The Australian bee bulletin. Vol. 9, no. 1 April 28, 1900

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

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THE AUSTRALIAN Bee Bulletin.

A MONTHLY JOURNAL, DEVOTED TO BEE-KEEPING.

EDITED AND PUBLISHED BY E. TIPPER.

VOL. 9. No 1. APRIL 28, 1900. PER COPY, 6D.

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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.

OFFICE: HIGH STREET, WEST MAITLAND, N.S.W.

RESIDENCE AND APIARY: BOXGROVE APIARY, WILLOW TREE, N.S.W.

The Australian Bee Bulletin.

A JOURNAL DEVOTED TO BEEKEEPING.

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

MAITLAND, N.S.W.—APRIL 28, 1900.

A STREAK OF DAYLIGHT.

WHILE all along we have felt the precariousness of the Beekeeping industry, and felt aggrieved when we saw it boomed up, as we thought, by interested persons, our sympathies being with the struggling country beekeepers, believing that those persons who prophesied a magnificent future for the industry were not acting, to say the least, in a righteous spirit, we felt it all the more after the failure of the Export Board to get honey away and the present season failure of the honey crop. Some light, however, has now dawned upon us. At the Convention held in Sydney this month Mr. Stephenson, Secretary to the Board of Exports, stated the Board was willing to adopt the recommendations of Beekeepers, to dispense with the blending and retinning regulations, and would accept samples of 28lb. tins of honey—would like to get them from all parts of the colony—and forward same, free of cost to the beekeeper, to the old country to get some idea of their relative value there, sealed samples of each tin being retained in the colony with numbers corresponding. Also recommended the N.B.K.A. Association to appoint a committee of experts to examine honies that any beekeeper might wish to send home in his own tins. Such examination, if satisfactory, to secure the Government stamp. This is a big step in advance, and must be a source of encouragement to the industry. But another step is yet wanting. The approval and carrying out by the Federated colonies of Mr. Taverner's scheme—a large warehouse on the banks of the Thames where Australian produce can be stored. At present with our Australian honey, if good, the chances are the middle man into whose hands it comes will brand it with some other name, say "pure English," while not only our own inferior, but perhaps inferior from other countries, will be branded "Australia." We want to secure the foreign markets, but more than that, we want a good name—a name that our honies deserve as much as any country—a name that bad men lost to us. May the coming season bring all—honey, market, and good name.

No one would glory more than ourselves to see the land dotted with prosperous beekeepers, and gladly will we do all we can to hasten such a condition, but is it right to raise too much cry till we are more sure such prosperity is certain!

A lot of excellent copy unavoidably held over till our next.

Mr. H. L. Jones, Queensland, writes: I have had a very good season, and trust you have been equally fortunate.

We know one large farmer who employed an apiarist. He has dispensed with the apiarist, and called for tenders for ringbarking 500 acres of land.

The N. S. W. Export Board have agreed to export beekeepers' honey in own tins, if passed by the Committee appointed by the N.B.K.A.

While on a visit to New England we were very much more than pleased by the kindness to ourselves, and expressions of goodwill towards the *A. Bee Bulletin*. Some evidently seemed to know everything that had appeared in its pages for months past.

N. S. WALES CONVENTION.

The Ninth Annual Convention of the N.B.K.A. of New South Wales, held on April 18, 19 and 20, 1900.

THE Convention of the above was held at the Technological College, Ultimo, commencing on Tuesday, April 17. Mr. A. Gale, president, occupied the chair, and called upon Dr. Morris to give the opening address.

Dr. Morris said he would not talk as an expert among experts unless he was one. He had much pleasure in giving what little assistance he could by providing conditions, because it had a principle of co-operation. It was an intellectual co-operation. Each one supplies to the whole what he possesses, and each one was enriched by what he heard. He believed in co-operation for the general good, and yet each man would have the result of his own skill and energy. You are striving to improve the business in which you are engaged, aud also for your own benefit, because it was a principle that laid deep in the nature of things that no man could help himself without helping others. What a paltry little amount inventors get in comparison with the benefit to the whole world. He was never afraid of a man being too rich, but he was of a man being too lazy. The rich man was a blessing all the time he works. It was the lazy man that wanted kicking out. The lazy man was the man who did the harm, not the rich man. Mr. Gale set an excellent example. He was a man who was always doing something—a hard working man who works for the enthusiastic love of the business he was about. A man could not fully discharge his duty to himself without discharging his duty to his fellow men. If the sun refused to do his duty to the solar system he himself was done. An example from botany. If the tree on the barren ridge should consider why he should carry those tremendous loads of leaves just to benefit the brook below? By refusing to perform its duty it destroys its own life. If the leaves of the plant refuses to perform its functions it loses its own life. And helping our neighbours helps us up to higher plans of life. The mere doing of things well should act as a great satisfaction to all. Everybody would not be a great artist or beekeeper, but everybody could be moral and industrious, and that gives out an exhalation to all it reaches. The gum leaves on the ridge may envy the superior power of blessing belonging to the fruit trees and the orchard, but if they only knew it they are exhaling upon the air vapours and pure oxygen that gives the pure life of man. They really are doing more for the blessing of health—giving to man who dwells in that country than all the fruit trees together. The men who did their work well and successfully on the whole did more good to their fellow men than the more strong men. He wished their Convention success, and thanked them for the honor of opening it.

Mr. Gale said the troubles in Sydney was the cause of the pancity of attendance. Several letters had been received giving such as reason for non-attending.

Mr. Branch, in the absence of the Secretary, Mr. Trahair, read extracts of minutes of last Conference.

A paper was then read by the Rev. Mr. Hughes, entitled, "The Honey Bee, viewed as one of the interpreters of Nature." We will publish this in our next issue.

Remarks being called for, Mr. Ward said enough attention was not paid to the animal and lower creation, and gave instances where an aboriginal could prophesy a coming flood from his observations of the conduct of snakes, ants, and centipedes. If bees were left them-

selves loose in Australia in ten years they would tell us best places to start bee farms.

Mr. Gale gave an anecdote of blackfellows getting water from a frog under a stone where white men could find none.

Conversation ensued, in which Messrs. Branch, Parkes, and Rev. Mr. Hughes took part, showing the value of bees in fertilizing plants.

Mr. Tipper then read the following paper:—

Bees as a rule cannot do well in large towns, and mostly depend on sweets they can pick up in stores, jam factories, or any odd places. Often you hear of a person having a nice little garden, thinking he ought to keep bees because of the flowers in that garden. One good gum tree in bloom is worth more than an acre of such.

There are many well known plants and trees on the coast that are not known to the westward of the great dividing range.

Swamp growing trees and shrubs generally yield a poor quality of honey.

Bottle brush, a scrub grower, yields a dark unpopular honey.

Two kinds of ti-tree, broad and narrow leaved, yield honey in great quantity some seasons, the former not of a popular flavour.

Pepper trees and pines are planted in large quantities by various municipal bodies. Honey yielding trees, such as the boxes, are quite if not more ornamental, and give good honey in addition. The boxes, however, I do not think will thrive near the coast. Pepper trees give honey of a peculiar flavour. By itself it is not palatable, having a peppery taste. At a recent show at Tamworth, honey was awarded first prize, which was also awarded first prize shortly afterwards, by another Judge at the Muswellbrook Show. It was honey, from where there was scarcely any but box trees—no lucerne or pepper trees as with the other competing honey at same shows.

Lucerne honey is sweet, thin, candies soon. Affected by too much dry weather. As soon as it is well in bloom, it is mown down for hay, the farmer considering if left go to seed the hay from it is not so good. It does not yield honey generally until its third year. To the apiarist where lucerne can be grown it is the best substitute for the fast dwindling forest.

Maize gives plenty pollen, little honey. Flooded gum, mahogany, bloodwood, coast trees all give honey at uncertain periods.

Red gum on the coast gives a dark inferior honey. The Red gum of Victoria, gives a honey that by some is preferred to box.

Spotted gum usually flowers in mid-winter, blue gum in August, white gum in fall of year. Blue gum is more partial to cold climates, such as the mountain districts and Tasmania. From what I have heard it is not a good quality of honey.

Bloodwood blooms about March. Swamp mahogany is a good honey-yielding plant. Water gum is said to yield a beautiful light honey.

Blackbutt and tallow wood are coastal honey producers.

The Australian forest apple tree yields profusely once in about seven or eight years. The honey is dark, and tastes like burnt sugar. If kept a time the disagreeable flavour modifies.

Orange trees yield a beautiful flavoured honey, but as the orange orchards are limited no great exporting quantity can be produced.

Fruit trees generally, as they do not remain long in bloom, cannot be reckoned much on by apiarists.

Peppermint trees grow both in New South Wales and Victoria, but are not great honey yielders.

Cape Ivy makes a good hedge, and is a good honey producer.

Mignonette produces honey in large quantities.

Buckwheat gives a great quantity of honey in the fall of the year—a dark honey.

Broad beans come into bloom in winter and early spring, and the bees fairly swarm on them.

White Clover, while plentiful in rainy seasons on the coastal rivers of New South Wales, the heat of the sun dries it up, and it cannot be relied on as the great honey producer it is in colder climates.

Wattle is very serviceable in early spring for yielding pollen, enabling the bees to build up for the later spring and summer flows.

Sunflower is also a good pollen bearer, if not also honey.

There are several kinds of ironbark, silver-leaved, said to bloom in December, grey leaved at same time, red leaved in September.

Ironbark honey is one of, if not the best honey we have. The colour is light and the flavour unequalled.

There are two principal kinds of box—the yellow and the white. The yellow is a spring bloomer with me, though in Victoria it comes later in the year. The white, a winter bloomer. Both white and yellow can always attain the highest market price.

What is known as the apple tree in Victoria, is somewhat different to that in N. S. Wales. The honey also is of a better and more marketable quality. The same may be said of the red gum, which in the coastal districts of N.S.W., is very inferior, but it is of far better quality in Victoria, and some of the interior parts of N.S.W.

Very few of our bush trees bloom every year. Some will bloom two years in succession, and then cease to bloom for several years. Others once in three, four, or more years. In conversation with a beekeeper who had studied his

local trees, he informed me that the following year would be a splendid one for honey, as all the trees were due to bloom then.

Strange, that season was a heavy drought, and the buds were all dried up instead of giving honey. I have known a beekeeper looking forward most joyfully to a honey flow, say from stringy bark, when alas, a heavy rain would set in, and before it was over all the honey would have been washed out, and the bloom gone, without the bees being able to gather a pound.

These are a few facts I have gathered, partly from my own personal observation, and partly from writers in the *A. Bee Bulletin*.

I shall be pleased with suggestions, corrections or any other information on these matters.

Mr. A. Ayling asked if the wattle was a good pollen producer, as he was not certain what it did contain. It was rarely he saw the bees working on it getting pollen.

Mr. Tipper said he knew a large beekeeper whose apiary was in a grove of such, who was so satisfied with its value in early spring that he had strongly recommended him to plant them, and he had done so.

