



LIBRARIES

UNIVERSITY OF WISCONSIN-MADISON

The Australian bee bulletin. Vol. 15, no. 11 February 28, 1907

West Maitland, N.S.W.: E. Tipper, February 28, 1907

<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.

Registered at the General Post Office Sydney for transmission by post as a Newspaper

THE AUSTRALIAN Bee Bulletin.

A MONTHLY JOURNAL, DEVOTED TO BEE-KEEPING.

Edited and Published by E. TIPPER, West Maitland; Apiary, Willow Tree, N.S.W

Circulated in all the Australian Colonies, New Zealand, & Cape of Good Hope.

VOL. 15. No 11.

FEBRUARY 28, 1907.

PER COPY, 6D

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



YOUR HONEY WILL SELL BETTER

In Well Made **LEVER TOP TINS**
That do not Leak.

WHICH CAN BE OBTAINED FROM


Chown Bros. and Mulholland, Ltd.

THOMAS STREET, ULTIMO, SYDNEY.

PRICE LIST ON APPLICATION.



BEESWAX BOUGHT IN ANY QUANTITY.

 We Buy from you at **Nett Price** delivered to Darling Harbour, make no charge for Advertising, Commission, etc. and Return Cash within ten days of arrival.

Sayers, Allport Prop., Ltd.,

4 O'Connell Street, SYDNEY.

BEST WORKS.

BEST WORKERS.

Root's A. B. C. of Bee Culture; new edition, 5/4; "A Modern Bee Farm," 5/-; "Cook's Manual of the Apiary," 5/9; "Scientific Queen Rearing," by Doolittle, latest edition, 4/10; "The Honey Bee," by Cowan, 3/10; "Rational Beekeeping," Dzierzyn, 4/-; "Advanced Bee Culture," new edition, 5/6; "Dr. Miller's 40 years among the bees," 4 11; "Newman's Bees and Honey," 4/11; "How to Keep Bees," by A. B. Comstock, 5/6. All books post free at above prices. Aus. agent for "Gleanings in Bee Culture"—the finest bee journal in existence twice a month and only 5/6 per annum, post free Send 2d. stamp of any denomination, for a sample copy, and see for yourself what a magnificent journal it is.

Don't Miss this special offer:


"Gleanings" for 12 months and the new "A. B. C. of Bee Culture," for only 10/-, post free nearly 2,000 pages altogether.

ITALIAN QUEENS:—Our queens have no superiors and we guarantee safe arrival and satisfaction to all. Let us book your order now for coming season as we can deliver as early as you wish. Send for our 50 page Catalogue. It's free.

M. L. JONES, Goodna, Queensland.

HAVE
YOU
SEEN IT?

The Feathered & Kennel "WORLD."

 Devoted to Poultry, Dogs, Pigeons, Canaries, Cage Birds, Domestic Pets, &c.

Subscription, 6/- per annum.

Full Reports all Leading Shows.

Specimen Copy forwarded to any address.

Published by **THE FANCIERS' PUBLISHING CO.,**
161 CLARENCE STREET, SYDNEY.

COMB FOUNDATION.

Guaranteed Pure Beeswax.

7 to 8 sheets to the pound.

Per lb., 2/-; 10 lb., 1/11; 20 lbs., 1/10

Section Foundation 2/6 per lb.

Terms, Nett Cash.

R. BEUHNE,
BEE FARM, TOOBORAC, VIC.

HONEY LABELS

ARE A SPECIALTY

AT THE

Bee Bulletin Printing Works,

WEST MAITLAND, N.S.W.

Having one of the most complete Printing Plants outside Sydney we are prepared to execute any description of Printing at Reasonable Rates.

SEND YOUR VOLUMES



—OF—

A. B. B.

—TO US—

For **BINDING.**

 **Post Paid for 3/6.**

The Farmer & Grazier

The Best Illustrated

Farmers' Journal in Australia.

7s 6d PER ANNUM.

J. TWOMEY & CO,

76 PITT STREET,
SYDNEY.

WESTERN AUSTRALIA.

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

E. TIPPER,

"A. BEE BULLETIN."

NOTICE.


SHOULD any beekeeper have a doubt of
the genuineness of any honey sold in his
neighbourhood, send a sample to the Chairman
Board of Health, Sydney, who will cause it
to be analysed, and take proceedings if
necessary.



HONEY LABELS


Our facilities for doing all kinds of
Honey-label work in one or more
colors are the best and we do it
cheaply.

A. B. BULLETIN.

 **Have you seen the last copy**


 **Martin's "Home & Farm."**

If not, **SEND FOR SPECIMEN COPY!**

 **SUBSCRIPTION Only 2/6 a year in N.S.W. Other Colonies 3/-.**

You Should Read It!

It is for every Farmer, Orchardist, Gardener, Maize Grower, Dairymen,
Stock Breeder, Poultry Keeper, Bee Keeper, Country
and Suburban Resident.

 **The Paper for every Farm and every Home throughout Australia.**

"Home & Farm" Publishing Coy., 161 Clarence St., Sydney, N.S.W.

The New Zealand Farmer.

READ THIS POPULAR AGRICULTURAL JOURNAL.

It is practically the hand book of the New Zealand Agriculturist.

It keeps abreast of every enterprising farmer's daily requirements, enabling him to utilise all modern advantages within his reach.

The subjects dealt with cover the whole field of Agricultural, Pastoral, and Horticultural pursuits, and the legislation affecting these several industries. Its columns contain thoroughly practical as well as scientific information upon all branches of Farm Practice, Tillage, and the Cultivation of Crops, Stock Breeding, and Management of Cattle, Horses, Sheep and Pigs, in health and disease; Dairy Methods upon improved modern lines; Fruit Growing, including the Suppression of Orchard Pests; Poultry Rearing, Special Industries, etc., etc., besides critical Reports of Shows and Market Quotations from every farming centre in the colony.

The 'New Zealand Farmer' is the only paper in the colony wholly devoted to the interests of Farmers, Wool Growers, and Orchardists.

Subscription: Per annum, 12s 6d, posted in advance, 10s.

Send your Subscription through any Stationer or direct to the

PUBLISHING OFFICE, FORT-ST., AUCKLAND

SCALE OF PRICES.

FOR

ADVERTISEMENTS

HALF PAGE—Per Annum, £5.

„ Per Half Year, £3.

„ Per Quarter, £1 15s.

QUARTER PAGE—Per Annum, £3.

„ Per Half Year, £1 15s.

„ Per Quarter, £1.

ONE-EIGHTH PAGE—Per Annum, £1 15s

„ „ Per Half Year, £1.

„ „ Per Quarter, 12s.

SINGLE INSERTION—First Inch, 3s 6d.

„ „ Succeeding, 2s 6d.

If you want anything in the way of

Printing or Bookbinding

send for prices and samples to

EDWIN TIPPER,

West Maitland,

The Australian Pastoralist,

AND BREEDERS' GAZETTE.

PUBLISHED MONTHLY.

Price, 3s Per Annum.

Contains all the leading Pastoral Intelligence.

Address Orders—

P.O., Woolloongabba,

BRISBANE, QUEENSLAND.

QUEENS.

One, 3s; 3, 7s 6d; 8, £1.

Bred from Imported Stock.

R. H. JERVIS,

Moss Vale.

AN INCUBATOR FREE.

We are giving away incubators absolutely free of charge, to people in all States, to advertise our business. Send us a post card and we'll mail you particulars and a sample of the best poultry paper printed. Write today, no humbug, but a genuine offer.

THE AUSTRALIAN HEN,

BOX 1, BANK CHAMBERS, HAYMARKET, N.S.W.

FANCIERS AND BREEDERS OF
POULTRY, DOGS, PIGEONS AND CAGE
BIRDS,

Should Read the

W. A. Fanciers' Journal

AND

Practical Poultry Keeper.

An Illustrated Monthly Journal.

Send for Sample Copy, Free.

Published at 17, Royal Arcade, Perth, W.A.



MAITLAND, N.S.W.—JAN. 31, 1907.

The following is the list of advertisers in our present issue, all of whom we would recommend our readers to patronise:—

Supply-Dealers.

John Rush, Mentone, Victoria.
H. L. Jones, Goodna, Queensland.
Walter S. Cowell, Albert St., Brisbane, Q

Queen Raisers.

W. Abram, Beecroft.
E. T. Penglase, Fernbank P. O., Gipps land, Victoria.
R. H. Jervis, Moss Vale.
W. Reid, Paupong, via Dalgety, N. S. W.
I. L. Jones, Goodna, Queensland.

Honey Tins.

Chown Bros. and Mullholland, Ltd.,
Thomas St., Ultimo, Sydney.
W. L. Davey, Fairfield, Victoria.

Miscellaneous.

W. J. & F. Barnes, 174 & 180 Albert Street, East Melbourne.
H. L. Jones, Goodna, Queensland.
Prescott, Limited, 336 & 338 Sussex-st. Sydney.
R. Beuhne, Tooborac, Victoria.
Sayers, Allport Prop., Ltd., 4 O'Connell Street, Sydney.

Bees are wintered in Russia by burying underground.

The Cumberland (England) Beekeepers' Association has a membership of 562.

The population of the United States consume 75lbs. of sugar per annum for each person.

Honey is retailed in Canada at 12½ to 15 cents. per lb. The tariff, however, stops outside honey.

The AUSTRALIAN BEE BULLETIN first publication was April, 1892. It will shortly enter in its 15th year. One editor all the time, save 3 months at first.

The new pure food law of the United States makes it unlawful for a person to sell honey out of his own production without a statement to this effect on the label.

A French method of getting rid of ants—Plug the bottom of a large flower-pot, smear the inside with sweet stuff, invert the pot on the ant-hill, and when the ants have swarmed up the sides of the pot, dip it in hot water.

A German editor says he gets best wintering results by feeding with sugar alone. He removes all the honey he can and feeds sugar instead. We refer our readers to Messrs Hobbs communication elsewhere.

