

The Australian bee bulletin. Vol. 17, no. 10 January 30, 1909

West Maitland, N.S.W.: E. Tipper, January 30, 1909

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

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

For information on re-use see: http://digital.library.wisc.edu/1711.dl/Copyright

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

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

THE * AUSTRALIAN * Bee Bulletin.

A MONTHLY JOURNAL, DEVOTED TO BEE-KEEPING.

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. 17. No 10.

JANUARY 30, 1909.

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 vett 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," Dzierzon, 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.

H. L. JONES, Goodna, Queensland.

THE SECRET OF OUR SUCCESS

as Beekeepers is the quality of

The Queens we Use.

I have arranged with MR. THOMAS ARMOUR, who is taking over the honey producing part of our business, and in future will devote most of my time to the QUEEN-REARING and NUCLEI DEPARTMENT. If you want 600D QUEENS book now for delivery from October to March.

Prices are: Untested, 5/- ea.; 5 for 20/-. Tested, 7/6; 3 for 20/-. Selected, 15/-.

E. T. PENGLASE,

NARRANG APIARY,

Fernbank, Gippsland, VICTORIA.

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 Frinting at Reasonable Rates.

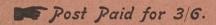
YOUR YOUR VOLUMES

___OF____

A. B. B.

-To US-

For BINDING.



The Farmer & Grazier

The Best Illustrated
Farmers' Journal in Australia.
78 6d PER ANNUM.

J. TWOMEY & CO, 76 PITT STREET, SYDNEY.

'The Australian Gardener'

Is the best and most useful publication of its kind in Australia. Every kind of information about the garden, poultry and the dairy.

An illustrated paper on gardening, etc., for the small subscription of

3s. 6d. per year.

Orders taken at the "Bee Bulletin," Office, West Maitland.

WESTERN AUSTRALIA.

MR. J B. KLINE, Guildford, Saddler and Harness Maker, and Secretary of the Western Australian Beekespers' Association, is Agent for the "A. BEE BULLETIN," and is authorised to receive Subscriptions and Advertisements for same.

E. TIPPER,

"A. BEE BULLETIN."

NOTICE.

HOULD 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!!

Geue's Simplex Uncapper,

It is simple to work! does not darken the honey! and yields each day a Solid Block of Clean wax.

PRICE £3 5S., NETT CASH.

Sole Agent for Victoria and South Australia:-

H. A. GEUE, Heath Vale, via Horsham, Victoria

Sole Agent for Queensland and New South Wales:-

H. L. JONES, Goodna, Queensland.

The New Zealand Farmer.

READ THIS POPULAR AGRICUL-TURAL 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

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.

FOF

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, £1 158

"," 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.

NOTICE.

I BEG to return my sincere thanks to my numerous customers for their kind patronage during the past. I would draw their attention to the fact that, owing to a good winter, I will be able to supply Queens as early as Sept. 15th for the coming season.

All Queens Reared from Imported Mothers.

Untested, 5/-. Tested, 8/-. Select Tested, 15/-.

M. ARMSTRONG,

SAVILLE APIARY, THORNTON.

Postal Address: West Maitland P.O.

26th Annual Price List of Best Ita ian 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/-

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

W. ABRAM,

TTALIAN BEE FARM
BEECROFT, NEAR SYDNEY,
Established 1881.

P.S.—My knowledge and experience of 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.

"The Australian Pee Pulletin."

A Monthly Journal devoted to Beekeeping.

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

Editor & Publisher: E. TIPPER, West Maitland, N.S.W. Aus.

MAITLAND, N.S.W.—JAN. 30, 1908.

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

Supply=Dealers.

H. L. Jones, Goodna, Queensland. Walter S. Cowell, Albert St., Brisbane, Q

Queen Raisers.

W. Abram, Beecroft.
E. T. Penglase, Fernbank P. O., Gippsland, Victoria.
H. L. Jones, Goodna, Queensland.
J. Drage, East Adelaide, S.A.
M. Armstrong, Rosaville Apiary, Thornton, N.S.W.

Honey Tins.

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

Miscellaneous.

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.

Francis M. Collier, Port Pirie South Australia.

H. A. Geue, Heath Vale, via Horsham, Victoria.

THE BEST BEES.

Occasional arguments are brought forth that some race or variety of bees is superior to any other. In such cases one cannot do better than be guided by world-wide experience whether this or that race is really best; individual experience is a mere expression of opinion and stands no chance. various times beekeepers of Europe and other continents have endeavoured to show that the black or North European bee possesses better qualities than the famous, yellow-banded Italian bee: but the fact remains that the Italian has gained most favour and has held its own in any continent where introduced, thus clearly proving their absolute superiority over any other. I have kept most kinds of bees and have had some hives of black bees excellent in every respect; but there were exceptions. Other varieties and races, notably the Cyprian, have had their champions, but none has supplanted the Italian in any part of the world. We have thus the plain fact to face, willing or otherwise, that the Italian is the best bee for our purpose.

This brings me to another matter, namely: Are all so-called Italians really such? Here is a wide field laid open for dispute. From past experience I can say that a good deal of diversion exists on this point, and that advantage has been

taken of the world-reputed name and of the incompetency of the purchaser to

judge purity correctly.

Apart from that there is the question of fresh blood. Some wise men content that by select breeding the necessity for importing fresh blood can be avoided. Where there is a considerable number of stocks to select from, and as nature has arranged that bees shall not inbreed any more than anything else, this may apply to some extent and for some years. But select one or two stocks, breed from them by selection, and after about seven generations serious failure will result. Try it; I have tried it. Others have done the same and came to the same end. Fresh blood is thus as necessary in bees as in everything else, if losses are to be avoided. But the new blood must possess energy and stamina. So long as ones bees are doing well it would be foolish to effect a change, be they black or yellow bees, but when they begin to fail, hive after hive, it is high time something was done to improve them, and that can best be done with blood from elsewhere and of superior qualities. The Italian requires, however, somewhat different treatment to the black, especially during a good honey flow, else they are apt to fill the brood nest with honey and leave not enough room for breeeding.

W. ABRAM.

HEAT WAVES.

In this sunny land such calamities as heat waves must be expected, now in one part, then in another. Last year Victoria got its full share of it, whilst New South Wales enjoyed comparatively pleasant weather; this season we felt the brunt of the burden, as the heat on Sunday and Monday, the 3rd and 4th inst. will not be forgotten in a while. But what can be done to prevent repitions. We cannot keep our beees in an ice-chest any more than prevent them from engaging in field work, but perhaps a little can be done to make them more

comfortable. Shading the hives is very effective to keep the hives cooler than if they stood in the open. Ample provision of good drinking water is also necessary. Avoid handling them on a hot day. Too wide an entrance admits the hot air too freely and injures the young brood. brood food consists of about 70 per cent water, quite a big item where thousands have to be fed, and it can be readily understood what injurious effect free access of hot and dry air must have. The bees have to work harder to provide moisture and thus many get their wings scorched and seem to get sun-struck and perish. In a moist season the honey is thinner, but in a dry season the honey is very dense and devoid of moisture, thus the bees are in greater difficulty for My hives are mostly under a shed with bushy trees shading hives and sheds, and those in the open I put an extra cover over them to prevent the heat penetrating from the top. No combs broke down, though the heat was 113 in the shade, but of the working bees many perished.

Notwithstanding the dry weather, etc., there is a fair amount of honey coming in, only some of it so dense that it cannot be extracted, and as there is more in the combs than is good for them whole combs have to be cut out and boiled. This is a tedious job, but it makes an excellent feed-supply for some future time of

scarcity.

Bush fires are another danger in a dry dry season. I have had considerable trouble in years past to protect my apiary and house from bush fires, but this year our district has not suffered. Not so fortunate was the well-known Mr. Hessel Hall, of Emu Plains, who had the misfortune to lose nearly all his bees by a bush fire sweeping upon his place. Who can depict in words or thoughts the feeling of seeing ones labour of years consumed in flames. I am sure every beekeeper has the deepest sympathy with Mr. Hessel Hall.

W. ABRAM.

Victorian Apiarists Association.

NOTICE.

To Members and Berkeepers Generally.

An extraordinary general meeting of the association will be held at the Federal Coffee Palace, Collins street, Melbourne, on Wednesday, 10th Feb-

ruary, 6 p.m sharp.

Business: Election of officers and Committee; appointment of Secretary; alteration of Rules; Discussion of export question; dealing with sundry business requiring the sanction of a general meeting, and general business under which any subject may be brought before the meeting.

As the meeting will be held during the currency of the A. N. A. Exhibition, beekeepers will have the opportunity of visiting this great display of Australian products and manufactures. A joint visit might be arranged for the following

day.

R. BEUHNE, President

BEE-CULTURE—PAST AND PRESENT.

