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West Maitland, N.S.W.: E. Tipper, July 22, 1893

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THE AUSTRALIAN BEE BULLETIN.

A MONTHLY JOURNAL, DEVOTED TO BEE-KEEPING.

VOL. 2. No. XVI.

JULY 22, 1893.

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

Hunter River Bee-Keepers' Association.**MONTHLY MEETINGS.**

—AT—

Technological Rooms, West Maitland.

TUESDAY, JULY 25.

TUESDAY, AUG. 29TH.

TUESDAY, SEPT. 26TH.

MICH. SCOBIE, Hon. Sec.

The Australian Bee Bulletin

A JOURNAL DEVOTED TO BEE-KEEPING

WEST MAITLAND.—JULY 22, 1893.

DOINGS FOR THE MONTH.

TO Beekeepers in general this is one of the most critical and important months of the year. Though in many parts of Australia bees have been gathering honey all through the winter, in most parts it has been otherwise. Food has not been gathered, the queen has ceased to lay, and the bees have been gradually dying away, if not from cold at any rate in the course of nature from old age, till a period arrives that there are not enough bees in the hives to sustain the proper heat, or protect themselves from robbers, and all is soon lost. Such is what threatens beekeepers this month especially, so it behoves them to be constantly on the watch as to the state of their hives, and to judiciously supply them with food. It is mainly with this object in view the question of feeding has been framed for this month, and the answers will be found in another column. This is, however, not the only duty the beekeeper owes to himself, as in a very short time the whole face of nature will be clothed in the garb of spring, and the honey-flow will be in full vigor, so with the warm weather and the bright prospects ahead, the queens will begin to lay, the hive will be busy, and swarming will have to be attended to, or whatever substitute is used in place of it. Therefore the beekeeper who keeps bees for profit should look on this as the busiest and most critical month of the year, and should get everything in readiness for the many emergencies that are bound to crop up at times most unexpected. Now is the opportunity also, and the best

time to substitute good queens for the weaklings of the apiary—whether poor honey-gatherers or drone layers, or to improve your bees altogether by getting fresh strains to mix with them. Look out for the queen breeder you have most confidence in and communicate with him straight off, get ready new hives, frames filled with foundation to be at hand for swarming, to put in brood chamber to deter swarming, or to increase the number of your hives as the occasion demands. There is nothing like having everything done in time, and a little trouble and energy in these matters this month will well repay the beekeeper before the summer ends.

THE New South Wales Convention Committee has accomplished what it was meant to do, or as much as it was possible to do. A Beekeepers' Union has been formed, of which every beekeeper should be a member. The Government of the day has promised to introduce a Foul Brood Act, and also to deal with the question of adulteration; also a system of judging by points has been agreed on. We attended the Convention, and were well pleased with its success. It was a real pleasure to feel the hearty hand-shake with so many bee-keepers whom we had previously known only by correspondence, and we tried in a quiet way to get ideas how we could improve the A. B. BULLETIN. But everybody seemed so satisfied, and so anxious to wish it success, and gave it such promises of support, that had we been inclined to think so ourselves, we would have considered the BEE BULLETIN perfect. But fortunately we did come across ideas that might point still to an upward and onward movement. One man thought there should be more *advanced bee culture* in it. We thought we had done our best in that direction, considering that the majority of beekeepers are novices, and the most experienced are

willing to be taught. And we fancied, if we made it too scientific the ordinary beekeepers would not care for it. We thought we had done all that could be done in that direction—given everything of the latest on “Foul brood,” including McKenzie’s digest, and all the latest ideas on other matters we could pick up, at home or abroad. But we’ll try harder yet. Another said, in our extracts from correspondents, we might have made them read nicer—some of them were too rambling. Well, we have been inviting correspondence, and when one would tell us he was not used to writing we would tell him to send along facts and we would make that all right—and we will, too. We say this, however—all the good, useful reading don’t come from the universities, and the more we get of the honest experiences of good men who love their bees, the better for the bee industry and the BEE BULLETIN as well. After all, we have resolved to do something, but before doing so will take our readers into our confidence, and ask their opinion. *Look at the loose slips in your number. We want every subscriber to fill up both sides and return it to us.* A voice at our elbow whispers “You’ll get too many answers.” Never mind that. If we don’t insert them all we’ll take counsel from every one of them. We read in a very old book that “in the multitude of counsellors there is wisdom.” As to the return of bees and honey, the Government want to get statistics so that they can compare one year with another. They have asked us to do what we could in the matter, and now we ask you to oblige us and them—this all in your own interest. We hope before the 20th day of August to have made the postmaster in our town feel the necessity of getting an addition to his staff. We must conclude this rambling article by saying we shall never forget the happy time we spent at the Beekeepers’ Convention of 1893, and have every hope that great and permanent good will come of it to every beekeeper in New South Wales.

THE CONVENTION.