Mr. Ward said though he had used a strong magnifying glass he could not see the slightest indication of any moisture or honey whatever, and had come to the conclusion it was a pollen bearer only We have in Australia two kinds of plants that are good for bee forage, the one indigenous, the other imported. It would have been better to have divided the forage into the two distinct classes. The different species of eucalyptus blossomed at different times. In his district the white box somewhere about January and March, and off about April. It flowered in different sections according to locality. He hoped Mr. Tipper's paper would cause beekeepers to carefully note the times of trees flowering. Another matter about lucerne honey, when there was a large amount of moisture the honey was thin and likely to candy quickly. In a dry climate it was found to be more dense.

Mr. Tipper said that at the time of the Bathurst Convention, in mid-winter, five years ago, the white box was in full bloom. For four years in his locality it was in bloom in winter. He hoped it would gradually change its time, and bloom in spring.

Mr. Branch said the cinnamon box flowered with almost certainty in November in one place, while ten or twelve miles further away it did not flower till January, practically at the same sea level. The ironbark also flowered at different periods on the coast.

Mr. Ward said a propor classification of the different trees was required.

Mr. Gale said such was now in that institute.

Mr. Dick made some remarks.

Mr. Gale alluded to Mr. Tipper saying the honey had been washed out by the rain. Trees that blossomed in wet weather was capable of producing fruit equal to that in dry weather. The honey was secreted all the same, but no insects could visit on account of the weather.

The question box was opened.

By Mr. Parker : Does the constant taking of the nectar from the flower detract from the size and quality of the fruit."

Mr. Cadden said there was nothing definite to reply to. Didn't think it would affect the fruit. Other climatic influences would have to exist and take from the size of the fruit.

Rev. Mr. Hughes did not think it was possible for any person to discover that by any process of examination or careful watching, but judging from analogy should say it did not injure the fruit. If he wanted to get as much milk as he could from a cow he would milk her as often as he could.

Mr. Abrams said it had been ascertained that the bees took nothing but what the blossom had to spare.

Mr. Dick said he thought the more the bees the better the fruit.

Mr. Pender said his bees were situated in an orchard, and in all seasons there was too much fruit. He thought it was caused by the bees. He had to take fruit off in order to get quality, and would have none for market if he did not do so.

Mr. Parker said it was on account of

a neighbour's complaint he had brought the matter up.

Mr. Gale gave instances where no fruit had come because there were no bees. Bees did not injure the fruit. Small birds punctured the fruit, and the bees followed and took the juice.

On the motion of Mr. Gale, a hearty vote of thanks was accorded by acclamation to Dr. Morris for his valuable address, to which he suitably responded.

Second Night—Wednesday, April 18.

Some forty were present. The Chairman (Mr. Gale) called on Mr. F. H. Guthrie to give his paper, "The Food Value of Honey."

Mr. Guthrie said the use of honey as food, beverage, or medicine was known to the ancients from the beginning of history. From the most remote times, and before we were acquainted with the use of cane sugar, it was the universal substance for food, and its importance could not be quite understood by us in these times. Cane sugar was known by the Indians and Chinese as far back as 800, but did not become an article of commerce till the year 1000. It was imported into Europe from Egypt, but for centuries was not in such universal use as now. Although honey was so long known bees were not cultivated by the ancient races of Egyptians; it was wild honey; the bees were not domesticated. The first to domesticate the bees were the Greeks. Pliny, who is our principle authority on insect life, says the first beekeeper was Aristomachus, in Asia Minor, who devoted a whole life time to the study of these creatures. Another Roman writer attributes the first beekeeper to the inhabitants of Hymettus. Other early writers attributed it to the Cretans. The Thessalians were also credited with keeping bees. The laws of Solon contained reference to the keeping of bees 500 years B.C.. Very early in the history of the Greeks, as an article of diet, it was considered of first importance. Democritus, when asked how he could prolong life, replied that he should anoint his body with oil without and his body within with honey. Pythogorus's table was said to be furnished with bread and honey only. He lived till 90 years. It was known as a beverage both to the Greeks and Romans. Fermented hydromel was more of a northern beverage, and had the same place in the middle ages as beer has with us. It was also much used as a medicine, as a laxative and a lotion. Also used to embalm with. Alexander the Great was embalmed in honey. Honey could not be regarded as a complete food. It was purely a saccharine food. No mortal could exist on honey alone. It was a one-sided food. Milk and bread contained nitrogenous matters, which honey did not. There are three or four ingredients in all foods which are nourishing ingredients. Proteids was an organic substance which contained nitrogen. It was the most important food we have, the human body consisting largely of it. Flesh, blood, and gristle all contained about 16 per cent. of nitrogen. It replaces waste tissue, also produces mechanical energy, and goes to build up the body. The next class was carbo-hydrate, substances such as starch and sugar, its function purely to keeping up the bodily temperature, like coal, evolving heat and energy, also if in excess becoming fat. Fats contain very much less oxygen than the carbo-hydrates. Their heat power was about 2¼ that of carbo-hydrates. Seline matters were such substances as lime, common salt, and similar inorganic salts. Their principal function was to build up the skeleton of the body. Honey was entirely deficient in the most important part of nitrogenous material. A man in health and ordinary exercise require 120 grammes or 4¼ ounces proteids, fats 3¼ ounces, carbo hydrates 14¼ ounces. The total amount of material consumed is 19 ounces in the course of a day. He gave the constitution of a few articles of common food, showing their comparison with honey—

	Water	Proteids	Carbon	Fat	Ash
Raw meat	75 ..	15 ..	— ..	8 ..	2
Bread	40 ..	8 ...	49 ..	1½ ..	1½
Potatoes	74 ..	2 ..	21 ...	— ..	—
Milk	87 ..	4 ..	5 ...	— ..	1
Cheese	23 ..	— ..	73 ..	3½ ...	1
Butter	19 ..	— ..	67 ..	— ..	½
Honey	23 ..	— ..	73 ..	— ..	½

The only thing you could compare honey with was a substance like molasses, but it contained more sugar.

Discussion ensued, in which Messrs. Ward, Rev. Hughes, and Gale took part, during which Mr. Guthrie said there was no one kind of food that would be considered perfect. Honey was not a blood former, but it would assist.

Mr. Stephenson, Secretary of the Board of Exports, gave an address. He said the samples of honey in his office now were sent last year. He was then told something like 150 or 200 tons were ready to export, and the Department was asked to assist in finding markets for same. The Minister said he would draw up some scheme to get to the markets of the world in a reasonable manner. After trouble he (Mr. S.) came to the conclusion that if we could get 150 tons there would be no difficulty in finding a market, and got offers from two different firms to advance £15 per ton in Sydney to the owner. It was to be up to a certain standard, as fairly representing the honey of New South Wales. The whole thing from start to finish turned out a frost. Whose fault it was he would not now discuss. There was a market all over Britain and through the continent of Europe for a certain standard grade. There were certain people still ready to make advances, and when it went home you could get any balance that was left after all expenses were paid. But last year £15 advance was given under the Board for Exports. This year £10 per ton only was offered by the exporters themselves—a depreciation of 33⅓ per cent., and he was now in communication with one gentleman who was prepared to ship under these conditions. If we were going to get the European markets we must come down to bed rock. He asked if they were going to combine or leave it to work out by itself.

Mr George James and Mr Abrams asked questions.

Mr Pender read the following paper:

When a Show schedule is issued by Agricultural Societies, especially in the classes for bees, the meaning of the terms are so vague that no beekeeper knows exactly what is required.

What is meant by Leather coloured Queens and her progeny? What is meant in Ligurian Queen? How is a Leather coloured or Ligurian drone to be judged, what are its show qualities? Should we use the term golden or yellow when 5 banded is intended?

For judging bee products, a system of points was adopted by a convention held a few years ago, but in the list of qualities for which points are awarded, there are several omissions which I think it is desirable to add. In honey, points are not given for solubility. In some honey of considerable density it is so insoluble, much like toffee, that it has to be chewed for some time before the palate gets any sense of its taste and if eaten with bread, the bread is thoroughly masticated before the honey commences to dissolve. This is a serious defect. A perfect honey should be soluble that as soon as it comes in contact with the palate, its flavour and aroma should be pronounced. Some may say solubility is opposed to density, in some instances it may be so but not necessarily always, even if it is opposed there is no advantage in having honey so dense as to be like toffee. The points in judging Wax needs some amendment. What is it that distinguishes wax from sperm, tallow, etc? Its aroma—there are no points adopted for aroma. This is most noticeable in the white varieties. White wax that has been obtained by continuous bleaching loses so much of its aroma as to be like paraffine, and possibly would stand the addition of such an adulterant if aroma is not considered. A wax that is white directly from the combs has as much aroma as that of yellow wax, and such wax is of much more value in arts, sciences and medicine than that which is bleached. When mentioning density of honey I think it should always be tested with a gravimiter, and at the same time the temperature should be taken, if one exhibit is colder than another at the time of judging, the cooler exhibit will show greater density reading than the other. The test for density by inverting the bottle, has so many contingencies to be considered that it is a long way from being a fair comparative test.

A few remarks pertaining to apicultural interests.

Perhaps the subject of most vital interest to beekeepers is that of the export of bee products. The Board of Exports has given the subject much consideration and were prepared to place the honey on the British market for the producer upon certain conditions, or rather restrictions, and had arranged for an advance of £15 per ton to the consignor, when put on board the boat, less deductions for expenses, amounting to about £5 10s per ton for preparations and packing. Sufficient returns to defray other expenses of freight, commission, dock charges, etc., at the London end (amounting to about £3 10s) and a further return to the beekeeper, were expected to be realized, but a stipulation was made that in the event of the honey not realizing sufficient to cover these expenses, the shipper to be held responsible, and make good the deficiency. Briefly stated the above was the offer made by the Board of Export to the beekeeper if a shipment of not less than 50 tons of honey approved by them was offered.

The Board complained that a deputation of the National Beekeepers Association, in a deputation represented that 150 to 200 tons could be shipped, and when circulars were sent out only 29 tons were offered of 27 different samples, of which 10 tons only were acceptable.

Now the beekeepers are twitted with misrepresentation (being unable to supply the quantity), and indifference to their own interests.

Under misrepresentation, I will answer the honey was easily obtained, but not under the restricted conditions. When it was stated 200 tons were obtainable there were no restrictions in the way. As to the indifference I must point out that every beekeeper who had any honey considered the matter and came to the conclusion the offer was not good enough. Among the many objections to the proposal was the expense of treatment of honey before shipment, which in the eyes of all beekeepers was considered useless and detrimental to the quality of the honey for which he would have to pay £5 10s per ton. Why should the honey be blended? To bring the whole shipment to one uniform sample, so as to be able to supply a repeat order of the same sample, there not being sufficient of one sample to send it alone, and the quality of the honey from each various source not always being identically the same. Can we blend so as to always get one quality, when we have such variety of quality in each honey used? If we can blend, what is to become of the aroma? that delicacy that places honey above sugar syrup, *i.e.* makes it *honey*. The process the honey will be exposed to—*i.e.*, placing it into a mixer, after being thinned with heat, and stirring altogether, will rob it of all its aroma, and in the most delicate honey, of its flavour. The honey to be exported would in most instances be sent to the Board of exports in a granulated state, the best condition for shipment, as there would be no risk from leakage, to liquify which would probably lead to some loss in leakage (the handling by the S. S. Co's not being with much care). There is a market in London for granulated honey, and from what I can learn, it sells as well as in the liquid state, and if sold to the British consumer direct from the cans filled in the apiary, the quality will be much finer than if liquified here. Again after being liquified here and stirred in the blending process, it is sure to be granulated on arrival when if liquid honey were demanded, a second heating would be required, and I will now ask beekeepers here assembled if it is not detrimental to the quality of honey to do so. To create a demand for honey on any market, we must supply it with all the delicacy natural to it we can preserve, and I think I am backed up by all beekeepers that tampering with the natural qualities of honey is dangerous and detrimental to any export undertaking. What assistance then do beekeepers ask of the Board of Exports? Simply subject all honey for export to a test of purity and suitability before placing on it the government brand, and give its advice as to suitable packages. The cost of so doing would be very small, and the Government saved the expense of erecting a plant for treating the honey, estimated to cost £150.