A farmer in America once replied to an advertisement for a recipe for killing

potato bugs. He sent a dollar and received by return post two small blocks with printed instructions as follows:—"Place bug between the two blocks and squeeze; remove bug and proceed as before."

Dr. Dzierzon, the chief agent in the discovery of parthogenesis as applied to bees, died recently at the age of 96, at his home in Lowkhowitz, a hamlet near Khreutzburg, Silesia, Prussia. He was born in the same place, January 11, 1811, probably in the same house in which he died.

A REMEDY FOR PARALYSIS.—Tincture of podophyllin, 3 oz.; sulphuric acid 1 oz.; honey, 1 gallon; and hot water $\frac{1}{2}$ gallon. Mix and sprinkle the combs, bees, and brood with the warm solution thoroughly. Three applications should affect a cure. As the disease is caused from constipation, the podophyllin acts as a laxative, and the acid as a disinfectant.—*American Bee Journal*.

Notice is called to an advertisement in this issue of Mr. W. S. Cowell's, Albert-street, Brisbane. Mr. W. S. Cowell is well-known in Brisbane as the leading poultry requisite depot, and he has decided to add bee keeper's supplies to his stocks, and is now in the position of supplying all beekeepers with up-to-date goods at reasonable prices. He is also a cash buyer of beeswax and honey.

We have introduced queens by taking away or killing the old queen. Then place the queen cage containing new queen on top of frames, wire cloth downwards, so that the bees inside will catch the hive scents. Leave it so for two days. Then turn a corner of the wire cloth over the royal jelly. In a few hours the bees from the outside will eat through the royal jelly, and the introduction is accomplished. It may be done quicker by the use of some strong scent, say lavender.

It is stated that honey bees will visit 10,000 strawberry blossoms in a single day.

A QUESTION.

We have, when late in the season, left frames filled with honey in the hives for wintering. We have heard it asserted that these frames are cold, dividing the cluster and thus reducing the cluster's warmth. Could some of our readers give a say in the matter.

BUNKUM.

We republish the following from an August, 1906 number, our reason being while we believe "larrikanism" and "hooliganism" are scarcely known on Australian public platforms, we also can say Australian editors discountenance same. We thought also very few English editors but did the same, but am sorry to have to doubt such, from articles in reference to above that have appeared in a journal that hitherto we had the highest esteem for.

"*Bunkum.*—A Mr. W. Ried writes as follows in the *Australian Bee Bulletin*. I do not know if the article quoted from is original or copied from some unknown source, but I have no hesitation in voting the 'facts' as *fiction*. Such one-sided statements are the acme of ridiculousness, so that their mere enumeration goes further in their refutation than words of mine, however strong. 'A neighbour had thirty-three hives. Thirty-one blacks died of starvation, leaving him two Italian hives. Another bee-keeper alongside of him, at the same time, had nineteen blacks and one Italian. The nineteen died from starvation, leaving him the one Italian.'

I knew another bee-keeper who had forty-two hives—two Italians. Bees ate out the forty blacks, leaving the two Italians. Mr. W. Ried has the modesty to conclude this rhapsody with the following words: "I think, Mr. Editor I may have tresspassed too much on your space." I think so too, and if I could whisper loud enough to reach Mr. Tipper I would counsel him to edit such copy in future."

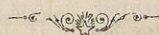
The above is by Mr. Macdonald, of Banf, Scotland, who evidently knows little of what he is writing about. Let him place an Italian stock beside a black one, and he will soon find the blacks are being robbed out. That is a common experience here in Australia. For the last 25 years Australian bee-keepers have been importing and breeding from the best Italian queens. There has been nothing of the kind done with the blacks, who, with very few exceptions, are doomed by every advanced bee-keeper. The only man we know of who was partial to black bees got an Italian queen from us. He had it only a short time when he came to complain that the bees from the queen he had from us were robbing his black hives. From the care taken during the past 25 years to raise good Italian queens, we believe there are none superior to them in any part of the world. Question—Is "Bunkum" a word suitable to a first class journal?

PREPARING FOR WINTER.

By G. COLBOURNE.

Now that the season is drawing to a close it will be well to begin preparing for winter. The first thing that needs attention is to see that the bees have an abundance of well-ripened stores. To ensure this it is as well to leave a few frames of sealed honey in the super of each colony worked for extracted honey. By so doing we are ever-ready should the late honey-flow be brought to a sudden stop through cold, wet weather, or any other unforeseen cause. Of course this only applies to the Autumn, as during the height of the honey-flow it is best to clean out the supers as we come to them, thus giving the bees abundance of room to store the honey as fast as gathered by the field bees. The next item in point of importance is to see that each colony has a young vigorous queen at the head of affairs (perhaps some will say that this should have been placed first in the list; but I say no, as of what use would a

good queen be with not sufficient stores to carry her colony through the winter). Should any queens be found lacking in any of the needful qualities, then do not hesitate to squeeze the life out of her, and replace her with a young one, either of your own rearing or one purchased from one of the breeders advertising in the A.B.B. Third on the list I would place sound water-tight hives and covers. You can't have your bees too dry during the cold, damp days of winter. I find a sheet of plain galvanised iron cut 24 x 18 inch laid between the cover and quilt an excellent thing. In our hot climate it is almost impossible to get a cover that will not check and warp so as to let the wind and water in. For this reason I use a liberal supply of quilt, sacrificing beauty. For utility it is far better to have our hives look a wee bit untidy and still be snug and dry for the bees, than to have them look "spick and span" and be reeking with damp and mould within, and the winter wind sailing in through the crevices, caused by the cover curling up at one corner. If there is any drone comb in your hives it will be a good plan to see that all such are out of the brood chamber before winter, so that when the colony begins to get strong in the Spring the queen will not find many drone cell to deposit eggs in. This will prevent a horde of useless drones being reared. With all our care to suppress them there will be an abundance of drones reared to serve the purpose which nature intended them for. Of course there are many other things to be done to prepare the bees for winter, but the above are the most important to be attended to early in the Autumn or late Summer, if you do not have an Autumn honey-flow. By starting queen-cells at once we can have young healthy queens to introduce to our full colonies near the end of March or beginning of April, and I find that late introductions are the best and most easily accomplished.



VARIABLE.

W. ABRAM.

As the question Mr. Garratt, a stranger too, asks in last issue seems more suited for a thought-reader or clairvoyant to solve, I leave it to such. For the information of the readers I will, however, make a few general remarks. Bees are generally shifted with an object in view—to increase the food supply, viz., honey crop. Sometimes it turns out a success, sometimes a failure. But the weather alone does not rule the bees and their action; there are other factors involved. One place is more suited for bees than another, providing more food for a time, or generally, then the composition of the soil, the lay of the ground, the vegetation, etc., etc., the race or breed of bees, the management of them, all conjointly or separately, have their influence upon the results. Thus, though the weather appears the same, the results must vary. And how varied the weather is! Rain, wind, etc., affect one part and not another. Lucky is the beekeeper who locates where all conditions are favourable,—but wise is he who considers the various points to his advantage. But, nevertheless, I am unable to advise as to how to secure from three to ten tons of honey per week some Victorians are talking about. The ten tons spot is, however, preferable to the three tons spot. Where is it? Will the lucky finder please oblige the fraternity?

“WHY DRONE COMB IS BUILT.”

W. TAYLOR, RYLSTONE.

An article in your last issue under the heading “Why Drone Comb is Built” is interesting to beekeepers, as it affects the working of their hives to a very great extent—especially in some seasons. The reply to the query by American Beekeeper may be the correct one, but it is altogether too scientific for the ordinary or amateur beekeeper. It is interesting to learn how the comb is built, and the

forces employed, but what we particularly want to know is how to prevent its production. Working with full sheets of foundation seems to meet the difficulty fairly well. But even this is not always a success, as the bees, particularly in warm weather, have a habit of transforming the worker foundation into drone comb, especially is this the case from about the centre of the frame downwards. Then with full sheets of foundation the question of cost must be taken into account, and it will be found an item of considerable importance. There are times probably when worker comb is built from ordinary starters, and one is gratified to find a frame nicely completed in this way, but there are others when given apparently the same conditions you find the frame to your annoyance, filled in with drone comb, probably well filled in with young drones.

Perhaps you or some of your correspondents or readers could give some information on the above subject that would help to relieve the trouble that is met with in this matter. If they can do so they will be entitled to the thanks of a very large number of beekeepers.

The present season so far is the worst experienced here for a very long time. Until the past few weeks there has been no honey flow, and although bloom has been plentiful the hives have been on the verge of starvation.

The present flow is chiefly from apple bloom, and may be followed by a flow from other sources which will give a supply for winter. Our best source of honey supply—white and yellow box—is not likely to yield anything before the cold weather sets in, and this means a distinct loss to beekeepers.

INCREASING.

We found some of our hives were very strong in bees as well as having a good stock of honey. We removed such to new locations, and put empty hives with comb in their place, giving a frame of brood to a queen cell. The flying bees mostly go

to the old location, while the young bees emerging from cells keep the old hive in good order. If there was a difficulty in finding the queen, to go in the removed hive, as is sometimes the case in a very populous hive, or a black queen, we put a queen cell in each to make sure and let it take its chance.

OUR APIARIES.

The main honey flow--yellow box--was over by Christmas. We extracted up to then, but for three weeks were not able to look at them, our time being taken up with the wheat harvest, and other farming matters. When we did get at them we did not have much to find fault with. One with very dark bees, had evidently swarmed itself out, and had developed laying workers. We reversed the hive, and put it in rear of its position. On its stand placed another hive with complete combs, a frame of larvæ from another hive, and a good queen cell. The working bees on the laying worker hive all went into the new hive; the laying workers we took it did not. Anyway, in a fortnight the queen cell had given out a good young queen, and there was a good healthy colony the laying worker hive being empty. We made one colony very strong by giving frames of uncapping brood; then took all frames with larvæ away, and in place of same gave frames with young larvæ from the best honey gatherer we had. Result, in nine days, a beautiful lot of queen cells. We spent a little time in examining each other hive, killing all black and aged queens and giving in cell protectors, a queen cell to each, with a very satisfactory result in due time.