The Convention has taken place, and can now be numbered with the events of the past. The Government had kindly placed at the disposal of the committee the Girls’ High School, in Elizabeth-street, Sydney. It commenced on Wednesday morning, June 28th, and terminated on the Friday evening. One end of the room was occupied by about the finest collection of bee appliances we have seen, contributed by Messrs. Hebblewhite, of Sydney, R. L. Pender, of Maitland, and R. K. Allport, of North Sydney. In fact, every possible device in connection with honey gathering was there, and its uses explained. The members attending exhibited and handed to Mr. A. Gale, of the Technical Education Department, different samples of honey, as follows:—Swamp mahogany, Gosford; pampasistle, Cowra; blue gum, St. Ives; pepper tree, Mudgee; garden flowers, Stanmore; river gum, Albury; river gum, Engowra; orange, St. Ives; river gum, Murray; red gum, St. Ives; white clover, Largs; white box, Engowra; red gum, Junee. The clearest was that gathered from the white clover, and the darkest that gathered from the blossom of the red gum. Mr. H. L. Jones, of Mel Bonum Apiary, Goodna, Queensland, exhibited different kinds of bees in spirits, among which were bees from one of A. I. Root’s best tested queens, native Queensland bees (black fore-part and bright yellow after-part), punics and Carniolian bees; and Mr. Munday contributed a blackfellows’ honey basket, which he had been kindly lent for the occasion by Mr. Rye, of the Manning. The Rev. Mr. Hughes, of Spring Hill, sent per Mr. T. Bond, of the same place, a fine sample of comb honey; and Mr. Mansfield bees in a small glass hive. Messrs. Callaghan, caterers, of Sydney, had a magnificent wedding cake in which honey was substituted for sugar in its composition; besides a quantity of honey cakes, which were distributed, and indeed were well got up, and were very nice. Some nice labels printed at the

office of the *Australian Bee Bulletin*, were exhibited, while along the side of room Mr. Allport, of North Sydney, displayed some interesting novelties in the way of hives—a long combination hive we particularly noted—together with knives, smokers, &c.; and a Mr. Beach, of Newtown, had some specimens in the way of the British Standard hive, which he told us he had got several prizes for in England. They were provided with hinges, gables, verandahs, &c., &c.

The Hon. T. M. Slattery, Minister for Agriculture, had promised to open the proceedings, but was unavoidably prevented, through being engaged in an important lawsuit. Mr. T. H. Bradley, of Appin, president of the New South Wales Beekeepers' Association, accordingly took the chair, and introduced Mr. W. S. Campbell, chief clerk of the Agricultural Department, who read a paper which had been prepared by Mr. Slattery. [Space will not permit us to publish Mr. Slattery's paper in this issue, but it will appear in our next. The Government had provided a shorthand reporter, and each of the Sydney daily press was represented. In fact, we are indebted to the latter for much of the following, as we were not able to take notes throughout the proceedings.]

The Rev. John Ayling (Pitt Town) in moving a vote of thanks to the Minister for his paper, and Mr Campbell for attending and reading it, said he had read the interview published in *The Daily Telegraph* with Alderman Playfair. He fully endorsed everything said there about waste in the community. One of the best "joints"—if he might so call it—that could be placed on a working man's table was a sheep's head, and yet they were being continually thrown away. There would be less poverty if they made more use of their resources. The Almighty did not send men on the earth to be drones. ("Hear Hear.") Their forests, which were placed throughout the length and breadth of the colony, were not put there to waste their fragrance on the desert air. Millions of pounds of honey were allowed to go to

waste annually on their eucalyptus trees. When men wilfully scorned the good gifts of God, it served them right if they were poor to the end of the chapter. Persons had come here to learn and communicate their learning, to compare notes, and to rub shoulders one with another. He was very glad to see so many ladies present, as bee-farming was an industry in which the fair sex, being generally of more amiable temperaments than men, could engage in with more success than the latter. Bad-tempered men had no business to have bees at all. They wanted the government to grant their rightful claims. They were not politicians, and did not want protection, but required the Government's help. He concluded by referring to the evils of foul brood and adulteration.

Mr. Josiah E. Taylor (Cowra) seconded the motion, which was carried unanimously.

It was proposed by Mr. G. Streatfield, of Beneree, and seconded by Mr. F. G. Daley, of Richmond, that Mr. Charles Mansfield be the secretary of the Convention. Carried.

It being now past twelve o'clock the roll was called of those who had received invitations, and 74 responded, some seven being ladies. An adjournment was then made to the courtyard, for the purpose of having a photograph of the group taken. The artist kept them in position for over half an hour, taking four negatives, but we have since learned he made a failure of all of them, so our readers will have to excuse our not producing the photograph, as we promised.

On re-assembling at two o'clock,

Mr. W. Abram, of Beecroft, read a paper on points in judging, submitted his idea of how they should be allotted, and moved—"That it is desirable to have uniform system of judging by points in all apicultural matters, so that the most competent experts may be appointed for the position of judging."

Mr W. Niven seconded the motion, and after some discussion, in which several speakers alluded to the anomalies in judging bee exhibits which existed at

agricultural shows at present, and the need of a special system of judging.

The motion was carried unanimously.

The following committee was appointed to draw up a report and submit the same on Thursday afternoon:—Messrs F. G. Daley (Richmond), William Shaw (Mudgee), D. W. Parker (Springwood), T. Schroeder (Narrabri), J. W. Hopkins (Cardiff, near Newcastle), J. E. Taylor (Cowra), W. S. Seabrook (St. Ives), W. Abram (Beecroft), B. Naveau (Berry), and W. S. Pender (West Maitland).

Mr. M. Scobie, of Maitland, submitted up the report of a committee appointed at the Convention in Maitland last year on this question.