C. W. DAYTON IN "AMERICAN BEEKEEPER.

As Ye are aware there has been considerable discussion in the Review about re-queening every year and some of the discussion has leeched over into other papers. It is said that only one beekeeper in 10 takes a bee-paper and I doubt if one beekeeper in 100 could rear queens if they tried. Thirty years ago nearly every one who kept bees was most interested in queen-rearing of anything, but of late bee-culture seems to be broader and flatter, and from that on to flattery. The bigger the list of subscribers a paper has the lower the grade

or quality of the subscribers. One reason for the increase in bee-culture is because the reality of the culture is reduced from what it formerly was. So much of it can be transacted while living in the city. People write about the pleasures of solitude and sweetness of country life but it is found only in books. Beekeepers of the present are hides and shadows subsisting by a short space of make-believe, slight-handed manipulating. The real work is dreaded and avoided and put off with doubtful promises.

The bee business cannot be kept up any better than the re-foresting of the country. To accomplish anything it would require that one-fourth of every forty acres should be occupied with trees three inches in diameter. While we read that two or three acres will afford a good living for a family yet of the hundreds and thousands none can be spared for forestry. They get busy at once when it comes to slashing down timber but when it comes to setting out now trees they cannot be coaxed or driven. Nor could they make a tree grow were they to make the effort. I saw a bunch of wood choppers the other day and not a single man, either young or old, could tell nor they knew of no way to tell the age of a tree by the rings on the stump. It showed their only interest in a tree was merely the wood it contained and nothing whatever in the length of time it would require to replace the tree. If it were an animal it would be the same-merely the amount of hide and tallow. And what is more they care nothing for the hide and tallow except for it weight, its capacity for pulling down the scale beam. These people had forgotten that a tree forms a ring for every season of its growth.

At another time I saw a band of several men who had been given a job and the work had been made to afford them the job that they might earn a living. Well the food they carried in their dinner pails cost from 16 to 25

cents per pound as they purchased it. Better food could have been procured at a cost from 3 to 5 cents per pound. In a number of instances where I gave five gallon cans of honey to church and other organizations I have found that they sold the honey at wholesale prices of 4 1-2 to 5 cents and bought sugar at

three pounds for 25 cents.

People seem to have forgotten, totally, that there should and must be an adaptation of means to ends or else there will be a time when there is no ends to come-merely a gradual vanishing out of sight. A time of a breaking of camp and a dispersion and the adoption of the wandering habit-and how much above it is the bee-culture, the wood-chopping, and any other labour. The common laborer or mechanic who should earn a home in five or ten years and settle down into home life prefers to shift from job to job amongst strikes and uncertainties when two or three acres of homestead and domestic knowledge is an insurance of independence.



Trunkey.

The Editor "A.B.B."

Dear Sir,—I complained through your columns, Dec. 31st, that I had received no reply from Victorian Apiarists' Assn. to a request from me, as Sccretary of Trunkey Bee Farmers' Association, for a

copy of the V.A.A. rules.

Since I have received a very kind letter from Mr. Beuhne in connection with the matter, accompanied by a manuscript copy of the rules governing the V.A.A. together with a request that any matter or suggestion from our Assn. would be submitted and considered at the V.A.A. extraordinary meeting to be held February 10th. I would like to see this meeting fully reported in "A.B.B.," the

publicity thus given, might induce some N. S. Wales beekeeper to take up the formation of a State Association. Pity it is that E. Tipper, sen. was not growing younger; I'm sure the job would soon be accomplished.

am,
Yours truly,
E. F. HUNTER.
Hon. Sec. T.B.F.A.

H.H., Waitahuna Gulley, N.Z.—The spring started well this year for the bees, but when the orchard was well in bloom, the cold weather commenced and lasted till the beginning of December. Now that the white clover is just out, the swarming only goes on; that makes the season rather short. In the last issue of the "A.B.B." Lord Avebury's address, he states that it is a mute point, yet neither the queen or bees decide the sex of the eggs. What is the general opinion of this point? I always understood that the queen decided the sex.

O.L., Sutton Grange, Vic.—I have about 190 colonies. This being our red gum year, we expected a heavy yield, but it is only fair so far. The red gum being a failure, worst for at least 16 years.

J.L., Lue Mudgee Line.—At present terrible bad season, nothing growing, no honey this season so far. I have fifty hives at present, many of them weak. Heat wave on at present.

O.W.C., Young.—We are having a very bad time at Young. There are no flowers of any kind, through the dry and hot weather. All my friends around are losing all their young swarms through want of food. I have been feeding my bees this last two months on sugar. I always put it in the empty combs in the box. I don't think it is a good plan.

E.T.P., Fernbank, Gippsland, Vic— Past two years have been very dry in this part of Victoria. The want of pollen is the trouble, and we don't expect to get any honey as it will take the rest of the season, which is improving now, to build up our stocks ready for next spring, which we hope will be better. Wish you

a happy new year.

C.W.C., Orange.—Sorry to say that this is is a very bad season so far for honey in this district. I have 25 hives and have not been able to extract a lb. of honey from any of them up to the present. The beginning of the season promised very well, every swarm building up very strong, and I had about a dozen swarms working in the top boxes which they about half filled by about the middle of November when dry hot weather set in and the honey flow ceased immediately. On looking through the hives last week I find that the top boxes are almost empty and the same condition of affairs prevail in the bottom boxes and very little brood. I have seen several of the bee-farmers of the district and they all complain in the same strain. We had a splendid fall of rain yesterday—about 160 points, with every indication of more to follow. So with a little bit of luck we ought to be able to make a slight recovery before winter storing sets in. Hoping you are having a better season in your district and for the continued success of your valuable journal.

BEE BUZZINGS.

BY A BEEKEEPER.

HONEY PASTE FOR STICKING SMALL LABELS TO TIN.

We have been putting up honey in tin cans and buckets, and have tried all kinds of paste for sticking labels to tin (including flour paste, as recommended by Mr. W. H. Laws). We had but poor success until we tried mixing a small quantity of honey with our dextrine and vinegar paste, which our trouble ended in that line.

We have been putting up and selling some six to ten tons of extracted honey per year these last few years. We also tried rubbing the buckets with a rag wet with vinegar, as recommended by N. E. France; but while it helped somewhat, many of the labels would drop off as soon as dry.

These other pastes might do if a label is used that will go clear around the bucket and even lap over a little; but

they will not hold a small label.

Mix dextrine and vinegar to the consistency to suit, then add about 2oz. of honey to the pint of paste. Don't make the mistake of putting too much honey in or the labels will have a greasy appearance and will not dry right. It requires more honey in a dry atmosphere than in a wet one. Such paste will keep in either a warm or cold climate.

BEEKEEPING IN ONTARIO.

In Bulletin No. 166 recently issued by the Ontario Department of Agriculture

the following appears:--

The census report of 1901 gave the Province a total of 116,403 colonies, but from the information at hand, this total for the present year must be decreased at least 33 per cent. to cover the heavy loss of 1907 and 1908. These changes will doubtless tend to keep up prices for the better quality of honey, and those who have any bees left should give them special attention, as the natural increase and the surplus honey gathered will both prove sources of profit at the present time.

Very little disease was reported. While the percentage of dysentery seems high, in every case the correspondent stated that the attack was slight, generally occurring in only one or two hives in an apiary. Of the instances where foul brood was reported, in only two cases was the attack a severe one. European foul brood has appeared in the vicinity of Trenton in rather a virulent form, and has caused heavy loss in two apiaries.

The work of the six inspectors appointed last year has shown itself favorably in the reports received, and the decrease of the disease has been evident.

FOUL BROOD ACTS IN AMERICA.

There are in all no less than sixteen Acts in the different States in America, most of a windy, long-drawn-out nature, while leaving the chief factor and cause of trouble practically untouched. hives are allowed to exist provided it cannot be proven that disease has attacked the bees in them. Now, this proviso, on the face of it, seems reasonable, but when the difficulties and dangers are explained it will be at once seen that it is altogether the reverse of reasonable, and is the cause of an immense amount of unprofitable work to the inspectors, which could be better spent in eradicating disease.

To examine a box-hive apiary of 50 hives thoroughly would entail an amount of time and labour that would be required to examine from 300 to 400 frame hives. Then again, to be certain in your examination of a box hive necessitates the cutting of the combs and partial destruction of them, to say nothing of the risk of setting up robbing, all of which are

avoided with frame hives

If the American Acts are lax in this respect they are very stringent in others. The penalty clauses are more severe, the fines running up to 100 dollars (nearly £26), and in other cases imprisonment. In a section of the Colorado Act which I have before me, to sell, barter, or move away diseased colonies, is punishable with a heavy fine, or imprisonment for two months. Concealing the fact of disease is punishable by fine or imprisonment.