HONEY PRODUCTION.

Of late years we have allowed ourselves to be guided entirely by the behaviour of the bees. When they are hanging on the outside--"making a beard" as the French say--we conclude that they are uncomfortable, and we at once enlarge the entrance. If the enlargement of the bottom entrance

is not sufficient, make an opening at top of brood-chamber by setting the supers back a little, so as to leave an open passage of a quarter inch on the end of the frames. But this remains only while the bees are hanging out and while the harvest continues, for we do not think it worth while to keep this space open after the end of the clover crop, the bees having but little to do and being likely to cluster on the outside, anyhow, if very numerous. In cool summers, when the nights are not unpleasantly hot, we abstain from giving upward ventilation.

A very clear proof that ventilation may be overdone when the nights are comparatively cool, as they have been this summer, is shown in the fact that the bees keep the honey away from the cool spots. We use an enamel cloth and a straw-mat over the combs, and if the enamel cloth happens to have a hole in it this is sufficient to make a very slight amount of ventilation through the mat at that spot. In a cool summer the bees remove their honey from such spots, even though they may be over the centre of the brood combs.

That makes it clear to me that they consider even this small amount of ventilation as objectionable, while a lower ventilation does not seem to have any bad effects at all.

The reader will then see that this matter of ventilation is of necessity to be adjusted according to the greater or less heat of the temperature. The ventilation needed in hot summers in the Mississippi Valley would at all times be superfluous in the mountainous countries like Switzerland, or in mild climates like that of England. The amount of ventilation sufficient in Canada would, on the contrary, be entirely inadequate here.

Now, as to ventilation for the prevention of swarming. It is easily perceived that if we have a hot season at the time of swarming--a condition that will require of the bees their clustering on the outside during a part of the day--the tendency to swarm will be very much increased. On the other hand, we may have very pleasant

weather at the same time as a good honey flow, and without warning our bees may swarm because of want of empty combs, when all the ventilation that could be judiciously given would be of no avail.

The best swarms are cast early in the season, when an ordinary and sufficient flight-opening is all that can be expected among the requirements. I, therefore, think that ventilation in plenty is *not the most important requirement*. But it is one of the requirements.

It has been said that an upper opening will prevent swarming. I believe it will, if the amount of room for storing the crop is sufficient. I do not believe that it would of itself prevent swarming, unless this ventilation was carried to such extremes as to make the bees uncomfortable in which case there might be great danger of having some of the brood chilled.

So I think we may lay down the rule that additional ventilation and shade must be given, as a preventive of swarming whenever the bees show that they are crowded, or are uncomfortable by lying on the outside of the hive. This clustering out is never an evidence that the combs are filled, neither is it an evidence that the hive is full of combs, but only proof that the interior of the hive is unpleasantly warm for its inhabitants; and if we would avoid swarming, we must make their home comfortable. - C. P. DADANT, in *American Bee Journal*.

Bee-Farming on the Clarence.

On the Clarence honey is now being produced in fairly large quantities, and on the Lower Clarence in particular, several of the apiaries are well worth having a look through. Only recently the writer had the pleasure of inspecting the apiary of Mr. W. J. Benson, Tyndale. This gentleman has something like 100 hives, the bees being almost wholly composed of the Italian variety—in fact, but one hive of common bees is kept, and these mainly for the purpose of illustrating to visitors the distinction between

these and the Italian bee. The situation selected by Mr. Benson for his apiary is highly suitable—on the side of a hill fronting the South Arm, and backed in close proximity by the dense bush in the rear. The hives are kept in the open principally in long lines, and covered with a sheet of galvanised iron only, Mr. Benson being of opinion that the more sunlight and fresh air the bees get the better for them. A little down the hill from the bee stands is the extracting house. In this are all the accessories necessary in up-to-date bee farming. Mr. Benson has spared no expense in the direction of laying in a suitable plant, and besides being well constructed, the various tanks and extractors are sufficiently large to deal with a big output. Some of the contrivances used were constructed by the proprietor, are very ingenious, and would be rather difficult to describe. The completeness of the plant enables honey of the first quality to be produced, which is now finding a ready and profitable market in Sydney, the orders received being of an extensive character. Mr. Benson has, it might be said, made bee-farming a life study, he having entered the business when leaving school, and gradually increased his apiary during the past ten or eleven years till it has reached its present state of perfection. A chat with him on the subject is very interesting, and cannot fail to dispel many erroneous ideas which may have been formed as to the habits of the “busy bee.” In the particular direction of fostering and improving his “queen” bees Mr. Benson exercises much care, and regularly imports or exports these to enable him to keep his stock in proper “tone.”—Extracted.

Paralysis Cured by Brine

The queens were bright and active, and the brood all looked healthy; but they were going down rapidly. I made up my mind to kill or cure them by experiment, and this is what I did: I went to

strong brine. I went to one hive, opened the pork barrel and took out a dish of it, took off the cloth on top, took a wisp of fine grass, dipped it in the brine, and sprayed them all over the top of the racks quite freely, then the entrance of the hive, and all the sick bees in front for several feet around, and closed top again. Then I repeated the same operation with the other, and watched the result. In three or four days I saw a marked difference with both colonies. There were not half as many sick bees, so in four or five days from the first spraying I repeated the operation, and in two weeks after the first spraying there was not a sick bee to be found in either colony, and it has has never returned.—Writer in "Garden and Field."

Drone Cells for Queen Cell Cups.

A writer in *Rural Beekeeper* says:—To rear good queens without dipping or compressed cell-cups, go to any colony that you know has some old black drone-comb (the older the better) that the bees have polished up for the queen to lay in.

Cut this out (and you might replace it with it worker-comb while you are at it), and cut it into strips, one row of cells each. If there are eggs or newly hatched larvæ in them they must be destroyed, or the bees will build over them. Now attach these strips of drone-comb to the cell-bar with melted beeswax as you would the artificial cell-cups; cells pointing down when the cell-bar is in position.

Take a thin-bladed sharp knife (it is best to have the knife hot) and trim the row of cells a little more than half way down. This done, flare the mouth of every third cell on the cell-bar, by pressing the rubber end of a common lead pencil in it. This will cause them to look very much like queen-cells just started. You can prime these with royal jelly like the artificial cell-cups if you wish, but I find that of no use. Now go to the breeder, lift out the little larvæ and place them in these prepared cells. Hang the

frame in the cell-building colony, and these cells will be accepted and built out the same as any queen-cells. This old, thick, black drone-comb makes a good, heavy base for the cells, and is far superior to any artificial cell-cups for my use.

I use drone-comb altogether now.

While large numbers of colonies are all right for gaining certain kind of experience, it is often from smaller numbers that special investigations and experiments can be conducted most successfully.

The bee-keeper who numbers his colonies by the thousands and his apiaries by the tens, often has not the time to conduct experiments or discover certain aluable things. Many interesting things can be learned from the manipulations of less than 10 colonies. Of course, it may no be considered commercial bee-keeping nevertheless it is all right.—*Exchange.*

Ways of Wild Bees.

There are about 5000 species of wild bees all with interesting ways of their own. Among them is a species whose females are veritable Amazons and carry more and better weapons than the males. These are the "cuckoo" bees, which deposit their eggs in the nest of others, the progeny of both living peaceably together until maturity, when they separate. Then there is the tailoring bee which cuts leaves with his scissor-like jaws and fits a snug lining of the leaf material into his cave-shaped nest.

Swarm in a Signal Lamp.

Yatton Junction, G. W. Rly., England, has had a swarm in a signal lamp. *The Strand Magazine* has a picture of the swarm being driven into a skep fixed above the lamp. Shunting was blocked, and not one of the company's drivers would venture to drive the bees. The nearest bee-keeper showed the locomotive men how to side-track a swarm.

PRICES OF HONEY.

Melbourne Australasian.—Honey, is dull at $2\frac{1}{2}$ d to 3d for prime to choice extracted. Cloudy and dark is quoted nominally at 2d. Beeswax— $1\frac{1}{2}$ to $1\frac{1}{2}\frac{1}{2}$.

Melbourne Leader.—HONEY.—There is very little business in this line. Prime clear garden lots are obtainable at 3d., medium to good being on offer at from 2d to $2\frac{3}{4}$ d. BEESWAX.—Trade is restricted to clear samples, which are quoted at up to $1\frac{1}{3}$, medium to good trades are to be had at from $1\frac{1}{1}$ to $1\frac{1}{2}$.

S. M. Herald.—Honey, at present dull, choice extracted up to 3d, medium 2d to $2\frac{1}{2}$ d, inferior $1\frac{1}{2}$ d per lb. Beeswax.—Demand good, $1\frac{1}{1}$ to $1\frac{1}{3}$ per lb.

Maitland Mercury.—Honey, 2d to $2\frac{1}{2}$ d. per lb. Small tins $2\frac{1}{3}$ to $2\frac{1}{6}$.

HONEY.—

During the past two or three months, sales have been very slow, but with the approach of the winter months we anticipate a better demand. Choice Western District Honey is selling from $2\frac{3}{4}$ d. to 3d. per lb., dark coloured and strong flavoured lots ranging from $1\frac{1}{2}$ d. to $2\frac{1}{2}$ d. per lb. with a poor demand.

BEESWAX.—

The Market is firmer, and there is a good demand for choice clear samples at $1\frac{1}{3}$ lb. We can sell any quantity from $1\frac{1}{1}$ to $1\frac{1}{2}$ lb.

PRESCOTT LIMITED.