FOUL BROOD AND DISEASES.

Mr. J. Sinclair (Kangaroo Valley) introduced the subject of foul brood and diseases. He related his practical experience on the matter. They found foul brood on very low swampy lands where the water was bad. He moved, "That the Minister for Agriculture be urged to carry out legislation dealing with the foul brood disease and other similar diseases of bees, and that Messrs. Bradley, Abram, Seabrook and Shallard be a committee to wait on the Minister in reference to the matter, and to give any desired information."

Mr. B. Naveau (Berry) seconded the motion. He said that an act was needed to compel the destruction of infected bees, and instanced a case where infected bees had spread the disease to an adjoining apiary.

Mr. W. Shaw (Mudgee) contended that no cure had yet been found to do away with foul brood notwithstanding all that had been written by Mr. Isaac Hopkins, of New Zealand, who had done much good for bee-farming in that colony. He (Mr. Shaw) proposed that the queen should be removed, and the brood in the hive allowed to hatch out when any was found to be foul. The bees could then be placed in another hive. The frames could be boiled and the hive scoured thoroughly. He believed, from experience, that that was the best way to deal with foul brood. A Foul-brood

Act no doubt would be beneficial to bee-keepers.

Mr. Helms (Agricultural Department) said he and Dr. Cobb had made investigations into the matter of diseases, and would speak on the subject on the following day.

Mr. J. T. Cooke (Cooma) said he represented one of the highest parts of New South Wales, and they had foul brood there in a very extensive state; therefore the delegates should disabuse their minds about foul brood being found only on wet and low lands. The term "foul brood" was a bad one, as the disease was not in the brood.

Mr. R. K. ALFORD (St. Ives) said that practically nothing was known round about Sydney in regard to foul brood.

Mr. J. F. Munday of (Woodville) knew that apiarists did not like destroying expensive hives, and he held they could adopt a certain remedy as that they could save the hive.

Mr. Gale thought he had seen scores of apiaries which had been affected in the colony. They might go in for legislation if they could prevent the wild bee taking the contagion. They might as well go in for legislation for mange in dogs. They could kill the mongrels, but they could not get at the bees in the bush. When people kept their bees in bar framehives and not gin cases they would do away with much foul brood.

Mr. Abram said that members of Parliament were not bee-keepers, and therefore they might not pass the necessary legislation. It was not so long since he had seen foul brood existing at North Shore and Manly. The cause of the disease was bacillus, which did not affect live bees, wax, and honey. The first stage of the disease was when the young larvæ were unsealed, and the second when the young larvæ were transformed into nymph.

Mr. F. G. Daley (Richmond) asked whether a man was fit to act as an inspector if he could not tell a working bee from a drone? He quoted from a paper which stated that a South Australian inspector had seen "six" queens on one frame in

a hive at York's Peninsula. (Laughter.)

Mr. P. Riddle (St. Ives) said that the foul brood extended to the queen, and the old bees, as well as the brood.

The Chairman considered they lost more bees from bee paralysis than they did from foul brood, as the latter was not in all parts of the country, and said he and his sister Miss Bradley had experimented with the oil of cinnamon, with very favourable results, and recommended where foul brood existed that it should be tried.

The motion was carried unanimously and the convention adjourned till the evening.

QUESTIONS.

The evening sitting was devoted to the answering of questions which were written on a black-board. The first question was:—"Does the queen larva spin a complete cocoon?"

Mr. P. Riddell and Mr. Gale answered in the affirmative.

The question became one of queen raising.

Mr. Abram and Mr. Gale read papers they had prepared on that subject.

The Chairman gave some of his experiences in queen raising. He hoped the question would come up at the next convention, and that they would be able to say something upon it, and thus they would be able to arrive at a definite decision.

A vote was taken on the question of "whether the queen is completely enveloped in a complete cocoon," and the majority held up their hands in favor of a negative reply.

The next question was, "Do drones ever emerge from queen cells?"

Mr. J. E. Taylor said he never knew of a live drone ever emerging from a queen cell.

Mr. Helms said he did not see any reason why the drones should not emerge alive.

Mr. Munday stated the question had been answered in the affirmative in the New Zealand journal. He asked if anybody present had ever seen a live drone emerge from a queen cell. He thought

he had, but he was not positive.

The next question was, "Are drones from a mated queen pure?"

Mr. R. A. Taylor (Minmi) answered that in many cases the drones were not pure. He believed they would get hybrid or black drones from a pure queen.

Mr. Gale thought they should eliminate the word "hybrid" in their discussions on this matter; cross bred would be far more suitable.

Mr. Helms said he thought it was quite possible to have two coloured drones emerge from eggs of a fertilised or unfertilised Italian queen.

A show of hands was taken, and there was a majority of four in favor of a negative reply.

The next query was, "The season for swarming in my district is in October; the main honey harvest commences in the last week in October, and continues through November. What is the best plan to adopt to have swarming over and stocks again strong to secure all the honey possible from this harvest?"

The Chairman said swarming should be kept down as much as possible and all the queens should be removed.

Mr. Abram said if non-swarming queens were wanted they should be reared in the fall of the year.

Mr. W. S. Pender (Maitland) exhibited and explained the Langdon non-swarming device.

No vote was taken on the question when the discussion closed.

