gave it a frame with eggs laid that day by my Italian queen. On 22nd, eggs hatched and queen-cells started. The same evening, to strengthen swarm I united another swarm taken from tree. Was not sure whether it had queen or not. On 25th, opened hive again, but could find no trace of eggs, grubs or queen-cells as before observed. Neither did I see any trace of a queen. I opened hive again to-day with same result. Will you kindly let me know through the medium of your invaluable paper, the cause of disappearance of eggs, etc., as above stated. My experience with bees is

limited, this being my first year amongst those busy insects; but I am infatuated with the study, and shall endeavour next year to increase the size of my apiary considerably. Despite the occasionally unseasonable frosts and cold, this has been a splendid season for bees and honey, and the Monaro climate seems to suit the apiculturist.

[Probably your bees were queenless too long to secrete the necessary food to feed the larvae on, so allowed them to die; and it is quite likely some of the eggs were eaten. Some authorities tell us bees are very fond of eggs. Perhaps introducing strange bees at such a time upset the hive, just starting queen-cells.—Ed.]

Mr Cruxus, of West Maitland, writes:—On Wednesday, April 19, took eggs of a valuable golden queen and fastened under top of frame in hybrid nucleus. Four queen cells resulted. Gave one away. On April 30 there were two full queen cells ready to come out, and a small one. Also a *solitary drone cell* in the middle of worker brood—eggs of the original hybrid queen. Next day, on opening the hive, found two queens on the frames, took out third queen cell and killed it. Hastily formed nucleus from another hive and successfully introduced one of the young virgin queens, leaving the other in full possession of the hive in which she was hatched. There was still the *solitary drone cell*, but no queen cells other than those spoken of. Having no drones in the apiary—a small one of eight hives—the virgin queens were a few days after sent away to a friend who had good drones, and both nuclei again rendered queenless. On looking at the first nucleus on May 14, the drone cell had disappeared. and lo! a black queen was walking about. Where did she come from?

[What you took to be a drone cell was in reality a horizontal queen cell, which bees will build under certain conditions. We would not think, however, a queen, raised in this manner, desirable.—Ed.]

Mr. George Gordon, of Paddington, writes:—"I have very great pleasure in forwarding a P.O. order for 5s as my annual subscription towards the BEE BULLETIN. The little stranger came to us and we took it in and found that we had entertained an angel unawares.

Your paper is just the thing that was wanted. Although we may be able to purchase good books on apiculture, yet as they are written in other countries, they don't always apply to our circumstances. Your *B.B.* contains valuable information from practical and experienced men, which to a beginner like myself is of great benefit. I started two years ago with one colony, and last year I had seven colonies, from which I got 3 cwt. of honey this year. I have fourteen colonies—I had sixteen, but lost two. I will not get one pound of honey from any of them this year. My bees are hybrids, and my hives are all 9-frame, with 24 1-lb. sections, loose bottom boards. Now sir, would you kindly answer the following question in your next number:—1st. Do bees thrive as well in covered sheds as in the open air? I built long sheds and covered them with Hobart Town palings, in which I placed my hives; but I find that the moths attacked them very badly? Would keeping them in the open air be better? I ask this question because two hives that were not in the shed were not so affected. One neighbour of mine has lost 40 colonies this year, and nobody in this district will get any honey this year. What can be the cause? I speak of Canley Vale. I will be very pleased to be present at your Bee Conference in Sydney on the 28th June, if I am spared, for I am sure there will be much to be learned there."

[We will endeavour to get some experiences re sheds by our next issue.—Ed.]

QUESTION COLUMN.

9. Does curtailing the queens' laying powers by keeping her confined in a small hive tend to prolong her life to a greater period than if allowed to exercise her full laying scope by keeping in an ordinary hive?

10. Are the drones from a pure Italian queen that has mated with a black drone pure?

11. Is there any difference, and what, between bees from a queen's first laid eggs and those eggs she lays later in her life time?

