The Australian bee bulletin. Vol. 9, no. 2 May 28, 1900

West Maitland, N.S.W.: E. Tipper, May 28, 1900

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

THE AUSTRALIAN Bee Bulletin.

A MONTHLY JOURNAL, DEVOTED TO BEE-KEEPING.

EDITED AND PUBLISHED BY E. TIPPER.

VOL. 9. No 2. MAY 28, 1900. PER COPY, 6D.

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

The "Australian Bee Bulletin"

—— WAS ESTABLISHED IN 1892. ——

And is Edited and Owned by a PRACTICAL APIARIST, with a large Apiary of nearly 200 Colonies, and who is NOT A SUPPLY DEALER. He aims to give the latest ideas and developments of the industry; his interests are the getting the BIGGEST PRICES AND BEST MARKETS for his own as well as other people's honey. And he has always endeavoured to give facts and both sides to every question relating to the industry. His warmest thanks are due for the cheerful and hearty support awarded him from the commencement till the present time by the beekeepers of all the Australian colonies, as well as New Zealand, Cape Colony, and the Isles of the Southern Seas, and will do his best to merit a continuance of same.

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WREKIN APIARY.

MOSS VALE, N.S.W.

The Australian Bee Bulletin.

A JOURNAL DEVOTED TO BEEKEEPING.

—— Edited and Published by E. TIPPER. ——

MAITLAND, N.S.W.—MAY 28, 1900.

A lot of copy unavoidably left over.

Read the answers to questions in this issue.

Loyalstone's Notes in this issue should be well and carefully pondered over.

Mr Helms maintains bees do not injure grapes, as there is not sufficient sugar in the skin to entice them.

It was experience such as Mr. Beuhne gives elsewhere that induced us to put question 247 in September last.

Our next issue will contain full report of meeting of Victorian beekeepers, to whose deliberations we wish the greatest good will result.

For Robbing.—Saturate rag with kerosene oil or carbolic acid, and close entrance so as to allow only about one bee to go out or in at a time.

In queen raising we keep a record book. For general purposes, the top of our hives being level, and painted white, any memo of its condition we place with a hard lead pencil on corner of same opposite to side we are at in opening.

Mr. and Mrs. Meiklejohn, well known beekeepers, of Ard Glen, have ceased their connection with the Department of Public Instruction, and are going home to Scotland to spend the remainder of their days. May they have a pleasant voyage, and their life's evening in the land of their birth be ever as calm and aa happy as such a worthy old couple well deserve.

When at the Armidale Show we met Sergeant Evans, a well known old beekeeper. He, at the head of 13 mounted troopers had made a nice display, escorting the Governor to the opening of the show, and had been complimented by the local press. We also complimented him. In reply he said they were all mounted on young horses. He previously had a very fine one. Their old horses had been sent to the Cape. A trooper from the town had also gone, and a letter had been received from him in which he stated "I often go and have a chat with the Sergeant's horse."

As will be seen by our business columns Messrs. Anthony Hordern & Sons, of the Haymarket, Sydney, have just issued a new General Catalogue of close upon 700 pages of closely printed and profusely illustrated matter. The book is most attractively got up, and reflects great credit on all concerned in its production. It will assist people living in the country to do their shopping by post, and as the firm's rule of paying carriage is a liberal one, the country buyer is, in a very large measure, put upon the same footing as town residents who buy over the counter. A copy of the New Catalogue will be sent post free to any country address on application to Messrs. Anthony Hordern & Sons.

WINTERING.

No flow in the spring and summer, a profusion of apple tree bloom and some 18 acres of lucerne in our neighbourhood gave promise of plenty of stores for our bees to winter on. Some few hives were very heavy. Feeling no anxiety we were away from home three weeks. On returning found the bulk of hives were short of stores, and we had to start feeding. Had there been only a few hives some of the patent feeders advertised might have been procured, but with our large number such expense would be out of the question. We adopted the plan of making a syrup, half honey, half warm

water, well mixed, pouring it on empty combs, and placing on hives just at sundown, to prevent robbing. Gave each colony one comb, having examined it in the day time, and marked such as required feeding by placing a stone on. We had to hurry round, but with all our speed, one afternoon three swarmed out. They were strong, but had not an atom of food, and so discontented. The queens being clipped we easily secured them, but how were those swarms to be retained contentedly? It would not do to give them brood from other colonies, as breeding having nearly stopped no other colonies could spare such. To give food in day time would only start robbing. We did as follows:—As soon as the swarms were fairly returned to their queens and their hives, closed entrances so only about one bee could go in or out at a time. Taking off cover and linoleum, quickly took out one frame and as quickly dropped one with syrup in its place, closing up instantly. It worked effectively, no robbing whatever followed. The prospects are, some four months' constant feeding.

We fancy such a time as this furnishes the most savage condition of bees. When smoked they usually rush and fill themselves with honey, therefore rendering them less able to bend their bodies for stinging, but when no honey is in the hive, they cannot do so, and smoke as much as you will, it only makes them more savage, without lessening their stinging capabilities.

One great secret of wintering is the heat retaining character of the hive, especially of the top. Stout sides are an essential, but the top very much more so. In cold climates chaff cushions several inches thick are commonly placed over the cluster. In most parts of Australia good oil cloth with an addition of newspapers, answers the purpose. A thick wooden cover over all.

Some three years ago we advocated the flat top covers of hives should be wider than the body of the hive, otherwise they shrank, and did not afford the weather protection needed. We saw when in Sydney covers made in accordance with that suggestion.

Be careful to well contract entrances against the cold weather.

In case honey should not be available for feeding, sugar in similar quantities will answer same purpose.

Out door feeding has been recommended by some, placing syrup in an open vessel, with a float, or some material, say bagging, on which the bees could suck the syrup up. It was said that bees worked on it with a vim, taking it for a honey flow. We have come to the conclusion it is not the best way. You may be feeding your neighbour's bees as well as your own. The strongest colonies will get more than their share. It may start robbing.

This is a good time to plant broad beans; they flower very early in the spring and the bees regularly revel on them.

A good candy for feeding bees can be made by using a pint of water with one pound of honey to eight pounds of sugar. Stir well over a clear fire till all is melted. then allow it to simmer with occasional stirring, until a drop or two placed on a cold plate will set hard, and not stick to the plate.

Frames, not on hives, should be carefully looked over, and if signs of moths are in them, they should be fumigated with burning sulphur.

PUBLICATIONS RECEIVED.

The February number, *Journal of the Department of Agriculture*, Western Australia. Full of information and well illustrated.

Boy's Companion for March. A very interesting and instructive publication for boys.

Hyde's Annual Circular and Price List of Bees and Queens, together with best and improved methods of Queen-rearing, introduction of Queens, and Production of Honey, by O. P. Hyde & Son, Hutton, Williamson Co., Texas, U.S.A.

Appeal to Reason, several copies. A socialistic journal published in Girard, Kansas, U.S.A.

Catalogue of Beekeepers' Supplies from the A. I. Root Co. Also the W. T. Falconer Manufacturing Co. Both very complete.

We acknowledge receipt of a number of *Commerce*, an illustrated weekly journal published in London. A good portion of it is taken up with illustrations of the firm of Huntley and Palmer, Ltd., of Biscuit Manufacturers, of Redding, England. There is also some good general reading.

Queensland Country Life, an illustrated journal, published in Brisbane, with which is incorporated the *Australian Tropiculturist and Stock-breeder*, and the *Queensland Manufacturer*.

HUNTER RIVER B. K. A.

A convention of above was held at Masonic Hall, West Maitland, on April 26 and 27.

Mr. J. W Pender, president, opened the proceedings, after which the chair was occupied by Mr. Garnham, vice-president. In the absence of several persons, whose names were on the programme to read papers, the experiences of those present were asked for the past season. In every instance it was bad, the honey season had been worse than for some years. Mr. Gale read a paper on "Wintering of Bees." He referred to the fact that nature had instructed other animals besides bees to guard against the scarcity of winter, and to provide means whereby they could fight against want and defy the cold. The essentials necessary for wintering bees successfully were a sufficiency of food, perfectly dry quarters, a sufficiently high temperature to be obtained by density of clustering, fresh air, and good ventilation. He strongly warned them against a practice that was far too prevalent of removing honey from the brood chamber during the winter months, and advised them to cluster the bees so that a temperature of 65 degrees would be maintained in the hive. All empty or unused combs should be removed, as they absorb heat, and it would be so much taken from the inmates. In conclusion he warned them not to be avaricious, and rob their bees of the last ounce of honey and then expect them to pull through the winter.

On second day Mr. Munday read a paper on "Care of Honey," He said that there were very few products which required less care for its preservation than honey. He could assure them that he had lost very little of his produce by deterioration. Even after the 1893 flood he found the honey which had been submerged had not deteriorated to any great extent. What caused deterioration was exposure to the atmosphere and moisture. Care should be taken to store the honey in chambers free from moisture. It was in his opinion a mistake not to remove the comb regularly, as it was apt to deteriorate by lying in the hive. In removing and handling honey care should be taken to have the receptacles clean and dry and the water used in liquifying the product should not be too hot, as in that case it would probably be injurious to the flavour. In reply to a question, Mr. Munday explained that the discolouration on tins after three or four months, was in his opinion due to the action of the acid in the honey acting on the metal of the receptacle. Discussion followed.

Mr. Gale gave an address on the "Export of Honey" detailing steps taken by the Export Board during the past 12 months.

Mr. R. J. Turton read a paper on "Rendering of Wax." He had experimented to a considerable extent in wax-production, and had found that under no circumstances could more than one pound of wax be got from six pounds of honey. He proceeded to feed back to colonies the honey extracted to be turned into wax by rebuilding the combs cut out. This was done under various conditions, but the most favourable result he could obtain was 1lb of wax from 20lbs of

honey, fed and re-fed over again. He came to the conclusion that beekeepers did not get all the wax. He found that the wax was covered up or squeezed between the cocoons of numerous generations of larvæ in the comb. He advised melting the comb in the solar extractor, or boiling it in a bag. In this way they could not get all the wax until they applied pressure. His practice was to put it through a press, and in this way he now got just as much wax from the oldest black combs as from any others.