COMMISSION AGENTS

336 & 338 SUSSEX STREET

—SYDNEY.—

For all you want in the way of

PRINTING!

Try the

"Australian Bee Bulletin" Printing Works,
West Maitland, N. S. W.

S. F. & D.

(STATION, FARM AND DAIRY.)

Practical Agricultural Journal.

Official Organ of the Chamber of Agriculture

SUBSCRIPTION, 5s. PER ANNUM.

12, SPRING STREET, SYDNEY,
Opposite A M.P. Society.

Queensland's ONLY Poultry Paper.

—THE—

'Poultry Guide'

Published 1st of Each Month.

257 WICKAM STREET,

VALLEY, BRISBANE.

SUBSCRIPTION, 2/6 Per Annum

ADVERTISEMENT, 2/- PER INCH

NEW SHIPMENT

ROOT'S AMERICAN
BEEKEEPERS' SUPPLIES.

HOFFMAN & STAPLE SPACED FRAMES,
WITH ENDS BORED FOR WIRE.

HONEY TINS. HONEY EXTRACTORS
INCUBATORS, ENTERPRISE GRIT MILLS

Write for Price List.

JOHN RUSH,
MENTONE, VICTORIA

Also at 407 Collins-st., Melbourne.

Laying Ability of Queens.

Here's a sliding scale of voracity. A soldier, eating his rations and nothing else, eats his weight in about 64 days. A swine does much better. A farmer shuts up 10 shoats weighing 100 pounds each and feeds them corn three times a day—half a bushel of ears at a feed—or say three pounds of actual corn per shoat. Thus they eat their weight in less than 12 days. But a mouse, I find, makes nothing of eating one-third of its weight in one night. One of mine ate his companion in three days, and lots of other victuals besides. With cracker alone they might fall short of one-third their weight of it; but with apple or sweet potato with cracker they would succeed. Then there's our queen bee. Food plus water *must be*, at least calculation, 20 per cent. heavier than her day's total weight of eggs. I'll guess they do not give a queen pure water enough to affect the figures much; but I fear we cannot be sure of that. If eggs weigh 388 to the grain (I suspect them lighter), then a queen laying 2000 eggs a day lays a little over five grains—say twice her summer weight, or $2\frac{1}{2}$ times her winter weight. We'll say it takes six grains of food to produce five grains of eggs. If so, she eats her winter weight in eight hours.—Exchange.

TREATMENT FOR LOCKJAW.

American physicians (says the New York correspondent of the "Daily Telegraph") believe that they have cured a case of lockjaw, by heroic and unprecedented methods. Richard Miller, a carpenter, ran a nail into his foot about ten weeks ago. Within eight days his jaws were locked, and he became unconscious. After anti-toxine had been administered, and the wound in his foot excised, the patient became still worse. It was a very bad case of tetanus, and the doctor abandoned hope. Convulsions racked the man's frame. In desperation, and

as a last resort to give some relief to the tension on the heart and brain, and internal organ, Dr. J. B. Garvin, head surgeon of St. John's Hospital, Long Island City, took a pint and a half of blood from Miller's left arm. Relief came, and to this heroic method, which, it is suggested here, may lead to a revolution in lockjaw treatment, the physicians believe the man owes his life. Recovery was only very gradual, and for six weeks Miller was very weak, and during part of the time his body was bent backward like a bow, only his heels and the back of his head touching the bed. Then periods of consciousness came, and one day he was found semi-conscious, his jaws relaxed, and gnawing at the sheet, as if to exercise the muscles, which had long remained unused. Now Miller is out of hospital, perfectly cured, and Dr. Garvin has been invited to read a paper on the case before the New York Medical Association.

A HOME-MADE HIVE.

Get pine boards 1 inch thick. For the sides of the hive, cut 2 pieces, each $20\frac{1}{4}$ inches long and 10 inches wide. For the ends, 2 pieces 15 inches long and $9\frac{3}{8}$ inches wide. Nail together, so that the outside measure of the hive shall be $20\frac{1}{4} \times 17$. The pieces for the sides and ends are not of the same width, and are to match at the bottom. That leaves an open space $\frac{5}{8}$ inch at the top at each end. To close this space and also to furnish cleats by which to lift the hive, nail on each outside end a piece $17 \times 1\frac{3}{4}$ inches.

For a cover, take a board 18 inches long and 17 inches wide, having a cleat nailed on each end. Such wide lumber is now expensive, and the cover may be made of 2 or more narrower pieces, covered with ruberoid roofing, which is now to be had at the lumber yards.

A bottom board may be 2 or 3 inches longer than the hive, and of the same width, or the hive may be placed on any flat surface. In either case there should

be nailed upon the floor at each side, and also at the back end, strips 1 inch wide and $\frac{1}{2}$ inch thick.

Ten frames are needed. For these, rip out of your inch lumber strips $\frac{3}{8}$ inch thick. Cut the top bar 20 inches long, the bottom-bar $17\frac{5}{8}$, and the end-bars $8\frac{3}{4}$. Nail the top-bar and bottom-bar on the end-bars, making a frame $17\frac{5}{8} \times 9\frac{1}{2}$, outside measure, this being the size of the Langstroth frame.

This will not be so good as a factory made hive, but it will be a long ways ahead of a box-hive, as it allows each comb to be taken out instead of being a sealed book like the box-hive. Whether our fortune is made hereby remains to be seen.—*American Bee Journal*.

Where The Honey Comes From.

A Consular report from Seville, dealing with the world's production of honey places Spain second in the list of sources of supply, the total number of her bee-hives being 1,600,000, contributing 19,000 tons out of the 89,000 tons which is the total yield. Germany with 2,000,000 bee hives produced 20,000 tons of honey. Austria comes third with 18,000 tons. France produced 10,000 tons. Holland and Belgium less than 2500, and Greece, Russia and Denmark 1000 tons each.

Internal Temperature of Hives.

On this question, Doolittle, in "AMERICAN BEE JOURNAL," writes as follows :—The question is, "How many degrees of temperature is there in a bee-hive, in the brood nest, or above the brood nest?" I found that with my self-registering spirit thermometer it was very easy to get the highest temperature ever obtained in the brood nest, but not so easy to ascertain the very lowest. From repeated trials during several years. I find that 98 degrees is the greatest heat that is ever allowed by the bee while rearing brood unless the outside temperature is so hot that the bees are all driven out from the hive, which

is never the case in this locality. And this was proved by an experiment conducted on a day in which the mercury rose to 97 degrees in the shade and 130 degrees in the sun, with the hives all standing in the sun. Just how it was possible for the bees to keep the temperature down to the brood-rearing point is something I can only guess at, but I know that they did it. My guess is that it was done through their ventilating the hive from the entrance, with fanning wings, and the evaporation or making moisture through "boiling down" thin nectar or water or both, which was brought in. I hardly think it could have been done by ventilation alone, for on a day when the air outside is within one degree of the limit of heat inside, with the sun pouring right down on the hive, it seems hardly possible that such a thing could be done.

Overstocking.

It is with bees the same as with any other kind of live stock. It is possible to overstock the land. Bees must have a certain amount of pasturage and the blossoms of plant from the pasture. Therefore it is not possible for them to find sufficient nectar to feed themselves and store honey in their hives when there are too many of them close together. Those who keep stock know how seasons fluctuate, and how some years pastures are bared compared with others. It is the same in bee-keeping. There are average years, and when there is a superabundance of blossoms, and years when plants do not bloom readily or blossoms do not last long. Thus it is with bees as with any other stock, no one should think that he can depend for his living on bee-keeping alone. It is not advisable here any more than in other places. Bee-keeping is an excellent side-issue, and fits in well in the operations of a careful man who has other crops besides the honey crop to depend upon or other stock besides bees. This is not to say that a few might not be successful in bee-keeping

on a large scale, and depend upon it, but in that case they must be careful, experienced, and enthusiastic, and good business men besides.

Virility of Virgin Drones.

The question whether the drones bred from a virgin queen or a laying worker are capable of making a queen fertile or not, has often been debated. Mr. Adrian Getaz, who sometimes contributes articles to the "*Beekeepers' Review*" on the scientific side of bee culture, recently contributed the following interesting notes on the matter that are worthy of production.

Leuckart affirms that some of his queens were thus mated, since at that time no other drones were about. A few instances have been quoted in the bee papers of queens fertilized by from laying workers' colonies early in the spring of the year, before any normal colony had drones.

However, as the queens mate outside, and, as "personal identity" of the drone could not be established even if he were seen it is possible that the aforesaid queens have mated with drones from somewhere else without the knowledge of the Apiculturalist. So, still we have some means to have the queens mated in confinement, or in a big tent, direct evidence will be wanting.

But there is some circumstantial evidence. In the first place, careful microscopical examinations, repeatedly made by different observers, have shown that the drones from virgin queens and laying workers are identical in every respect to those from a fertilized queen, and laying a full complement of fecundating germs, just as well as those raised in a colony having a mated queen.

In the second place, the manner in which the queen is fertilized, and the eggs receive that fertilisation show that the drone eggs have nothing whatever to do with the fertilization of their mother.

When a queen is fecundated, the fertilising germs of the drones (spermatozoa) are thrown into an organ similar to a

pouch or a sack situated in the body of the queen near its end. That sack has no communication with any other organ of the queen that we can see, except the opening by which the spermatozoa went in, and by which they come out, one by one to fertilize the eggs.

The egg are found higher in the body, in two organs called the ovaries. They come down through a tube, pass before the sack containing the spermatozoa, and from there to the outside of the queen's body. If, when they pass before the sack they receive a spermatozoon, they become female eggs, and produce either queens or workers. If they don't receive any they produce drones.

Such being the case, and the ovaries having no connection whatsoever with the sack containing the spermatozoa, it is clear that the eggs produced in the ovaries are perfect drone eggs, and that the introduction of the spermatozoa in them, transforms them into female eggs. It is clear, also, that since they are produced as well when spermatozoa are present as when not, they ought to be as perfect in one case as in the other, since the spermatozoa shut up in the sack (that sack is called the spermatheca) have no connection with the ovaries. — *Extracted.*

Bees and Fruit.