The convention then adjourned till next morning.

SECOND DAY.

Mr. E. Tipper (West Maitland) proposed the following motion:—

"That an organisation be now formed, to be called the New South Wales Beekeepers' Union."

He also suggested that the organisation should be on the basis of the land divisions of the colony into fourteen districts, the same as the present Land Act division, but subsequently withdrew this matter on the suggestion of Mr. Abram. He

said he had been asked, owing to Mr. Patten being unable to be present, to perform what he believed was the most important motion of the convention, to read a paper on organisation. He said evils were to be remedied and matters improved. Diseases such as foul brood that their pets were liable to could only be effectually combated by means of organisation. The value of their honey was liable to be depreciated by the cunning devices of adulterators. They wanted to raise the value of their honey either by making it more popular for household consumption or by increasing its use in various manufactures and procuring outside markets. These were amply sufficient reasons for the grand step of organisation to be now taken. The chief feature of such a union would be to have a body of representative men to whom they would entrust their interests, requirements, and grievances, and to whom they would look, to watch their interests, and take such steps as they may think best for the welfare of those they represent. Such a governing body would or ought to have power to appoint examining boards, and give certificates to qualified beekeepers, only holders of which would be qualified to act as judges at shows. If a foul brood Act was passed, the government would probably act in conjunction with the union. The main business of this convention was the formation of a union, which he proposed should now be established, on certain lines which they could fix. (Applause.)

Mr. G. Streatfield (Beneree) seconded the motion. He thought it would be to the advantage of all beekeepers to be connected with one union. In bee-farming they expected to derive two things—viz., pleasure and success. By having an organisation they would become more efficient in their work in this industry. ("Hear, hear.")

Mr. Allport submitted an amendment that they should join the Beekeepers' Association of New South Wales."

Messrs. W. Abram, F. G. Daley, and Sydney Dodds, spoke on the

matter, and the resolution was carried by a large majority, and the following committee on the motion of Mr. Tipper, were appointed to draw up a constitution:—Messrs Gale, Allport, Taylor, (Cowra), Abram, Seabrook, Pender, Tipper, and the Rev. J. Ayling.

CONSERVATION OF FORESTS.

Mr. Ednie Brown, late Director of Forestry, was to have read a paper on "The Conservation of Forests," but as he was not able to be present, it was intimated that he would read the paper the following day. The chairman (Mr. T. H. Bradley), announced that Mr. Helms (Department of Agriculture) would address the meeting, and give those present the benefit of his researches with the microscope among diseases in bees.

DISEASES AMONG BEES.

Mr. HELMS said he had been deputed by the Department of Agriculture to investigate the disease among bees, when it appeared last spring. He had experienced considerable difficulty in getting at something tangible about the disease, but he had prepared some slides for the microscope in order to get at the foundation of the disease. In conjunction with others he had, he said, considered the best medicines to use to cure foul brood in bees. They were at a loss, however, to know what quantity they should administer. They found, that a bee was the one-millionth part of the weight of a man, and they reasoned on that basis. Great difficulty was, however experienced in making the bees take the medicine, as they refused to eat when the disease was on them. The result of his investigation was, he said, very unsatisfactory; but he had come to the conclusion that they would first have to learn the nature of the minute organisms to be found in the disease before they could deal properly with it. He believed that the disease among the bees was introduced from America, though he had no direct proof. It was, however, unknown in Australia three years ago. Since that time, however, the disease had

spread rapidly, and had now extended to many places in the colony. He advised owners of bees to keep the insects thoroughly clean in order to stamp out the disease. From his investigations he had come to the conclusion the essential oil of cinnamon was the most effective cure for the disease.

The Rev. J. Ayling submitted the report of the Union Committee, which, after discussion, was adopted and will be found as its rules elsewhere.

JUDGING BY POINTS.

Mr. ABRAM submitted the report of the committee appointed on Wednesday to draft a scheme re judging of honey, bees, etc., at shows by points, and moved the adoption of the report.

The report was as follows:—*Hive bees*: Purity of strain 15 points, color of queens 5, strength of stock 5, temper of bees 5, quantity and regularity of brood 10, evenness of combs 5, utility of hive 5—total 50. *Queen* in nucleus, purity 20, color 10, form 10, size 10—total 50. *Hives and implements*, utility 25, workmanship 10, other merits 15—total 50. *Honey* (liquid extracted), flavor 20, aroma 5, clearness 10, color 5, density 10—total 50. *Honey* (candied), flavor 25, color 15, fineness of grain 10; total 50. *Comb Honey*, evenness 10, fulness 10, appearance 10, neatness 10, flavour 10—total 50. *Wax* (white), colour 20, clearness 20, general appearance 10; wax (yellow), same points. *Comb foundation*, impression 25, quality of wax 15, color 10—total 50. Collection of articles made from honey for domestic purposes; At judges' discretion. The report also recommended that the various agricultural societies should be informed of the scheme adopted in regard to the judging by points.

Mr. P. D. Page (Minto) seconded the motion and it was carried.

The convention adjourned to 10.30 a.m. next day.

THIRD DAY.

In the absence of Mr. Ednie Brown, Mr. W. S. Gourd, of Murrurundi, read the paper prepared by him.

(This paper, we are sorry space prevents us from inserting in this issue, but it will appear in our next).