Owing, however, to the existence of box-hives being allowed, the inspectors report that they can make little headway against disease, and it is a fact that in some States disease is on the increase, notwithstanding the work of the inspectors.

BEEKEEPING IN ENGLAND.

Some short time since, the English Board of Agriculture invited Mr. L. W.

Cowan, chairman of the British Beekeepers' Association, and Mr. W. F. Reid, a member of the council of the same Association, to give evidence on beekeeping in Britain. As a result, the Government is likely to arrange for technical instruction in bee culture to be given. The following is a brief abstract of the report now published by the board.

Attention may be particularly drawn to be keeping on account of its importance to all dwellers in rural districts, especially cottagers and small-holders.

The Committee received valuable and interesting evidence on the subject from two representatives of the British Beekeepers' Association, one of whom stated that beekeeping is the most numerative petty industry in connection with agriculture or horticulture. Indirectly, it may be even more remunerative, in view of the useful function which bees perform in fertilising fruit blossoms.

The question of the importance to fruit-growers of keeping bees engaged the attention or the Fruit Committee, and they recommend "that it would be an advantage to fruit-growers if they kept bees in connection with their fruit-plantations." The witnesses mentioned above gave, before this Committee, much evidence in support of that recommendation; definite cases were given showing the benefit that fruit-growers had derived by the keeping of bees. In one case the yield was by this means increased "simply marvellously"; and in another an orchard, previously unproductive, began, as soon as bees were introduced, to yield an abundance of fruit.

The Committee, therefore, feel that provision for instruction in this subject, including the preparation of honey for market, should be made in many countries where it is at present unavailable, and the production of honey in this country thereby largely increased.—"N.Z Farmer."

Beuhne Plan of Introducing; a Greeting from Australia.

Among the numerous methods of introducing queens given in "Gleanings" I have never seen that originated by Mr. Beuhne, and illustrated in the Australian Bee Bulletin." He discovered. I believe, that, if strange bees were admitted into a queen-cage after all the attendants had been removed, they would not molest the imprisoned queen. Consequently a cage was constructed by him with a side opening covered with queen-excluding zinc through which the workers had access and became familiar with the new queen. They then assisted from the inside the workers on the outside of the cage in eating the way out for her through the candy.

Since this appeared I have always altered the Benton cage by making a a side opening, covering it with a piece of queen-excluding zinc and thus introducing the queen after liberating her attendants. In my experience this method has never failed.

Mr. Beuhne's cage can also be used as a nursery cage by making a hole at one end sufficiently large to admit a ripe queen-cell.

Your subscribers will be grateful for that fine photo of our dear old friend (for such I esteem him) Dr. Miller. regret is that you printed on the back of it, and so prevented its being framed without mutilating the number in which it appeared. The first portion of each successive number of "Gleanings" that I read is that under the head of Stray Straws. The pithy, numorous, and goodnatured comments are always admirable, more particularly when the writer is having a "sly dig" at a certain wellknown editor. I am pleased to be able to add my small quota of appreciation to the fine character of the dear old doctor.

Will you please give the botanical name of mammoth clover, page 931;? It would aid considerably if this were always done when mentioning useful plants.

I have not written with a view to your publishing my letter, but more as an expression of good will from Australia to our brethren in the United States.

From a Victorian brother who sends

hearty, fraternal greetings

EDWIN COX.

Northwood, Vic., Aus.

[This plan of putting perforated zinc on introducing-cages for the purpose stated has been before given in these columns; but whether the idea at the time was copied from, friend Beuhne, we can not say.

It generally works well; but in the case of some cross or obstreperous colony the bees will sometimes attack the queen.

Mammoth clover is a variety of Tri-

folium pratense.

We certainly appreciate your hearty greetings.—Ed.]—"Gleanings."

Never move Bees with the entrances open except at night.

I have almost shuddered when I have read, at different times, directions in regard to hauling bees, from people who had made a success of hauling one load of bees, or perhaps a good sized apiary, without an accident. Especially when some good-meaning man (I forget who it was) advised loading bees right on without closing them up; saying if the wagon was kept in motion all would be well, &c. Now let me say, while that might be safe under some circumstances, it will not do to advise the practice; while a veteran might succeed, a beginner would almost surely have trouble.

Bees can be hauled safely at night without closing the hive, but that is the only time I would risk it. If I have bees to haul during warm weather I always do it at night. It is better for the bees on account of being cooler, and much safer for the team. The colonies are usually heavy in bees, brood and honey in warm weather, and if they are hauled at night and left open, if they get too warm they can crawl out on the ends of the hives, which often saves them from suffocation.

I once had 450 to 500 colonies in a section where there was little or nothing for bees to work on in the fall, owing to the nature of the country, and a severe drouth that prevailed; while in a section twelve to fifteen miles away it had been more seasonable and there was fairly good broom weed, and much better prospect for bees to get winter stores as well as to rear a good batch of late brood. So I decided to move the entire lot to the better location. The hives averaged about two and a half stories high, and to make the move with these large hives was almost impossible; so I went to work to take them down to single stories, except in cases of very strong colonies where I left them two stories high. do this with no honey coming in, was a question that "puzzled the natives." The only plan that I could think of was the one I mentioned in your columns years ago, "stimulative feeding," not for the purpose of brood rearing, but to interest the bees while I was taking off the supers. - W. O. Victor, in "Beekeepers Review."

N.Z. State Queen Rearing Apiary.

Good work is being done in the way of breeding good queens by the Department of Agriculture at the Waerengo State Apiary.

Considering that the apiary was only established three months ago with a few weak colonies, great progress must have been made to have brought it up to its present condition in so short a time.

There are now 30 full colonies, and 40 nucleus colonies, all engaged in the rearing of and caring for Italian queens. That there are some extra long-tongued

bees among those being reared is evidenced by their working on the first crop flowers of the red clover, a thing not often seen. These bees will be tracked to their particular hive by dusting them with flour while at work on the clover and watching for the hive they fly back to, so that all other things being favourable the queen or queens producing such bees will be kept as breeding stock.

Mr. Hopkins, the Government Apiarist, says that orders for queens and colonies are coming in very freely, and that all orders from now forward will be promptly filled.—" N.Z. Farmer."

A New Mode of Swarming.—When we saw the hive was going to swarm turn the front to the back. Then take a fresh hive and put in place of old one. Then take a frame with queen cell in it and give starters or empty combs. We have found it very successful in fall of last year.

HONEY.-

Supplies are arriving in good quantities from the Western District, but the price does not show any signs of improvement. We do not expect to see much briskness until the cooler weather sets in.

BEESWAX.-

Choice quality, 1/2 to 1/3. Medium and dark coloured lots, 1/- to 1/1 per lb.

Highest market prices obtained for Honey and Beeswax by

PRESCOTT LIMITED.

COMMISSION AGENTS

336 & 338 SUSSEX STREET

-SYDNEY ---

Market for New South Wales Honey in Great Britain.

Immigration and Tourist Bureau, Challis House, Martin Place, Sydney,

11th January, 1909.

Dear Sir,

With reference to the samples of honey which you submitted some time ago for transmission to the Agent-General, I beg to forward herewith an extract from the Agricultural Gazette, containing copies of the reports furnished by the Agent General as the result of his investigations. Your sample is referred to as No. 4.

Yours faithfully, PERCY HUNTER, Director.

As the result of inquiries that he had received from time to time, the Agent-General asked—in September, 1907—that he might be supplied with a few samples of New South Wales honey, with a view to testing the London market. The Intelligence Department accordingly communicated with the leading apiarists, with the result that five different samples of New South Wales honey were forwarded to the Agent-General, who has now submitted reports to the Premier. The following extracts are published for general information:—

26th June, 1908.

I have the honour to inform you that I am giving special attention to the question of finding a remunerative market for New South Wales honey, samples of which reached me last week. I submitted samples to several of the leading buyers in Great Britain, amongst whom were Messrs. Lipton, Lyons, Sainsbury, and Crosse and Blackwell. I am pleased to be able to say that all who have tested the honey speak very highly of its quality. They rank it as quite equal to the South Australian honey, and some of

the samples sent as superior thereto. have not yet taken steps to test prices, as under the conditions under which the South Australian trade is conducted I am afraid the price obtained for that honey will dominate the market for all Australian honey. The position taken up by South Australia may be gathered by a speech made to the Beekeepers' Conference vesterday by Major Norton, commercial agent for that State. Speaking of the honey exported by his State, he said :- "They did not wish to compete with home production, but to popularise the commodity as a food. The more they could create a demand, the better it would be for the English beekeeper.