I am asked if I will give my reasons for thinking that bees never injure sound grapes. Although I have spoken so frequently through *The American Bee Journal* on this subject, I will briefly recapitulate my reasons for this opinion.

If we will watch and note that the bees are working in full force on the grapes or other fruit, and then select a cluster of grapes, remove all that are not perfectly sound, and hang the cluster where the bees may gain ready access to it, we find that they leave the grapes entirely unmolested. If now we prick half these grapes with a pin or needle, so that the juice exudes, and mark those punctured by tying thread about the stem, we will find that

while the bees will suck the pierced grapes entirely dry, they will leave all the others entirely unmolested.

We may even make a more crucial test. Shut the bees in the hive, ventilating them so they will not suffer, and take all food away from them. When their fasting has reached the danger limit, take a bunch of grapes, all of which are sound, and puncture and mark half of them as before. Now place this cluster in the hive and we will find that only the punctured grapes will be sucked free of their juice. It is true that if wasp, bird, or over ripeness cause the juice to exude ever so little, then the bees will come to save the wasting liquid. I have observed that when the grapes get very ripe, this escape of juice is not uncommon, and it often explains how it is that bees may come in full force, and seem to attack the grapes without provocation.

I would not say that bees could not puncture grapes and other fruit. I have seen them cut wood with their strong jaws in a way that makes it seem to me possible that they might, if they only knew, cut into sound fruit, but it is not their way of doing. They only seek out the nectar when it is exposed, so that the odor may attract them. I have no idea that the bees ever search out sweets except as exposure gives them hint of their presence.—*Exchange*.

Making Queen or Royal Jelly

You can't make queen jelly, or as it is generally called, royal jelly. I never knew of any offered for sale, but you can easily get the bees to make it for you. Take the queen away from a colony next summer, and the bees will start to rear several young queens in queen-cells that you will easily distinguish as being larger than the other cells. In these queens-cells they will put quite a quantity of food for the young queens. In each cell there may be as much as the size of a pea or more. It is of the consistency of cream, varying

from the thinnest to thickest of cream as time advances, and when a young queen emerges from the cell there is generally left at the bottom of the cell a surplus of food that has dried down to the consistency of thick jelly. But the only way you can get this royal jelly is to get the bees to make it.

Bulk Comb Honey.

According to the "AMERICAN BEE JOURNAL," "bulk comb honey" is at present the chief product of some of the Texas apiaries. Bulk comb honey is simply combs containing honey cut from the frames and dumped into tins of various sizes and then retailed out to customers. The journal says: The demand for this far exceeds the supply each year, while extracted honey goes begging. It is no trick to sell bulk comb honey, and the price obtained is from three to four cents more than for extracted. A third of the contents of the cans packed with this comb honey is extracted, hence it must be remembered that comb honey prices are obtained for it, or, if the original price of the extracted honey is subtracted, a much higher price is obtained for the comb honey. Bulk honey has proved the most profitable in the south.

WAXING FLOORS.

There are various ways of treating wood floors, but the best way is to wax them.

Many preparations are sold ready for use, but if one happens to be in a neighbourhood where they are not readily procurable—in the wilds of the country for instance—the following polish makes a good substitute:

Cut common white beeswax into thin shavings, and pour turpentine over until well covered.

Let the preparation stand over night, by which time the beeswax will be soft.

Stir it into a smooth paste, and add turpentine until it is the consistency of thin cream; it is then ready for use.

Before applying the wax, wipe the floor perfectly clean with a dry cloth, and if there are any spots on it, take them off with turpentine or benzine.

Never, under any circumstances, use water on a floor that is to be polished. Apply the wax with a flannel cloth, being careful to put on but a little at a time, in order to avoid a surfeit of stickiness.

Rub the polish well into the wood with a rough piece of flannel, or a piece of Brussels carpet until it shines like furniture.

Unless the floor suffers rough usage it will remain bright for six months.

Dust it by putting a piece of flannel over the broom and sweeping.

Keep a piece of flannel at hand to rub any little spot where the polish may have become dimmed.

If, after long use and many waxings, the floor should seem sticky and dirty, clean it with turpentine.

Some people prefer simply to oil a floor. While this does not yield as high a polish as wax, it is satisfactory for a time.

An oiled floor should be gone over every week or two; even then the dust sticks to it, and it soon becomes dull. If anything other than wax is desired, it is better to oil and then varnish the floor.

Another means of polishing is to apply a coating of size, followed by one of walnut or oak stain, and subsequently by a third coating of varnish.

In any case, let the polish harden for 24 hours before the floor is used.—*Philadelphia Press*.

Beekeeping in Cuba

Help must be kept in Cuba, if for no other purpose than to watch the yard to keep the honey from being stolen, and any thing that can be laid hands on. Last January I had 200 lbs. of comb honey stolen in less than two weeks, besides

many other things. In two yards I have men all the time, and the other yard I run myself, having 200 colonies in each yard. My thermometer has been stolen lately, which is of no value to Cubans, as they use those on the Centigrade scale. I have used for Spaniards only from Galicia to work for me. Cubans are not trustworthy. In the war time the Cubans learnt to steal, and they have not forgotten the art.

Cuba has two seasons—rainy and dry. We had not a drop of rain from October to March 15, and now we shall have rain every day till October—no rain such as you have in the United States, but showers lasting from a few minutes to four hours. I have seen six inches of rain fall here in as many hours. Now our ground is water-soaked all the time, and all this water gathers in low places or goes into natural holes in the ground which do not exist in the United States. Here whole rivers disappear in the ground, and you hardly know where, as the stones are full of holes made by the insects.

The mud in Cuba is like putty, and it is almost impossible to walk in it. The horses get sore feet from the water and mud, and you are compelled to walk sometimes. I have lived in town now for a year and a half, finding it impossible to live in the country on account of mosquitoes. In the town fleas nearly eat me up. I can not sleep at night without sprinkling the bed with coal oil. I would say that coal oil costs 60 cents a gallon here.

Fleas and mosquitoes are not the only bad things. You will have live worms and living bugs in your feet. There are tarantulas and scorpions, snakes of all sizes, lizards and chameleons. The living here I have found almost unendurable. I know that things I eat here I would walk over in the United States. My natural weight in the United States was 165 lbs. But here I very seldom weigh 135—only two meals a day, and very poor ones at. The Cubans have a habit of drinking strong coffee to stop appetite, and it does

it. A tin can like a corn-can is filled half full of ground coffee, filled with water, and then boiled down half. then that is good coffee. It always made me sick, and now I refuse it always.--Writer in *Gleanings*.

Uncapping Honey for the Extractor.

Those who have much uncapping to do must appreciate any method that may tend to lessen the time and labour required over the system now in vogue. A writer in an American contemporary offers some very good suggestions, which are worth nothing. He says:— We have felt the want of a longer uncapping-knife for several years, but have been loath to ask for it for fear this extra length would make the knife unwieldy, or, in other words, every little we add to the blade in length we lose in leverage. I wish I could have used this knife with the blade an inch longer than the regular, one season before passing an opinion on it. Our extracting frames are all the Langstroth size, mostly with $\frac{7}{8}$ in deep top-bars; but a part are only $\frac{3}{4}$ in deep. This, after figuring out the bottom-bar, leaves from 8 to $8\frac{1}{2}$ in of comb surface. Eight of these combs are used in a 10-frame body. In our extracting upper stories this wide spacing, $1\frac{1}{2}$ in, makes great plump fat combs. Now, to uncap, set the comb to be uncapped on end on the usual sticks, over the uncapping tank with the edges of the comb towards you, held in position with the left hand. We start the knife at the lower end of the comb to be uncapped. At this stage, the comb, for convenience, will stand on a slant to the left. Now begin the upward movement of the knife back and forth, endwise, with a see-saw motion. This makes the knife cut more keenly. Now, about the time you see the cappings are going to fall off the knife with the left hand push the comb to the right until it stands perpendicular. If you are now holding the knife at the correct angle, the bevelled edge on the knife being on a level with the comb

it is uncapped, the lower edge of the knife will be an inch or so off from the uncapped surface, so the capping will clear the comb and fall direct into the uncapping tank below. Uncap deep, clear down to the frame.

I am convinced that the best honey could be produced by using nothing but foundation in the upper stories to extract from, but as this is impractical the next best thing to do is to uncap deep, so the comb, when given to the bees to be refilled will be, say, one inch thick. This leaves the cells $\frac{1}{2}$ in deep, and is the next best to foundation. Then by $1\frac{1}{2}$ in spacing the combs uncap very nicely, and I never could see but the honey was just as good as if more combs were used in the upper storey —i.e., closer spaces.

Keep moving your knife up, with the drawing motion mentioned above, until you go the whole length of the comb and if you have done a good job, and there were no indentations or unusually rough surface, your chmb will be finished with one stroke of the knife.

And here let me say, no one will ever go back to narrow spacing after once trying wide spacing; but don't forget to uncap deep. This leaves your combs the regular thickness when extracted, and I think the honey will be of a little better quality in these thin combs.

I think that, after reading thus far, it will be easy to convince the reader how handicapped we have been with the regular short Bingham knife, as it has been manufactured heretofore. Of course, those who still practise close spacing will need the regular knife. That brings me to a point. We shall need two knives—the new long broadside knife and the “regular” knife.—*Extracted*.

THE BEST MEDICINE.

Mother had been ailing for more than a year when Margaret came to work for us. She was the most bashful creature I ever knew, excepting the hired man, who I am sure often went hungry because

Margaret sat opposite him at the table. One day, as mother and Margaret were alone, the bees began to swarm. Grabbing two kettle covers, Margaret rushed out beating wildly and shouting, "Hank! Hank!" Mother managed to crawl to the open door in time to see Hank come dashing up to the scene of action. But the bees meanwhile, mistaking Margaret's hoop-skirts for a huge hive, had taken shelter within their hospitable embrace.