9. I do not know, I prefer to let nature take its course.

10. I humbly say "no."

11. Yes, but it makes a material difference. (1) As to the kind of bees that rear them. (2) The condition in which the hive of bees is that rears them. I know that the progeny of a cross-bred queen would latterly contain a much larger number of bees resembling herself than that of the drone with which she was mated than they did at first. I cannot say for certain whether there is any difference as to hardiness or honey-gathering qualities, but I do not think there is much.—J. F. MUNDAY.

9. I think so.

10. No.

11. I do not think there is any difference, unless that the bees from an old queen may not be quite so active. But I am not sure.—H. W. J. TAYLOR, Mountain Apiary, Minmi.

9. I think it makes very little difference in the length of a queen's lifetime.

10. I am of opinion that in after breeding it would be shown that the drones are not pure.

11. I have seen no difference in the bees from an old or young queen, but have taken notice when a queen becomes old she does not keep the colony up to the proper strength, laying irregularly, missing some cells, and at times laying two or three eggs in one cell.—WILLIAM NIVEN, Sweet Home Apiary, Eugowra.

Have not taken keen enough observations to give what I think a warrantable answer, therefore I cannot say anything about the questions. I only keep my bees for profit, not for experimenting, as I found it did not pay me to experiment. Yours in haste.—R. MANKIN.

BEE PARALYSIS.

At this season of the year and in spring bees are sometimes attacked by that dreadful disease called paralysis, especially if the hives are situated in damp places. As there may be some beekeepers who are unacquainted with this disease, and would like to know what it is like and what to do if they had it in their apiary, I have thought that a short article on that subject might be acceptable.

THE SYMPTOMS.—The bees affected by the disease seem weak and not inclined to work, nor even to sting (though the healthy bees are generally very cross). The first parts of the body affected are the hind legs, wings, and abdomen, they become paralyzed. Next, the second pair

of legs, and then the fore-legs and antennæ, and death follows. When dead the bee does not curl up as it does generally. If opened after death the alimentary canal will be found filled with a thick, but not dry, feculent substance, which indicates that death was occasioned by paralysis or constipation. After a hive has been affected for a few days the death rate is sometimes so great that the healthy bees are not able to carry the dead ones away quick enough; they just put them outside the mouth of the hive, where they lie in a large heap, and if not soon removed by the beekeeper will give off a very offensive odour, and cause the bees to become very cross. The disease seems only to attack the newly-hatched bees and the nurse bees. The unhatched bees, drones, and queen, and the field bees, after they have been gathering honey or pollen for a few days, seem unaffected by it and are healthy enough. A bee does not live long after it is attacked. The malady lasts in the apiary for about six weeks. Some authorities attribute the disease to bacillus, others to unwholesome food. I know on one occasion when my bees were suffering very much by it it rained for three days, and the bees could not leave their hives. Not nearly so many died for about a week after the first day's rain, but after that week they were just as bad, which makes me think that bad food is the cause of the disease.

NOW FOR THE REMEDY.—First spray the bees with a mixture of water, sugar or honey, and salt. Use only a small teaspoonful (not heaped) of table salt to one pound of sugar or honey—too much salt will kill the bees. Afterwards feed the bees with the syrup, but only put in it a half teaspoonful of salt to the pound of sugar.

I think you will find the remedy effective.

J. F. MUNDAY.

Our Mr. Edwin Tipper will be at the Convention, and will be pleased to receive subscriptions and advertisements to the AUSTRALIAN BEE BULLETIN.

MORE ABOUT THE CONVENTION.

At the meeting of the Convention Committee on Tuesday evening, the 22nd, the Secretary, Mr. Mansfield, reported that a very large number of persons had sent in their names as intending to be at the Convention from all parts of the colony. That in addition to the reduced rates granted by the Railway Commissioners, the Steam-boat Companies on the northern rivers have agreed to concessions in travelling rates, and the Union Steamship Company were willing to grant the same from all ports that their vessels stopped at on the Southern Coast, but wished to know at earliest the number and names of intending visitors. We would ask all such to send in their names at once to Mr. Mansfield.