Mr. Munday said he had tried many ways to deal with the wax and had got excellent results from using a solar extractor. Another way was to place the comb in a bag and boil it, but the trouble in that way was that there was difficulty in getting all the wax out of the bag. Another way of rendering wax was to boil the material in a boiler and strain it through a wire sieve. The secret of success in using artificial heat as distinct from solar heat for this purpose was to see that the heat was not moist but of a dry nature.

In the evening Mr. F. B. Guthrie, of the Department of Agriculture, Sydney, gave an address on the value of honey as food, similar to that given at the Sydney Conference, and reported in our last. He concluded by referring to the introduction of the honey bee to this colony by Captain Wallace, of the ship Isabella, in 1822, who brought a colony of German or black bees from England to Sydney, and to the subsequent importation of the Ligurian or Italian bee, the cultivation of which had been such a pronounced success here.

Mr. G. R. Harrison gave a paper on "Manipulation." When he started his apiary some eight or nine years ago he used the Simplicity hive with telescopic attachments. As beekeepers, they would know that there was a considerable amount of labour connected with attending to upward of 80 colonies by that system. What he required was a hive that would give him more command over the working of the bees. Three or four years ago a little work on apiculture by Mr. Jas. Heddon, came into his hands and he found in it a description of a hive which it appeared to him, answered his requirements. It had invertible frames and could be arranged so that the bees could work from either the top or bottom bars without disturbing them to any great extent. He produced a Heddon hive, and gave a very interesting demonstration of the ease and facility with which the system could be worked.

The question box followed, including "What would you do in the case of severe stinging?" Among the replies were:—A stiff glass of whisky, carbonate of ammonia, hot bath in which carbonate of soda has been placed or puff of smoke from the smoker. "What is the best substance for causing labels to adhere?" Flour paste and a little honey, starch. "How to detach labels?" Hot water. "Removing bees from super without injuring them?" Carbolic cloth.

"How far can bees profitably travel in search of honey?" One said four miles another 1½ to 2 miles.

Arrangement of hives. One member said it did not matter how. It was simply a matter of the beekeeper's convenience.

We utilised the columns of the *Maitland Mercury* for our report.

WILLIAMS RIVER SHOW.

The following were the apicultural prize winners at the above Show:—

Most attractive display of comb honey, Jos. Fitzgerald; beeswax, P. S. Leonard 1, W. Moore 2. Italian Queen and bees, Jos. Fitzgerald 1, W. Potter 2. Best colony of bees, Jos Fitzgerald. Best beehive, suitable to district, Joseph Fitzgerald 1, W. Potter 2. Six bottles honey, Jos Fitzgerald 1, P. S. Leonard 2.

VICTORIA.

The National Beekeepers' Committee of Victoria is apparently defunct. It commenced on wrong lines, and now ceases to exist, being publicly denounced by its originators. Silk-worms, scent, and bees have such very different interests, that a combination was never considered likely to succeed. The disruption is now apparently compl te, and the "Silk Culture and Rural Industries Association" is to lose its section entitled, "The National Beekeepers' Committee." If a new society is formed on the Queen's Birthday it should be called "The Australian National Beekeepers." It is to be hoped that a new society will severely leave alone foul brood legislation, and devote its energies to creating an outside market for honey, as well as improving the means for home supply. Sellers of honey do not sufficiently advertise themselves, and the public do not know where to buy a good honey. The newly-formed association should remedy this state of affairs. If beekeepers supply the association with a statement of the amount of honey they are prepared to sell through its agency, they would alter the association from a debating society to a business concern, profitable alike to consumer and producer. Organisation will be necessary to accomplish this; but hearty co-operation will keep down expenses, and the payments made will be for value received, and not for dialectic fireworks. Amateur beekeepers are quite sufficiently catered for in the various bee journals, and they can also join at a nominal fee the "Silkworm" Society and there obtain information and advice. Let the new society be formed on lines to assist the professional beekeeper, who knows his business, to sell his produce at a price profitable to himself and enticing to the public. This should be the aim of the new society, and if persevered in it will succeed. The idea of reading papers on foul-brood and kindred interesting subjects can be postponed until the society is strong enough to have an annual picnic of its members. We have waited a long time for the formation of a co-operative society on these lines, and Victorian beekeepers have neither the time nor the inclination to support any other kind. It remains to be seen whether the promoters will form an active commercial body, of use as a means for disposing of the various products of the apiary, or whether the attempt will again fall, through its being limited to debating the manners of bees and their peculiarities, already well enough known to its body of members. The new society will receive either hearty support or blank indifference, according to its prospectus, and I hope that it will become a strong institution. Formed as it will be of working beekeepers its prospects are bright, and I wish it every success.—*Australasian.*

VICTORIAN NOTES.

R BEUHNE.

I have just finished wintering down, and the result of the slaughter of returning workers is now plainly visible. There are a great many vacant allotments in the apiary, but nearly all in the centre. The outside rows if they have not actually gained in bees, have at least lost none or only few. There was doubling up of bees while the slaughter was on, and in consequence there has been much doubling up lately. I have half a mind to scatter my colonies for next season, so that they are only within coo-ee of one another, and then when extracting begins follow the flow round on an automatic wheelbarrow or lorry, it does not do to stand still says "up-to-date," and I am going to keep the extractor going right through the season, by means of a windmill. Generally speaking hives are not populous except in cock-roaches, this is something to be thankful for as the bees will not feel quite so lonely.

That Eucalyptus Aroma.—Mr. Helms in a previous issue, pointed out that Eucalypts had been extensively planted in California, and says it is strange that we have heard nothing of Algeria and California yet. But we have, and without going over old files of *American Bee Journals*. In the last issue of *Gleanings* to hand, March 15th, page 211, J. H. Martin, better known to readers of *Gleanings* as the Rambler, and perhaps one of the most travelled and best informed apiarists, says in speaking of horehound: "The honey is quite dark, and flavour strong. In some instances it gives a strong flavour and a taint to the lighter grades of honey, and on this account some of our beekeepers are inclined to banish it. Horehound honey is however not so disagreeably strong as eucalyptus honey." I am well aware that this refers perhaps exclusively to blue gum, which I understand is the variety principally planted in the countries mentioned and the honey from which has the twang perhaps more strongly developed. For this reason, the following report which I take from the *Leader* of April 28th will be more appropriate:—

The following report upon Australian honey by one of the partners of a large firm of manufacturing chemists in London was received in Sydney last week. It was originally sent to the London agent of Mr. Thos. Rhodes, of Sydney, and the former writes:—"The prices ruling at present are exceptionally high. Against this report I have received advices from private families to whom their friends out here had, through me, last Christmas, forwarded 7lb tins of box tree honey, and they, without exception, write and state that the honey is very fine, and a grocer to whom I sent 24 7lb tins of box honey sold some of them at 1/- per lb over the counter. Personally, I believe the only way to introduce Australian honey would be to open an Australian store in London, and sell it over the counter, educating, if there is any need, the public to the taste. You will notice that the firm will only buy by public auction through a broker; the broker seems to rule everything in London." The report is as follows:—

Blue Mountain Honey.—This honey is elegant in appearance, and it has "set" exceedingly well. It has, however, the characteristic flavour which is so objectionable to English palates, and at the present time would not sell on the London market beyond 25/- per cwt. discount 2½ per cent., brokerage 1 per cent., and such honey this time last year would not have fetched so much as this by about 7/6 per cwt.

Second Grade.—Strong flavour—sample in tin—Richmond River Honey. This has crystallised very badly, and the sample seems in a state of fermentation, and has the objectionable flavor so common with Australian honey. At present time this would not fetch more than about 21/- or 22/- at public auction.

Richmond River Honey—sample in glass bottle.—This is in very excellent condition, and I would report upon it as upon sample referred to under the head of Blue Mountain honey.

New South Wales Box Tree Honey.—This has not crystallised, but seems to be in very excellent condition. This, too, has somewhat the characteristic flavour of the three foregoing honeys, but it has something in addition which makes it more pleasant. I believe at the present time this honey would fetch 26/- or 27/- per cwt., but this price is a very abnormal one. I could not, acting on behalf of my company, buy any honey in any other form than at public auction, and if your friend wants to get best value for his honey, he cannot do better than put it in the hands of some reliable broker, say ———

The first sample was taken from honey sent me from Springwood by Mr. George Stratton. The second was taken from a case of honey from lower reaches of Richmond River, was dark, and is known in the trade here as ti-tree honey. The third sample, Richmond River honey, came from Mr. Hewitt's bee farm, Lismore. The box Tree honey came from the Wattle Flat district, and as I had Nancarrow's, Irving's and Taylor's (of Cowra) honey on hand, I am not certain whose I sent, but there was little difference, if any, between them; they are all typical of the best honey I stock.

Length of Life of Workers.—According to *L'Apiculture*, M. Dufour of the Botanical Laboratory at Fontainebleau (France) made the following experiment. A colony of bees was on April 19th put into the condition of a swarm by removing the brood combs and substituting frames with foundation. In 21 days, and before a bee had hatched, the brood was again removed, and so on till the middle of July, when the queen was removed. Comb building ceased by the end of June. On September 2nd, only a handful of bees were left, and on September 7th only a few dead ones were found. Some of the bees had, therefore, under these unusual conditions, lived 4⅓ months.

BEEKEEPING IN 1872.

Kindly contributed by Mr. G. Colbourne, Cave Creek.