South Australian honey is sold wholesale here at such price that 1lb. can be purchased in a glass jar with screw top, retail for 6d., and I presume, therefore, that this honey is sold to wholesale firms at not more than 21d. per lb. In the circumstances, I do not think it would be possible to put New South Wales honey commercially on this market. So long as South Australia is engaged in the work of popularising honey, I think it would be wise if we refrained from exporting, unless, indeed, we can come to an agreement with the South Australian Government or exporters to charge a more remunerative price for the commodity. South Australian honey is certainly as good as the bulk of the honey retailed in London-in fact I should say it is superior to any but the best British. Neverthelees, South Australian honey is retailed 6d. per lb., while Jamaica honey fetches 9d., New Zealand 10d., and British honeys from 10d. to 1s. per lb. I do not, however, think the outlook for Australia is at all bad. Honey is not largely consumed in England; first, because when it is good it is dear, and when it is cheap it is much adulterated. The taste for pure honey is certainly growing, and if the Australian growers would combine to fix a remunerative price; and one not too high for the general consumer in London, I think good business might be looked

forward to.

During the course of next week, I shall take an opportunity of conferring with the South Australian and Queensland authorities here, in order to ascertam their views as to price, and let you know the result as soon as I am able to do so.

3rd July, 1908.

Sir, - With reference to my letter of the 26th June, regarding the samples of honey forwarded to me by the Intelligence Department for the purpose of inquiring if trade could be done, I have the honour to inform you that I have made exhaustive investigation and find that although the honey is well thought of by the trade, the highest definite offers for it are 25s. per cwt., c. i. f. London, for No. 1 sample, and 23s. per cwt. for No. 4. under the same conditions, for 5 tons and These offers were 3 tons respectively. made by Messrs. Batger & Company, and Liptons, Ltd., respectively.

As pointed out in my previous letter, these low prices are largely the result of 6d. per lb. having been established as a retail maximum price for choice South Australian honey. Comparatively speaking, there is not a large quantity of honey consumed in Great Britain, and stocks take a long time to clear. Buyers say that with a 6d. standard for retail price they cannot pay more than 21d. per lb. wholesale, for after they have paid 1d. per lb for handling, bottling, &c., the retailers' margin of profit is not great on an article like honey, which is not of quick sale. Confectioners use fair quantities of honey for manufacturing purposes.

The samples sent were submitted to twenty of the most prominent and influential wholesale honey merchants, retail distributors, manufacturing confectioners, as well as two or three of the honey brokers. There opinions varied widely, not only in regard to quality, but also as to probable prices which could be realised

here. After weighing them all up carefully it seems probable that there is a market to be found here for New South Wales honey, and probably 300 to 500 tons could be sold in a season, provided the prices obtainable on the home market would be sufficiently attractive to New South Wales bee-farmers. I had numerous offers and orders for sample lots as test shipments, but I only mention the following, which are the best:—
Batger & Co.—5 tons No. 1, at £25

per ton, c. i. f. London.

Clark, Richards, and Coombes, Ltd.-1 ton No. 4 (equal sample), c. i. f. London, prompt shipment, at 22s. per cwt.

Liptons, Ltd.—3 tons No 4, at 23s. per cwt., c. i. f. London, prompt shipment. Eagle Confectionery Co. - 1 cwt. No. 2, at 24s. per cwt., prompt shipment.

Callard and Bowser.—1 cwt. of Nos. 1 or 2, at 24s. per cwt., prompt shipment.

Some of the firms interviewed informed me that honey of Australian origin had been sold on the Mincing Lane markets at 14s. to 16s. per cwt., but the quality was not, of course, as good as, say, No. 4 sample, or No. 1 and No. 2. On the other hand Jamaica of fair to inferior quality has been sold at somewhere in the same region of price. Merchants and others handling honey are generally prejudiced against Australian honey, and state that on the English markets English and Scotch honey rank first, Narbonne French honey next, then Californian and New Zealand (the best of which is highly appreciated on this market), then Jamaica, of which there are all qualities obtainable, from inferior to fine; then they place Australian. Handlers here are very much afraid of the prejudice against Australian honey, because it is popularly supposed to be flavoured with eucalyptus. In this connection the firms to whom I submitted the samples expressed diversity of opinion, some stating that the honey submitted had a slight trace of eucalyptus, others said there was no trace of eucalyptus flavour; in addition to which, one firm expressed the opinion that

sample No. 5 had a slight trace of tallowy flavour. I only mention this to show the diverse views expressed.

There was a decided concensus of opinion that No. I was the best, but the value of this would undoubtedly be enhanced if it was set white. Then No.4 sample was very favourably commented upon as being of fairly good flavour, and it seems as if quality of this sample, to a little better would sell readily at about £22 to £23 per ton. One sample, whilst fairly good honey, was, unfortunately, fermented, and consequently of very little commercial value. Phants, one and all, impressed the Decessity for beekeepers to use only blean, bright tins, otherwise the honey becomes discoloured, and may deteriorate and cause disappointment to shippers in the price realised; and in connection with the whole business it must be understood that shippers guarantee the honey as absolutely pure. Some of the firms thought that No. 3 was too syrupy.

I attach a list of some of the firms called upon, together with their expression of opinion, and I may say, as far possible, I am only submitting to you reports originating from people in whom I have the utmost confidence, and I therefore think these reports may be taken as sound and commercially valu-

able.

I may add that the autumn and winter are the best seasons for disposing of fairly large quantities of honey on these markets.

Report from Messrs. Clarke, Nicholls, and Coombes.

This firm will take 1 ton of No. 4 sample at 22s. per cwt. (not more) as this is the price paid by them for Jamaica

honey lately.

The honey buyer, Mr Matheson, is of opinion that all the honey is of a better class than the ordinary run of Australian honey. The red honey he values at 20s. to 21s., but thinks if they could be drawn white they would fetch 30s. to 31s. per cwt.

Report from Messrs. Callard and Bowser.
This firm will take 1 cwt. as a sample of either No. 1 or No. 2 sample, at 24s. per cwt.

Report from Mr. F. J. Carmichael.

These people say they would like to see actual dock samples if they come in. Honey was sold this week (26/6/08) at Mincing Lane, Australian liquid and set,

at 15s. to 15s. 6d. per cwt.

Report from Messrs Doulton and Young. The samples submitted to them were classed into three grades. The flavour is superior to the usual run of Australian honey. They sold 100 cases of West Australian honey on 15th June, 1908, from dark to pale colour, at 14s. to 15s. per cwt.

Report from Messrs. E. and T. Pink,

Staple-street.

Mr. Comin says the Australian honey is by far the best he has handled, but as he has bought his stock for a month or two, he regrets that he could not buy just now, but he will be pleased to see any honey we may have on hand. No. 1 sample he thinks ought to fetch 32s. per cwt.

Report from Messrs. Petty, Wood, & Co. No. 5 sample worth, perhaps, 28s. per cwt.; No. 1 sample worth, perhaps, 26s. per cwt. They think that the honey has a eucalyptus flavour. No. 3 sample good honey; eucalyptus flavour hardly noticeable.

Report from Messrs. Paskell, Black-friars-road.

The honey is good for Australian, but there is a peculiar flavour in them that would be harmful to the class of confectionery they use.

Report from T. Smith, Cambridge-street,

Edgware-road.

Sample No. 1 is the finest honey in the lot, and he thinks it is fit for the English market. He is to Blend Al with some English honey, and if the result is satisfactory he will take a quantity. He prices No. 1 at 25s. per cwt.

Report from Messrs. Sharwood & Co., Intid.

The samples left with this firm are to be tested by their chemist, and they will let us know what their decision is. Three of the samples they price at 25s., 24s., and 25s. per cwt. each.

Report from Messrs. Lyons & Co., Ltd.

We handle some Australian honey, but we do so only on a small scale, and regret we cannot take up a fresh line of these goods Unfortunately, the flavour and smell of Australian honey are not popular with the British public. find a much more ready sale of honey of a pleasing nature, which we are afraid from our inquiries cannot be produced in Australia.

THE IMPORTING CRAZE.

After reading the article by S.H.N. on the above subject, I can say "Them's

my sentiments."