"Where's the bees!" gasped Hank.

Margaret hung her head and blushed, and Hank, thinking he was being guyed started off.

"Come back," called mother, beginning to laugh for the first time for a year. "Take a stick and rap on Margaret's dress."

It was now Hank's turn to blush, which he did to perfection; but placing a hive at her feet and fixing his gaze on the sky, he gently switched her skirts, thus pervading the bees to come down and take to their hive. And all the while mother sat and laughed. From that day she began to mend and in two weeks was doing her own housework—a well woman! She always claimed that laugh cured her.—Mrs. H. B. Ellsworth.—(From the January issue of "Homemaker.")

Honey.

Honey is the most perfect form of sweet known to man. Those who habitually eat honey instead of sugar never die of Bright's disease, because it is nature's sweet and is easily digested as compared with sugar. Honey will take the place of cream to a very great extent in cooking. Two or three tablespoons full in corn bread makes it light. It is also a great help in making brown bread even. The best honey candies easily in cold weather in fact, this is a guarantee of its purity. Many like candied honey, but those who prefer it in a liquid form may easily melt it by warming it slowly by setting the honey dish in warm water. Boiling water gives it a burnt taste.

CAPPINGS.

A writer in the *British Bee Journal* says:—I am glad that a warning note has again been sounded against the too free use of carbolic in a crude or under-diluted form. The odour sticks to honey like a limpet to the rock, and nothing can eliminate its offensive smell and taste when honey is heavily tainted. I have several times lately warned bee-keepers of this serious danger. Many of them, too, who worship Lady Nicotine, apply her poisonous fumes to the bees. I do not like it. I know that when the tobacco is of the strong and vile-smelling kind, known, I think, as "bogie coll," it is positively injurious to the bees. I have seen them, after it had been puffed in at the entrance, come rolling down the flight board dazed, stupefied, and with bodies distorted.

Roots have produced a new kind of smoker. Of it Dr. Miller in *Gleanings* says:—The bellows-valve will never get out of order, for there is no bellows-valve. The simple contrivance that locks the nuts, prevents the annoyance of having them work loose, threatening separation of barrel and bellows. The brace to prevent weak knees, and the wire handle allowing a hot cover to be handled with comfort, are good. The light bellows-spring is stiff enough to do its full work without needlessly tiring the hand with its extra stiffness. But the thing that excites my greatest admiration is the what-you-may-call-it that fastens the cover to the fire box. It looks as if its adjustable springiness would warrant a perpetual fit of cover with any reasonable amount of care in keeping clean. It no-get-out-of-order qualities this smoker seems to have reached the limit.

It pays to invest in information concerning any line of work in which any one expects to succeed. In other words, it does not pay to "go it blind" in any-

thing. The greater the familiarity with the experience of others who have succeeded with bees, the less the need of spending time in experiments that will be ultimately unsuccessful. The most rapid success in any business is attained by knowing the pitfalls into which others have stepped, and thus being able to avoid similar failures and mistakes.—*American Bee Journal*.

Handling bees inside of a cage at fairs has brought out some methods of subduing that perhaps are not utilised as much as they ought to be in ordinary bee-yard practice. Too many bee-keepers rely almost entirely on the smoker. Smoke is alright in its place; but if I wished to unite two belligerent colonies I would smoke them slightly, then I would shake a frame of the one colony and a frame of the other into a deep dish pan or box, and after I had done this with all the frames I would shake the bees up in the pan or box until I had them thoroughly demoralised or frightened. Then I would dump them in front of the hive, their permanent home, and allow them to crawl in. When once in I would carry them down cellar and keep them there 24 hours. When treated thus they will be apt to stay in any place, and, so far as fighting is concerned, the general shake-up will take the belligerent spirit all out of them. Of late years we have not practiced drumming enough on the hives to induce quiet. Our forefathers used to do a great deal more of this than we do to day. There are some operations where the drumming business, especially in the matter of uniting, I fancy could be practiced with very good results. I believe this pan shaking will demoralise them that one can do with them almost the same as he would with a natural swarm. They will not only be tractable, but if they be shaken up enough they will stay where they are put.—*Gleanings*.

Mr. John Fixter, apiarist at the Dominion Experiment Farm, Ottawa, Canada, who has also been farm foreman there, left the

services of the Dominion Government on October 1 to become farm superintendent at the Macdonald College and Experimental Farm, St. Anne, Que., under Prof. Robertson. The apiary is likely to be abandoned and the experimental works there discontinued.

Gleanings says:—For late feeding after cold weather has set in, it will be risky to feed syrup. Better make a candy, and lay it on top of the frames, as directed in the text-books.

It is all wrong for a producer of a commodity to sell his product at a price scarcely above the cost of producing. If there is anyone who should be well remunerated for his efforts it is the producer. The bee-keeper has invested his money in bees, hives, and bee-appliances and his success as a bee-keeper, and producer of a good, high-grade article, is the result of years of experience and study, and he is entitled to every dollar there is in it.—*Exchange*.

The poisoned pollard laid for rabbits has, according to local belief, had an unexpected effect in the Pilliga country in New South Wales. In that part there were several settlers who added to their income from bees, but most of the hives have been decimated. This is said to be due to the bees eating the pollard. *N.Z. S.S. Journal*.

An Upper Hutt apairist informs the *New Zealand Times*, that, judging by his experiences, the coming honey season promises to be a good one. He is getting a good flow of clear honey of excellent flavour. Early last month he took off the first capped sections, the earliest section-honey he has obtained for the past five years. This, notwithstanding that he has increased his apiary from twenty to one hundred Langstroth hives.

ANTS.—A sponge soaked in sweetened water laid on an ant bed will quickly be filled with ants. Drop into boiling water then again into sweetened water, and repeat.



CORRESPONDENCE.

W. J. B., Tyndale Clarence River.—My bees have done well so far this season. I have extracted 3 tons of honey up to date and judging by appearances I should get another 2 tons before the season closes. I intend commencing queen breeding next season, my apiary consists of the finest bees for business that money can buy. Trusting that you are having a good season.

J.D.T., Geurie, writes :—Kindly strike me off the list of subscribers to the "Bee Bulletin" as this district is not to be depended upon for much honey now, as most of the country is rink-barked round about.

H.A., Drummoyne, Sydney :—I find a good deal of valuable and interesting information in your "Bee Bulletin," and consider it a great help to beginners.

J.S.C., Kendall :—Enclosed find 10s in postal notes for two year's sub. for A.B.B. which I trust will be alright. The season here has been very good so far and the honey of excellent quality and the price also favourable, which I hope you have been experiencing an equally favourable season, and price suitable ; also with compliments of the season.

T.M., Capertree :—I would not like to be without the A.B.B., as I find it very interesting. Hope you are having a prosperous season your way. It is an off season in our district.

E.R., Ipswich, Queensland :—As I did not order the paper I thought they were all sample (?) copies until I received the account. I read them all however, with a good deal of pleasure, and find the paper to be an excellent little production, and worthy of the support of all apiarists. Wishing you success and a prosperous year.

J.C., Corowa :—I cannot say much about bees, now only that the season up till now has been a poor one. The yel-

low box did not seem to have but little honey although it blossomed fairly well. The red gum is something the same, but later on I hope to get better. A few months ago I had a peculiar experience with some young queens. I took ($\frac{1}{2}$ dozen I think) good looking cells away about three miles. The cells out of the same lot I left home (I put them in different hives) hatched out alright, but all those I took away hatched out queens without wings. All of them had their wings shrivelled up, and about two of them had their bodies drawn a little as well. The day I took them was rather cold, and I tried to keep them warm by wrapping them up, but not bruising them. Can you tell me what went wrong?

(Evidently with all your care the shaking in carriage must have interfered with the development of the wings. It is a very interesting incident.—Ed.).

W.S.P., Gunnedah :—We are having an enjoyable summer, with good rains and cool refreshing breezes from the south and east, unlike other seasons with their scorching hot westerlies, withering up buds and blossoms on forest trees. The honey-flow here usually ceases by end of November, but this season it has extended into the new year. I had one colony that gathered 40lbs. of honey during the last week in December and first week of January (14 days). This is the third attempt I have made to keep bees since I came to this district, having lost them all through drought and paralysis. Early this Spring I heard some splitters had found some bee-nests 12 miles from here, so I went and secured two swarms and also a little brood ; one was minus a queen, and although very early in the season Mr. Abram supplied me with a queen. I have checked swarming as much as possible, wanting to get enough honey to supply our own table, which I have succeeded in doing, and some to spare, and the bees are still rolling in the honey.



NEW ZEALAND.

Hobbs Bros., Palmerstown, N.Z. :— We have had a very early and favourable season for the bees, and have been busy extracting for about one month. The quality of the honey is also very fine this year. After a fine dry spell of three weeks through which the bees worked without a break, we had a good downpour of rain and the clover looks as abundant and fresh as in spring. We are very thankful for this prosperous season as we have had practically no surplus from the past two seasons, having fed back nearly as much sugar as we have taken honey. Our experience with sugar feeding is that when bees are wintered on sugar and then fed sugar in the spring they get sick of it and don't thrive so well in the spring. If they are wintered on honey then sugar is all right in the spring. Wishing the Australian beekeepers a good season.