It was resolved that the Agricultural Department be asked to report the proceedings in the *Agricultural Gazette*, and the same with the Sydney daily newspapers. Several correspondents had suggested a photograph of the attending members should be taken as last year, and it was decided to ask Mr. Gale to make arrangements accordingly. Several correspondents had spoken of ladies being at the Convention, and opinion was expressed that it would tend greatly to make the meeting a success.

THE PHOTOGRAPH.

The matter of photographing the group of members attending the Convention came up at the committee meeting last week. It is our intention to give such a *full-page* picture with our July number; and we modestly trust the same, representing not only the *worker drones* of the Australian bee community, but a good sprinkling of the *working queens* of our sunny Australian hives, will be represented in it, and that the bound volumes of the A.B.B., one containing these likenesses, will for many years to come be found on the shelves of the Australian beekeepers' library,—long after the present depressed times have passed away, and the faces represented have ceased to add the sweets of life to all around them.

MY strain of ITALIAN BEES are Beautiful, Gentle, Prolific, and Hardy. Try a

Tested Queen, posted 8/-
Nucleus (1, 2 and 3 frames) Full
Swarms, Bee Books, Section
Boxes, Extractors, &c.

Prices on application.

D. CAMPBELL,

Black Ranges, Stawell,

VICTORIA.



Queens !

Italian Bees !

Colonies !

Nuclei. &c.

Send for Price List.

J. W. PENDER,
Drumfin Apiary,
WEST MAITLAND.

WANTED

A FEW JANUARY NUMBERS OF A.B.B.

Sixpence each will be given
for a dozen or so. Also 6d.

FOR FEBRUARY NUMBERS.

B. L. GRAHAM,
THE BEE-KEEPERS' TINMAN

HIGH-ST., WEST MAITLAND.

BEE-KEEPERS !

Why degrade your delicious honey by putting
it into second-hand cans, when you can get
NEW CANS from me, made for the purpose.

I make a stock article of 60lb., 25lb., 20lb.,
and 9lb. cans.

I make to order all kinds of Honey Cans, Honey
Tanks, Extractors, Uncapping Cans, and all
BEE-KEEPERS' TINWARE.

The Cheapest Shop for Family and General
Tinware.

Galvanised Tanks a Specialty.

Terms Cash.

Please mention the "Bee Bulletin."

ITALIAN QUEENS.

Bred from queens imported direct from
DOOLITTLE and BIANCONCINI

this season. Untested, 4 for 20s; select tested,
15s each. Also maker of the Gallup Hive—1½
storey, 24 frames and starters, set up complete,
12s 6d; or with 24 1lb. sections at 13s 6d each
The Gallup Hive is no fancy patent, but a
genuine standard hive.

Boss Foundation Fasteners 3s, also of Hebble-
white & Co., and R. K. Allport.

GEORGE JAMES,

BEE FARM, GORDON.

Mention A.B.B.

A. J. C. VÖGELE,

FELSENTHAL APIARY, PATERSON,

WISHES it to be known that he commenced beekeeping with an Italian Swarm in February,
1887. In the year 1888 he imported, and has continued importing and queen rearing ever
since, never being without an imported queen in his apiary the whole time, and giving his very best
attention to same. He is, therefore, able to supply the Choicest Quality of Italian Queens
(tested or untested).

COMB FOUNDATION SUPPLIED.

ADDRESS—

A. J. C. VÖGELE, Felsenthal Apiary, Paterson,

or C/o Messrs. Barden and Ribee,

or C/o E. Tipper, Printer, West Maitland.

SMOKERS.