Mr. S. Dodds, of Mulbring, said, in the old time, there was not so much scrub as now. Thirty years ago, where thousands of cattle could graze was now all dense scrub, as at that time, the blacks and the kangaroos regulated matters. When the grass was too long the blacks would burn it down, and so destroyed the young scrub.

Mr. HELMS said it was very easy to ring bark, but it was rather hard to eradicate the second crop. The question of conservation of forests was a national one, and the bee-keepers were justified in putting forward their claim.

ADULTERATION OF HONEY.

Mr. DALEY read a paper on this subject and moved a motion to the effect that steps be taken to draft a bill dealing with the adulteration of honey. He quoted extracts from the *A. Bee Bulletin* made last year by Major Shallard showing that on one occasion seven firms in Sydney were selling adulterated honey. He had on the table samples of glucose also honey mixed with glucose. A glass containing pure honey, would not blend with spirits, but honey mixed with glucose would blend with it. He moved that the committee appointed to interview the Minister on other matters should also bring under his notice the extent of the adulteration of honey at present prevailing, and the sufficiency or otherwise of existing legislation to prevent it.

Mr. MAJOR SEALLARD seconded the motion.

Mr. ABRAM moved as an amendment—That anything in regard to adulteration of honey be referred to the union, in order to enable us to follow up this matter.

Mr. GOARD seconded the amendment.

Mr. DALEY said the Agricultural Department was now making experiments in regard to the adulteration of honey. He had arranged to supply samples to Mr. Helms in helping the latter to carry on his investigations.

It was decided that the union should deal with the matter.

The meeting then adjourned to enable the committee to proceed to the office of the Minister for Agriculture as arranged at 12 o'clock to lay these matters before him, a number of the members at the same time visiting the Technical College.

MARKETING OF HONEY.

Mr. Seabrook read the following paper:—

Mr. President, Ladies and Gentlemen,—The subject which I have the honour of introducing to your notice is the marketing of honey. New South Wales with its super abundance of honey producing flora, is admirably suitable for the apicultural industry, which has been more especially evinced the last few years, during which period it has made very rapid strides. The result of this is, that all bee-farmers are beginning to feel the necessity for an outlet for their product. In order to accomplish this end, I purpose to suggest a method by which the retail purchaser or consumer is guaranteed pure extracted honey. This in my opinion may be done by a registered label issued to members of the New South Wales Bee-keepers Union only, to be affixed to packages or samples sold, thus excluding all who make it their business to buy up inferior honey, and foistering upon the public as an article anything but pure extracted honey. From personal experience of the Sydney honey market, I have often observed very minutely, bottlers "not being producers," put up honey, or what is called by that name, into sightly packages, with showy labels, underselling the producer who vends the genuine article. Some of the bee farmers in New South Wales suffer a heavy loss by not being in a position to make the market price for their extracted and comb honey, consequence on their living at a great distance from Sydney. They cannot supply the buyers of honey with what they require from time to time on account of this, and are often forced to place their stocks upon the market in one lot at whatever price is offered. Cannot we improve matters in this respect, so that the producer will be better paid for his enterprise? I think this can be done by communicating with their confrère Beekeepers located nearer, to dispose of their product for its full value. Another important feature in Marketing Honey, is the great necessity of showing buyers the wonderful difference between extracted and strained honey. How few business men give themselves time to comprehend this all important part of the honey business; by one process the honey is extracted from the comb by centrifugal force, being free from all impurities, whereas strained honey often contains a composition of dead bees pollen, wax, &c.,

making is unfit for human consumption. In England, honey is used in considerable quantities by some of the largest manufacturers of biscuits, and there is a ready demand for a line called the "Honey drop Biscuit." Although the manufacturer in England pays for pure extracted honey, more than double the price the colonial manufacturer would be asked to pay for it here, I have often wondered how it is, our manufacturers do not use it and have conversed with them on the subject, resulting in Mr. Callaghan's exhibit, which is placed before you, and after partaking of the various articles that have honey as an ingredient, instead of sugar, you will agree with me that it is vastly superior to sugar, and only wants a fair introduction to the trade to make a good market for our pure extracted honey in this particular branch. The advantage derived by the use of honey in lieu of sugar is very great. In the first place, 1 lb. of honey is equivalent to 3 lbs. of sugar, thus reducing the cost of one ingredient to a third of original, and producing better results, viz, preservation and flavour. I am now engaged making enquiries amongst the brewers, in reference to their using honey in place of sugar, but have not received replies in time to place before you on this occasion.

(Signed) W. T. SEABROOK.

Mr. Seabrook moved "that the matter of preparing an improved scheme for the marketing of honey be considered by the union."

Mr. Munday seconded the proposition. He thought the union should have a registered label, so that the public would know that the article placed on the market by it was a genuine one.

Mr. Allport said the middle man should not be looked on as the bee-keepers' enemy. It was he who could conserve and classify the different qualities of honey. One kind of honey might become very popular just as the flow was ceasing, and it was the dealers who could regulate the sale of such. Also the opening out of new markets. He thought as no bees existed in Ceylon there should be a good market there for our honey.

The motion was carried.

It was resolved, on the motion of Mr. Major Shallard, seconded by Mr. Scobie, that Sydney be the place where the convention of 1894 be held.