Mr. Carroll, the chief authority on bee culture and management in Queensland, delivered an address on this subject a week or two ago, to the members of the East Moreton Agricultural and Horticultural Society, Brisbane. Mr. Carroll commenced by pointing out the very great advantages of his system of hives, with moveable frames, by which the comfort of the bees were ensured, the produce was increased, and the keeper could, with very little trouble and expense, keep an almost unlimited number of hives. He illustrated his statements by means of hives and other beekeeping apparatus, brought to the meeting for that purpose, and related some interesting facts connected with the management of bees. With regard to the profitableness of beekeeping, if properly managed, he stated that he had never sold honey under 9d per lb, and where he had sold one pound, he could have sold a thousand if he had it. He also knew persons in the district who had sold large quantities at 5d per lb, and the demand unlimited. Some people in Queensland had a prejudice against honey on the ground that it was adulterated, but he would ask if there was any one present who could tell him how it could be adulterated? The only way he knew was to add water to it, and if this was done it would soon give forth a most disagreeable smell unless it were kept air-tight. Candied honey was not by any means the worst. It would candy in cold weather, but by putting a vessel in hot water, and heating the honey to a certain degree, it would dissolve and never candy again. By the next mail he expected to receive a honey extractor by which the honey could be thrown out of the comb, by being placed in a centrifugal, without destroying the comb, and by this means a great saving would be made. It costs bees about twenty of honey to make sufficient wax to operate on, and if the comb could be taken out of the hive and emptied, and replaced, of course they could at once proceed to refill it. And it was estimated that over forty pounds more honey would be obtained in this way, than if the wax were taken away and used. There was nothing in connection with farming more profitable than beekeeping, because there was no out-lay after the first expense, and if a season turned out badly there was no loss, while on the other hand, if it were good, the produce was all profit.

In discussion that ensued Mr. W. J. Taylor stated that he had kept bees in hives with movable frames, not on Mr Carroll's system, but on a system introduced by Mr. Isambert, of Ipswich, for several years, and has been tolerably successful, but within the last few days his bees had left him altogether? He had not been able to attend to them carefully for a few months, but shortly before they left he had endeavoured to improve their condition. He wishes to know if Mr. Carroll could explain the reason for the bees leaving? *He was aware that there was some foul brood in the hive.*

Mr. Carroll explained that he knew the sort of hives used by Mr. Taylor, and they were not good, because they were too large, and the proper amount of heat could not be kept in them. He was happy to say that he had never had foul brood in any of his hives.

In answer to other questions, he stated that the "foul brood" existed where the bees perished before they came to maturity. And there was what was called wet and dry foul brood, the latter being when they perished in the larvæ state, and the former when they perished a couple of days before being able to deliver themselves from the cells. The stench that arose from foul brood was frightful, and hives in which it existed should not be used for at least two years. Some authorities recommended that they should be burned. The primary cause of foul brood was not known,

An easterly aspect was the best for hives. A weak hive could be strengthened by taking two or three frames out of a strong one and placing them in the weak one. The best feed for bees in a bad season was liquid sweets, made from white sugar. He had no doubt that the majority of the bees lost recently had died from starvation. There was no remedy for this, except when the season was bad to feed them, and if a pound of honey was given to a colony they would not take a grain of it, if they did not require it. They would never take honey placed in their way if they could get it from blossoms. Bees generally travelled about two miles from their hives. The Italian species were the best. They were less inclined to sting, were more hardy, travelled farther, and there was never any difficulty in finding the queen. He had sent to New York for some of them. There were two or three kinds of birds which were enemies of bees, but he did not know their names.

Mr. Grimes stated that he had been informed that a bird like a sparrow was in the habit of perching close to the beehives, and occasionally pounce down to the entrance of the hive and carry off a bee. It might be interesting to beekeepers to know this.

Mr. Carroll said considering that the queen bee laid about 2000 eggs a day, it would take a very smart bird to materially injure a hive.

HONEY EXPORT.

M. RIDDEL.

Re. Australian honey in England. I have watched with keen interest the various results of shipping honey to London. Why always send it to London, to be almost invariably sold wholesale. The general public never hear of it. The class of people who would eventually become consumers of our honies as an article of food never see it It is not the wealthy, who have every luxury within their means, who would be large consumers of honey, but the tradesman and factory hands who have to buy whatever is reasonable in price. I am well aware honey will have to compete with jams and jellies which can be bought at about 3d per lb. The struggling Dr. or Clergyman with a large family would consider it a boon to be able to buy honey at say 4d per lb. when butter is at from 1/9 to 2/6 per lb. I am confident that if honey were known in the northern manufacturing cities of Scotland it would find a ready sale eventually. There is no doubt it would be an uphill pull for a time, but once it were known I am confident it would become a regular article of food. As it is now, the price of honey there precludes it as an article of food, and it is only bought as a medicine by the working classes at about 10d per lb. The suggestion I would make has been already made in your valuable paper—to send a man who thoroughly understands the retail trade of the old country, and who has a practical knowledge of Australian honies, so that it could be selected and graded and put up to suit purchasers. Only the mild-flavoured honey should be offered, as the flavour of our honey undoubtedly is peculiar to the foreign palate, but would soon be liked if often used. Some of our Australian honey is far superior to any honey obtainable there; even the much praised heather honey is not superior to some of our dense box honey. I have eaten heather honey pure from the moors, and am not talking at random. There are many ways the smart business man could avail himself of, to make the Australian honey known. Competition has made railway freights there most reasonable, so that would not be any difficulty in sending honey all over Great Britain.

NOTES.

BY LOYALSTONE.

BEE STINGS:—I note many cures for bee stings, the best I have come across is a cut onion well rubbed in. It will prevent any swelling, and relieve the pain immediately. It is no trouble to carry an onion when among the bees. I had a horse badly stung by bees along the neck by the wind pipe, I took no notice of him for three or four minutes, and then, noticed him apparently gasping for breath, I took a large onion, cut it in half and well rubbed it along where he was stung. In less than than a minute, he was as right as ever. I always use the same remedy on any visitors (who putting on too bold a front, get stung) and effect is magical.

RECORD OF HIVES.— I saw an idea of recording hives, in *The A. Beekeeper* which appears to me, to be too elaborate. I think my own way more practical. I have my hives numbered one upwards. Take one of my out apiaries for instance. I have 48 colonies, in this lot numbered one to 48, 15 in each row, three rows and three over. On my first visit, (I have all hives painted a light pink,) I look over colony, weak colonies, I mark W on the lid, fairly strong colonies I mark M, for m dium strong colonies I mark S, for my best breeding queens I mark B. 1, B. 2 and so on, B. 1 being the best of the lot. Queenless colonies I mark N. Q. Colonies rearing queen cells I mark Q. C. I also use the lid of No 1 hive for dating any visits, also put down on it how many hives strong, how many weak, and so on. I also at the end of my day's work write down in note book any particulars, and copy into book I keep at home, wherein I have one full page of an ordinary exercise book to each colony. This work I do at night. At extracting time I carry a pencil slung, and dot down on lid of each hive how many frames of honey I take out to extract. I give you an extract from one hive, picked at random from my book for this season. Mind you, I only put date of extracting on No. 1 hive, as it is the first hive I cast my eyes on when visiting. Well, here goes. From lid of No 5 hive I extracted 7, 10, 4, 6, 13, 7. In all I extracted 47 frames of honey from this hive—a good record for this season. I now turn to lid of No 1 hive, to find dates of each extracting, which were as follows: 2/11/99, 19/11/99, 1/12/99, 23/12/99, 15/1/1900, 11/2/1900. After wintering up I put a coat of paint over my pencil marks, ready to start next season. You may think this writing takes up space. Well, all the space taken up on No 1 hive for this season measures 18 inches x 4 inches in this out-apiary of 48 hives. Every season you have to make a fresh start with recorder. As what proves a good colony this season may turn out no good next, and you have to supersede your queen. I could go on writing my new style of recording everything connected with colonies, till further orders, only I am afraid of occupying too much of your valuable space, so will pass on to the next.

PARALYSIS.—Who has found a good remedy for this disease? I have cases of it nearly every season. I find the best plan is to take away all diseased combs, and give them all fresh combs, and the disease disappears. A well known beekeeper in the Cowra district told me this remedy. I also think it wise to sprinkle carbolic disinfectant powder and sulphur over the dead bees that lie in front of the hives, as bees dying in numbers, in front of hives cannot be healthy, for the live members of the colony affected. I find ants good scavengers, carrying away all dead bees, also any chilled brood, or unmated drones thrown out by the bees, thus clearing away any smell from the dead bees and larvæ that may be unpleasant to bees occuping hives close by.

PLACING APIARIES ON CROWN LANDS.—An idea is being mooted in Victoria of trying to have a clause inserted in their land bill to allow beekeepers to place apiaries on timber reserves, etc, at a small charge. A similar clause inserted in our own land bill, would do no harm,

at the same time, I think it would meet with strong opposition from lease holder who would thus lose their only hope of ringbarking vetoed on leased land and prevent them from getting a higher revenue. The government will wake up some time and prevent their timber from being destroyed, as it is at the present time. A plan that works just as well, is to lease ¼ of an acre of land from some settler, alongside these forest reserves, to place an out apiary on. This does not cost so much as renting a piece from government, having to pay survey fees, then go through a lot of red tapersm, and pay nearly three times as much as vou pay the settler. By having your out apiary on settlers land, it is more secure, for if the owner is a decent fellow he will see no one interferes with your bees while you are away, whereas if you place them on crown lands you have to pay a man to keep an eye on them, or else let them take their chance. With me the placing of out apiaries on settlers land acts A. 1.

Candied Honey.—There is a great sale in N. S. W. for well-got-up candied honey. As a rule people prefer it to the liquid. I have read where honey once candies firm it will remain so. Now I keep samples of my honey, obtained every year, and in one instance only is firmly candied honey returned to nearly liquid, in which state it remains at the present time. This is a sample of 1897 honey, was candied hard in 1898 and 1899 and within the last three months is returning to its liquid form, looking quite a stranger among other samples candied hard. Can you account for this.