Mr Stephenson, in answer to question by Mr James, as to grade required, said they depended upon the beekeepers, and their (the beekeepers') experts to say what the sample required was. The Board did not want to interfere with their business. He gave an example of a person he had introduced to a commercial man who would give him £10 per ton if it was equal to standard. Spoke of a person receiving 2s. advance for fowls, but who afterwards received 2s. more after all expenses. If the honey was what it was represented to be, more would be got for it. The only shipment of honey that was sent home was shipped entirely without supervision, and it realised £23 per ton, and after all charges except tins and freight to Sydney it realised 1¾d per lb.

Mr Pender alluded to the restrictions of liquifying, blending, and re-packing in Sydney. The blending would be a mistake, and would spoil the aroma, also have a tendency to spoil the flavor. The risk would probably be burning and scorching.

Mr Tipper said, if the sample sent home only realised 1¾d per lb, and tins and freight to Sydney had to come off, there was not much encouragement to raise honey.

Mr Branch did not think the honey alluded to was first-class.

Discussion ensued, in which Messrs. Branch, Trahair, Rev. Hughes, Ayling, James, and others took part, and, on the suggestion of Mr Gale, it was arranged samples of 28lbs of honey could be forwarded to Mr Stephenson, who would forward them to England at Government expense, to ascertain the probable value there, duplicate numbered samples of same being kept here. Also he would be prepared to export honey in owners' own tins if the beekeepers would rely on themselves, and appoint their own experts to see to the matter.

Finally the following were appointed as such—Messrs. Gale, Trahair, and F. J. Ward.

Thursday Evening.

This being the third evening, the attendance was less than on previous evenings,

Conversation commenced on Mr. Stephenson's address the previous evening. It was decided the samples of the tins sent away should be sealed and numbered and left in the Technological College for reference.

POINTS IN JUDGING.

Mr. Gale said there were two items—one in connection with future exhibitions; the second—we ought to have seats in the pavilion for lady visitors Had told Mr. McLaughlin we should expect the Government to give enough to line the place. The dust would want keeping down. Mr. Fegan, the Minister for Agriculture, was a lover of bees. He was told things were pretty right as soon as the House met to get the Foul Brood Act passed. The Secretary had written two letters to the Department of Agriculture—one for matters required to complete the building, the other for the subscription towards our prize list. The answer (unofficially) was the cost of contingent and other expenses would prevent the money being given this year, but that did not interfere with the future.

Conversation followed, in which Messrs Pender, Branch, and others took part, respecting the floor, and it was decided to recommend and try our best to get a three-inch concrete floor. The present felt floor was the cause of the dust.

Mr. Abrams spoke of the need of a better entrance to the pavilion. Mr. Trahair said he had spoken to the Ground Committee, and he thought there would be no difficulty in the way. There were marked out tracks, and one would come in close upon our doors, and the tents in the way would have to go back.

Conversation took place on the need of a more conspicuous advertisement being placed on the building.

Mr. Gale said Messrs. Lasseter had instructed them to keep their trophy to be competed for next year. Respecting the conditions it was felt they needed altering.

The next business was altering the points, and the following agreed on—Queen in Observatory Hive.

"Of bees" to be added after purity, to read, Purity (of bees) 40, colour 20, form 20, size, 20.

Honey Candied, Flavour 50, colour 30, regularity of grain 20,

Comb Honey, Evenness 25, fulness, 25, appearance, 25, neatness 25, (flavour obliterated).

Honey, liquid extracted.—Flavour 40, destiny 30, colour 10, aroma 10, clearness 5, lightness 5.

Wax, white.—Colour 35 (instead of 40), clearness 35 (instead of 40), general appearance 20, aroma 10 (added).

Wax, yellow.—same points.

Comb foundation.—Impression 40, quality of wax 20, colour 20, density 20.

Mr. Abrams complained there was only two prizes given for extracted honey. There are a great many kinds of honey produced in N. S. Wales. He proposed they be classified in three lots:—1 All kinds of box. 2 Iron bark, stringy

bark, gum. 3 Lucerne and clover. He believed if some such scheme was adopted there would be no more entries. At present there was only a chance for certain beekeepers, who lived in certain districts. Mr. Branch seconded.

Mr. Cadden moved, and Mr. Tipper seconded an amendment, we have two classes of honey—light and dark. The amendment was carried.

Mr. Gale read a paper, "Queen breeding from maturity to maternity," which we shall give our readers in a future issue.

This closed the proceedings of the Convention.

THE SYDNEY SHOW.

The Annual Show of the Royal Agricultural Society opened on Wednesday, 11th April. Owing to the plague scare, there were not the numbers in attendance from the country as in preceding years. The honey pavilion was officially opened on Wednesday by the Hon. Mr. Chataway, Queensland Minister for Agriculture, who made a suitable address. Dr. Morris, president of the Technological College, Ultimo, also gave a short address. As on Good Friday 30,000 people attended the Show, and on Easter Monday 44,000, other days good attendances as well, there was a good crowd constantly in the honey pavilion. The prices of honey, &c., had been previously agreed on, and a real good trade was carried on at very good prices. There was a little disappointment in the honey pavilion. We had been given to understand that several large importers of bee goods would have utilised its spaces, but they did not, and there were some good spaces not filled up. Notwithstanding their absence, however, there was an excellent array. For the champion trophy Messrs W. Abram and Roberts & Co. competed, each giving a magnificent and most elaborately prepared display, we believe the best ever seen in Australia. Mr. Abram was awarded the prize, but Mr. Roberts was highly commended. Mr Seabrook secured the prize for the most attractive display of comb honey. Mr Trahair, secretary of the N.B.K.A., had an office in one corner, and also a nice assortment of bee goods, hives, extractors, comb and bottled honey, &c. Mr. J. F. Ward was a prize winner in sections and wax. Messrs. Pender Bros. took a good share of prizes, and had a large quantity of bee supplies. Mr A. Gale had large letters, "N.S.W.B.K.A., 1900" worked in wax by the bees, also different interesting bee items, obtained from the Technological College. A large silver cup, to be given by Messrs Lasseter for amateurs having not more than 25 hives was also exhibited on this table, but owing to the lateness of the announcement there were no entries. A stand advertised the *Australian Bee Bulletin*, together with a very satisfactory press testimonial from one of the largest colonial newspapers. Great numbers of people visited the pavilion during the days of the Show. A lot of honey and sections were sold, and doubtless many improved their knowledge of the beekeeping industry. The following were the prizes awarded :—

Foundation comb—Pender Bros, 1. Langstroth hive, Australian made—Pender Bros., 1 and 2. Any other variety hive—Pender Bros, 1. Leather coloured Italian queen and progeny—W. Abram and Pender Bros. divided 1 & 2. Yellow Italian queen and progeny—W. G. Watson, 1; W. Abram, 2. Champion Prize—W. Abram, 1; H. C. Roberts & Co., highly recommended for a second prize if it could be given. Dozen 1lb sections—Seabrook & Co., 1; J. F. Ward, 2. Large frame of honey—W. Abram, 1 and 2. Small frame of honey—W. Abram, 1 and 2. 1 dozen jars honey, liquid—Pender Bros., 1; H. R. Roberts & Co., 2; 9 entries. 1 dozen jars honey, granulated—Pender Bros., 1; Seabrook and Co., 2. Most attractive display of entracted honey—Seabrook and Co., 1. Yellow Beeswax—Pender Bros., 1; F. J. Ward, 2. White Beeswax—W. Abram, 1; Pender Bros., 2.

Many thanks to Mr Mowbray for copy of the *Eastern Province Herald*, Port Elizabeth, Cape of Good Hope. We have read it through from title to finish.

NEPEAN DISTRICT SHOW.

A. J. PLUNKETT.

The above Show was held on the 14th, 15th, and 16th March, 1900. Mr. Albert Gale officiated as judge; the following being the prize-winners in section K (Apiculture):—Best large frame honey—A. J. Plunkett, 1; G. Lewis, 2. Best small frame honey—Mrs. Grainger, 1; A. J. Plunkett, 2; Best six 1-lb glass jars liquid extracted Honey—Mrs. Grainger, 1; A. J. Plunkett, 2. Best six 1lb glass jars Granulated Extracted Honey—G. Lewis, 1; A. J. Plunkett, 2. Best 6lbs Beeswax (white)—G. Lewis, 1. Best 6lbs Beeswax (yellow)—A. J. Plunkett, 1; G. Lewis, 2. Best Sheet Comb Foundation—G. Lewis, 1; A. J. Plunkett, 2. Best display Comb Honey—G. Lewis, 1. Best display Extracted Honey—G. Lewis, 1. Best collection Honey, Beeswax, &c. (in trophy form) —G Lewis, 1; A. J. Plunkett, 2. Best Golden Italian Queen and Bees (her own progeny)—G. Lewis, 1; A. J. Plunkett, 2. Best two-storey Hive (furnished), made by bona fide beekeeper—G. Lewis, 1; A. J. Plunkett, 2.

C.U.T.B., Lyndhurst, April 11th, 1900.—I have only had a passable season, but a great show of yellow box for next season, and the prospect of a good season, the first for six years. We have had three floods here within three months—quite a novelty; had not seen one before for six years One of the floods was the heaviest ever known here.

R. J. G., Coolac.—The bees in this locality have done fairly well this season although the season has been a trying one owing to the great drought and excessive heat of the past summer. The drought broke up here about the beginning March and there is a bright prospect of a good winter. Honey has fallen in price in this district, some of the leading bee men are doing the 60 pounder at 12/6 per tin.

J. F. B., Dungowan, 4th April.—I am always glad when your "Bee Bulletin" arrives. I think it a very interesting and useful paper for anyone in the bee business. It has been a very bad year for the bees in this part, about half on an average have died out. There is however a good promise for next spring, as the yellow box, stringy bark, red and white gum are in bud.

A.J.C., Kayuga, April 13th, 1900.—I am always pleased to get my paper to see how all my brother beekeepers are getting on. We have had a very bad time this year. I have not taken any honey from my hives this year. I think I will have to feed them to keep them alive. Last year I had five tons from thirty-eight hives and sold it all. The white box was coming out, but the dry weather cut nearly all of them off.