But to what shall we attribute this craze for new races of bees? And why this lack of confidence in our native bees? . When an individual, without experience commences beekeeping in Natal, the natural result is failure. Why? Simply through lack of experience, which includes the inability of such to prevent The natural conclusion of swarming. such a person is that the fault lies in our native bees, which is entirely wrong, and as S H.N. says "if one fails with the native bee, it does not follow that they would succeed with the foreign bee." No! decidedly not. But that is just what the majority of beginners expect, while they entirely overlook, their inefficiency. Again, read almost any book on beekeeping and you will find that the the author advocates Italians, and advises the beginner to secure as early as possible this bee, otherwise known as the Ligurian, consequently the immediately concludes that to obtain it would end all the troubles, and lead to the "Royal road" to wealth.

thought when I first commenced beekeeping. After more experience, study of books, more reading of bee journals, I began to think it strange that each and all had such a tremendous amount to say about diseases. First, that the greatest of all scourges, Foul Brood, by means of which, we are told, that the greatest of German apiarists "Dzierzon, lost his entire apiary of 500 colonies as early as A case was seen on Kelly's 1846. Island, in the summer of 1875, though it was known in the United States, and in Canada several years earlier, where from time to time it has devastated whole apiaries like a foul plague." (Howard on Foul Brood, Natural History and National Treatment.) Why are every one of the United States anxious to have stringent laws enacted, and efficient inspectors appointed for the suppression of this terrible scourge? What of the United Kingdom? Are not the bees from one end to the other rotten with this disease? How many localities are there immune? Very few indeed. And this is only one of the diseases bees are subject to, each and all of the others are just as likely to be imported, and they are Black Brood, Pickled Brood, and Bee Paralysis, perhaps easier to combat, but sufficiently serious for conand anticipation. templation mature consideration of the diseases which have attacked animals of practically every class in South Africa. concluded that we have to thank this importation fever for the results, and that if importation of bees be persisted in, beekeepers will also pay the same penalty. So positive has this conviction been that I have studied bee diseases. not only the scientific side, but rational treatment and methods of combating them in the hope that in my case at least "Forewarned will be forearmed," and I advise every beekeeper worthy to be called such, to do likewise.

The question asked by S.H.N, "tell us wherein ours are faulty" is to the point. Yes, tell us! Is not the essential

trait of queers, that of prolificness, to be found in our native queens? Yes! it most assuredly is. And do not our queens possess those two important traits so strongly advocated by the eminent Borodino expert, G. M. Doolittle, those of highest production of eggs at the right time, and also retrenchment at the right time. Most decidedly they do. Look at that colony that has been located in the rocks for the last twenty years, come drouth, come scarcity, have they starved themselves out by breeding at the wrong time? No, Sir, they have not. Practice spreading, brood a la Doolittle, and will not our young queens answer by depositing an egg in each cell? Yes, every time, if the manipulation was made in a correct manner. Then what will we gain by importing foreign bees and queens? Most certainly I think, not a better bee than our native bee, but that we will get diseases amongst our bees sooner or later, if importing be continued, is a positive certainty, unless stringent laws are enacted, and that quickly, for the absolute prevention of the importation of foreign bees into South Africa. vention is better than cure." Since writing the above my Bee Journal "Gleanings in Bee Culture" has come to hand, from which I append a few extracts which bear on this subject. There is in this Journal a department headed "Beekeeping in the South West" (chiefly Texas which is about the largest state) written by Louis Scholl. Here we are.

"A NOTE OF WARNING."

Samples of Foul Brood have been sent me from various parts of the country, etc. But when combs simply rotten with Foul Brood are wrapped in a single sheet of thin paper, and sent to be identified where other bees may be subjected to the dread scourge, it is time to call a halt. "Don't do it." Following the report of the Texas Beekeepers Association comes this.—"With this in mind, the following letter has been formulated by the association for circulation:—

BROTHER BEEKEEPER :- Foul Brood is breaking out in almost every part of our State. I have hundreds of letters from North, Central, East, South and South West Texas, asking for help. Foul Brood has come to these places, and the apiaries are threatened. Nothing can be done for the beekeepers, and there is no money to do it with. Your bees are threatened. We need a State inspector to look after our interests, so that they will be protected, and saved from destruction. We must combat Foul Brood or This is a worse scourge than many suppose, because they have had no experience with it, etc., etc." Speaking of bee-paralysis, the Editor says in the same Journal, "In past seasons Mr. P has had some experience with bee paralysis, - while Mr. P---- fears bee-paralysis no more, he found he would have to quit importing queens from outside localities, and hence was compelled to develop a strain of his own, that would be able to stand the inroads of that disease."

The fact is significant that breeders of queens in the North have breeders in the South, upon whom they rely to supply them when the weather conditions of the North are unfavourable for this work. There are continually in the States purchases made of queens and bees, and consequently a likelihood of diseases being transferred from one locality to another. And how is it possible to be positive as to whether the bees imported are not diseased, since it is only possible to detect the disease when in the bacilli

Shall we import? No! Don't do it.

"APIS MILLIFERA" in "S.A.P.

Journal."

POLLEN-CLOGGED COMBS.

A discussion has been going on for some time in the "Irish Bee Journal," from which the following is extracted, as it shows how highly a pollen supply is regarded by Mr. Huxley.

"At varience with the editor! My beekeeping friends, since my first letter appeared in this Journal, last September, I have been trying to impress upon you that a scarcity of pollen is a "danger" to be avoided at all cost, and have been allowed no little space to try and explain to you just what happens when bees are short of it. Now here is Mr. Editor turning out his advice in has "Simple Talks on Bees," page 113, which may, most probably will, land your stocks in exactly that condition which I have been trying to show you should never exist it! He says "reject combs that are clogged with pollen." "Clogged," indeed! Now, I say: Let it alone. Why? To teach readers to remove good pollen-stored combs right on the verge of the breeding season is beyond the bounds of reason. I tell you it is "simple" talk; very "simple" talk. It is terribly "simple." Oh! these editors! What are they not responsible for, with their ignorant "simple" directions to the uniniated! The paper would have been inserted quite early in April, not one day too late in May issue; but to put such teaching in a Journal, intended to improve, in March! There, I am losing my temper; I admit it. Just consider, you who are inclined to practice what the editor is teaching; think what you like about it now; but I tell you, and I am prepared to substantiate what I say, every pound of pollen which your hives contain is worth far more to you than a pound of the very best honey your bees ever gathered. It is the very life of the brood, which should rear in their turn your honey gatherers when the clover harvest comes. Consider the thing; use your own common sense. It does not require a great amount of summing up to conclude that to remove those good pollen combs is nothing short of murder most foul. Then, why should you remove them? Think what the months of April, May, June, yea, the whole season through, was last year. Think that your hives ought to be well

stocked with millions of stores from the time your queens deposit the first egg in the cells right up to the time the last larva is successfully sealed over for the season. Further, by the time the last young bee hatches, the brood-nest should again be well stocked with food for the following season's work. Your broodnests should never, never be without stores. No, I know they are not big enough now. But you should make them big enough.

BLACK AND WHITE SURFACES -BUMBLE BEES-BOX VERSUS FRAME-HIVES.

ALLEN LATHAM IN "AMERICAN BEEKEEPER."

The last number, May, of the "American Beekeeper" incites me to criticism of some of the statements found therein. Mr. Getaz presents on page 125 a very interesting, and in many ways instructive, article. Unfortunately he errs in some of his conclusions because of ignorance of certain facts which bear on these conclusions. At the very beginning he disarms criticism by refusing to deny certain results obtained by (presumably) the use of dark paper for hive-protection. Would he lead us to conclude thereby to let reason and theory over-rule practice?

There is a satisfaction in thinking that back of every question is unalterable truth, and that consolation often upholds me when my statements meet criticism or denial. I am one of those fellows who arrogantly believes that he is right and the other is wrong. Mr. Getaz may be right, but I don't believe he is.

That Mr. Getaz is probably in error in other parts of his article is evidenced by the fact that he makes a misstatement in his second paragraph—or possibly only misuses a word. It is not true that heat radiation and transparency are related as is suggested in that paragraph. Heat radiation and radient energy are two

different things and bodies which will not let the energy of the sun through will let heat through—and vice versa. The well-known principle of the "hot-bed" sash exemplifies this. Rock salt is not noted for its transparency yet it is remarkable in its power to let radiant heat through it.

From that second paragraph on Mr. Getaz appears to be strictly correct (though one might dispute with him as to color and heat radiation being entirely interdependant) till near to the bottom of the first column on page 126. When Mr. Getaz says: "* * while the loss is going on all the time," he errs mightily. It is not true that a black surface is losing more heat than it gains from radiation. It will lose more heat than it gains from radiation if it is at the same time receiving heat by other means. But the covering of the hive is not receiving heat by other means than radiation. I do not make this statement absolutely but in a practical sense.

The black covering of the hive receives in the brief sunshine vastly more heat than it loses during the many hours that it is itself cold. True, the black surface quickly cools, but once cold it ceases to lose heat to any appreciable extent. Furthur study of the laws governing heat radiation should convince Mr. Getaz of this fact. Nor is it true that much heat is conducted through the walls of the hive to the black covering and thence lost by radiation. atmosphere inside both black and white hives quickly cools to nearly that of the outside after sunset. The walls of both hives are practically alike in temperature. If the black hive continues to lose heat faster than the white, then of course it must get colder than the surrounding air. As it does, as will also the white hive. For all objects practically, will cool by radiation to a slightly lower temperature than the surrounding air. But the black hive soon reaches its lowest temperature and there stays. After that it will give out no more heat than it gains. It will gain no more heat from the bees than will the white hive.