At the evening session the following officers and committee were elected:—President, R. Scobie, M.L.A. (West

Maitland); vice-presidents, A. Gale (Sydney), Rev. J. Ayling (Pitt Town), W. S. Pender (Maitland), J. E. Taylor (Cowra); secretary, M. Shallard (Glenbrook); treasurer, J. Trahair (Sydney); committee, W. T. Seabrook (St. Ives); M. Scobie (Maitland), F. G. Daley (Richmond), C. Mansfield (Largs), G. James (Gordon), R. K. Allport (N. Sydney), J. Halstead (Eglington), W. Abram (Bee-croft), R. Macansh (Murrumburrah), W. Niven (Engowra), E. Tipper (Maitland), and J. Worrall (Baulkham Hills).

The wedding cake presented by Messrs. Callaghan was cut at the close of the convention and distributed among the members present.

DEPUTATION TO THE MINISTER FOR AGRICULTURE.

A deputation from the union, comprising Messrs. Bradly, Abram, and Major Shallard, waited upon Mr. T. M. Slattery (Minister for Agriculture), and brought under his notice the resolutions passed in regard to the necessity of having a Foul Brood Act, and that steps should be taken to conserve the forests. Mr. Shallard explained how the bees' disease was spread through people not paying proper attention to the matter. The union which had just been formed wanted legislative enactment to compel persons who had foul brood in their bees to do away with the disease. If a Foul Brood Act was passed the union would see that the Act was properly administered, in order to save the government going to any expense in that direction. Messrs. Bradley and Abram also addressed Mr. Slattery in support of the union's request.

Mr. Slattery agreed with the deputation that something ought to be done in the matter of foul brood, and pointed out that a Foot and Mouth Diseases Act and a Vine Diseases Act were in existence. He promised to give them every assistance in his power, and said if a draft of a bill required was placed before Mr. Campbell he would endeavour if he had time to get it passed.

Mr Major SHALLARD, in introducing the subject of conservation of forests, dwelt upon the great destruction of trees owing to the indiscriminate ringbarking and the way in which timber was cut on Government reserves. Owing to this the beekeepers suffered a good deal in regard to their industry.

Mr. SLATTERY replied that he would be very glad if the beekeepers would work with the department in connection with this matter, and report any cases where the forest rangers did not enforce the regulations of the Act, and where useful timber was indiscriminately destroyed by ringbarking, etc., on the Government reserves.

VISITING.

On the Friday morning, after the business was disposed of the members of the Convention were kindly invited by Mr. Gale to accompany him to the Technological College at Ultimo. Arrived there we were met by Mr. Bridges, the able superintendant, who conducted us through the whole of the immense place, showing the various class rooms and workshops, where he informed us on one night in the week—Friday—there were sometimes a thousand students; and we feel assured many of the bee-keepers felt a wish rise within them that their own lads and lasses away in the bush could enjoy the privileges to be had there. Mr. Mansfield in a neat and appropriate speech thanked Mr. Bridges for his kindness and courtesy to the beekeepers.

Previous to breaking up on Friday evening, Mr. George James of Gordon, and Mr. Seabrook, kindly invited as many as could, to visit their apiaries on the following day. A few met at the appointed time, at the Circular Quay, and proceeded first to Mr. James' apiary. Both Mr. and Mrs. James did their best to make the visitors enjoy themselves, and, notwithstanding the cold breeze blowing, showing their Italian and Doolittle pets, not forgetting also seeing to the "inner man" before departing

We might mention if ever we came across a "born mechanic," Mr. James is one. If any use can be made for an old article, or something is wanted to be made, he'll find the way to make it or the stuff to make it out of. As most present had to be back in Sydney by three o'clock to a committee meeting, they were reluctantly compelled to abandon their visit to Mr. Seabrook's apiary, notwithstanding it was only two miles further away.

COMMITTEE MEETING.

At a subsequent meeting of the Committee, held by the courtesy of Mr. Trahair, at Messrs. Hebblewhite's—present: Mr. Gale (in the chair), Messrs. Shallard, Trahair, Worrall, Scobie, Macanch, Seabrook, Nevin, J. E. Taylor, and E. Tipper—it was resolved to convey the thanks of the Convention to Mr. Callaghan for the present of the wedding cake, and to Mr. Munday and Mr. Rye for the honey basket; also to Mr. Mansfield for his arduous and successful work as secretary, and it was resolved to present him with the top of the wedding cake, on which a shield with a suitable inscription should be engraved.

It was resolved that the secretary and treasurer be empowered to purchase any necessary articles they may require for the carrying out of their office. That the accounts be placed in the Commercial Bank of Sydney. That the secretary get 1000 copies of the rules printed and any other printing that may be necessary.

Mr. Gale announced that application had been made for a room for the Union to meet in at the Technological museum.

It was resolved that a circular be forwarded to all the members asking their co-operation in the matter of foul brood, and that the secretary procure copies of the different foul brood acts in other colonies and countries.

It was resolved that samples of adulterated honey be procured to be taken with samples of good honey to the Minister by a deputation consisting of Messrs. Scobie, M.L.A., Gale, Shallard, and Trahair; and also endeavour to get the

Chamber of Commerce to act in conjunction with them.

A sub-committee was appointed to draw up bye-laws for future guidance.