W.T.M., Spring Hill, April 18th, 1900.—We have had nothing in the honey line for four seasons.

W. D., South Woodburn, 10—April.—I have been advised by my Sydney agents to discontinue sending shipments of honey as the market was glutted, honey being unsaleable. I would like to see some steps taken in appointing a reliable agent who would work in the interest of beekeepers generally and if all beekeepers would stand together and forward all honey to him I believe it would be the cause of a general advance and a satisfactory price. My hives have been full up but there is very little encouragement while the price is so low.

W. F. H., Frogmore, Burrowa 21/4/1900. According to the papers honey is selling in Sydney for 1d. and 1½d. per lb. prime extracted 2d per lb., and yet accounts from parts agree in stating that honey is very scarce this year. The inference to be drawn therefore is that honey which is sold at so low a price must be adulterated. This does not affect me as I can sell considerably more than I have to dispose of at 3d and even 4d a lb. Still I am willing at any time to give a modest 5/- in order to assist in having this sort of thing exposed.

[Have the Commission agents an object in giving low quotations in order to buy cheap from the producers?]

J. S. C. Kendall, March 31st.—The A. B. B. arrives with unfailing regularity and I am very pleased to say it still keeps up its standard of excellency. Reports by Bulletin are very dismal with but few exceptions. I cannot join in the chorus as I have had a very good season, the ironbark kept in bloom till Xmas and the honey was of first class quality, clear, dense and good flavour. After Xmas it was slightly darker and not such a good flavour, it came mostly from grey gum, I think Bees are very quiet now, I don't expect much more this season, very dry and rain badly wanted. If bee stings are likely to affect health, I ought to be a dead man as bees are unusually savage this year.

W.D.J., Eudlo, Queensland, 13/5/00.—I have enjoyed many a smile over a remark in the "Bulletin" by a writer, just before 'Xmas. He couldn't be bothered with carrying scissors around the apiary, when he wanted to cut the queen's wing or wings; he just picked up any old piece of broken glass or crockery and did the job in a moment. Ye Gods. He is an old hand, no doubt, but I thank him vastly for making my life merrier in this vale of tears. I have just finished extracting for the season and am glad to say I have taken 3 tons 6 cwt. as against 3½ cwt last year's flow. Honey in London (from the colonies I see has been at 30/- a cwt. I hope to send some to my brother for sale direct to the wholesale trade next year. It would pay me, I think, at 28/-.

UNDER THE APPLE TREES.

ELIZABETH GRINNELL, IN C.B.J.

Under the apple trees in front of my home is a row of white houses. In each house are thousands of beings, little to be sure, and to those who do not know them, scarcely worthy of regard. They are sometimes misjudged and even insulted by persons unacquainted with them. To those who love them, they are among the most wonderful of all created things. Whole books could be written of them, and still something would be left unsaid. To write the biography of a single honey bee is to write that of millions of the same family. And were one in writing to make a single mistatement, these millions in a wordless protest, would correct the error.

In the soft spring air, when the buds on the apple trees are breaking their hearts with delight, these people in my row of white houses send their doorkeepers to peep out. I smile into their small intelligent faces and say, "Welcome to the best we have, for the best has come." From this time on and all through the long summer, they are my friends, my daily companions, my nearest neighbours, creatures whom our dear God thinks about. They are everywhere, upon tree and flower and spilled sweetness, singing as they go. I have many times picked a bee from the city pavement, where she has fallen exhausted from a long flight, and taken her to a safe resting place, lest she be trodden upon. Footsteps of passers-by are so heavy and careless, unless the brain which is above the feet takes notice.

The honey bee, like every other created thing, be it animate life or plant, has once a

BABYHOOD.

The door keepers, peeping out at the spring, return to their comrades and say, "It is time to be at work." They know this by instinct, not by experience, for they have never seen a spring before. Born in late autumn, by a forethought of Mother Nature that they might survive the winter unworn by toil, they proceed joyously to their tasks. The empty combs, made on purpose of the right size for the baby bees to grow in, are carefully looked over and made clean. In one of the wax cells or cradles a tiny egg is placed. It is one of thousands, but we will leave the rest and watch just one.

The egg is no larger than the point of a girl's hat pin, but it grows. In a few days it becomes a little white maggot or worm. It has a large mouth, like a baby bird, and is very hungry. It is fed constantly with bee-bread from the lips of a nurse bee. In a little while it has filled the cell with its soft white body. And then it requires to be fed no longer. The old nurse looks at it and seems to say, "Poor little dear, you are sleepy!" Then she spreads a coverlet of some suitable stuff which she makes on purpose, and which has never been used before, all over the top of the cell and the baby is tucked in. No one can see it, so securely is it housed, but the nurse bee listens. She hears a sound. By it she knows that the little creature of her care is all right, and she goes away to look after the other babies.

Baby bee, left to itself in the dark, although but four days old, commences to work. It begins life by spinning a soft silken thread which it weaves into a blanket, in which it wraps itself. It must do this for itself, for no nurse could possibly create so delicate a web. It is now a chrysalis.

In about three weeks from the time the egg was placed in the cell, if one is on good terms with the bees and will lift the house roof to look in, one will see the top of the cell, or the waxen coverlet, break gently. Then a tiny face peeps through the opening. If one is

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PHASES OF THE MOON.

APRIL.

First Quarter, 7th, 6.55 a.m.
Full Moon, 15th, 11.2 a.m.
Last Quarter, 23rd, 12.33 a.m.
New Moon, 29th, 3.23 p.m.
Apogee, 11th, 8 p.m.
Perigee, 27th, 3 p.m.

accustomed to the look of bees, one will notice that this is a baby face in its expression. It has the innocent wondering look of many infantile beings, such as birdlings and young animals. It turns about and looks around, seeming to take in its new situation with wonder. Then it puts two hands on the broken rim of the cell and lifts itself. Little by little one may see it emerge from its cradle until it stands on the comb outside.

To be continued.

BROKEN COMB HONEY.

H. HYDE, IN *Progressive Beekeeper.*

The management of bees for the production of broken comb honey is one and the same as that used for section honey, only just as soon as bees start to work in the first super a queen excluder is placed between super and brood chamber until the first super is at least two-thirds full, when the excluder is removed. If the excluders are not used, some queens will proceed to lay in the first set of frames. After the first is completed, another super can be placed under the first. There is no danger of the queen occupying the second one, as the bees will fill the cells full of honey too fast, that is where full sheets of foundation are used.

When the frames are capped over, they are taken off and the honey cut out and placed in tin cans holding 6, 12 and 60 pounds respectively. The 6 and 12 pound cans have 4-inch screw caps, and the 60 pound have 8-inch screw caps. The width and depth of these frames are such that when the honey is nicely cut out and cut just half in two, the two pieces being placed in the 60 pound cans side by side, just even fill one layer. The next is placed cross-wise of the first, and so on until the cans are full. The cans will hold about 48 and 40 pounds respectively of comb cut out. Extracted honey is now poured on to fill all holes, and to finish up the weight. Now this honey being built on full sheets of foundation and being left floating or extracted, honey is shipped absolutely with as little loss as is extracted honey, and then, too, it goes at the same rate of freight as extracted honey, and it arrives in just as good shape as when it left the apiary.

In the South, where this kind of honey is known, its demand at present far exceeds the supply, notwithstanding over half of Texas' honey is produced that way. The reason for this demand is, people have been educated to know that this honey is in every way equal to section honey, and to them the very important fact that in buying they get full weight and at from 2 to 5c per pound cheaper—these facts cause its sale to a large number of people who are not able, or feel they are not, to buy section honey and who also either do not like extracted honey, or look upon it with suspicion. The sales of this honey have also reached Oklohama and Indian Territory, and are fast approaching Kansas City and St. Louis, and will eventually be produced by bee-keepers and reach the markets all over the United States. But as a matter of course section honey will always be produced, and there will always be a demand for some among the wealthy, who want the finest looking and that costs the most, no matter if it is not one particle better than broken comb from the same source.

MEDICAL ANIMALS.

Nature protects its own. Call it instinct or absolute knowledge, as you will. Their choice of remedies may not be extensive, but is evidently effective. The bee is frequently attacked by diarrheas, more or less violently, when it hastens to the wild-cherry, poplar, the red dogwood and hickory, to find the juices (sap) that cure.

Old Towser, when somewhat "off his feed," his stomach gone wrong, or liver out of fix, hies himself to the first bunch of couch-grass—the tall, straight kind with cutting edges that has often brought the blood to our fingers in our boyhood

swimming days. He makes no mistake in the variety, but bites off several big mouthfuls, and—soon Doggie is well.

Gentle spring more often brings sorrows to cats; whether too hilarious living in winter be the cause is not explained, but true it is that Romeo, or his Juliet, frequently resorts to a patch of joint-grass growing handily in the front yard. They eat of it ravenously, as if the tenderest "spinach-greens." No pharmacist could prepare a more effective "worm-mixture" than they have chosen. Worms are their natural enemies. But if in quest of a love-potion"—a panacea to calm their perturbed nerves, to abate the excitement of a turbulent night—they deliberately trudge off to the barn-yard, and there, very near the corner of the old cow-stable—see? where the ground is rich, is the luscious, big-headed "catnip" of childhood memory. There they roll and mew and eat of the succulent plant, with the zest of an epicure. Thereupon Tabby becomes exceedingly affectionate, and Tom, wise and complacent.

Dobbin, too--the dear old family steed, so gentle to the good, and patient to the thoughtless of the family—he also knows a thing or two about medicine! If he has "lampers"—the gums so swollen and painful that eating dry corn or even oats is a torture—he knows just where to find that nice flat clump of plantain that grows so plentifully in the corner of the old rail-fence. Great, big, fleshy leaves, so cooling to hot inflamed gums. Nice carrot-tops would do as well, if the children knew, and were thoughtful to give him.

As age advances, Dobbin gets short of breath—just as some old men are. If you will turn him loose into the pasture, right there in that boggy swale, near the creek, you will soon notice he has found a big bunch of large leaves, of rather strong and evil odor, but what does he care for smells if the skunk-cabbage will improve his breathing! I guess almost any of us would devour a real skunk if it kept us from choking to death!

Cattle, as you know, get hurt accidentally, or cut by human brutes. A sore is formed perhaps on the neck, often around the ears or rump. If they can reach the sore to lick it, it not only keeps it clean, but the saliva tends to coat it over and prevent the flies from infecting the hurt. If out of reach they have a way of telling their cow-friends of their misfortune, and behold!—another bossy comes up, and, after inspection, proceeds to lick the sore, day after day, until well.

Birds have a materia medica quite their own. If feeling indisposed from any cause, they know exactly where to find that head of millet, so full of oil, the very thing they need for what ails them. If suffering sorely they'll hop off to a large plant of hemp or wild hops, whichever is convenient, and in their seeds find the sedative for the pain they suffer. Soon you see them comfortably perched, head under wing, and asleep. Mustard is the plant they consult if their stomachs don't properly digest. These strong seeds generally do the business, and no doctor's bills to pay!—*American Bee Journal.*

SWARMING.

R. C. AIKEN IN *Progressive Beekeeper*,

(a) Strong colonies, hot weather and sufficient old stores to supply the immediate needs of the colony and NO nectar from the fields, and you have little swarming.