I heartily agree with nearly all that Mr. Getsz says from that point on, though I should place a much higher value upon a "dead-air" space than does he. I have some 130 colonies in air-spaced hives and I should know

something of their efficiency.

Now where Mr. Gatez errs most seriously is in his placing so little value upon the few hours of sunshine that may warm up the black hive-covering. It is just those few hours, and they are not so few as he would have us believe, that do all the good. The hive is dried off inside, the bees are warmed and invigorated, they have an opportunity to shift to new stores, they tumble out their dead, and if the air is at all suitable they take a cleansing flight. In the white hive it requires many hours of rather warm sunshine to bring about these desirable things.

If I can winter my colonies perfectly in hives covered with black paper with entrances of 13 square inches, and with an average consumption of stores of only eight pounds for the four coldest months, that one fact over-rules all theory and argument to the contrary. Has Mr. Getaz tried black hive-covering

and found it undesirable?

On page 129 there are mis-statements relative to the bumble-bee. It is not of vastly material importance that these mistakes be corrected, but possibly the truth will be interesting.

Has Col. Brown any proof that the queen bumble-bee lives two to five years? If she lives more than one season, why is the queen of a new nest in spring always well-coated with hair, that of a nest later in the season nearly hairless? Did anyone ever see a queen-bumble-bee starting a nest and that bee have a shiny, hairless back? Did anyone ever find the mother-queen of a colony in August that did not have a shiny, hairless back?

The drone-bumble-bee is seldom born in June, if ever. He is usually born

late in August.

Later it is suggested that the queens which winter over get a sip of honey from the nest above. The truth is that rarely has a bumble-bee's nest any honey over a few days' supply stored in it. When the drones and queens emerge in late summer they quickly eat all the honey in the nest. The workers soon die off and no more honey is stored. The queen in spring goes hungry till it gets honey from a flower or steals it from a hive of honey bees (whereby, by the way, thousands lose their lives every spring).

"We use that kind of material for the reason that the bumble-bee first makes but one cell,"-strictly speaking the bumble bee never makes a cell. The queen in early summer or late spring chooses her nest and gathers a mass of pollen (and possibly honey). Into this mass she lays from six to ten eggs, usually seven. These eggs are laid all in a cluster. They hatch and live in a cluster like a litter of pigs. They are kept surrounded with this covering of pollen, which might be called a cell, but hardly with propriety. When of full size each larva spins an oval cocoon. This cocoon is a cell of the bumble bee's nest. The number of cells in a nest offers a history of that nest, telling how many bees have been reared in that nest. The queen never lays single eggs in cells that have been occupied previously by grubs, always lays her eggs in clusters just like the first batch. To prove this for yourself, just open a nest next summer and pick it to pieces. The empty cocoons are used to store honey (and possibly pollen) in.

I was invited a few days ago to divide a colony which was in a dovetailed hive. Wishing to know its condition I went to see it the other day (early May). The unpainted cover was

warped and cracked. There was an entrance through the top right over the frames, and also along the top between the cover and the body. Bees were in good condition in spite of these facts, but what a trap for foul-brood to get a start in! Would the enchantment, movable frame, keep off the dread dlsease, or if it once came prevent its spreading?

FITNESS OF HONEY FOR FOOD.

C. W. DAYTON IN "AMERICAN BEEKEEPER."

Indeed I would rather have a handful of mustard tops, or narrowdock, or pigweed, redroot or dandelion to be used as food than a whole shopful of so-called health preparations. Man may discover after awhile that he connot feed himself on artificial preparations and continue dwell in the flesh. The One who provides the rain seems to have intended that man should provide some things for it to fall on.

The honey, it would appear, was made wrong and must be melted and remelted to be be kept in order. If we wish to handle honey intelligently time should be taken to learn its nature and then handle it according to its natural requirements. In eating honey regard should be taken to keep the stomach in condition to digest it. If the stomach is experimented on with all sorts of fictitious preparations its stability cannot be maintained. It is as bad to handle honey wrong as to adulterate it with glucose, and, I guess worse, because the more vitality there is in a food the more trouble it is capable of causing. It is not all in the harvesting, nor in the hives, extractors and engines. It needs real care and judgment and expense all the way to the consumer's stomach and several yards beyond.

It is a bad deal where we sell a crop early for fear it will spoil while in the possession of the producer. It can be kept liquid practically any length of

time but as soon as it is moved or agitated granulation is rapid. When we find out a thing is right we should begin to be prejudiced in that direction and should not continue in the wrong because it is a shorter cut. I am prejudiced toward the use of granulated honey. For many years I was prejudiced toward liquid honey. Granulation seems to be the starting point of disintegration. Disintegration is digestion. A beekeeper ought to know more about how honey ought to be eaten than a person who does not keep bees.

I was at one of the seaside resorts the other day where Mr. Jones keeps a stand to sell honey to transient people. I was shown the jars which had a thinner layer of water on the surface and I told him the honey was not produced quite right nor it had not been kept quite right.

Says he, "They will buy it." "Yes, I know they will," says I. "They expect us to understand our business."

"Then," says he, "why should we borrow trouble so long as we can dispose of all we can produce?"

I thought for a few moments and then

said:

"Mr. Jones, did you ever read the book called 'The Jungle'?"

"Well,-no-I don't think I did, why,

what does it say?"

"It says that in the large packing houses, where many hams have their corners trimmed off to fit them to be sewed up in cloth that these odds and ends count no more than so much refuse and are clear gain, so they are thrown into filthy barrels in filthy cellars and allowed to await a convenient time to be taken care of. Then it is brought up in a stinking condition, treated with drugs, put into tins and labelled choice devilled ham and sent out to supply the fancy trade.

"Well, it seems to be the dollar that is all the thing, these days," says he.

While Mr. Jones boasted of excellent health I saw that he did not use honey on the table but always had meat at the noon meal. He admitted that he was

greatly troubled with constipation but did not call that a disease.

Constipation is not greatly feared because it is not a painful disorder; but it is what can bring on nearly all of the other diseases. It loads the system with filth and this filth does its work apart from the real cause. When the constipation finds a demand for its products or a short cut outlet for its accumulations it begins to be less troublesome and the change is called fair health; while the system continues to become diseased in The nerves become numerous parts. deadened, the muscles less active and the mind less perceptive, which is mistaken for natural old age coming on. But we are somewhat shocked when we hear that Mr. So-and-so, hardly past 50, was "buried last week."

Now it is genuine enjoyment to look for and distinguish and learn to avoid the different tricks the big "go aheads" are setting to entrap us and then just simply turn their traps grab side down. It is not necessary to inquire of the sick or dissect the dead. Merely examine their methods of production and manipulation. They are such fools that they gladly show up their end of the scheme because they think all consumers are bigger fools than themselves. hold nothing back unless they are actually shovelling pure poison, and this they excuse because "the system needs it." And it really does need it where it has become estranged to anything else. It is but the natural law of affinity to cleave to its natural element.

As to the meat machine, it grinds the same on fat steer or a respectable crow bait and the producer is cheated if he furnishes better than the general run. Open mouths at one end and eyes which refuse to see at the other keeps the machine in cog.

It did seem to me rather flat-footed to come out so plainly on Mr. Jones' honey, since he was on the side of trade and consumption. But he seldom used honey on his own table. And then that spirit of trade which is like fire gnawing at

the vitals of the nation. I thought of that. That is the meat packers' methods They do not, aye, they dare not eat their own production. They do not suspect that anyone is so dirty and vile as themselves so they buy and consume from the other man.

It was 35 years ago or more, when I was a boy, that I saw a number of bushels of apples buried early before cold weather set in. Two or three months later, in December they were examined and there was nothing left of them but a few ashes. Even the straw with which they had been covered had disappeared almost entirely and the roots of small saplings which entered the

pit were consumed.

Some 20 years later I saw several sacks of potatoes buried in sand in warm weather and three weeks later there were some black streaks that showed where the potatoes and sacks had been. Even the knots where the sacks were tied had been dissolved and carried away, Later I tried a similar experiment twice with a like result. Fill a honey can with onions or potatoes as soon as they are taken from the ground and screw the

cap down and note the result.

The starch of the potatoes changed to sugar and the sugar to sulphuric acid and the sulphuric acid dissolved the fibrous substances producing nitrous acid and the nitrous acid escaped. Had the apples and potatoes been entirely ripe they would not have changed. They would have sprouted and shriveled and the fibre would have remained. they would have lost in starch sugar somewhat but when the fibre became sufficiently calloused or ripened no more starch could could be consumed. In honey we have a substance of the very same nature. To ripen it requires all the fall and winter and it is in the best condition for consumption following spring or a year later.