Re labels Mr. Gale undertook to get a design of a neck label drawn by one of the pupils of the Technological College. The idea of a Union label is a neck label to be used in addition to the apiarists' own larger private label.

SINCE THE CONVENTION.

Mr. Albert Gale, of the Technical Education Branch, Sydney, writes us, July 15th:—

"I have taken very active steps re adulteration. Have visited Chamber of Commerce and we are forming a deputation on adulteration of food in general. Mr. Inglis, M.P., is taking a very active interest with us. We cannot get a bill through on adulteration of honey only, other foods must be included. I was waited on yesterday by some Sydney merchants, and they are going to send some sample tons of honey to Central Europe at once. I have been waited on by an association of ladies, who are going to help some gentle women who have been reduced in circumstances to help themselves by means of bee farms. Since our Convention a great flutter has taken place in the Bee World."

N.S.W. BEEKEEPERS UNION RULES, &C.

As in America, so in Australia, bee-keeping is becoming an extensive industry.

Union is strength, and great necessity exists for union among apiarians, for there are in this industry, as among others, many evils to be grappled with, and precautions to be taken by those engaged therein, if we are to be at all adequately remunerated.

The conferences which have already been held in New South Wales, and which, in America are a wide spread institution, have been productive of great benefit. Our Union proposes a fraternal combination to obtain for apiarians their legitimate rights and such only. Every person keeping but a few stocks of bees or selling or buying a pound of honey, is directly interested, and on all such we call for their countenance and support.

Our objects may be stated briefly:—

1. To secure the union and co-operation of all interested in bee-keeping.
2. To assist members in disposing of their products, by guaranteeing the purity of the same, etc.
3. To prevent the sale of adulterated honey.
4. To see that that the bee-keeping industry obtains its proper recognition from Government.
5. To obtain legislative remedial enactments respecting foul brood and other diseases.
6. To protect as far as possible its members from the interference of ignorant and malicious persons.
7. To encourage Agricultural and other societies, in offering prizes for honey, etc., and beekeeping appliances at their annual exhibitions.
8. To assist these societies at their own request, in preparing schedules and appointing judges.
9. And generally to disseminate the knowledge of improved methods of operation, and to further the interests of bee-keepers in every possible way.

The subscription to the Union is 5s per annum, to be paid to the Hon. Secretary, to whom all communications should be addressed.

MAJOR SHALLARD, HON. SEC.,
GLENBROOK.

1.—The name of the Organization shall be the New South Wales Beekeepers' Union.

2.—The Union shall consist of a President, Vice-Presidents, a Managing Committee, Secretary, and Treasurer, Ordinary Members, and Honorary Corresponding Members.

3.—The Union shall be managed by a Committee, consisting of the President, Vice-Presidents, Secretary and Treasurer, and twelve other members, to be elected by ballot at the Annual General Meeting to be held as hereinafter provided. At every meeting of this Committee five shall form a quorum, and the Chairman shall have a casting vote in addition to his own.

4.—The annual subscription of each ordinary member is fixed at five shillings, payable in advance. Any person may become a member with the consent of the Committee upon forwarding his subscription, with his name and address in full, to the Secretary. Corresponding members not residing in New South Wales may be appointed by the Committee, and are to be considered as Honorary Members, not paying any subscription.

5.—Any member, by paying the sum of £5 5s to the Treasurer, shall, with the consent of the Committee, become a life member of the Union, with all the rights and privileges of any ordinary member.

6.—All members are entitled to copies of any reports and papers printed by the Union for distribution, and to a participation in any arrangements that may be made by the Committee from time to time to facilitate the disposal of their honey.

7.—The business year of the Union shall commence on the 1st of July in each year.

8.—Notices for special general meetings are to set forth the objects.

9.—The annual general meeting shall be held at such place as the members at the previous annual general meeting by an absolute majority vote shall fix, on a day fixed by the Committee, and of which at least one month's notice is to be given to the members.

10.—At annual meetings the Committee shall submit a short report of the proceedings of the Union, and a statement of receipts and expenditure for the year ending as per rule 8. As soon as convenient after the conclusion of the business year the Committee shall publish an annual report, the balance-sheet, a list of members, and such other information as may be considered necessary; a copy of which shall be sent to each member of this Union. A balance-sheet and list of members, submitted by the Secretary and Treasurer, shall be audited and certified to by two members of a Managing Committee.

11.—Ordinary general meetings of the Union may be called at any time by the Managing Committee. Not less than seven days' notice of such meetings to be given.

12.—The Committee shall have power to make and alter bye-laws and business rules for the guidance of their proceedings; provided always that they shall in no way contravene any rule or resolution made at general meetings.

13.—Special general meetings may be called by the Committee. The Secretary shall call a special general meeting on the requisition of ten members within fifteen days from the date of such requisition having been received by him.

14.—The Committee shall meet as often as necessary for the transaction of business. The notice of all such meetings to be given in such manner as the Committee may from time to time determine. Any five members of the Committee may, by notice in writing to the Secretary, require him to call a special meeting (committee) to be held within fifteen days after receipt of such notice, and the notice calling such meeting shall specify the object.

15.—All propositions at any meeting shall be disposed of by a show of hands, but a ballot of the members present may be demanded by any three members in the room.

16.—Votes may be given personally or by proxy, but the holder of a proxy must be a member.