(b) Add to this field work and fair supply of nectar, a fair living and you have some swarming, the swarming just about in proportion to nectar gathering, the other conditions being equal.

(c) Take away ALL old stores and let the colony get just a bare living, and you have just a trifle more swarming than as indicated in (a).

(d) Plenty of old stores, colony strong (brood chamber full of bees and brood), nectar from fields in fair supply, and warm weather, brings swarming.

Which is the Greatest Honey Producing Country in Europe?

Germany, which has 1,910,000 hives, producing 45,000,000 lbs. of honey every year; Spain has 1,690,000 hives, producing 42,000,000 lbs. of honey; in Austria there are 1,555,000 hives, producing 40,000,000 lbs. of honey; in France, 950,000 hives, producing 22,000,000 lbs.; in Holland, 240,000 hives, producing 6,000,000 lbs.; in Russia, 110,000 hives, producing 2,000,000 lbs.; in Denmark, 90,000, producing the same; in Belgium, 200,000, producing 5,000,000 lbs.; in Greece, 30,000, producing 3,000,000 lbs. The annual production of honey in Europe is calculated to reach 40,000 tons, valued at £2,200,000, and of wax 15,000 tons of the value of £1,350,000. A hive of bees produces from 20 lb. to 50 lb. of honey yearly, according to the size of the hive, and multiplies ten-fold in five years. In order to obtain enough honey for a load, a bee requires to visit 6,000 different flowers, and makes on an average twenty trips daily.—*British Bee Journal.*

A DYAK HONEY-HUNTER.

The Hill Dyaks of Borneo are expert climbers. A scientist, while collecting natural history specimens, saw a Dyak ascend a large tapang-tree, five feet in diameter at the base, straight as a ship's mast, and without the smallest limb or knot for 120 feet up.

The man went up the tree to secure a bees' nest hanging from the under side of the lowest limb. The nest was simply a large, naked, triangular piece of white comb.

A Dyak "ladder" had been put up the previous year, and reached from the ground to the branches. It consisted of seven 20ft. bamboo poles, held almost end-to-end alongside the trunk by sharp pegs driven into the soft wood about 2 feet apart.

The pegs were driven first on one side of the poles and then on the other, and to them the bamboos were lashed by rattans, which held them firmly about 8in. from the tree. These pegs served as rungs of the ladder.

The builder must have been a bold man, with nerves of steel. He was obliged to let the ends of the poles overlap a few feet in order to build the ladder with safety to himself.

The completion of the ladder was most difficult. Clinging to the slight bamboo pole, 100 feet from the ground, he hauled up the last bamboo, 20 feet long, drove in the peg, lashed the lower end of the pole to it, and then ascended that shaking bamboo to fasten it at the top.

The Dyak honey-hunter had fastened to his back a basket to receive the honey. Making up his torch-wood, with which to smoke the bees out of the nest and away from himself, he ignited it, slung it by a cord from his neck so that it would hang below his feet, and started up the slender "ladder."

Hand and foot he went up, peg after peg, with a nonchalant ease which would have done credit to the most daring of sailors. Even that sailor would have been pardoned if he were a little shaky while climbing a tall factory chimney by the lightning-rod.

On reaching the lower limb, 120 feet from the ground, he took his torch in one hand, waved it to and fro until it smoked freely, and then crawled out along the bare branch until he was within reach of the coveted nest.

Examining it first on one side and then on the other, he shouted down as cheerfully as if his climb had been nothing, "No honey!"

Leaving the comb, he descended with a smile and reached the ground without the least tremor.—*The Penny Magazine.*

CAPPINGS.

From American and other Bee Journals.

A neighbour of mine had a swarm come out; he hived it, but it would not stay. The swarm stayed in the cluster all night, and in the morning I went over to help him hive it again. Just as I got there a number of bees flew into the cluster, seemingly from a distance. The swarm flew off as fast as they could go. We could not stop them. I think where the bees fly direct from the hive to the woods they must have come out the day before. I do not think that they send out scouts until after they cluster.—Mr. Hilton in *American Bee Journal.*

Mexican extracted honey is gathered by the natives working for the large ranchers here. The bees are driven out, the comb collected and put into boxes having wire sieves below; the box is then covered with thin boards, and placed in the sun, the heat forcing the honey to run out through the sieve. They have been getting out their honey this way since Cortez conquered Mexico. G. L. Kilmer in *American Bee Journal.*

At the Michigan State Beekeepers' Convention, held in Thompsonville, Jan. 1 and 2, Mr. J. M. Rankin, who has charge of the apiarian department of the Michigan Experiment Station, reported some interesting experiments in the line of developing bees with long tongues. He found that the average length of the tongue of black bees is 4.5 millimeters; Italians, 5.1, while he had several colonies of a strain of bees at the Experiment Station apiary whose tongues measured 6.2 millemeters. He believed that, by a process of selection, and breeding with this trait in view, a race of bees might be developed which will secure more of the honey from clover blossoms.—*Gleanings.*

The careful and successful beekeeper has a neat home, his wood pile is arranged symmetrically; if he has sawed the wood himself you may be sure that not a single stick is an inch longer than any other stick, and you may venture to assert that every stick of that wood will fit inside of his stove without having to be broken across somebody's knee. His tool-shed is a model of order, his agricultural implements are kept in good repair, and his live stock is healthy and well fed. If these things are not as I represent then he is not as successful a beekeeper as he might be, for beekeeping is, as Mr. Heddon once said, "*a business of details.*"—C. P. Dadant in *A. B. J.*

Honey-Vinegar.—A whisky barrel set on end bored full of half-inch auger-holes, sloping downwards, and was then filled with beech-shavings procured from a shoe factory. A false bottom was put in, on which the shavings rested, and a loose head was dropped on top. A spigot was inserted in the barrel, and the generator was ready for business. The already sour mead was poured into gallon stoneware jugs and heated over night on a shelf above the kitchen range; in the morning it was poured in at the top of the generator, and allowed to percolate through the shavings. The air admitted through the sloping holes in the sides of the barrel did the business of supplying the required oxygen, and a few runnings through the barrel, was all that was necessary to convert the fluid into the sharpest, clearest vinegar anybody ever tasted. There must be a generous body, say a pound of honey or sugar, or molasses, to the gallon: otherwise the maker will have a thin vinegar, which will lack the prime requisite—acidity."—*American Beekeeper.*

Mr. J. E. Roden wanted some honey, and advertised for samples. His success is thus graphically described:—The thinnest sample of all was in a bottle minus cork or stopper, but tied over with tissue paper, which on arrival was nothing more than pulp, of course. There were also several very thin glass bottles, which had been entrusted to the tender mercies of the post office, wrapped in a sheet of ordinary paper only, with the stamps affixed to the parcel itself instead of to an attached label. The result of obliterating the

said stamps had been to smash the bottles, thus producing a sticky mess of honey mixed with broken glass, torn paper, and bits of string, etc. And, with a few exceptions, many of the samples suffered from a regrettable lack of strict cleanliness, while others contained particles of foreign substances, and some had been so badly managed as to be in a state of active fermentation or worse.—*British Bee Journal.*

The fact that, prior to the advent of the Italian bee, there was a man who lived near me who had kept black or German bees for nearly half a century, while at this same time another beekeeper living four miles away procured an Italian queen when they first came to this country. He purchast this Italian queen in July, and from this one queen stocked his whole apiary of nearly 50 colonies, doing it within 6 weeks, there being no drones reared from any of these Italion queens that year, nor from their mother. According to Dzierzon, the young queens, as well as the mother would all produce Italian drones. As this man who stocked his apiary with Italian queens took no pains to restrict the rearing of drones, multitudes of such were reared the next season, and, as a result, fully ⅞ of the queens reared that year by our black bee bee-keeper gave more or less bees with yellew bands, as I well know, being called in to see them. I lived nearly five miles from this Italian beekeeper, and many of the young queens which I reared proved to have mated with these same Italian drones, from the markings of their workers. This fact has always proven to my mind that drones not only congregate, but that bees must be kept more than five miles apart if we would secure the mating of our queens to the drones which we rear in the colonies set apart for drone rearing. From the above it will be seen that I do not take any ' stock " in the idea that queens are liable to meet the drones reared for them to so mate, where apiaries are located within two miles of each other.—G. M. Doolittle, in *A. B. J.*

Wax.—We have no secret process of refining, for our wax-room is open to inspection to any beekeeper. We simply have a large wooden tank, capable of holding about ten barrels. Into this is poured about a barrel and a half of water, acidulated with about two per cent. of raw commercial sulphuric acid. The hogshead—for that in reality is what it is—is then filled with commercial wax of all shades and colors, and the whole is then treated to a jet of steam. After it is thoroughly melted the pipe is withdrawn, the tank is covered, and allowed to stand over night. The next morning the wax is ready to draw off through faucets located at different heights on the tank. During the night the acid and water, by reason of their greater specific gravity, settle down out of the wax, leaving it on top; during the same time the dirt now free from the wax settles into the water. The wax is then drawn off into deep cans, and usually has a bright yellow color, so totally unlike the product that went into the hogshead that one could hardly realize the two are one and the same. Of course it is impracticable for the average beekeeper to use so large a hogshead; but he can use practically the same methods with an ordinary barrel, reducing the quantity of acid and water, but, of course, keeping the relative amount of acid the same. The quantity of acid in any case will depend largely on the color of the wax before it goes into the refining vat. If the whole batch is almost black, then we would use about 5 per cent. of acid to water. If some of it is black, some yellow, some brown, then we would use about the per cent. first named.—*Gleanings.*

Soft Bee-Candy.—1. Into a brass preserving pan, or enamelled iron one, put seven pounds of sugar (fine granulated), six gills of water, and one teaspoonful of cream of tartar. 2. Put on a brisk, open fire, stirring constantly to prevent burning, until it comes to the boil. 3. When at the boiling-point, cease stirring.

Withdraw slightly from fire to prevent boiling over,until the mass begins to settle down to boil, which is readily known by the frothiness leaving it. 4. Have ready a teacup of cold water, and, with a teaspoon, lift out a little syrup and drop into the water. If it mixes readily with the water, it is not boiled enough; but if it lies at the bottom of the teacup, so as to lift like very thick paste or putty, it is just right, and ready to be removed from the fire. If too much boiled, the syrup will be hard and crisp in the water, which can be remedied by adding a little water to the syrup after it has been taken from the fire. Two minutes' boiling is sufficient for the above quantity. 5. Next have ready some shallow plates, or, preferably, shallow tin dishes; returning to the pan, which may be placed in cold water, or, better still, in a running stream, to hasten the cooling process. Then stir the mass constantly until it begins to get greasy-looking, gradually getting whiter and stiffer. Lastly, pour into the dishes and allow it to cool. The result will be a very fine-grained, moist, soft candy, that will cut readily with a knife. To the above I may add that the sugar should be dry and finely granulated, the cream of tartar free from damp and fresh, and the fire as strong as possible. I find the ordinary range much too slow, so that an open fire, with an arrangement (called a 'swee' in some parts of Scotland) to withdraw the pan when boiling from the blaze, is the best. I usually make about 40lb. at one boiling, and find it takes from seven to ten minutes' boiling briskly for that quantity." Whatever candy is not required for present use should be kept in a dry place, as it is liable to be affected by the different changes of temperature."—*Beekeepers' Record.*

CORRESPONDENCE.