Brood in Long Idea Hives.—With me I find in some colonies, the brood at the front; some, brood in the middle; and others, with brood at the back; at the same time—at all times of the season—I don't think it makes much difference either as they all appear to winter O. K., no matter where they have the brood. I fancy it is according how each beekeeper works the "long idea" hive. I work mine for all they are worth during honey flows. If I find all brood in front of hive when extracting, after extracting honey frames, I place brood at the back and fill front with extracted frames, if I find the brood at the back, I do vice versa. And when I come to extract the same hive again I generally find they have shifted their brood to the front again and filled frames that had brood in with honey, other hives doing the same thing, each colony after its own style. I suppose some colonies fancy they have better ideas of breeding than others, hence each has a different style.

Eucalyptus Taste in Honey.—It is absurd that the people in England refuse to buy our honey because of its eucalyptus taste. It is the people whose hands it passes through, who for some reason or other decline to push our honey in the market. Take a sample of our Yellow Box or White Box honey, and give it to any Englishman to taste. Can he truthfully say it has a eucalyptus flavour? I say no! the other way about. He will say it is a splendidly flavoured honey. And it will take an expert to taste this noxious flavour. I saw eucalyptus honey advertised for sale in a chemist's shop one time, so I thought I would have a look and taste it. It was put up in 2 oz. bottles, 6d each. Ye Gods, think of that. It was dark in colour. I asked the chemists what it was sold for; he said chest complaints, colds, sore throats, etc. I asked to be allowed to taste it? Bah, it had decidedly a eucalyptus flavour. I asked then, was this honey extracted straight from an apiary and bottled up? He said, Oh no! I buy the honey and put a certain amount of eucalyptus in it. Now honey being sold by chemists in this manner damages our cause. I have seen in English papers, advertisements of English chemists, praising the medicinial qualities of Australian eucalyptus honey, and I don't doubt, but am sure these are also a mixture of—no doubt—good honey, and eucalyptus extract. Until this idea of flavour is knocked out of the people's heads at home, it is no use trying to export honey there, as they won't look at it. If you had some N. S.

Wales honey in England, and had it marked New Zealand honey, it would be quickly bought up and nothing said about the flavour, unless it was some of our inferior honies, which are not fit to make jam with, let alone eat.

CLEARING AND RINGBARKING. — The avarice and greed of the main lot of farmers and settlers in N.S.W. is astonishing. They look ahead a few years, and say to themselves, "If I could only clear 500 or 600 acres of land and crop it, what a fine return I would have. Two or three good seasons, and I will be able to take things easy." The squatters or settlers hear his ideas, and form an idea of their own. They say to the farmer, "I have thousands of acres of good agricultural land. I will give you so much per acre to clear it. You can crop it with what you like. I find the seed, you take the crop off, and we both go halves. This tempts the greed of the farmer; he snaps the chance, takes say 1,000 acres, works like a nigger clearing the ground, the great idea of riches in his mind. When the ground is cleared, say he intends to put a wheat crop in, he finds to cultivate this amount of ground properly will take up too much time, so he rushes through it, only what you may call half ploughs the lot; then either sits on his haunches to watch the great crop grow, or work nigger-like to get another large area of the squatter's ground cleared. Now what is the result of this halves system over New South Wales? Why, it only benefits the squatter, who has all to gain and nothing to lose. If it is a wet season the weeds grow quicker than the wheat, and where the wheat does grow well it is rotted (laying down) before the weather will allow the stripper into it. If it is a dry season the weeds again outrun the wheat and the result is a poor crop, leaving the farmer as a rule nearly bankrupt. There have been a few lucky farmers on the halves system, but very few. Now if the same farmer who tackles the 1,000 acres was content with 50 or 100 acres, and cultivated it properly, good or bad season, in either case he would have a good profit, but no, it is the old idea of greed, like the man who started poultry farming. He reckoned up for a start with two hens and a rooster. He could in 12 months make a profit of 15s. per head, so tried it on a large scale, and in two years was completely ruined. You might ask what has this to do with bee-keeping. Well, it has a lot to do with it. Before this halves system came into vogue to fatten up the squatters we had any amount of beautiful country for bees, the very best, and when this game started it was "No! Woodman spare that tree," but rather the squatter said to the ring-barker, "Now, men, wire in. Don't spare any tree, straight or crooked." And so the country has been cleaned, as it were, out of face. The N.S.W. Government also took the greedy fever—wanted plenty revenue, and sold stretches of country of leased land, done away with a lot of stock reserves, forest reserves, etc., and once the squatters got their greedy claws on it, it was woe to the timber. It was sacrificed like all the rest. The squatter thinks the same as the farmer, "In a few years time I will be able to retire, and I won't want the timber; what do I care if those that come after me feel the want of it." But the Government is already beginning to feel the want of timber. Note how short they are of reserves of iron-bark country. I have not a particle of sympathy for the farmer, squatter, or Government, on whom this evil falls. The farmer as a rule goes bankrupt. The squatter does nearly ditto, for the cleaning of country alters the climate, makes more droughts, grass springs quicker, but when the burning sun shines on it, it lasts no time,

PHASES OF THE MOON.

JUNE.

First Quarter, 5th, 4.59 p.m.
Full Moon, 13th, 1.39 p.m.
Last Quarter, 20th, 10.57 a.m.
New Moon, 27th, 11.27 a.m.

is soon scorched up unless it has a shower of rain every week to keep it fresh, which is not likely. The atmosphere not being filtered naturally by the leaves of the forest trees soon becomes poisonous, and sickness becomes virulent all over the colony. The Government has to pay the piper, by retrenching, to make the revenue equal the expenditure. However, I think I have gone far enough, so will say, Adieu, till I write again.

WHY DO BEES NOT ATTACK FRUIT?

R. HELMS.

The question that bees do not damage fruit I think has been settled long ago. If not to the satisfaction of everyone who may meet these insects feeding at the margin of split grapes or bruised pears, the false conclusions derived from their behaviour, must be attributed to the incapacity or the rashness of the observer. There is no gainsaying it that bees never damage even the ripest fruits, and to repeat this circumstance to beekeepers is as unnecessary as to tell them that drones don't sting. The fruit-grower who labours under a false impression that bees, instead of doing him a great service by helping to fertilise the flowers of his trees, devour his ripe fruit, or at least make it unsightly, may deserve to be convinced otherwise, as long as his sagacity will allow of argument, and if not it will not much matter, for it can scarcely be expected that he will succeed as a fruit grower when he cannot or stubbornly refuses to learn.

Is it, however, necessary, in order to convince the few people who may still labour under the fallacious opinions, to subject the bees to such torments of hunger and thirst as described by Mr. G. W. McLean, and copied in the A.B.B. on page 257? I think not, when the same result might have been obtained from observations in the field. And with all the apparently careful and laborious tests, Mr. McLean arrives at a faulty conclusion. He says: "Bees are not only unable to penetrate the epidermis of the grape, but they also appear to be unable, even when impelled by the direst necessity, to penetrate the film surrounding the berry after the epidermis is removed" Tyros in beekeeping, who are starting with one or two hives, which they fear to handle even when armed with veil, gloves and smoker, and rely on what they read, providing this does not confuse them, may believe such assertions, but a practical beekeeper will not, for he knows too well what a bee can do with her mandibles. Bees, it is a well established fact, can gnaw through much more solid substances than the skin of fruits, and particularly that of grapes.

What, then, is the reason why they do not attack fruit? The answer, to my mind, is simple enough. Bees are by nature directed to feed upon sugar, which in fruits is contained only to a limited extent, and besides in these is combined with acids to an extent that makes the juices unpalatable to them. Ripe grapes, for instance, only exceptionally contain more than 13 per cent. of sugar, pears 7 per cent., and apples 6½ per cent., and often considerably less. On the other hand, the natural secretions of flowers contain rarely less than 40 per cent. of sugar, but frequently more, and are free from acids. Were grapes, instead of being constituted as they are, bladders containing syrup, bees would soon find means to extract the contents, even if the skin were twice as tough as is the case with the firmest varieties. If Mr. McLean thinks it a proof that the bees could not chaw his skinned grapes because these remained untouched, and dried up before the hive, he seems to have entirely omitted to take into consideration what the pulp consisted of, and that this was not proper feed for them. The fleshy part of the grape contains about 80 per cent. of water, held in a network of cellulose, making 2 per cent. of the bulk, and is mixed with over 3 per cent. of pectose

and gum. None of these substances, except a little water, are of any use to the bee. When a berry is wounded or split a portion of its juice oozes out, the water of this quickly evaporates, and round the margin of the wound concentrates, or, may be, secretes the sugar. This, and nothing but this part of the fruit, bees have any use for. The particles so obtained are very small, but that is no objection to the bee, who takes sugar wherever he finds such, and in the quantities available.

The Hon. G. E. Hilton (A.B.B., p 260) took the same erroneous melody of bees being unable to damage fruit for the want of a physical structure which would allow them to do so. He asserts that scientific entomologists say so. It is plain that, without looking into the subject for himself, he is merely echoing what others have said before him, but has the impertinence to run in entomologists with the multitude of superficial babblers.

The Honey Bee, Viewed as one of the Interpreters of Nature.

Paper Read at the Sydney Convention by C. B. Hughes.

Nature, in the sense in which I shall use the term, has a host of interpreters, but comparatively few of them that have arrested human attention as fully, and presented a variety of facts as intelligently as this has been done by the honey bee.

Conspicuous in history, ancient and modern, sacred and profane, combining, as she does, science and art, and a high order of domestic arrangements, attracting by her delicious stores, and repelling with her sting, the honey bee has ever been an interesting study to thoughtful and inquiring people. But, much as she has taught, and deep as has been the interest awakened, it can be safely assumed that, to a great multitude, the ordinary work of the hive is as dark and as mysterious as an eclipsed moon to a savage, while even to the anxious and ardent bee student there are secrets of the hive, and secrets of the field, which he would fain explore —secrets whose existence is assured by facts which are already known, and other secrets whose existence will be equally well assured when the hidden truths of to-day become the known truths of to-morrow.