The points of a good smoker are:—1st. Strength and durability. 2nd. Give a good volume of smoke. 3rd. To be easily lighted and not go out when set down. All the above qualities are combined in the Pender direct-blast Smoker, they are made with cedar and leather bellows, without any valve to get out of order, and a substantial metal fire-box with guard to prevent burning the hands.

Mr. R. L. Pender, West Maitland.

13th May, 1893.

Dear Sir,—I have much pleasure in informing you that the smoker I purchased from you some time ago has given every satisfaction, and is by far the best I have ever used. I will do my best to recommend your “smokers” to other beekeeping friends.

Yours faithfully,

ALFRED H. LEWIS,
Clairwood Apiary, Branxton.

Mr. R. L. Pender,

W. Maitland.

Bolwarra,

May 15th, 1893.

Dear Sir,—You may be glad to hear that the direct-blast bee-smoker, made by you for me, compares favourably, in my opinion, with other makes, and I have tried them all, or most of them at any rate.

Yours faithfully,

R. PATTEN.

Mr. R. L. Pender,

W. Maitland.

Richmond,

16th May, 1893.

The bee-smoker supplied by you is the best I have ever used. Before obtaining this one I was using the Clarke cold blast, and I have also tried the Bingham, but yours is the best of all in my opinion. Its merits are *handiness, large carrying capacity, and strength and volume of the smoke* if proper fuel is used.

Yours obediently,

F. G. DALEY,
Vermandois Apiary.

Mr. R. L. Pender, W. Maitland.

The bee-smoker I bought from you is a very good one, and I do not think it can be improved on. If I hear of my bee friends requiring one I shall certainly recommend them to get one from you.

H. E. BIGG, Walgarrah.

Public School, Elderslie, 14th May, 1893.

Dear Sir,—The bee-smoker I got from you does its work effectually, and I am very well satisfied with it.

Yours respectfully, D. BROADBENT.

BEE BRUSHES.

I have looked around for a long time to find a suitable material for a bee brush and could find nothing satisfactory. What is wanted is a brush that will sweep the bees clean off the combs without entangling them in the material of the brush, at the same time it must not be hard enough to injure them. A satisfactory brush cannot be made of animal fibre or feathers, as anything of an animal origin irritates the little creatures. I have at last come across a brush that is satisfactory, viz., the “Coggshall bee brush” and I have made arrangements for the local manufacture of these. The material is of vegetable production, too coarse to be called fibrous, hard and thin enough to prevent bees being buried in its material, and soft enough to prevent crushing. It is the nearest to perfection I have used. For the wholesale brushing of bees off the combs it cannot be beaten. Price, 10d each; 3 for 2s 3d. From R. L. PENDER, W. Maitland.

If you want
COMB FOUNDATION

—OR—
ITALIAN BEES,

For business and quietness combined, try

J. F. MUNDAY'S

Strain, the result of over 5 years' careful breeding from queens annually imported.

Foundation 1/9 per lb. for 12 lbs. and over.

Queens from Oct. 12/6 each (warranted pure).

Send for price list. Beeswax bought or exchanged for foundation.

IONA APIARY, WOODVILLE.

THE AUSTRALIAN AGRICULTURIST

THE FARM, STATION AND HOME COMPANION, Published Monthly, is to be the Monarch of the Country Press.

By Circulation, force of character, and kind influence, it will be made the foremost Agricultural and Home Journal in Australia.

We Guarantee and Prove Circulation Monthly Exceeds 10,000 Copies; Yearly reaches 130,000 Copies.

The Enterprising Advertiser must be with us.

PUBLISHING OFFICES:

SYDNEY, 58 Pitt Street (Temporary)

BRISBANE, 26 Queen Street.