W. M., Amaroo, March 17:—I hope you are getting more honey than I am. Last week I examined 20 hives and got 4lbs of honey. On the whole it has been a very poor season. Sorry to see such low prices quoted in Sydney. Here we get 3d per lb at the door.

H. M., Merimbula, March 10:—With reference to my Apiary, I can say that I have had a most successful honey season, having taken over 100lbs of honey from each hive. Hoping you have had the same good luck.

G. S., Warrah Ridge:—Our bees have done nothing since November '98, but things look as though there will be honey this coming winter. Splendid wet climate this is, it beats New Zealand hollow —yes for flies, ants, and other useless pests.

G.S., Bailieston, Victoria.—This has been a very poor year for honey in this district. I have been obliged to feed some of my weaker colonies, but I am glad to say this has come to an end as the grey box is now in bloom. There is every prospect of a good honey flow next spring as the yellow box, spotted box, red box, stringy bark and red gum hav a splendid show of buds.

T. J. B., Wallabadah, March 16:—Just a line to let you know that I am still doing my best to pull the bees through the worst summer and autumn I have experienced here. I am in hope of something better in a week or two, as the red gum is showing very well for bloom, and there is a little honey coming in the last few days. The white box shows splendidly for bloom, and I should say will bloom in about a month, if so things will be O. K. in a short time. I hope to see in the next issue of the good old A. B. B. some good accounts of the bee farmers in general.

W. C. F., Inverell:—I want to make a hedge around my apiary, what would you recommend for it. I would like one that would flower in winter? Could you give me the proper name for the China honey suckle? Well Mr Editor this district has been blessed with a good fall of rain, which will help for many purposes as well as the bees, as it will help the red gum and yellow box to blossom well.

Mr. A. J. Pigott, Inverell, writes:—I have sent you by post with this, a small packet of tree lucerne seed, which I hope you will succeed with. I don't know when they should be planted, but the seeds that dropped under the trees last year came up in the spring time. When we got our seeds the directions were that they should be soaked in boiling water. We put ours in about a pint of boiling water, and let it soak over night, and succeeded well with them. None of our stock eat the foliage, even in the drought when there was nothing else green, but the bees fairly roared on our trees all day long when in bloom. I suppose you heard of the death of my dear mother. She passed away peacefully on the 29th October. She had been very sick for a month before, and then caught influenza which proved too much for her to stand agasnst in her weak conditlon.

Our very deepest sympathy goes out to Mr. Pigott and his father, brothers and sisters. We cannot forget the pleasant time we spent at their home some two years ago.

H. S., Moss Glen, Tas., March 9:—I believe you folks over the other side are having a poor season; it is to be hoped the prices will be higher and make up for it. I think we have got the adulterated article in Hobart alright. In selling honey this season I found the grocers had a lot of stuff imported from N. S. Wales that I would not take at a gift. I am sure it was made up stuff; in fact the grocers admit that it is, saying they could not get anything else. I sold nearly half a ton at 5d per pound in 60lb tins, and sections at 9d, so you can see they are pretty short. We have had a very good season here this time, the only trouble we have is foul brood. I cannot get rid of ir for any length of time.

What you speak of may be adulterated honey, in which case the Tasmanian food laws against adulteration should be able to meet this evil. It may however be honey of an objectionable flavour, or shall we more correctly say, not of a *fashionable* flavour, that, should it be taken a liking to by some leading personage, might become specially valuable, but lacking that, is classed wtth adulterated stuff.

T. B., Wyong Creek, March 14:—I promised some time ago to let you know a little about our part of the world, but as the season has been so bad I did not like to write. As it seems that we are not going to have it any better, I may just say a little. Last season was not over good, only about 8 tons from 115 hives. This season we have only taken 1 ton, and that in the early part of the season, and I think most of it was gathered in the winter. I was, in fact, thinking I should have had to feed in the winter, but there is a little flow on now, so I think they will be able to tide the winter over. We had a good show of blossom especially from the wattle, but there could not have been any nectar in the bloom, as last season, while the wattle bloom was on, we had to keep the extractor going. We hope for a better season next year, too late this. You said some time ago you perhaps might give a run round our district. We would be happy to see you, and if you drop me a line when coming, I will send a carriage to bring you up as we are about 8 miles from the station. Wishing you every success with the A. B. B. as I find it a very useful little paper.

VICTORIA.

VICTORIAN NOTES.

R. BEUHNE.

This season has been one of surprises (and there will be a few more shortly.) After what I reported in February issue about dead brood I expected nothing fresh for this season, at any rate. However, I have had another novelty since. A flow from grey box commenced a few weeks ago, the bees being in fair condition, but they at once commenced to dwindle away at a terrible rate. This was not very strange, as there had been almost no breeding for some time; the bees were nearly all old, and they would to some extent soon be replaced by young ones from brood raised under the stimulus, but picture my dismay when these re-inforcements began to work, and coming home with heavy loads, were mercilessly stung to death as soon as they entered the hive, till in a few days the ground around the hives was covered with dead bees. Taking careful observations I noticed that they were perfectly healthy. Apparently young field bees were allowed to enter without being obstructed, relieved of their load of honey, and then stung and thrown out. In no case did they seem to have their honey sacs filled when stung, and yet I am positive there were absolutely no robbers about. This occurred at all the hives except the extreme southerly row. There was a steady southerly wind blowing all this time, against which the returning field bees were beating up, dropping on the ground everywhere, and the only conclusion I can come to is that on falling short of their hive they entered the nearest colony, and being loaded, were allowed to enter, and after unloading treated as strangers.

THE N.B K.A. COMMITTEE OF THE SILK ASSOCIATION.

The "up-to-date" editor of the honey worm column of the *A. Culturist* gives more "up-to-date" advice in the March issue. Look out for foul brood, he says, but he has so far not given the world the benefit of his up-to-date method for making the most out of the least (which probably refers to his knowledge of apiculture), and those measures to prevent diseases of which he spoke in an agricultural journal still remain his private property.

The Association has added fish culture to its numerous foster children. It might aptly hand this over to the care of the N.B.K. committee, as some of their procedure is decidedly fishy.

THAT EUCALPTUS AROMA.

Mr Helms in last issue puts up a man of straw, and then proceeds to demolish it. "Honey with a flavour like eucalyptus oil." Nobody said anything of the kind, so far as I know. The term eucalyptus flavour is used to describe its characteristic by some of the English people, whilst others call it strong, earthy, or heavy in flavour, all these terms simply expressing a difference in flavour from what these people are used to. New Zealand honey closely resembles and therefore finds a ready market a full rates.

Those who have heard nothing of Eucalyptus honey in California have not read American Bee Journals regularly. This Eucalyptus flavour question is very clearly stated in an article by Mr. Bennett in A.B.B. September 1896, on which he was complimented by *Gleanings* in Bee Culture, and from which I quote the concluding portion.—

To those who consider the term "Eucalyptus flavour" to be objectionable I would say: Suppose the London merchants told us that there is an immense demand for Australian honey, and what customers are especially delighted with, is its very pronounced eucalyptus flavour. Would you under those conditions consider the term objectionable? If not, then why is it objectionable when coupled with the information that there is no demand for our honey? It must be borne in mind that the word "eucalyptus" in

this connection is superfluous, and that if it is dropped altogether the information with which it has been associated still remains intact, and still furnishes material for most serious thought. Our honey, which was specially selected by a Government expert, and guaranteed as pure by a Government brand, was a positive drug on the London market, the merchants to whom it was consigned were unable to obtain reasonable rates for it, and finally it was disposed of to the blacking manufacturers and the like at prices ranging from 3d per lb. for a small quantity to about half the price for the bulk. The reason assigned and probably the true one, is that English buyers did not like its flavour. Instead of battling valiantly with a foolish term, I think we had better turn our attention to the solid fact that at present no demand exists in London for our honey, and consider what steps you can take towards creating a demand.

The supposition that Australian honey is objected to because it is Australian may I think be summarily dismissed. The price obtained for New Zealand honey proves this. If N.Z. honey is not objected to why should Australian *as Australian* be objected to either? As to why N. Z. honey realised a better price than ours in London I can only conjecture that the N. Z. honey was either clover honey, or something which more nearly resembled clover in flavour and appearance than ours does.

That our honey is of good quality is undeniable, and that the people at home will acquire a taste for it if we can only induce them to become acquainted with it does not admit of a doubt, but that is just where the pinch comes, and there are many difficulties to be overcome, and many heartburnings to be experienced before a great and constant demand is created in England for Australian honey. Let us cease battling with a foolish phrase and turn our attention to the best means of overcoming the real difficulties that are before us.

VICTORIAN DOINGS.

W. L. DAVEY.

I wish to draw the attention of all apiarists to the present danger of our industry. Many leading men are apathetic as regards the future, living only in the present. Unless we as a body look after our own interests, we will before very long, awake to the fact that a government lecturer is travelling the country, backed up by a government subsidised Association, viz., the Silk Association. I feel humiliated at this prospect because I took a leading part 12 months ago to help form the National Beekeepers Committee. In justice to those whom I may to some extent have influenced to join, I now warn them to send no half-crowns to the Silk Association. They would smilingly accept as many as any one can send them, and instead of spending them to your benefit they'll send you a friend, "a baby beekeeper."

I will here give you a proof that the National Beekeepers' Committee is not a fit and proper body to represent your interests. On September 5th the Committee met and passed a resolution, (see A. B. B., page 202), which was eventually condemned by the Silk Association's Council, thus passing over our needs with contempt and destroying the work of the Committee. The effect of this so paralysed the committee that as far as I can remember, it has met but once since (on Oct. 3rd.) and yet to blind beekeepers (so I presume) some most extraordinary acrobatic performances have taken place. Just read the following.—

APIARIES ON FOREST RESERVES.

Sir,—The notes by "R.B." in "The Leader" last week, re apiaries on forest reserves, are not altogether correct. In the first place, the National Beekeepers' committee is a branch of the Silk Culture and Rural Industries Association. Also, it was not aware of the statement "that 100 hives would gather 25 tons a year within a mile radius" being made at its deputation to the Minister of Lands. A statement was made that 200 to 300 hives have gathered 25 tons in good seasons, and good districts, and that some of these pastoral areas were worth 2/6 per acre in a fair season, for the honey gathered from the blossoms of the forest trees. Also, beekeeping is valuable as an adjunct in many cases, especially in orchard areas, for by the increased fertilization of the fruit blossom, the yields of our orchards should be heavier by probably 25 to 50 per cent. And again, beekeeping in good timbered localities would be a profitable adjunct to farm work if worked by those up-to-date methods, which necessarily try to get the most out of the least, and which take measures to prevent diseases; and some of our village settlers have proved this. Though of course, as with everything else, all are not successful; diseases and bad seasons will come, and that somehow usually to beginners. I elieve me, sir, the establishment of apiaries in our forest reserves will be very valuable; it will mean two profits from the same area at the

same time, viz., by sheep and bees; and the product of the apiaries so established will by no means be the least valuable of the two, taking things on the whole.