1. In the one great business of its life, the function which, more than any other, has attracted the attention of ordinary observers, excited their admiration, and appealed to their home providing and commercial instincts, the honey bee has made a revelation to man, and has interpreted at least one sphere of nature's operations which man's unaided sense of taste, keen and quick-acting as it is, might have left, up to the present, and for an undefined future, as undiscovered as the North Pole. I refer to the rich and abundant stores of nectar, suitable for human food, nutritious and medicinal in quality, which nature has provided in the flowers of the forest, the garden, and the field. The sense of sight in man made the immediate discovery that these flowers were radiant with beauty in every variety of shade and colour; the sense of smell as quickly detected the sweet odours which lurked in majestic rose and retiring mignionette; but tested by the organ of taste, the nectar of the flower failed to assert itself, and, but for the skill and storing tendency of the honey bee, the box of the forest, the orange of the grove, and the clover of the field, would have produced their thousands and tens of thousands of tons of honey in vain. And, it is probable, judging from analogy, that had the bee, one of the chief honey collectors, fallen out of existence, the honey producing organs of flowers, like other non-used but intended factors in nature, would perish as the result of disuse. No interpreter was needed to convey to man the beauty and the odour of flowers, but one was needed to watch and wait till the tiny speck of sweet oozed forth to be carefully collected and as carefully stored, little by little, until, in hundredweights and tons, it enters into the food supply of the world.

Some thinkers and writers have hazarded the opinion that in the early days of human history man was divinely instructed to prepare the cereals for food. They contend that the unpalatable looking grains of wheat, oats, or barley would never have suggested the thought that they were intended to supply the bulk of the world's food. Whether that was so or not we may not be able to determine, but we may venture the assertion that, had the sweets of flowers been used by birds, and butterflies, and ants, and their kind only, the vast stores of sweets produced in forest and field would not have been available to man. No additional revelation was needed, "the little busy bee" entered upon her work, and gave a splendid revelation, which has been accepted, approved of, and acted upon by thoughtful man.

2. In the sanitary arrangements of the hive the bee is also an interpreter of nature, and affords an example to householders and aldermen which they can follow with advantage. In the rapid increase of the hive, and in the high death rate which prevails, it is reasonable to assume that many abortions have to be taken from the cells, and many worn-out bees, dead and dying,

have to be removed, in order to preserve the cleanliness and purity of the hive; and all observation goes to show that, whenever a colony is in a good or even fair condition this work is regularly and effectively done. Again and again have beekeepers noticed a plucky hive-cleaner putting forth all her strength in order to remove the dead to a respectable distance from the hive. Again and again have they seen her struggling to gain some little elevation from which she could take her flight with her burden, and again and again have they witnessed the little worker risking her life amid fierce-looking ants and other dangers in order to remove to a distant spot the dead.

I think it is more than probable that some of the worst forms of disease from which both bush and hive bees suffer, have their origin in certain conditions of the hive or nest, which have resulted from the inability of the colony to maintain the necessary cleanliness of the home. In these anxious days, when the stories concerning city filth rival the description of the Augean stables of mythology, and when it seems to be the accepted theory that this filth has had to do with the development and spread of disease, one has a feeling of regret that some health-desiring poet had not, long ago, followed the example of Dr. Watts, and published some such lines as these:—

How doth the little busy bee
Improve her evening hours?
Make hive, with brush and minstrelsy,
Bright as the hue of flowers.

How skilfully she sweeps the roof,
Puts polish on the floor,
Gives young idlers stern reproof;
The filthy something more.

In works that tend to cleanliness
Let men be busy too;
In cleanliness and godliness
We've all enough to do.

How it was the colony, which furnished Samson with honey on his wedding trip, selected the carcase of a lion for their nest, we may not easily conjecture, but where bees are as numerous as they appear to have been in Syria, and suitable nests hard to find, and a good honey flow on, it is just possible the scouts, like some in the African campaign, were not as wise as they should have been, and led the colony somewhat hurriedly into a convenient, if somewhat uncongenial nest. And where the bees were largely in the habit of building in clefts of the rocks, and near the ground, the polished ribs of the lion, well cleaned by scavenger birds and insects, might not have proved so bad a hive after all, and in appearance would possibly somewhat resemble the rocky nest whence the old queen and her retinue had come. It is interesting to note, in this connexion, that Samson, who was probably unfurnished with bee veil or smoker, with characteristic courage deliberately appropriated some of the contents of the curious hive, and went on his way, enjoying his repast and preparing his riddle.

As a further illustration as to the selection of the hive, because resembling the bone-like appearance of the rocks, I may refer to a paragraph in Lord Roberts' interesting book, "41 Years in India," in which he describes a visit to the marble rocks of Bundar Coode in the Nerbudda. In these rocks are numerous colonies of bees, and the writer states that on the bank there are the graves of two gentlemen (surveyors), who, while examining the spot, the river being very narrow, with a view to a bridge being thrown across, were attacked by the disturbed insects, and, to save themselves from being stung to death, they leaped into the water and were drowned. Phillip Henry Gosse, F.R.S., refers to the same occurrence, and speaks of the death of one of the surveyors, as the result of the attack.

In the choice of a suitable spot in which to carry on her hive operations, the honey bee is an example which many a man, who has failed, might have imitated with great advantage to himself and those depending on him. In my search for bush bees among the gullies which run down from the table land to the waters of the Hawkesbury and McDonald Rivers I noticed that the nests were generally located at the upper portions of the gullies, sufficiently high to escape the frosts, and low enough to be sheltered from the westerly winds. That the nests were generally high up in the trunk of the tree, or in the large limbs, is not to be wondered at seeing that access to the lower cavities was not always obtainable, but, in cases where an entrance was possible it appeared to be but seldom made use of; and, in many cases, when falling for English bees, we found a native bees nest in the same tree. It was also noticeable that water was fairly convenient to the nest.

In travelling through the country one is often struck with the apparent want of wisdom shown in the selection of their home and industry by many people. A nice picturesque spot for a house is all very well if all other requisites are in possession; but a nice spot for a house, and a nice view of lake and trees, with an area of sandy and gravelly soil to cultivate for a crop, don't give much promise of success, if the owner expects to support himself and family therefrom. And even when the land is fair or good, a few mistakes in management make all the difference that exists between utter failure and moderate success. Better for the man who intends to swarm out with his little flock, to travel a little further and wait a little longer, in order to secure a spot that will yield him fair return for his money and labour, than hastily, to be enchanted by some glowing advertisement and locate himself on some barren and unfruitful

soil, there to lose his little all, reduce his family to starvation, and die, as some have done, and possibly others are doing, disappointed and heart-broken.

If the honey-bee fails to secure the desired store, she fails through circumstances over which she has had no control, as many a wise man has done, and not for want of a wise instinct and a constant and diligent use of it.

In the function allotted to her in Nature as one of the chief fertilisers in tree and plant life, the honey-bee has come into prominence, and although in this department she receives assistance from wasps, moths, butterflies, etc., she takes premier place, and is more often mentioned in that connexion than all the rest. In the wonderful variety which nature exhibits, and in the interdependence which is manifested between her different orders, insect agency is necessary to the propagation of plant life. While in some plants stamen and pistils are found in the same flower, and ripen at the same time; in others the stamen is produced in one plant, and the pistil in another plant, which may grow near to or remote from the first named. In other plants the stamen and pistil may grow together but ripen at different times, and therefore need some outside help in order to fertilization.

It is here that the honey-bee interprets one of nature's mysteries and supplies the want caused by this eccentric organization.

In her search after the concealed sweets the bee comes in contact with the pollen dust which hangs about her like flour in a miller's beard, and which when she flies to another flower is rubbed off in contact with the ripe pistils therein, and fertilization is secured.

So also in passing from the ripe stamen of one flower to the ripe pistil of another of the same kind, the same object is attained.

That fertilization is thus produced has been illustrated by experiment. Darwin, Lubbock and others have given much attention to this subject. It has been ascertained, for instance, that 20 heads of Dutch clover open to bees produced 2290 seeds, and 100 heads of red clover produced 2700 seeds, while the same of each carefully protected from insect visits produced no seed at all.

The necessity of the bee to the production of clover seed caused some agitation in New Zealand some years ago, and various suggestions were made to the Government to meet the case.

UNDER THE APPLE TREES.

ELIZABETH GRINNELL, IN *C.B.J.*

(*Continued.*)

LITTLE MISS APIS.

She is pale yellow in color, if she be of Italian stock, but she is a perfect bee. She is wet, and her wings are in folds, like the wings of a new born butterfly. She hastens to dry herself and to adjust her dress. There are too many helpless maggot babies in the nursery to spare a nurse for Miss Apis. She must wait upon herself and begin her busy life in real earnest. She stretches her wings and her limbs to make herself as full grown as possible, and they expand in drying, seeming to increase in size. All about her hundreds of nurse bees are fanning the air with their wings, and this helps in the drying. The hard work of putting herself in order makes her hungry, and she helps herself to honey from an uncovered jar, left in her way on purpose. The honey makes her strong. "Eat as much as you like," say the nurse bees, "and then come and help us at the nursing."

And this last is the first duty of little Miss Apis. She is not quite accustomed to herself, nor is she wise enough to go out into the honey world. She must remain for a time in the home and make herself useful in the nursery, just as little sisters take care of their baby brothers and sisters in the human world. She goes to the bread boxes, and brings food and puts it in the large mouths of the little infant maggots, just as she herself was fed but a short time ago. As she works she learns, and the pale color of her body takes on the deeper brown of the mature bee, the brown with the golden bands. She belongs to a royal household and wears its insigma of dress. She gradually loses her childish look, and longs to do so what she sees the other workers doing. She smells the breath of flowers, when she follows the old bees to the door, and sees them bring back the nectar and the pollen. She spreads her wings and tests them on the threshold. Then she flies.