Bee men think that a certain weight or thickness is the measure of its ripeness or quality when the fact is its ripening consists in the completion of storage of

oxygen in its cells and the expulsion of the surplus nitrogen and hydrogen it retains from the plants from which the honey came. Sudden evaporation robs it of the hydrogen it needs for this purpose. Hydrogen is the lubricant which enables change to proceed. It is also the gas which releases and carries away the nitrogen. Nitrogen is decomposed vegetable albumen and carbon. Carbon is mineral. Honey ripens by fermentation assisted by affinity and adhesion, and the fermentation continues as long as there is sufficient moisture to support it. On the approach of cold. there is contraction and a deficiency of moisture occurs. Its cells form into shapes which will admit of more compactness. The cell walls become dry and hardened. At this time a rise of temperature causes a breaking down of cell structure. The cell walls are unable to expand and burst from the expansion of their contents the same as an eggshell bursts when an egg is frozen.

To impart to honey its former fluidity is to rebuild the honey; an operation which nature alone can accomplish. In its reconstruction the water would need to contain protoplasm for the preparation of the cells which were ruptured during the escape of the water. But the honey has passed the reconstructive stage. Disorganization sets in and digestion results. The more honey is moved or heated the more it digests itself and

goes; as the potatoes went.

That eternal Breakfast Question.

I am wondering how many of our good house wives are this evening pondering over that almost "eternal question" of "what shall we have for breakfast for a

change?"

The Europeans, perhaps I should say more strictly speaking, the "continental" Europeans, have practically solved this problem, and we believe that Americans are more and more coming to view things as they do. I know some of us are wedded to our beef steak breakfast and

what not that our forefathers have dieted on for so many decades, but more and more, especially so among professional and business families in our cities, the much more healthful custom of a light morning meal is coming to be the rule rather than the exception. The continental breakfast consists of a cup of coffee or chocolate as preferred, and a crisp roll or slice of fresh graham bread, with some fruit do you ask? Well, yes, sometimes when it is in season. But frequently fresh fruit is not always to be had, and one soon tires of jams and preserves.

The Europeans have, however, been long used to meet this necessary need with extracted honey. This article is always found on the breakfast table even in hotels and is eaten the year round. Besides being a most healthful and nutritious article of food of a most wholesome nature, it is something that can be had at any time. Well ripened honey can be kept in a temperate, dry place indefinitely, and even improves with age in that it becomes thicker, thus having more body, aroma and flavour. There is something very satisfying about a breakfast on bread and honey, with say chocolate or coffee, or even hot milk if it be pre-This may be varied by having hot biscuits occasionally or corn bread or graham gems. On the cooler, winter mornings hot buckwheat cakes and honey prove a most agreeable variation. our national pure food law there is no reason why we should not now be able to get anywhere and at all times this new and important, shall I say, breakfast Food.—American Beekeeper.

Moving Bees at night with entrances open.

By night I had three wagon loads ready to move. Everything was gotten in readiness; harness on the teams; supper eaten, &c., by sundown, at which time the wagons were pulled right up to the apiary, and by night we had them all loaded. Reducing the size of the hive and

fastening the bottoms and tops on was the only preparation made for moving When the wagons were loaded a them. wagon sheet was spread over the front end to keep the crawling bees from getting on the driver. The teams were hooked up, and the drive made to the new location without trouble. On arrival the teams were unhitched and fed: the wagon sheets taken off to let in the fresh night air to cool the bees off and cause them to go back in their hives. Some of the hives would be almost covered with bees on arriving, but by morning they would usually be back in the hives. We carried a camp outfit right along with us, and would go to sleep as soon as we could after arriving at the apiary. daylight we would get up, unload the bees and take the wagons a good distance away by hand, have breakfast, and go for another load.

A part of the crew stayed at the apiary and got bees ready for the next load; and at sundown the wagons were loaded again. We began work at daylight, and worked until late at night. It was rather a hard life to lead while hauling lasted, but it did not last long, and the moving was done without the loss of a single colony, and but few frames, and proved to be of considerable benefit to the bees.—
W. O Victor, in "Beekeepers' Review."

Retaining the Aroma of new Well-Ripened Honey.

By G. A. LUNDE.

I have noticed in "Gleanings," off and on, that you lay great stress on having extracted honey well ripened before extracting. I have been interested in this question for over 20 years, and read with interest what Mr. Burnett, of Chicago, and others have written on the subject; but I have failed yet to find any positive information as to the modus operandi of how a person can, after extracting, retain this aroma or the fine flavour well-ripened honey has just when extracted. I doubt if any bee-master can give any

solution to the problem. I have no bees here. My son is running our yards at Wausau, Wis., but I may also keep bees here next year, if I stay. We have of late years been in the practice of putting up our honey in Aikin paraffined paper bags. But I am inclined to think it is more difficult to arrest the flavour this way than when put up in tin cans or glass jars. When extracting we do it this way:

We put the honey in open barrels, as fast as extracted, with a cheese-cloth cover on top of the barrel when not working. Then when honey, say in September, commences to stiffen, we fill the

paper bags from the faucet.

SO-CALLED EUCALYPTUS HONEY.

In B.B.J., June 11, 1908, Mr. W. Woodley, Newbury, refers to the so-called eucalyptus honey of Australia in the following words:—"I am wondering how the big consignment of Australian honey is selling. It is too strongly flavoured with the eucalyptus to suit the Britisher's palate, unless they have cleared the forests of gum trees and planted lucerne or white clover. If this is done they may get a chance for

their honey in our market."

It is a fact known to most people out here that there is no connection whatever between the blossoms of eucaluptus trees and the oil of eucalyptus. The former possesses no taste of the latter, but is a distinct product. Why should the eucalyptus honey of Australia be any different from that of America? and yet the Australian eucalyptus honey is always spoken of contemptuously. reason is this: Some years ago a chemist, hoping to make a fortune, bought a quantity of Australian honey and mixed some oil of eucalyptus with it, thereby ruining the honey and the reputation generally of Australian honey. This move on the part of one individual has proved so detrimental to the Australian honey industry as a whole that this mistake, as far as I know, has never been repeated since; but the mere fact of the past lives in the memory of the present, and so European countries are under the impression that all Australian honey is the same and has a taste of eucalyptus oil, which is a most fallacious Although Australia produces a consider able amount of very inferior dark honey, she is, nevertheless, capable of producing tons of most excellent light honey, which when properly graded and put on the market in an up-to-date manner must of necessity find a market in European towns, and I have no hesitation in saying that such honey will bear no trace of it. Australian origin. As to the production of white clover honey out here I willwrite you later.—R. Hamlyn-Harris. D.Sc., &c., The Grange, Toowoomba, Queensland.

[We are very pleased to hear from our esteemed friend and former contributor, Dr. Hamlyn-Harris, who should know whereof he speaks after his not inconsiderable experience as a judge at honey shows in England a few years ago.—EDS.]—"British Bee Journal."

Irish Beekeepers' Association.

The Irish Beekeepers' Association has an honourable record of twenty-seven years. There has been no advance or improvement in Irish beekeeping during that period that is not due, directly or indirectly, to the I.B.K.A. The Association extended its help in all directions. and gave instruction freely by printed leaflets, by correspondence, and by direct personal teaching. It has taught, examined, and qualified experts, who are now spreading the light in their various districts. It expended its funds in propaganda work. I has acted for the Department of Agriculture at provincial shows, providing experienced judges and capable lecturers. It effected improvements in the construction of appliances, and secured a honey market

or its members. That is not a bad record, although it does not represent all that the Association has accomplished. Where would be the movement towards Foul Brood Legislation if it were not for the Association? Where, indeed, would the industry be to-day, had not the Association encouraged it, and guided it, and fought its battles, and defended its rights? And how has the parent Association been rewarded? The last report showed a total of sixty-two subscribing members! Think of that. Sixty-two beekeepers in all Ireland with sufficient gratitude, or sufficient spunk, to subscribe 1s., or 2s. 6d., or 5s. a year to the support of the Central Organisation! You know that a number of local associations have been founded this year. Why do not all these affiliate? We ask for a 5s. fee, and we give them membership of the Committee in return, and such privileges as we have to offer. It seems to me that all ingratitude is not located in the islands of the pacific Take my word for it, if Irish beekeepers allow the I.B.K.A. to become powerless through lack of support, they will suffer most. No industry that is not properly organiseed can prosper in these days of competition. The need for organisation will become greater when the Foul Brood law comes into force. Even now the Association could do a great deal if it "had the funds. Talk of savagery; I declare solemnly that the stinginess of apathy of beekeepers in this country is enough to make the angels weep .--Writer in "Irish Bee Journal."

"Gleanings" on Mr. Beuhne's Patent.

CAP MELTING APPARATUS AND ITS PATENTABILITY.