M. BURKE, Secretary.
W. L. DAVEY, Convenor.

Cromwell Buildings, Bourke-st., Melbourne.

Four things in this letter I cannot agree to, and I most positively assert that I never saw, let alone signed it or wrote it. Again, on page 4 of the *Cocoon* for February (the official organ of the Silk Association, I read the following: "At the Council meeting of the Victorian Silk Association the convener of the National B.K. Committee reported progress, &c." I did nothing of the kind, as I was not present at that council meeting, and had nothing to report.

Yet once more, in the March issue of the *Austral Culturist*, under the heading of National Beekeepers' committee, the convener is reported as having waited upon the Government Statist. As I happened to be convener until March 31st, I can give this statement a most flat contradiction. As far as my memory serves me, the only work I did after October was to make one of the deputation to the Lands Department on February 20 last. I could give you more printed instances of the convener's doings, which I had nothing to do with. These things are down in black and white, and I have copies in my possession which give the facts just enumerated (in case you should need to see the proof.)

The reader can, I think, see that someone in the Silk Association has been and is endeavouring to bolster up the National B. K. committee, to make it appear that everything is working smoothly, when in reality the committee has been defunct since October 3rd, 1899, and I challenge anyone, or the Silk Association itself, to disprove my statements. Can they explain these things? Seeing that many beekeepers, if not all, have made up their minds to withdraw from such an Association, I would point out that a Beekeepers' Committee may still be run by Silk Worm people, as it is their avowed object to make beekeeping an adjunct to farm work, and that irrespective of a market, &c.

Do you value your honey, your apiary, your future. If so, don't forget that we intend organising for our defence, &c., on May 24th next, but if your apiary has no value, and you don't care a brass farthing about the prospects of the honey industry, then join the Silk Association; we can recommend them as a good recruiting ground for amateurs and others similar. They have vacancies for five members on the Beekeepers Committee, and a man who could be led by the nose would be an ideal member, as the committee must not be an up-to-date body, but must do what it is told to do, and not use its own brains.

The Season.—I have just returned from Bendigo district on an Easter trip. I much admired friend Beuhne's methods but did not fancy his country much, but friend Bennett's country is in places an ideal spot. I saw 220 colonies at the former's place, and 170 at the latter, and to-day our own at 114 colonies, a total of over 500 hives with the wonderful yield of 45 tins (an average of about 5lbs. per hive between the three of us), but I happen to own 32 tins of it, and somehow think I'm awfully lucky, owing to such a long spell of wet weather during March and April, the blossoms just went to waste, or we would all have had two or three tons each. We now wait for next season, and hope for brighter times.

T. B. BOLTON.

Sir,—Judging from some correspondence in your columns there are some doubts as to what this Crown lands business involves; and in order that other beekeepers may think the matter over and come to conference in Melbourne on May 24 well prepared for any discussion, I venture to make a few remarks on the subject. First of all the idea was that one should, by payment of a license fee, get a legal right to go upon a pastoral lease (many of which cover 5,000 and 20,000 acres, I believe, and some of which are rich as honey regions), put down hives, and put up a

hut or two for camp and extracting. Now, this is simple enough for an out apiary, but as Mr Beuhne points out, the question of a clearing, then a fence to keep the necessary horse from straying, and other expenditure, say round an acre or two, arises, if it is to be a home apiary and place of residence. This, in my opinion, is a question only of the willingness of the Lands Department to so far recognise our industry as to make it possible for a beekeeper to apply (if he thought it worth it) for an excision from the pastoralists' big lump of say 10-acre blocks, and to get a *lease* himself for same, which would allow him to use the 10 acres as a home; or, on the other hand, if he was a man already with a home allow him to apply merely for an apiarists' "right," carrying all the privileges first mentioned, but not residential in a permanent sense. The one we shall for convenience call a "lease," the other a "right." Now the "lease" we could not expect to get in "state forests," but might get "rights," one would think, carrying no clearing privileges. However, there is no need to jeopardise for the sake of "forest" privileges our request to get on pastoral areas. One then would have no difficulty in regard to Mr Beuhne's point re silk and scent, beekeepers and *vice versa* (page 269 last issue). The apiarists' "right" would not allow any meddling with the soil, he would be getting only from the tree tops. In the case, however, of an apiarists' "lease," as suggested, I do not see why the Crown lands should be refused for any such added production as *might* be gotten out of it by a scent and silk bee-farmer, so that we might at once term it a "rural industries' lease," instead of merely an "apiarists' lease," and so get the added weight of appeal for this concession of the scented milkmen. I suggest, therefore, for consideration, these two forms: first, "apiarists' license or right" to enter with bees and gather honey on Crown pastoral areas, and second, "rural industries' lease" of small blocks, carrying permission to fence and clear for safety, and to carry on any such industry. With regard to the smaller areas known as "grazing areas" the advisability of including them in our scheme is to me very doubtful; at most they are to be only 1280 acres in size, and often are resided upon by the lessees, who regard them as their home; and for beekeepers to have the right to go upon these without the lessee having a voice in the matter would often result in bad feeling and hardship. Better if a bee man wants to go on to make private arrangement with the lessees of "grazing areas" themselves. Then again, some regulation as to distance from an already existing apiary would be necessary, whether the existing apiary was also on the pastoral block or just a mile or so away from it. Three miles would be a fair average. For instance, if it had an apiary under one mile from the pastoral block, it would not be fair for a man to come with a "right" and set his bees down just inside the pastoral block fence, or within less than two miles of it; I think, in fact, all applications of beekeepers for Crown land rights should be submitted and considered by a strong and representative national beekeepers' committee, who would be able to judge as to such points as might arise as to distance. Such a committee could well make by degrees classification of all known honey districts, and collect information as to trees, &c.; lead or support every effort to stop ringbarking in such districts, and ultimately get the land maps to point out in some way not only alluvial districts, forest districts, grazing and other districts, but where particularly rich trees exist "honey districts"; and not stopping here, get the officials to realise that (if nowhere else) in these honey areas at least trees *must* be respected, and the axe buried. A committee that would do this would be worth to our industry more than can be estimated, not immediately, perhaps, but in years to come and increasingly.

BEEKEEPERS ON CROWN LANDS.

TO VICTORIAN APIARISTS.

Gentlemen.—The renewal of Pastoral Leases—*i. e.* of those Crown Lands which are leased in areas of 1280 acres and upward for grazing purposes will take place at the end of June next for a period of ten years. It has been proposed by myself and thought well of by other beekeepers that steps should be taken with a view to obtain for apiarists a legal right of entry and putting down apiaries upon these areas. The Minister of Lands has been waited upon and has promised a scheme to meet our requirements, but so far nothing further has come it, and we are told *vide* Austral Culturist that on enquiry at the Lands office the Secretary of the Silk and Rural Industries Association etc., is informed that an expert beekeeper would be consulted on the matter of regulations. It would be a pity if any one of the so called experts about Melbourne was selected as the mouthpiece of the fraternity in any discussion with the authoities as to this difficult matter, and none that I know of amongst the amateurs and semi amateur class sufficiently commands the confidence of those whose sole business is the production of honey, to act in that capacity. On the other hand no professional beekeeper should be called upon for his advice until fortified by a thorough discussion with other professional beekeepers in conference on this subject. To this end the attendance of all beekeepers at the forthcoming conference in Melbourne on May 24th is most desirable in order that a decision may be arrived at as to what we require and stronger representation made to the Minister in order that the required clause or clauses giving us this privilege may be embodied in the new leases so soon to be issued to the graziers.

It is likely also that there will be keen discussion on matters of general policy and importance to the future welfare of our industry so that all those who depend upon the production of honey for a livelihood should willingly make some little sacrifice of time and trouble in order to be present.

AT the forthcoming MELBOURNE CONFERENCE, owing to Mr. Tipper's inability to be present, Mr R. BEUHNE will kindly act as his representative, and attend to any matters connected with the *A. B. Bulletin.*

264.—Your opinion of Cynic's letter in March issue?

T. PIKE.

265.—What do you do with your foul brood honey?

266.—Do pine trees yield honey?

G. SMITH.

267.—When bees are about to supersede a queen, do they select a larva in a worker cell, or do they induce the old queen to lay in an embryo queen cell?

A. G. PIGOTT.

262. I would try not to get many at a time, as I think it likely they would, if the blood was in a low state.

263. I don't think I ever extracted with unsealed brood in the frame, and if I did it certainly did not turn to foul brood. There is no foul brood in Inverell district.

WM. NIVEN.

264. Cynic's letter is a good one.

265. What little we have had we have burnt with the frames.

266. I have never detected pine honey in the hives. I know bees work a good deal on the pine gathering propolis.

267. In my opinion they do it both ways.

AUSTRALIAN YANKEE.

264. My opinion is that Cynic's head is level. By all means stop the Government publishing free bee literature.

265. Never had any.

266. It is my opinion they do.

267. The old queen lays the eggs in the queen cups.

A. A. ROBERTS.

262. I do not think they would affect the general run of beekeepers, as they soon get used to them, though there are exceptions to all rules. I know a man who received only one sting on

the thumb, and he had to carry his arm in a sling for a fortnight, the effects were so bad.

263. It would probably die being handled so rough, if it would not cause foul brood, as the bees would remove all that were displaced and clean up the cells.

INVERELL.

264. I hope Cynic will have some more to say in your columns. I believe he spoke the truth in every paragraph. I was one of those bee-keepers who sprang up at the time he speaks of, and now, well, nuff sed.

265. I never have any.

266. I don't think they will yield honey, but I have seen bees gathering pollen off them, but I don't think I would put an out-apiary in a pine scrub.

267. When they are about to supersede, I have seen eggs in embryo queen cells.

T. J. B.

264. Mr Cynic speaks my mind when he suggests the cessation of all Government literature on beekeeping. I think it a wrong to induce any person to go into business that a living cannot be made at, and speaking from all I know I cannot say I know one beekeeper who is making a living by beekeeping alone, and if I had to depend on mine alone would feel sort of doubtful.

265. Have never had foul brood.

266. Pine here only on the mountains. I do not think bees get any honey from them. Have seen bees about the trees, but think they were after the gum for propolis.

267. Have only had one hive supersede a queen that I noticed particularly, and I found that they made two queen cells from the brood cells and used one embryo queen cell.

LOYALSTONE.

264. I wrote a paper for one of the beekeepers' conventions held a few years ago, wherein I pointed out that in a few years time the way ringbarking was being carried on on crown lands that it would not be possible to carry on beekeeping to any extent, that we would have to depend on herbage cultivated trees, &c. Since that convention was held thousands of acres of good bee flora has been destroyed. And we now have twice as much inferior honey as we had then, as the beekeepers have been hunted out of good localities by ringbarking. Thus we have plenty inferior honey and no superior quality to export, as the good honey is snapped up as soon as extracted. I believe in the Government fostering up the beekeeping industry—in fact they don't pay us half the attention they should. If the Government allow all our best timber to be destroyed, we will have to put up with inferior honey, or else if this class of honey does not pay to produce, then we will have to give up beekeeping. It is not beekeeping being overdone, but our good timber being destroyed. The Government give us no encouragement to persevere in our industry. I live in a part where there is the best of honey flora—yellow box, white box, &c. I can sell all I produce in my district for 3d a lb, and have 150 hives. If good honey was exported from N.S.W. in time we would do as well as New Zealand.