A BUSY WORKER.

Every morning she goes out to her labors. She hums at her work or on the wing as if life were a delight to her. She clings with her dainty feet to the cups of the flowers and sips the nectar from their pockets. She carries always with her a long-hand led dipper, which we call her proboscis, that she may reach into the heart of sweetness. She tells many a human wanderer by the way which of the plants he may touch. She puts the nectar in her pouch or honey-bag and takes it home with her. Sometimes her load is heavy and she falls by the way. But she is up and flying again.

Arrived in the house, she seeks an empty cell and deposits her harvest. When she has filled the entire cell or jar by many excursions to the honey fields, she does not close it over, or put the cover on the jar of preserves until the nectar has " ripened," or turned to a nutritious thickness.

Sometimes, if one watches at the bee house door, one will see her come home with balls of yellow or white or red pollen on her thighs, upon which are baskets for that very purpose. She has dived into the deeper flowers and covered all over with the powder with which the blossoms are wont to dust themselves in making their toilet. It adheres to the fringed hairs which thickly cover her like down ; and she is very careful of the precious stuff, for well she knows it is needed for baby food. She packs every particle into her baskets. Once in the nursery, other bees help her to pull it out of the baskets and knead it into paste, and put it into the wax pots, just as any woman kneads her bread and puts it in the pans

At another time she brings home a sort of glue called propolis, which she collects to seal the cracks of the hive and to cover all over the under side of the roof to keep the house warm and dry. This glue is resinous and dark of color, and is not used for food. Many a time in a storm I have gently tested the cover of the hive to be sure that the roof cannot blow off. The bees have anticipated the weather and glued it to the walls.

One can see this woman bee inserting her dipper into the torn rents of such fruit as the kind birds have made an opening in. She could not possibly make an aperature for herself, for her proboscis is delicate and unsuited to boring. Foolish persons who meet in the field or on the road she is traversing run away from her and scream that she will ' sting.' They do not know that the honey bee never stings away from home unless she is pinched. She will let you smell of the flower from which she is gathering sweets, and sing you a hymm while you admire her. She stings only in defence of home and family, and stores which she has gathered with so much labor.

If a thunder cloud appears at midday she starts immediately for home. If she be overtaken she may seek shelter in a flower, where she is welcome to remain over night. She knows her own house from every other, though many of the same size and color be on one street under the apple trees. If she is not in her house by sunset, or immediately after, there is a chance that she has been stolen by some winged enemy or trodden upon by a careless foot. Her short life is beset by foes, and she must ever be on the alert.

House-cleaning occupies a great part of this busy worker's life. Her house is always clean, whether it be found in a decayed tree stump or in a choice hive made by a carpenter. No untidy thing is permitted to lie about on the floor, or the nursery, or on the walls She is neat in dress and habit, as any one can see who watches her at her toilet. When it is cold the bees keep a constant fanning with their wings to warm the brood which is so delicate that a few seconds of exposure to the outside air would destroy it. When it is warm they keep on fanning to make the air comfortably cool. One could hear this fanning by placing the ear close to the hive. Always it is kept at an even temperature, for it is really an incubator. It is with the bee as with some other people who " blow their tea to cool it," and " blow their hands to warm them."

So all day long, and all night long our dear bee works, never resting, toiling not for herself but for others, for she seldom partakes of her harvested stores.

WHEN LONG FLIGHTS ARE OVER.

Some day in midsummer one can see that the edges of her wing are a little frayed. But still she flies short trips to the honey fields, or, if one places a saucer of sweet at the door, she will go no further. She often sips water at a puddle or a city trough. One with a kind heart will not frighten her away, but will watch the frail tongue sip the water eagerly as if she were thirsty, as indeed she is. Without water she could not live.

A few more days and she can fly no longer. She has literally "worked herself to death." She still goes out to the door and smells the flowers, but her wings are jagged and broken with her long flights. Her body has lost its gloss of brown and gold, though but two or three short months hove passed since she was a baby in the cell cradle tucked in by an old nurse bee. She still strives to make herself useful among the little ones, but she is slow and "in the way," and the younger bees do not want her. She creeps out to the door step for one more whiff of the fragrance she loves, and falls in her attempt to fly.

When the time comes that she is too weak to creep to the door and is but a cumberer of the ground, then the strong bees, two or three of them, take hold of her, pulling her from the door, drop her over the edge of the platform upon which the hive rests. She falls among the grass or in the dust, and the workers go back to their duties, to take their turn at old age and decay not many days hence. In her fall from the house doorstep, our bee may have slipped into a crevice between foundation boards, and there she lies buried, as I have seen a Kiowa Indian in a natural cleft of his native rock. She is but one of many hundreds in a summer time from the same hive, who ask no favor of any unless it be a kind thought when the honeycomb is broken at tea table.

? | Questions | ?

268. Have something to say on W.C.F.'s letter on page 15.

269.—What usually constitutes an amateur?

R. BEUHNE.

268.—For a breakwind round an apiary, I should not trouble about what blossoms in winter, or indeed, what blossoms at all, but should select something that will become effective quickly, say Eucalyptus globulus or Linus Tusignis. The amount of honey possibly produced is not worth taking into account, and I should sooner be without the inducement for bees to fly and get chilled, on sunny but cold days.

269.—An amateur should be a person keeping bees for other reasons than profit, but so far as I know an amateur is one who keeps less bees but knows (or think he knows) more about the industry than the man who lives by it. A semi-amateur, or hybrid between an amateur and professional, is worse than either, and flings his honey on the market at any price, just from philanthropic motives I suppose, which reminds me of friend Bennett's quotation of the American humorist: "What is a philanthropist"? Answer—"One who has something to sell." They are very much in evidence in beekeepers organizations.

J. B. EATHER.

269.—"A lover of the fine arts."—*Webster.* I presume it is an amateur beekeeper you mean, if so, its a gentleman who keeps bees for the love of beekeeping, trying to advance the science, neither making or seeking to make profit out of the same. Not the man who runs after a swarm of bees and rattles them down with a tin kettle, shoves them into the feed box of a horse suffering from nasal gleet, and on the following March clean out the box, smash up the combs, brood and all, strain it through an old potato bag and label it "Pure Extracted Garden Honey," and send it market, is not amateur, but a fudge.

J. THOMPSON.

268.—Apply to some of the large seedsman for information. It would pay some of such to advertise in the pages of the *A. Bee Bulletin.*

269.—An amateur is one who works for pleasure or honour, and does not receive money for the exercise of his hobby. An amateur beekeeper, I take it, to be one who keeps one or two hives of bees for amusement only, and does not sell his honey, but consumes it all in his own family, or gives it away.

H. H. DAVEY.

268.—I would advise planting Tree Lucerne. It grows wonderfully well, flowers abundantly

for two months, ending 30th September, but in N. S. Wales it would flower earlier and seed sooner. It is also good for poultry when seeded and for green fodder in dry districts. I know of nothing better for late winter flowering. I obtained the seed from the Rural Industries Association, Melbourne, which distributes the seed gratis I believe. It grows 15 feet in three years. The bees crowd upon it.

269.—One who does not grow for sale. He may be an expert amateur, but may not make a living by it; as soon as he sells and makes it a part of his income, he becomes a professional. Beginners, if selling for profit, would be professionals though not experts, which experience alone can make.

T. H. BRADLEY.

269.—An individual who, after hearing Mr. Gale's lecture on beekeeping goes to Anthony Hordern's or to some other supply dealer, fits himself out with three or four hives and the latest inventions procurable, purchases some work, generally about twenty years old, on bees and honey, and then proceeds to instruct the old time beekeeper in the art of ovular suction.

G. HOLLIS.

268.—If swarming is allowed I would not recommend a hedge at all, for look what a picnic it sometimes is to get a swarm out of the middle of a close hedge. The African Boxthorn is about the best that I know of, it flowers more or less all through the year. It grows well even in poor soils, and if kept neatly trimmed makes a very pretty substantial fence. If allowed to grow will reach to a height of from 8 to 12 feet, and makes a splendid breakwind. It is easily kept within bounds, and at any time can without any difficulty, be grubbed out and got rid of, very unlike the furze or whim edge. Osage orange makes another good fence, but blooms only in the spring. There is about two miles of it near me, which has been allowed to grow, and will now average over 20ft. in height. Cape broom was at one time a very popular hedge around here, but has gradually been replaced by the boxthorn. This also is a spring bloomer, and judging by the way the bees work on it, must yield a fair amount of honey, and it has the advantage of keeping in bloom for a long time. The hawthorn is a well-known hedge, but neither this nor the cape broom are anything like as strong and vigorous as the boxthorn, and will take fully twice as long before they deserve to be called hedges. Almonds can hardly be said to be suitable for a hedge, but it has many points to recommend it to a place in or near the apiary. I have often recommended it for shade for hives. It grows rapidly while young, and the foliage not being dense it does not exclude all the sun, while in winter it has no leaves to exclude the sun. It comes in bloom before any other fruit tree, in fact I have seen odd ones in full bloom by the third week in June. The bees build up well on it, and if there is anything to follow on things will boom. Almond trees nearly always fruit better on poor soils, and another point in their favour, you can gather the fruit when you like. If it is not convenient to gather the nuts just when they are ripe you can leave them a mouth or longer on the trees.

QUESTIONS NEXT MONTH.

270.—Will bees gather honey from poisonous plants?

271.—When does Ironbark come into bloom in your district? and how long is it in bud, before blooming?

E. F. STEVENS.

272. What distance would need to intervene to insure safe mating with choice drones?

273. How far is it thought that a virgin queen will fly from her hives if she fails to meet with a drone at a near radius.

VISITING.