D. T. M., Hastings, New Zealand.— I am sorry to have to tell you not to send *THE BEE BULLETIN* after next April. My reason for having to give it up as I am in charge of a peach orchard 30 acres, and that takes up all my time, just when the bees want it most. I have not been able to give them proper attention for two or 3 years now, and it is the work I like. But if I can see my way to take on bees at a future date, I will start it again for one wants a bee paper, and yours is a very useful one. There is a very good piece on comb foundation in your last issue. I have only 17 colonies at present. I went through them early in November for a few of them was showing sign of foul brood, so I gave them the starvation plan by taking all their brood honey away and giving them starters I let them build on them for 4 days and then gave them full sheets in new hives that I had in stock. Well the trouble I had was with the combs sagging and getting pulled down. I had wired and embedded them and then run hot wax along top of frame. The foundation was Week's and it is all right too, not like the local foundation. I notice by that article you use resin in your wax for

gumming the foundation to topbar. This is a very good year for honey and fruit, it is the driest Summer we have had for years, we have only 1 days rain for over 6 weeks which is something unusual for us. I have a good stock of *BEE BULLETINS* in hand, right from when I started 7 or 8 and they are very handy to look at for reference any time. In closing I must wish a prosperous new year and a good season. Instead of wiring frames we are of late using sticks horizontal in middle of frames. We think them better than wire.

CAPPINGS.

The secret of handling bees in a cage is to demoralise or frighten them. One can do stunts in handling bees in an enclosure that he could not do out in the open, and I therefore believe that the crossiest colony imaginable could be handled in a cage after it had been "subdued." Now, you ask, "How subdue?" Of course, I take a smoker inside of the cage? but after opening the hive it is not again used. I have a big dish-pan, and shake three or four frames of bees into the pan, and replace the combs. The very process of shaking, while it first arouses, very soon subdues the bees. To add to their demoralization, the pan is picked up and shaken like a corn-popper, the bees in the mean time rolling round in one great shapeless mass. The bees are now rolled into one hand or as many as it will hold. The next operation is to dump this handful on top of the head. The bees in the pan are put through the corn-popper act again. Then another handful picked up as before, is dumped on the head. In their state of perfect demoralization not one of the bees will sting unless pinched. They will fly one by one from the top of the head, bump against the wire cloth, and, finally work over to the clustering-point. This is precisely what we want. As soon as a small cluster has formed, one hand is reached up among the bees, and very gently a handful is "scooped" off.—*Gleanings*.

The experience with feeding and wintering seems to indicate that sugar syrup is a better winter feed than honey, and that it might be a good plan to give each colony about 10 lbs. of syrup late in October, even if they have stores of honey sufficient for winter. We know that, at that time they have empty combs to hold it, and that it will be consumed *first* or during the severe part of the winter outdoors; or if in a cellar, would probably last till set out.—*Gleanings*.

Some years ago, late in the spring, I found a colony of bees dead, and moved the hive to the storeroom. A few days later, when taking the frames from the hive I found a live queen. It occurred to me then that I had a colony which was queenless, in which a few bees were still alive. I took the queen to the queenless colony and removed the cover, and found less than half a dozen bees in sight. Two or three were standing together, and by them I placed the queen. Instantly they saluted her and raised their wings in a joyful sound. Immediately from all parts of the hive, came the few scattered bees, every one on the run, and wings in rapid motion. In less time than it takes to write a dozen words, every bee in the hive stood near the queen evidently in a perfectly blissful state. In no other way than by sound could they have been notified so quickly that their mother was found. Surely they not only *heard* but *understood* the language of those near the queen.

A FIRELESS STOVE.—Anyone can make one.—Take an old trunk or box, paste paper over any cracks, and it's not a bad plan to paper it all over; pack hay or excelsior, three or four inches deep in the bottom; set in the vessel or vessels to be used, and pack in solidly all around them hay or excelsior, packing clear to the top of the vessels. Now make a cushion the size of your box stuffed solid to lay over the top of the vessels to fill completely the rest of the box. The cushion should be at least three inches thick—the thicker the better.

Over all must be a tight-fitting cover. The material to be cooked must be brought to the boil and kept there until entirely heated through, then quickly put into the box and covered up. Oatmeal put in at night will be hot in the morning. At dinner to day I ate chicken, cooked in the hay-box, that was delicious. It was put in about 8 o'clock in the morning, taken out just before dinner, floured and browned in butter in the frying-pan. *Gleanings*.

A plan for getting plenty of cells accepted and finished without dequeening a colony or borrowing bees.—D. R. Reyes, writes in *Gleanings*.—This plan which I am about to describe does not stop the colony from storing honey nor interfere with the queen in any way. It is not necessary to have bees queenless for several hours to get them to accept prepared cells and build them out properly, as some claim. The plan is as follows: having already fastened my empty cells in a frame I remove from its stand a good two-story colony with excluder on, and put in its place a bottom-board, then take the body of combs from over the excluder and put on this bottom, and put the cover on; then shake the bees from two or more combs from the brood-chamber in front, and let the bees run in (of course, be sure not to get the queen) then close the old colony by putting back the cover, and set behind, facing the opposite direction. You are now ready to go and put the jelly and larvæ in the cells; and by the time you do this, which takes only a few minutes, your bees are ready for the cells, which you slip into the centre of this hive-body on the old stand. In two to four hours later you can go and put the brood-nest back in its old place and put the body with cells back over the excluder for the bees to finish. I usually give 20 cells to a colony treated thus, and they usually accept every one if properly prepared. With me this is by far the best and quickest way of getting plenty of fine cells of any plan I have ever tried.

There are two products which have

much to do in our daily life that have a close resemblance in more than one respect. I refer to butter and honey. Both of these substances belong to the hydrocarbons. That is to say, they are composed of the following chemical atoms: Oxygen, hydrogen, and carbon, and are different from the proteids in that they never contain nitrogen. There is another peculiarity which both these substances have in common. They can be produced and sold with no impoverishment to the soil. The reason for this is obvious. The plant which gives the material from which they are derived procures this material entirely from the air and water. Thus none of the soil elements are used in this production. These substances also differ from the proteids in that they have a definite chemical composition, and also differ from the inorganic elements in that they owe their existence to previous organisms. There is another point of similarity: both of these substances are exceedingly valuable as food elements. We must have fats or we cannot preserve life, and there is no better fat in all our food than the butter fat. In like manner we must have sugar or we cannot live. I believe that, of all the sugars that enter into our food, none are so entirely safe and wholesome as honey. I think it behoves every householder to procure for his family the very best of butter and the very best of honey, as a very valuable if not necessary part of his food regimen.—Professor Cook in *Gleanings*.

A Mr Dadant exhibited at a meeting of the British bee-keepers' association recently a device for getting wet combs, scraps of honey, and unfinished sections cleaned up quietly by the bees. After a great deal of thought and consideration, he had hit upon a plan of meeting that difficulty. If he put wet comb in the open it excited robbing, and fed other people's bees at his expence. He had, therefore, made what he would describe as Durrant's cleaning up and feeding tube" a sample of which he produced, and handed round for inspection. It was in shape three

sides of an oblong; the angles were rather short, the length being from 15 in. to 18 in. The entrances and exits were at the end of the angles, over which were fitted tin caps. The space in the tube was about $\frac{3}{4}$ in., and the tin ends were made to taper down to $\frac{1}{4}$ in., so as to fit into the entrance of the hive. When fully perfected, it would be registered and made in a more workmanlike manner. As regarded the application of it, an empty hive was bought up close to the stock which the bee-keeper wished to do the work of cleaning up; one end of the tube was pushed into the entrance of the hive containing the stock, the other end into the entrance of the empty hive. The combs, scraps, and unfinished sections, or any waste honey which was to be cleaned up, was placed in the empty hive, the latter being made perfectly bee-proof. The entrance to the hive containing the bees should be closed to within about two inches. The bees could be enticed into the tube by putting a little honey into each end by means of a feather, and pushing it down into the large part of it. So far he had been very successful in using the contrivance, which effected its purpose satisfactorily, but he was making further tests and hoped to give additional details later on.

A writer in *Gleanings* says:—Alfalfa doesn't as a rule yield honey in the Eastern States, U.S.A. He says, I had to watch for years before I found any bees on it; yet two years ago I found some bees at work on it about as lively as on sweet clover. It was on the south side of a hill on dry gravelly soil where conditions were somewhat like those in arid regions of the West, and I should not be surprised if some seasons, when we are parched with drouth, alfalfa should freely offer its nectar to our hungry bees.

NEW PATENT BEEHOUSE—SUCCESSFUL ROSS-SHIRE EXHIBITOR.—We take the following from a Scotch journal, kindly sent us by a dear old friend: At the recent industrial exhibition held in Edinburgh, M. Alexander Reid, Balloan, Muir of Ord, who is a tenant on the estate of

Mr. John Stirling, of Fairburn, was successful in being awarded the first prize and silver medal for his new patent beehouse. It is claimed for the new patent that it combines all that is necessary for the proper management of bees, and that it is constructed so as to give the greatest amount of pleasure in bee-keeping. Among its main features are its large dimensions. It provides room sufficient for four colonies during the working season; gives room for super-clearer and storage under floor-board; also a large a-lighting surface for the bees, and its height enables the bee-keeper to manipulate comfortably standing. It prevents the loss of swarms. The main entrance slopes up from the ground and back to the centre of the underside of floorboard. This idea is a novelty. It gives a large and sheltered landing place for the bees; it provides the right arrangement for running a swarm inside; it prevents the sun or light from tempting the bees out to perish on the snow in winter and early spring. Its best feature, however, is that it allows the usual place of entrance to be used for other purposes. The side entrances are used when the frames are extended so as to cover them, or when a division of the stock takes place for queen-rearing or other purposes. Four young queens can be reared and mated from its main and side entrance, the old queen's services being meanwhile retained, their progeny working meanwhile from temporary entrances under the drone traps. Many competent judges have expressed themselves favourably on this invention. It will be remembered that Mr. Reid invented and patented a sheep-dipping machine, which has proved very successful. Mr. Reid sold the patent to Messrs. J. and R. Wallace, Castle Douglas.