In our issue for May 15, page 626, and also for May 1, page 560, we gave an opinion to the effect that the Beuhne patent, issued January 8, while narrow in its general claims, was broad enough

to prevent any one else from covering the same principle. Since that time we have had a call from Mr. Beuhne, of Tooboorac, Australia, and during the course of our interview with him we called attention to the weakness of his patent. appeared to be prior to any one else in the use of any and all methods for melting cappings as fast as they leave the knife, we suggested to him the possibility of securing a reissue of his patent, with broader claims. He consulted his patent attorney, and the latter has since informed us that he thinks it is entirely feasible; and then, moreover, he is of opinion that his client can secure a broad patent on the method or process. For this Mr. Beuhne has filed his application. If this latter is granted it would bar any one else from securing a patent, if he is not already barred by the patent of Jan. 8th last, and at the same time prevent any one from using the principle in any manner whatever, providing that such a one is unable to show that he used the method or process prior to July 10, 1907, the time that Mr. Beuhne filed his application. But Mr. Beuhne will not be disposed to be unjust or unfair to any inventor, providing any such inventor can give satisfactory proof of his use of the principle.

In this connection we may say that we examined the Beuhne apparatus, and feel satisfied that it is a long way ahead of any thing else that has so far been presented to the public. As he is a pioneer in the melting of cappings as fast as they leave the knife, he has tested almost every method that has thus far been presented, either in this country or abroad, and is prepared to show why the special construction that he uses is superior to any other design. Later on we hope to show drawings of his

machine.

To make your honey look well on the shopkeeper's counter, put it up in nice glass jars with an attractive label. Send to A.B.B. for your labels.

FREE HOMESTEADS.

The following, from "Gleanings," may well be read by Australians: In Northern Wyoming, 75 miles east of the Yellowstone National Park, 300 farms, from 40 to 160 acres each, have been thrown open for entry under the terms of the Reclamation Act. This tract embraces about 15,000 acres, constituting the first unit of the great Shoshone irrigation project. The charge for water rights has been fixed at 45.00 dollars per acre, payable in ten annual installments; but the second installment of 5.50 dollars does not become due until the fall of 1909, so that the settler can secure two crops before that time. The extra dollar is for maintenance—that is, to keep the dam and ditches in good repair. Actually, the settler pays nothing for the land, only for his share of the dam, etc., in which he is a shareholder. The land and the water are inseparable. At present the only way to reach these lands is ever the Chicago, Burlington and Quincy Railway; but a north and south trunk line is in course of construction, connecting Billings, Montana with Denver. It is estimated that a settler ought to have at least 1,000 dollars to make a fair start. It is almost unnecessary to add that this will be a fine bee range just as soon as the settlers get their alfalfa started. The climate is unexcelled. Bees may be wintered out of doors, with a fair amount of protection. Employment may be obtained from the Reclamation Service in digging canals and other work, and homesteaders will have the preference. The project is being extended so that there will be work for several years yet in extending the present systems of canals. Further information may be obtained by addressing the "Statistician," United States Reclamation Service, Washington, D.C.

Swarms sent out to the Isle of Wight beekeepers to replace those that died out in 1906 have turned out very successful.

BEES AND FRUIT.

The Queensland Beekeepers' Association submits to the "Daily Telegraph," Sydney, the following notes by Mr. D. Jones on the subject of bees and fruit crops:-"While visiting a suburban gardener some time ago, complaint was made to me of bees injuring last year's crop of grapes. This matter cropped upage some years ago at a meeting of the Brisbane Horticultural Society, when the matter was fully discussed, and a complete refutation given to the charge against our innocent bees. That they do take advantage of what otherwise would be waste fruit juices is a fact which establishes a sound law in the economy of Nature; for bees will only avail themselves of such fruit juices as appear on fruits already punctured by other insect depredators, such as fruit flies birds, etc. In Queensland we often find, in certain seasons, grapes punctured by the fruit This causes an exudation of juice which the alert bee is sure to seize on, with the result that he is charged as being the culprit originating the injury. Entomological study of the structure of the bee's mouth clearly demonstrates his inability to puncture or injure fruit by such a process. In the case of fruit-fly attack, the bees render practical service in restricting the reproduction of the fly, as, by reason of the thorough manner in which the bees drain the injured grape of its juices, they leave only skin which will not sustain the larvæ, if developed from the egg, originally deposited by the fly. Fruit-growers may well look upon we bees as their most valuable allies, particularly in Queensland, where so many new varieties of fruits are being experimented with, dependent, as many are, on prompt and perfect pollinisation, which, without the aid of bees, could not be successfully accomplished." -" N.Z. Farmer."

New fancy designs in honey labels at the "A.B.B." office. Send for samples.

The Middlemen get too large a Share of the Profits

The prices of the best extracted honeys are better and more stable now than a few years ago, but even at the price at which fine honey has been obtainable, during the past year, the beekeeper cannot be realizing more than from two to four cents per pound profits. consumer pays for the best grade, before it reaches his table, at the rate of from twenty to thirty cents per pound, when purchased from the retailer's store. Thus the value of the honey to the consumer is at least twice the best prices the beekeeper gets for it, and undoubtedly as much as three-quarters of the difference between what the producer got and what the consumer is paying for it, is net profits. It is not that the consumer is paying too much for honey, the most wholesome and delicious of sweets, for he does not; but that the producer is not getting just and merited compensation for his skill and labour in producing it. The dairyman is able to command from 20 to 30 cents per pound for butter for which the consumer pays from 30 to 35 cents per pound. On the other hand the beekeeper, as a rule, has been able to command only from six to eight cents per pound for his honey, and usually with commission out, for which the consumer pays from 20 to 30 cents per pouud. I think all beekeepers will agree that the disparagement against honey is far too great. It is not possible nor practicable for the beekeeper to obtain all the difference between the cost of production and the price to the consumer as net profits. The retail distributor of products has come to be almost as necessary a factor in the successful production of commodities for other peoples consumption, as is the producer, and he certainly is entitled to a liberal profit, but for a commodity that comes direct from the hand of God, a complete and perfect food, as is true of honey, there is no necessity for the producer sustaining the burden of expenses and profits to the wholesale packer, his sales agents, his jobbers and his jobbers salesmen before the retailer gets the goods.—O. L. Hershiser in "The Beekeepers' Review."

Hives for Use in South Africa.

A HINT TO BRITISH HIVE-MAKERS.

Some time ago I wrote to you pointing out that the British manufacturers of bee-appliances were in danger of finding the South African trade captured by the Americans. I may say there is at the present time quite a boon in beekeeping in South Africa, but I am sorry to see that, as far as Natal is concerned, very few British hives with the B.B.K.A. standard frames as used.

No doubt before very long all the beekeeping appliances required will be manufactured in South Africa, but I fear that we beekeepers who have remained faithful to British hives and the standard frame will find it difficult to uphold their supremecy. The American hives which now are sold out here appear to be of excellent value, and I am informed that they answer their purpose well.—" British Bee Journal."

BEES IN CHINA.

I do not know whether many bees are kept in China or not; but Mr. Wilder (Rev. George D. Wilder, missionary) has quite a number of hives; and the last time I was out there he got a stray swarm—a larger one than I had ever seen or heard of. The bees of China are, it seems to me, a little longer-bodied, and a little yellower than the Italians, and they are even more quiet and peaceful than they. Mr. Wilder goes among his and handles them bareheaded, and when I say bareheaded I mean bare, for, like old Uncle Ned,

He has no hair on the top of his head— The place where the hair ought to grow.

And he never gets stung. They have honey as they want it, and very nice honey too.

D. I. MINER.

Queensland's ONLY Poultry Paper.

oer.

'Poultry Guide'

Published 1st of Each Month.

257 WICKAM STREET,

VALLEY, BRISBANE.

SUBSCRIPTION, 2/6 Per Annum

ADVERTISEMENT, 2/- PER INCH

The best strains from the first source is what I breed from.

The all-important question for the up-to-date honey producer is: Are his bees the right strain?

For fifteen years I have been importing from the most reputable Queen Specialist in Italy, who has made a reputation as A BEE FOR BUSI-NESS with these Pure Three-Banded Italians.

I have queen mothers of last season's importation that have proved themselves equal to any I ever had, and am offering their stock for the present season, fully guaranteed, October to March.

Untested, 5/-; Tested, 10/-.

J. DRAGE, EAST ADELAIDE S.A.

For all you want in the way of

PRINTING!

Try the

"Australian Bee Bulletin" Printing Works,

West Maitland, N. S. W.

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.

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.

end for Sample Copy, Free.

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

12 Poultry Papers for 1/- !

"THE AUSTRALIAN HEN"

is the generally acknowledged

BEST POULTRY PAPER

in the Commonwealth It is published Monthly,
AND COSTS 3/6 YEAR, POST FREE,

But to prove its value, we shall send you 12 Back Numbers—a liberal poultry education—post free for 1/z. Money back if you are no satisfied. Write to-day before they have all gone.

"The Australian Hen," 681 GEORGE-ST., Sydney, N.S.W.