We lately visited the home and apiary of Mons. Racle at Merrylands. Mons. Racle is a Frenchman, is full of French ideas and literature, together with a few original ones of his own. He has an announcement in the front "Two pounds of honey for 6d." The price must be kept low as a neighbouring storekeeper boasts of buying very cheap honey in Sydney. He has some 50 hives. During the past winter he lost 15. He uses the "Cubic" hive, which he says is very common in France, the size being 17 inches every way, super half that depth. The frames are in accordance with this size and have wooden slips instead of wires. Spare combs he placed on top of hive, considering them better protected from moths there. His flow is derived from box, stringy bark and ironbark.

To be a good beekeeper one naturally becomes a carpenter and a tinsmith. He makes all his own hives and frames, and his extractor, made by himself, is very simple and ingenious. Two kerosene tins, one with two sides and the other one side out, make a fair sized tank, a pivot with handle fixed in centre. Tin slats half an inch wide, and half an inch apart, projecting from the sides, against which the combs lean, and be-

tween which the honey runs as the tank revolves. As the extractor tank is likely to get out of shape with a lot of honey in, wooden bands are fixed outside about centre. He uses a small Reitche press for foundation. It makes nice thin material, better than we have seen from a larger press of the same kind. A good library of bee literature, mostly French, including several monthly publications. Mons. Racle is a bachelor, having no queen at present in his home hive. We spent a very pleasant hour with him.

THE N. B. K. A.

J. J. B., ENMORE.

In the April 1900, issue of the *A.B.B.* beneath the initials T.F.B., and date March 17th : I note that T.F.B. refers to your report of the proceedings of the N. B. K. A. committee, and records the observation that "Mr. Gale has suggested to the Minister that there be no inspector, but that the N. B. K. A. have power to administer the foul brood act," and continues "I must protest against the power to administer the act being vested in any one Association, more especially, as we (of Tooley street, I presume) have no association which can claim to be a representative one. The fact of the association of which Mr. Gale seems to be the permanent president, assuming the title of National, does not in any way make it, or give it the power to represent the beekeepers of N.S.W."

With respect to the suggestion made by Mr Gale as the Hon. President of the N. B. K. A. to the Honourable the Minister for Agriculture, I beg leave to remark that I have in memory that Mr. Gale reported that interview, and the suggestion named, together with some reasons for the same both economic and prudential; and that the report had my sanction as a member of the committee as far as it went, with the mental note that it would be time enough to tilt at a windmill when one was erected—a mental reservation which I commend to your readers, T.F.B. included.

With regard to the power of administration of the projected foul brood act being vested in the N.B.K.A. with Mr. Gale as its "permanent president," and the contention by T.F.B. that the N.B.K.A. is not a representative institution notwithstanding its assumption of "the title of National," I beg to remind your readers of the official recognition of the N.B.K.A. and its "permanent president" by the Honourable the Minister for Agriculture in consultation with its official head upon the subject and administration of a projected foul brood act.

By the Government, through its resposible Minister in erecting upon a site granted by the Royal Agricultural Society, a commodious Pavilion, which renders exhibitions of much greater magnitude, and upon much broader lines than hitherto practicable, to either individual apiarists or District Societies.

By the Royal Agricultural Society in setting apart a building site for the beekeepers of N. S. W., and for that matter of the Nation, for the purposes of exhibition, and the appointment of officers nominated by the N.B.K.A. to control such exhibitions.

By the Honourable the Minister for Agriculture of Queensland, in the official opening of the late exhibition, and the attendance at, and contributions to one or more of its conventions, of a gentleman from that colony, who is by tacit consent one of the leading apiarists of the day.

By the Under Secretary for Public instruction, in his repeated extension of official hospitality to the conventions held at the Technical College, and his further public support and official countenance in opening and addressing the late convention.

By the talented contribution of the Government chemist F. H. Guthrie, Esq. on the subject of "The Food Value of Honey" at the late convention.

By H. M. Railway Commissioners in the granting of past concessions.

By the Clergy, in the presence at, and contributions to conventional business by

the Rev. Hughes—himself a practical beekeeper.

By the Press, in the publication of reports of its business, meetings, and exhibitions, and by thousands of the interested general public in their patronage. And last though by no means least, by the Board of Exports, through its Secretary, at the recent and previous conventions, and the help given and promised to the industry of beecraft by that public body.

So much for the representative character and status of the N. B. K. A. The use of the advantages, indicted and unspecified, rests with the individual beekeepers, and failure to act in that respect compels a "masterly inactivity" on the part of its Hon. officers and committee in too many regrettable instances.

Regarding the qualification for membership "T. F. B." informs your readers that "Any one, be he a beekeeper or a horsedealer on sending the sum of 5/- to the Secretary of Mr. Gale's Association, at once becomes a member." To which startling statement permit me to add the expression of opinion that the "beekeeper" or "horse dealer" who has sufficient interest in the operations of the N. B. K. A. to transmit 5/- a year towards its maintenance, has thereby acquired a legal and moral right to all honourable discussion of its affairs, while malcontents whose Shylockian Grab-the-almighty-dollarise dog-in-the-mangerism does not permit them to take a like honourable course are obliged perforce to make stalking horses of say "The Hunter River Beekeepers' Association" or the "unfortunate beekeepers" from behind which to malign the reputation or wound the sensibilities of its unpaid and too often unthanked officers.

So far as I am correctly informed, the qualifications for membership in the N. B. K. A. is the same as that of all kindred societies, that of the Royal, and all other Agricultural Societies with which I have any acquaintance, included. "Beekeepers have been brought to the verge of ruin, by bad seasons, underground engineering, and the undue interference of past Governments in the question of supply and demand." That is the ancient parrot cry of all muddlemongers, be they "beekeepers," "horsedealers" or what not, but if "T. F. B." will give ear this way I will make bold to whisper to him the consolation in the interest of all croakers, that there is no Act of Parliament that compels his or their engaging or remaining in any business in which they feel they cannot succeed, and that, in fact, "they would never be missed" in the event of their retirement.

"If there is to be anything in the shape of inspection of apiaries for foul brood to be made let it be made by some responsible and qualified officer in the Agricultural department; some one for whose actions the minister would be responsible to Parliament." To which specimen of wisdom, probably the Hon. the Minister, and the N. B. K. A. can both say Amen. The question of official responsibility being a foregone conclusion and the all important one of qualification being one for full and due consideration at the proper time, the rare combination of qualities that make an expert beekeeper who is also further qualified to undertake the duties and responsibilities of inspectorship being difficult to find and perhaps more difficult to secure when discovered; for I opine that the office would be no sinecure, and the official bed not one of roses only.

Perhaps the best that can be offered the "permanent president" is contained in the remark of the quaker to his friend. "Friend, if one throw salt on thee, it will not hurt thee—unless thou has sore places."

The already quoted qualification for membership in the N. B. K. A. appears to furnish the most damaging evidence that "T. F. B." could bring the help of his case, since by it is made manifest that the whole question of organization as previously stated rests with the beekeepers. The sole qualification as stated being that they evidenced an interest in their calling

to the extent and amount of a 5/- sub. and the consequent privileges and duties of membership.

The option therefore is theirs, whether they follow the lead of the nothingarians to nowhere—The party who pauperise their industry and themselves while clamouring for "protection to local industry" and thus attempt to penalise other industries that their own may succeed, while they feed their non-producing bees at home—or the party who, aware of the market at home and abroad for both honey and wax, invite the co-operation and assistance of all beekeepers to so organize both production and distribution on, and in the experience gained in both the mistakes and successes of the past as to contribute to the gradual upbuilding of an apicultural community and commerce worthy of the immense floral, and the magnificent climatic advantages of this Continent, and the best Mercantile traditions of a nation-making "Nation of Nations."

Josh Billings remarks, "We have got precept enuff, tew stock six worlds like ours; what we want iz a phew more good eggzamples."

HUSKS AND CHAFF.

G R. HARRISON.

That excerpt from *Austral Culturist* certainly contains the keynote to the exportation problem. We *must* get past the broker's ring. The British people eat honey, and they don't care a dump from what source it is gathered from, so long as it is good, and the retailer soon learns what people like, and do their best to purvey it. But the ring of brokers have the handling of the great bulk of the imports, and can say what shall be bought by the retailer and what shall not.

If we *must* have a foreign market, we must have a good business representative, who can push our wares for us, and whose dealings must be directly with the retailer. Such a man could probably get an increased price over the present—through the broker returns—of at least 2d per lb, roughly £20 per ton, and it would take about one-quarter of this—£5 per ton—to pay his salary and expenses. If he sold two tons per week, leaving to us a gain of £15 per ton, so that if we can clear £20 per ton at present, we would then be getting £35 per ton.

Your question box for last month seems to have had reference to bee stings and the cumulative effect on the health.

My experience is that if you can stand stings at all, you can stand lots of 'em, but there are some people who are at death's door, as the result of one sting, the doctor has to be called in, and things are critical for sometimes a day or two, and there is a curious feature about these cases, generally, that no matter where the subject is stung, there is great swelling of the tongue.

If I have got an extra vigorous prod, or have been away from bees for a little and then get stung, I have always a great desire, yea, an intense longing to eat honey hot from the hive, sweets of any kind will satisfy me, but I mostly want hot honey.

When coming back to the bees, after a few months absence, stings always swell a bit, sometimes make quite a decent swelling, but after a few days and a few stings, my flesh refuses to budge. In my pre-beekeeping days, if I got a sting anywhere about the face, I would have both eyes nicely bunged, and as I walked round, my face would *flop* up and down in a most elegant (or jellygant) manner.

The beekeepers' immunity from swelling rheumatism has been often remarked and the bee sting cure for that form of the complaint is beginning to be quite well known, and that brings to my mind the method of applying the cure suggested in *Gleanings* some seven years ago by Mrs. L. Harrison—the then very lively lady writer on bee matters—which was, for the patient to dress him (or her as the case may be), in a pair of nice large, loose pair of trousers, tied round

the ancles, and then to suddenly drop between a pint and a quart of bees into the pants, and run a hundred yards and back, she thought that about the surest method of applying the cure. She had not tried it.