It is claimed by some of our able writers on apiculture that sorghum cane milo maize, corn tassel and the various oaks are honey producers. With no desire to provoke controversy. I will say this is not in accordance with my observa-

tions, and I have been a close observer of such things from early childhood. I have examined the honey-sacs of hundreds of bees when working on the bloom of the above-named plants, but have never been able to discover that they were getting any honey. By taking a little pains one can easily tell when bees are getting honey from any bloom. Find a bee that is working on the bloom that you are in doubt about, catch it by both wings so that it can't sting you, as we do in caging to send off by mail with queens. Now place the bee on a clean, smooth surface, say a newly painted hive-cover, or a sheet of note-paper will do. Now gently press on the abdomen of the bee with one finger of the other hand, and if it has any honey whatever in its honey-sac it can be made to disgorge them without hurting the bee in any way.

I have examined hundreds of bees in this way while working on cane-heads, corn-tassel, maize-heads, etc., and could never make one disgorge a particle of honey. So I conclude they get nothing but pollen from them.—*Writer in Tellas News, Texas.*

The U.S. Chemical standard for honey: Honey is the nectar and saccharine exudations of plants gathered, modified, and stored in the comb by honey bees (*Apis mellifica* and *A. dorsata*); is lævorotatory, contains not more than twenty-five per cent. of water, not more than twenty-five hundredths per cent of ash and not more than eight per cent. of sucrose.

Heather honey is dark in colour, and so thick it cannot be extracted by the extractor.

Bees will winter all right on sugar syrup without pollen; and some advise wintering thus. They will not rear young bees in the spring, however, without pollen. But the likelihood is that they have enough pollen with which to make a beginning in spring, and they begin bringing in pollen very early. Should they need a substitute for pollen in the spring, you can feed ground grain of almost any kind. Some springs I have fed several bushels of corn

and oats ground together. Set it in a sunny place on days when bees are flying. But you can't get them to take it if they can get natural pollen.

£1,230 worth of honey imported into Great Britain in the month of November last.

DAIRYING.

NAIL-WOUNDS IN HORSE'S FEET

It has been long known that nail-pricks and other similar injuries in the horse's hoof may lead to an infection followed by the formation of pus under the horn of the hoof, and a serious general disease of the horse, or, at least, the loss of the hoof. In a bulletin of the South Dakota Station. Prof. Moore has recently reported results obtained in a number of cases from applying a strict antiseptic treatment to injuries of this sort. The method consists in paring away the horn of the hoof from the affected part until the blood oozes out. The hoof is then thoroughly washed in a solution of bi-chloride of mercury at the rate of one part to 500 of water, after which absorbent cotton saturated in a solution of the same strength is applied to the wound, and the whole hoof is packed in cotton, surrounded by a bandage, and well coated with tar. This prevents any further filth from coming in contact with the wound. The operation must usually be done by a qualified veterinarian. Subsequent treatment, however, can be applied by the average farmer, since all that is necessary is to pour a little of this solution of bi-chloride of mercury upon the cotton which projects from the upper part of the bandage. The cotton will absorb enough of the solution to keep the wound moistened and hasten the healing process. If a remedy of this sort is not adopted in the case of foot wounds in the horse, the owner runs considerable risk of serious infection, either of blood poisoning or lockjaw.—*"Farmer's Advocate."*

GRANITE AS MANURE.

What may turn out to be a great discovery in the way of cheap manuring is indicated in a recent report of the Bureau of Plant Industry of the United States Department of Agriculture. It is well known that a good deal of fertility is carried down to valleys simply by the wearing away of rocks in the hills and mountains above them, and this led to an investigation of the subject. Ordinary granite rock was ground to a fine powder, and extensive experiments were made with the powder to test its value as a manure. The results were excellent, and the report on the subject states that a ton of granite, which cost 12s 6d for quarrying and grinding, contained fertilising matter which could not be purchased abroad and imported at less than £20.

The main principle in building stacks is to see that the middle is filled up as full as possible (well hearted), the outer rings of sheaves from bottom to top of roof all lean at an angle down wards, and form a thatch of sheaves preventing any wet from penetrating the stack. The sheaves should be kept close together with the knees as laid, and after every ring is laid the middle should be filled up at the same angle, sloping downwards from the centre. No wet will penetrate a stack.

The value of systematic cow testing was shown in last year's records by the Wisconsin experimental station. A check was kept upon a series of ten head of cows in different parts of the State. In one case the best cow gave 8230lb. of milk in a year; her percentage of fat in the milk was 5.03. She made 483lb. of butter. The poorest cow of the three gave 1986 lb of milk; per cent. of fat, 4.78, and she made 111lb of butter. By means of this the value of a dairy cow can be accurately told. Her pedigree and breed are important, but are less important than her milk and butter producing powers.

RECIPES.

Recipes for honey-caramels is as follows:

One cup extracted honey of best flavour one cup granulated sugar and three, tablespoonfuls sweet cream or milk. Boil to "soft crack," or until it hardens when dropped into cold water, but not too brittle—just so it will form into a soft ball when taken in the fingers. Pour into a greased dish, stirring in a teaspoonful extract of vanilla just before taking off. Let it be $\frac{1}{2}$ or $\frac{3}{4}$ inch deep in the dish; and as it cools, cut in squares and wrap each square in paraffine paper, such as grocers wrap butter in, to make chocolate caramels, add to the foregoing one tablespoonful melted chocolate, just before taking off stove, stirring it in well. For chocolate-caramels it is not so important that the honey be of best quality.

One cup of sugar; 1 cup of honey; 1 cup shortening (a good, generous one); $\frac{1}{2}$ cup sour cream (this may be omitted if you don't have it, but it is an improvement); 1 teaspoonful soda; cinnamon and nutmeg to suit taste; enough melted chocolate to colour a good brown. Mix enough flour to roll out. Be careful not to get too much flour. Try one cooky, then if more flour is needed, add until you get just right. Miss Wilson in *American Bee Journal*.

A writer in the *Brittish Bee Journal* says:—Facts, Messrs. Editors, are awkward things, especially for some theorists, and facts point to the supply of English honey exceeding the demand at the present time. The remedy, it seems to me, lies in the direction of using some of the "expert" energy to enlighten the public upon the uses and value of honey, rather than to use it in further augmenting an already too abundant supply.

Fruit trees should be sprayed before the buds open. and then when the blossoms fall.

It is not easy for me to reconcile myself to the idea of no swarming at all. I love to see the great, big swarms issue from the great, big colonies, and find a big lot of large queen-cells from which I can get queens to replace my oldest and poorest ones. This swarming is a sign that we are in a living world, and that something in this world is in a prosperous condition. Kept within moderate bounds, it is better, in my view, than no swarming at all. Edwin Bevins in *American Bee Journal*.

I heard a bee-keeper say last spring that he read one article in his bee-paper on the management of weak colonies in early spring that was well worth ten dollars to him, and yet this same man had me order his bee-paper discontinued a little later, I call that poor economy. I am a great lover of bees, to say nothing of the dollar-and-cent side of question, but if I had to keep bees without reading the bee-papers, I believe I would give them up. L. S. Scholl in *American Bee Journal*.

There was a bee-keepers demonstration recently at Jenkintown, Philadelphia at which 800 were present. What a splendid time for supply dealers.

I have seen the real honey-dew without aphides, on acorns, lately. This morning I passed under an oak-tree which had dripped the dew in large drops to the sidewalk, and the bees were exceedingly busy on that tree, around the acorns. The days are warm, the nights are cool and this proves the correctness of the statement made, some years ago, by Gaston Bonnier, of Paris, in his work "Les Nectaires," that "honey" is often produced by what he calls "extra-floral tissues" in some trees; this production of extra-floral honey is hastened and increased by sudden changes of temperature that prevent the flow of the sap to the end of the buds. It is thus caused to ooze out through unusual channels. C. P. Dadant in *American Bee Journal*.

BEEKEEPERS' SUPPLIES.

All Standard Goods Stocked. Best
Prices.

HONEY TINS A SPECIALITY.

Buyer of Beeswax and Honey.

WALTER S. COWELL,

259 Kent's Buildings,

ALBERT-STREET, BRISBANE.

26th Annual Price List of Best Italian Queens from the First Bee Farm in Australia, recognised as Absolutely the Best Bee Farm for the supply of Queens, Hives of Bees, &c. Always winner of most prizes.

QUEENS—Untested, 5/- each.

Tested, .. one 10/- ; three, 25/- ; six, 45/-

Select Tested, one 15/- ; three 40/- ; six, 70/-

Extra Choice, one 25/- ; three, 60/- ; six, 105/-

Untested from imported, 10/- each; tested from imported, 15/- each; breeders, 25/- each.

Also, Swarms Hives of Bees, Implements Foundation, &c.

W. ABRAM,

ITALIAN BEE FARM

BEECROFT, NEAR SYDNEY,

Established 1881.

P.S.—My knowledge and experience of nearly 40 years practice enables me to breed and supply Queens Superior to Any. possessing the Most Desirable Qualities combined. Desiring to maintain that High Reputation, I again submit for your consideration the fact that I can supply to satisfaction, if you give me description of your requirements. Thanking you for past favours.—I remain, yours truly, W. ABRAM.

CYPRIAN QUEENS.

Tested, 7s. 6d. each.

Posted from 1st November to 1st April.


No disease in my apiaries.

W. REID, Sen.,
“Honeyvale,” **PAUPONG**
Via **DALGETY, N.S.W.**

GIPPSLAND QUEENS.

NERANG APIARY,

FERNBANK, VICTORIA.

 Book your orders now for delivery from
October to March.

Untested, 5/- ; Tested, 7/6 ; Select, 15/-

E. T. Penglase.

HONEY. HONEY.

WE are open to **SELL ON COMMISSION**
A FEW THOUSAND 60lb. TINS
AI HONEY.

None But Best Samples Sold.

Send early, and secure Highest Prices. All
enquiries will receive prompt attention.

W. J. & F. BARNES,

174 & 180 ALBERT-STREET,
EAST MELBOURNE.