No. 265.- When I had foul brood I burnt honey, wax, frames, and thoroughly scalded out the hives. I did try rendering down some of the wax, but it was such a mess job that I thought the cheapest and best in the long run was to burn everything. It gave me great satisfaction when I saw it burning to think what millions of foul brood germs I was destroying. Hence I say burn everything, and keep to the McEvoy system.

No. 266.—Don't know about honey, but know they gather pollen and propolis from them.

No. 267.—I came across a case of superseding this season I noticed particular. A young queen of Autumn, 1898, was breeding well about the middle of '99-1900 season, and happening to overhaul this hive on one of my visits (it was not an out apiary) I came upon a queen cell nearly capped. Thinhing they were about to swarm I took the cell down, but could find no other queen cells, so concluded it was a case of superseding. Noticed other embryo queen cells, but did not touch them. Had a look the next day and saw an egg in one of these cells. Let them alone. And in a month's time both mother and daughter were laying away in same hive. And both queens are still in the same hive, the mother almost as plump looking as the daughter.

J. S., TAMWORTH.

With regard to Cynic's remarks I think the Government has done all the harm it can do, and also supply dealers and queen raisers have largely helped to ruin the industry of producing honey. The scientific beekeepers of the colony are simply supply dealers and queen raisers and buyers of honey at the lowest possible price in exchange for goods, and exhibit the best qualities at shows, and the honey producer is ignored at shows that exhibit his own products. Another thing, what produces so many amateurs? Well, you have only to pick up bee literature and attend a bee lecture, and you will find it run thus: A good hive of leather coloured bees will yield 6 to 8 cwt of honey; Mr —— the year before last got 17 tons of honey from 70 hives, and I suppose about a ton of wax. Well, the amateur and leisure hour man scratches his head, and says, I must keep bees—17 tons of honey and about a ton of wax; honey worth 3d per lb, and 8d in the old country, and wax worth 1s to 1/6 per lb. Why that means £500 to £700 a year. But what a terrible jerk back it is when the reality comes. For instance, in our locality some of our beekeepers in a good district, had 100 hives; the year before last only got 2 or 3 tons of honey, and a few pounds of wax. This year only have 25 hives and got no honey. These are the ups and downs of honey producers, a thing you never find in bee Gazettes and school books. The only bee paper that I see

showing the ups and downs is the A.B.Bulletin. My opinion of the industry is to let every man work on his own merits, and produce the best article as to good qualities and inferior qualities. I find that one quality is as good as another if it is properly got up for sale, and where the practical honey producer will come in is by producing all honies with its peculiar consistency and flavours to the consumer without having any bulking, mixing, grading and thinning societies about his honey, combined with a little ex-board.

266. Pines and firs yield very little honey, but are very serviceable to bees, and I may say necessary for their resins, as from that they make propolis for sealing hives.

X RAYS.

Bravo, Cynic, well roared! You are against the measures of the Government—so am I, in fact again the Government entirely. But you write such ungrammatical English. However, don't let that trouble you; the great Cæsar couldn't read nor write till he learned it. It is quite evident you are more a man of action than of words. You want to suppress the Government literature—quite correct! Only you forget there is more to be done. Look for instance at the harm Tipper tries to do every month by his publication, which, moreover, is read in every other Australian colony, besides foreign parts.

And then there are the supply dealers, these "pushers," as you so euphoniously call them, who try to swamp the market with bee books containing most abominable rubbish. No, no, my dear Cynic, you are not thorough enough. You are still too sentimental for a reformer! Things nowadays require to be altered with a firm hand. Let me give you the cue to the proper procedure to achieve your aims. 1. Get rid of the present Government, and better still, of Governments entirely, for there is the danger that any of them may return to the old folly. 2. Hang the lecturer and the editor of the A.B.B. because as long as they live they will talk and write. 3. Ostracise every schoolmaster who ever has or in future intends to manufacture amateur or professional beekeepers. 4. Ring the neck of every schoolboy who is tainted with the ungodly idea of fancying that he will keep bees when his school days are over. 5. Burn one or two supply dealers, as these have a way of introducing foreign bee books. Further measures will suggest themselves when those preliminary reforms have been initiated, and little difficulty will be experienced to secure the "Future of the Honey Industry." P.S.—I have no sympathy with the Government, the lecturer, the schoolmasters or the rising generation of beekeepers, but I shouldn't like our dear old Tipper hanged, although he has done and is doing a terrible lot of mischief. I have always liked him as a friend, and if he would faithfully promise to leave off printing the *Bulletin* I think you might let him repent, for I feel sure he will mend his ways if once he promises.

QUESTIONS NEXT MONTH.

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

269.—What usually constitutes an amateur?

TAREE.

R. LATIMORE.

The honey season has about ended itself here for a few months, as the bloom is fast leaving the heads of the trees that yield us our honey in this locality. The past summer has been a most dry, and trying time for the producing elements in all pursuits, especially so with the farming community, as in many cases there will be no crops at all. Beekeepers have of course, to pass through the same favourable conditions, still the crops around this locality will pan out a good deal better than they have done during the too seasons that have preceded this one. The quality is also a great deal better, but there is one thing that is not, and that is the price. If the quotations appearing in the Sydney daly's are any criterion to go by, there must surely be room for best improvement. The late Farmers Co-Operative Co of N. S. W. reorganized, and carried on by Messrs A. and W. McAuther, Ltd., are soliciting consignments of honey for export and on approval of sample are prepared to make good advances in cash. This firm I am reliably informed are determined to seek up the honey export trade, and intend shortly I understand making their prospects known to beekeepers through the columns of your valuable paper. If such should come to pass, and no doubt it will, and providing the terms offered by the above named firm are within the reach of reason, it is sincerely to be hoped the industry will receive some substantial assistance. There is plenty of room to extend in this district, but what is the encouragement. It is to be hoped the steps to be taken by the said firm will be one in the advance guard for beekeepers, and the latter ought to unite themselves in helping on as much as possible a movement that should claim

every effort to make it a going concern, successful, and useful, alike to buyer and seller.

ENGLISH MARKETS.

"William McEvoy and E. Dickenson, two enthusiastic bee culture men of Wentworth county, are rejoicing over the result of the sale of a big honey shipment they made some time ago to Liverpool. The shipment amounted to 10,000 pounds and was handled by commission men, the profit to the shippers being about nine cents per pound after all expences were met." This certainly does not indicate failure of crops, or disappointment in prices. The experince of the Goold, Shapley and Muir Co., in this respect is somewhat different; they have a large quantity of first-class honey still on consignment in Liverpool, which has been on hand there now something over twelve months. The returns they have had so far do not represent nearly the percentage of profit indicated in the article referred to. And they state positively that they have not received a living profit on any of their shipments to the Old Country, notwithstanding the fact that for the greater part of this honey they paid last year's wholesale price. And that the commission houses with whom they do business are among the best in the country. *Canadian Bee Journal.*

THE N. B. K. A.

T. F. B., Appin, March 17th.—In your report of the proceedings of the N. B. K. A. committee in the last issue of your journal, I observe that Mr. Gale has suggested to the Minister that there be no inspector, but the N. B. K. A. have power to administer the Foul Brood Act. I must protest against the power to administer the Act being vested in any one Association, more especially as we 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. Any one, be he a beekeeper or horse dealer, on sending the sum of 5/- to the Secretary of Mr. Gale's Association, at once becomes a member. The Hunter River Beekeepers' Association, or for the matter of that, any other Association has quite as much right to the privilege of administering the Act, and sending out its president or any other member, all over the colony to inspect at the cost of the unfortunate beekeepers, as Mr. Gale'sAssociation; for in reality this is what the suggestion amounts to. 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. 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.

Professor Cook relates an instance of a cow being stung to death by boes, she not attempting to run away from them.

A very interesting article "Beekeeping in 1872," kindly sent us by Mr G. Colbourne, jun., unavoidably held over till our next. Also some very valuable notes by "Loyalstone," and other very interesting articles.

Mr Munday gives an instance in the *A. Beekeeper* of receiving a parcel of eggs which had been detained two days at the Post Office after being taken from the hive, and yet good queens were reared from them.

Notwithstanding the poor honey flow throughout N.S.W. generally the past season, the districts to the westward of Sydney—say round Paramatta and Liverpool, have had a very good flow.

We heartily sympathise with those beekeepers who like ourselves have had no honey to gather the past season. We would remind many of them, however, it requires cash to carry on a journal like the *A. B. Bulletin*, and to get it neither from our bees or many of our subscribers is a trifle hard. And postage stamps to send accounts out is also expensive.

A wash-boilerful of red clover blossoms thoroughly boiled and the extract reduced by evaporation to the consistency of salve, is a sovereign remedy for cancer, writes a Canadian correspondent.—*American Beekeeper.*

How to Start Bees in Sections—When you are ready for section work, cage the queen, giving enough "Good" candy to last two or three days. Put on your super of sections with bait, if convenient. On top of this super place an empty one, in which put the caged queen. The bees will begin work in the sections at once, and will keep at it as long as there is nectar coming in. The empty super and cage should, of course, be removed as soon as the queen is liberated —A. J. Wright, in *Gleanings.*

Take a hive full of brood, three fourths of it good brood and one-fourth of it bad brood, and place it on top of a pretty good swarm to hatch; place a queen, excluding zinc between the hives, and keep the queen below, and in due time the brood above the excluder will all be hatched out, and all of the bad brood will be cleaned out of the combs, and no more trace of the bad brood is seen in these hives that season. This has been my own experience in my own apiaries this season, and these colonies in the lower hives, were slightly affected, as well as the brood placed on top of the colonies. —N. D. West. in *Gleanings.*

"Taking into consideration the fact that there are nearly a million bees in every colony," explained the glib vendor of patent hives, "and that each bee has to make something like 750 trips a day to and from the surplus boxes with his honey, you will readily see that by adopting this arrangment you are saving the bees in your five colonies nearly 17,000 miles of travel on foot every year; for we give the supernatural position, and it stands to reason." "Say stranger, I reckon we'll make out with the old uns a while yet," quoth the prospective victim, seriously. "I was allers a mite skeery o' these 'supernateral fixins, anyhow, and I must go.—*American Beekeeper.*

"For croup we don't believe there is anything better than honey and alum. Put a teaspoonful of pulverized alum in three tablespoonfuls of honey. Give a teaspoonful every fifteen or twenty minutes until the youngster throws up the phlegm that is causing the croup." Yes that's good. But we believe that the best expectorant and cough remedy in the world is made from colts-foot, or wild ginger, hoarhound and honey. Two ounces of colts-foot, one-half ounce hoarhound put in a pint of water and boiled until it is reduced to a halt a pint; strain and add half a pint of good honey, and bottle. Dose, a teaspoonful every two hours and at bed time.—*American Beekeeper.*

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.

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