Some years ago I met a man who had been a very successful beekeeper for many years, but had to give up business and go back to coal hewing, because he had contracted a disordered condition of the nerves, which caused him to dread a bee sting, so that he could scarcely muster courage enough to approach a hive, and he—if I remember rightly—attributed it to the cumulative effect of stings.

We, most of us, know the terrible fear in which a bee sting is held by those who have never been stung, or who have only memories of being stung during childhood, and have enjoyed their surprise to find what little pain it meant when they did get it.

SOUTH AUSTRALIA.

E. F. STEVENS.

This being a maiden attempt to contribute a little news to your journal re beekeeping, I shall not plunge into details on any subject, merely giving your readers a slight conception of what is going on here in the beekeeping line, and what timber principally constitutes the chief source of our honey flow. Here in South Australia we have no Association, though that is not to say we have no bees, as in this and adjoining districts there are some extensive apiaries, some numbering as high as 400 colonies. The summer previous to the one we have just passed through was an exceptionally good season, I having secured between 12 and 13 tons from 140 hives, besides labouring under the disadvantage of not having enough supers when the main flow was on. I may add that those 140 colonies before mentioned were increased by natural swarms from 56 hives the previous spring. The summer just passed has been very poor about here, although in some localities a few miles distant they have done fairly well. In January and February our stringy barks were out, but yielded very little honey, and to secure this, or rather my attempt to secure this flow, I had to remove my bees a distance of about three miles, and although the trees were white with blossoms I extracted no honey, but at the same time consider that shifting the bees was the most fortunate piece of work I have done for a while, as only about a month after, on the 28th January, a bush fire swept across this part of the district, leaving nothing behind it; all our homestead, excepting the house, was burnt, including extracting house and plant, hives, frames and comb, tanks and everything which is found about an apiary. These were all destroyed, and had the bees been here they would have enjoyed the same fate. The bees, however, are back again once more to winter at the scene of desolation, which is fast recovering itself in appearance as the weeks come and go by the erection of fences, green grass, &c., and as a vast scope of country is still left unburnt on the north-east side, which consists chiefly of blue, mountain, red, white and manna gums, which bloom in the same order as set down. The former are bursting into bloom at present, and will continue till about August, when the mountain gums burst forth into blossom, and they both continue to bloom until about Christmas, and are the source of a constant honey flow, which works the bees into good order for the main flow, which is then taken from the red gums, which picks up the trail and yields a heavy flow of honey of beautiful quality, until being exhausted they are relieved by the manna and white gums, which yield a darker honey, but of good flavour. I would here like to add that I have seen publications re trees and shrubs of South Australia, which would be misleading to some who did not know otherwise. For instance, wattles and dandelions are termed good for honey. The latter may produce a little (but chiefly pollen) whereas the wattle in some seasons does neither, but in others produces pollen. I am in the heart of a wattle country, and last spring when they were out and covered with bloom scarcely a bee could be seen working upon them, and at the same time nothing else to be had. The weather at certain periods was fine, with warm days and dewy nights, being ideal honey weather. I would sooner have one big red gum tree than 150 acres of wattles in this climate as regards honey. Then the blue gums of S.A. I find are of little value for honey unless they bloom in autumn, winter or spring; being a cold climate tree it is of little use in the hot summer, if it blooms at such time. I have been a beekeeper all my life; although young I have had a few years' experience, having begun before I left school. I favour the nine-frame hives, and would rather have an eight framed than a ten-framed in this climate. I also favor the zinc excluders during a heavy flow, having had equal results from such as from those without them. I propose on some early future date to give an account, which I hope will prove interesting to your readers, of my experience with foul brood (Bacillus Alvei.) I have no foul brood now, and have had none for several seasons, having worked strictly on my own plan of treatment from the first, and although having had some rank cases of the disease I have cured them, some as far back as three and four years

and at present they are in a healthy condition, and in some cases in the same hives and combs as they were when diseased, having been replaced for experiment, which has proved the treatment effectual in all cases. I intend to introduce a strain of new blood into my apiary the coming spring with fresh queens. Wishing you success with your paper, which me and mine are fond of reading.

CORRESPONDENCE.

R. P., Springdale :—It has been a very bad time this last year, everything almost a failure in this district.

J. A., Chiltern, Vic. :—No swarms, next to no honey. Heaps of foul brood this season.

A. S. B., Molong :—Sorry I have no bee news to give you, for most of the season has been a dismal failure. However the bees seem to be going into winter in fair condition.

R. S., Murrurundi :—My bees have not done much this year, although I think they have made enough honey to keep them during the winter. I have only managed to get four tins from them this summer that is from seven of the hives. I have not extracted any from the ones I got from Mr. Horne.

L.S.T.M., Canley Vale, May 14—The ironbark trees about here are in heavy bud (very small.) Could you give me some idea as to about the time they are likely to burst and come into bloom ? Hoping you have prospects for a good season in store.

Generally we believe in the spring, about October. We have made a monthly question of it.

W. M , Shepparton :—I have not extracted one pound of honey this year, but I think the bees have sufficient stores to carry them through the winter. I am doubling up all the weak hives, but we are not quite so bad as the " Disappointed hopes" in the A. B. C., although one of the Shepparton Beekeepers is so discouraged, he is nearly ready " to go to Kansas" or somewhere else.

G. W. V. H., Winthorpe, May 3rd :—The honey season has been a very poor one in this locality. The weather has been very dry. The trees did not bloom very much, the buds falling off before they opened. I have over 40 colonies of bees and half will want feeding through the winter. I got but very little honey from my bees and everybody says the same about their bees, and what I did get was very dark. I am getting 11/6 per tin for my honey. The moths are very bad here, I have lost two or three colonies with them.

T. J B., Wallabadah :—The bees are still having a very bad time here, they have scarcely any honey. I have been feeding them the last fortnight, and will have to do so till some blossoms open. All the trees here show splendidly for bloom, white box, gum and yellow jacket. I think some of them will open very shortly, as we have had splendid rain lately. I hope your bees are doing well. Nearly all the bees in this district have died out. One man had 57 hives last year, only 6 left ; another 40, only 2 left ; one 6 only 1 left ; one 14 none left ; another 70, only 20 left.

T. H. B., Appin, writes :—See page 8B April issue of A. B. B. " Have the Commission Agents an object in giving low quotations in order to buy cheap from the producers ?" Why not write to the Government Statistician, and ask for the total quantities of honey shipped home annually from N. S. W. during the last, say, five years. You will get something that will make your eyes open. " Have a say on Cynic's letter." What's the use, when the beekeepers, year after year, vie with each other in exalting the individual, who has, under the eyes of the Government, done more to ruin the prospects of the *bona fide* beekeepers than any one else has !

P. H. L. T., Roma, Queensland :—I am sorry to have no good news to give you of this district. The past two seasons have been total failures, though I am in good hopes that the next one will prove better. I visited some weeks ago, the apiary of a gentleman who possessed nearly 200 hives three or four years ago. He now has 13 or 14 left. I began with

25 hives this season and have at present 18 left. The deceased include a 15/- queen, worse luck. White box is forming new buds, which will I hope give us plenty of honey later. I am still an enthusiast with the bees, and an appreciative reader of the A. B. B. from which one never fails to derive some information.

D. S. McL, Hastings, N. Z.:—I have received the A. B. B. very regularly, and am very pleased with it; you get a lot of bee matter in it. You need not expect to get much bee news from me as I am only a new chum. The season here has been fair, got about 45 lbs. per hive. Have you ever heard of anyone using reversible frames and with what result?

There are many who use such, and different reports we give of results. It has some strong champions saying it is easier to manipulate hives with such. The "Heddon" is the typical hive with reversible frames. They do not seem to grow in favour against the large or Langstroth frame.

A. H. M., Cape Colony, writes:—I may mention that Mr. Stirley died about Christmas. I was told that he went out with a picnic party and died in the evening while asleep in bed. He told me himself that he suffered from heart disease, so you will not have any more notes from him for your paper. He was a very nice old man, we were the only two in Port Elizabeth that took any real interest in bees. I think I have already mentioned that I kept my bees in one of the parks. Well, I had orders to move them, I had shifted three, and was going to fix the others so that I could shift them in the evening. The sight that met me I shall not forget in a hurry. They were all smashed to pieces and some of them were half burnt. The manager did not think I was sharp enough in moving them, and that is the kind way he treated me. I did not pay anything for the use of the ground, only now and then would give them some honey. I have only two swarms now. It is a very unpleasant thing when one has to depend upon others for anything.

THE VICTORIAN APIARISTS' ASSOCIATION.

W. L. DAVEY.

A gathering of prominent beekeepers was held at Melbourne on the evening of 23rd May. Beekeepers from all districts attended. Upon the position of the industry being placed before the meeting a unanimous vote was the result, "That this meeting forms itself into an Association." The meeting then adjourned to the following day, when the following resolutions were carried:—"That the policy be the promotion of the Beekeeping Industry." "All engaged in beekeeping to be eligible for membership upon approval by a member of advisory committee and payment of 2/6 per annum." Office-bearers—President, Mr. Thos. Bolton; vice-presidents, Messrs. R. Beuhne and R. Miller; Correspondent, Mr. R. Beuhne; Secretary and Treasurer, Mr. W. L. Davey. Advisory Committee was appointed as follows—Messrs Garrett, Gwyllan, Cox, Jackel, Bennett, Gregerson, Murray, and all office bearers, with power to add to their number. *The Australian Bee Bulletin* was appointed the official organ. After arranging for a deputation to the Minister for Lands with reference to Beekeeping on Crown Lands the conference closed with a vote of thanks to the chairman, Mr R. Beuhne, and the same to the A.B.B. for its liberal dealings with beekeepers.

Printed by E. Tipper, Proprietor, High-street, West Maitland, New South Wales.