AMERICAN

Hives, Sections, and all kinds of Bee Appliances

CAN be furnished **CHEAPER** than any others. We make all goods of Latest Patterns and Styles. By clubbing your orders you can get goods from us at low rate of freight, and we give you special low prices. Write to us for large Illustrated Catalogue and Price List, also a free copy of *The American Beekeeper*, a monthly paper. This House has been established 12 years, and is the largest in the world. Address—

THE W. T. FALCONER MANUFACTURING Co.,
JAMESTOWN, N.Y., U.S.A.

DOOLITTLE QUEENS 5/- EACH.

I HAVE just got a Queen from Doolittle. See what he says about her: "Just as soon as the Queen marked xxx reaches you go to breeding from her, for she is all right, being about the best breeding queen I ever owned and worth \$50 or £10 for that purpose."

G. M. DOOLITTLE.

I will sell Untested Queens from this queen 7/6 each or 4 for £1. They will be sent along as early as I can breed them. Now, if you want any, order early.

BLUE MOUNTAIN HONEY DEPOT,

(Established 1887.)

I have decided to run a Commission Business in connection with my regular honey trade, and as I do the largest business in Sydney in Pure Honey, I feel confident of being able to satisfy all who may favour me with a trial.

I am Re-queening

all my nives this coming Spring, as I have decided to follow Manum's plan of not keeping queens over one year old. I shall have some hundreds of choice pure bred queens to dispose of at 15/- each or two for 25/- Here is a chance for you to get stock bred from the best imported strains at half cost. I have built up the largest bee concern in Australia, and I did not do it by keeping poor stock.

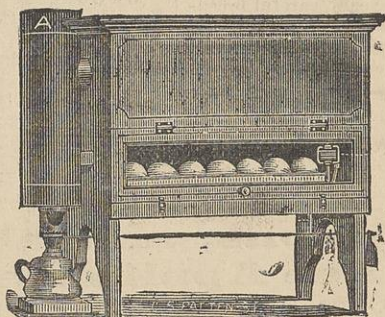
Daisy Wheelbarrows, 25/-; Wax Scrapers, 1/6; Wire Embedders, 1/4; 5 'Billy' cans (nested) 1 pt. to 4 gal ons, 2/6 per nest. Full line of other supplies equally cheap.

MAJOR SHALLARD,
BLUE MOUNTAIN BEE FARMS, GLENBROOK.

INCUBATORS.

Avoiding the somewhat general and old-fashioned plan of hot water tubes, this incubator is intended to imitate the natural method of hatching as practiced by the hen herself, as follows:—

PRICE



120 Eggs, £8 8s.

PETALUMA INCUBATOR.

The heat is applied to the top of the eggs, and they rest on sand slightly moistened, imitating the hen setting on the ground, her body on top furnishing warmth and the damp earth beneath. The largest brood and the strongest chicks will be the result, as all breeders well know.

All know that the largest hatch made by hens is when they steal away, and in some secluded spot make the nest on the ground; the damp earth being the non-conductor of heat retains the warmth imparted by the hen, and helps to furnish the moisture necessary to allow the chick to readily break out of the shell, thus preventing deformities, weak chicks from exhaustion, &c.

BONE MILLS (for Poultry Yard).

WILSON'S	No. 1	25/-
ENTERPRISE	No. 650	32/6
"	No. 750	35/-

SEND FOR OUR ILLUSTRATED LIST.

— BEE-KEEPERS' SUPPLIES A SPECIALITY. —

HONEY TINS.

2 lb. (patent tops),	3/- doz.	30/- grs.
4 lb. (patent tops),	4/- "	40/- "
7 lb. (patent tops),	5/- "	55/- "

60 lb. Tins (square), with Bungas, 12/- doz.; with $\frac{1}{2}$ inch screw caps, 13/- dozen; 3-inch ditto, 14/-; 4-inch ditto, 15/- per dozen.

No. 750 ENTERPRISE.

HEBBLEWHITE & CO.,
OPPOSITE SYDNEY ARCADE, George Street, Sydney.

Printed by E. Tipper, proprietor, High Street, West Maitland, New South Wales.