17.—Any member guilty of obstruction to the interests of the Union may be expelled from the Union at any general meeting, due notice of such meeting having been first given in accordance with these rules by a majority of three-fourths of the members present, but such resolution shall be confirmed at the next subsequent meeting by a like majority, and his expulsion shall date from such subsequent meeting.

18.—These rules shall not be altered except by a majority of two-thirds of the members present at any general meeting of which due notice has been given, with a statement of the alterations intended to be proposed.

WHAT THE DEPARTMENT IS DOING.

We acknowledge receipt of the following:—

“From R. Helms, Department of Agriculture, Sydney, 7th July, 1893, to E. Tipper, Esq., *A. B. Bulletin*, Maitland. Dear Sir,—Since the dissolution of the Bee Convention our Chemist has returned from his leave, and I have had a conversation with him regarding the necessary experiments for the detection of adulterations in honey. These will take a long time to finish, as they are likely to prove very intricate, and besides you will understand that there is a great amount of other work always waiting. Please be kind enough to insert an invitation to honey producers to furnish the Department with typical honey, ripe, and from unsealed cells, when obtainable, for the purpose of first, to ascertain the consistency of Australian honey, and for future investigation.

You might also make a note of it, that in case the bee paralysis occurred again in any of the apiaries, this ought to be notified to the Department at once.

Yours faithfully,
R. HELMS.”

[Will beekeepers kindly note the above, and communicate at once with Dr. Helms as requested.—Ed.]

N. S. W. BEE-KEEPERS' ASSOCIATION.

We are indebted to Mr. Major Shallard the hon. secretary, for the following:—

A meeting of the N.S.W. Beekeepers' Association was held at their room at the Technical College, Harris-street, on Monday evening, at 8 p.m. The President, Mr. T. H. Bradley, was in the chair.

After the reading of the minutes and the formal business was concluded, Mr. Albert Gale read a paper on “Heredity in Bees,” being a reply to a paper which appeared in the *British Bee Journal*. A considerable discussion followed, and Mr. Grimshaw, the British correspondent, was generally condemned.

A discussion of a conversational charac-

ter took place on bee paralysis, and the chairman strongly advised members to experiment for themselves. He did not wish to give much information on the subject, as his experiments were not at present conclusive enough.

The meeting closed with a vote of thanks to Mr. Albert Gale and the President.

A NEW COLONIAL SWARMING DEVICE.

We would call attention to advertisement elsewhere of Mr. George James, of Gordon, in which he states that he has invented a swarming device superior by far to any yet invented. We saw an account of the Langdon device very much praised up by the American bee journals, but we shall however feel very proud if what Mr. James tells us is true that his invention is far superior to the Yankee, and we are longing to know what it is like. His advertisement came just as we were going to press. As we know Mr. James is a man thoroughly capable of good things we advise our readers to read his advertisement and communicate with him or his agents, Messrs. Hebblewhite & Co.

The *Wingham Chronicle*, July 6, says: In the mountain districts we are having bitter cold now, but tempered by the prospect of a good season for honey, commencing as soon as spring weather opens. The flowering bud of the eucalyptus and other native trees are wonderfully large and full. There has been such a season of growth, that the spring promises a grand outburst of honey flow.

We are gratified to be able to state the *Australian Bee Bulletin* has not only subscribers and correspondents in every one of the colonies in the Australian group, but this month they have been sent for from Cape Colony, South Africa, whence we trust ere long to also receive regular correspondence.

There are a few respectable beekeepers who have not paid up their first year's subscription. We wish they would take this hint.

MANY BEES, MUCH HONEY.

*Written for the Australian Bee Bulletin
by G. M. Doolittle, Borodino, N. Y., U.S.A.*

In the year 1877 I secured 566 pounds of honey from one colony of bees, and reported the same to several of the different papers of the United States, especially those devoted to bee culture. This was considered as a large yield at that time and is still so considered by many who are not posted along the lines of larger yields, since then some reporting nearly as high as 1,000 pounds from one colony. As we have many skeptical in America on this point of large yields, very likely there are those in Australia who feel the same way inclined, therefore a few words on this subject may not be amiss, especially if new light may be made to dawn upon the minds of those who are keeping bees at a loss. In the spring above mentioned I selected an ordinary colony of bees, and set it apart for extracted honey. This colony was no better than one-third of my apiary would average, and was not helped in the least from any other colony. I built them up as fast as possible, by the means usually employed by our best apiarists, such as securing as much warmth as possible in the brood chamber, seeing that they were not obliged to retrench in brood rearing on account of lack of stores, spreading the brood, &c. By the time fruit trees were in bloom, the queen had brood in twelve frames, and from that source I extracted 16½ lbs. A few days after this, the twelve frames, bees and all, were set into a hive four feet long, and a division board placed at the rear of the combs. Once a week two more empty combs were inserted in the centre of the brood nest until the hive contained twenty combs well filled with brood. As white clover was now yielding honey, the hive was filled out with frames of empty combs, which numbered 32 in all. I did not expect that the queen would occupy any of these last twelve combs, but in this I was mistaken, for before white clover was through yielding honey I found brood in every one of the 32 combs, which, if placed compactly together, was fully equal to fifteen frames full of brood. Each frame would give 100 square inches, and as each square inch of comb will give 50 worker bees, 5,000 bees would hatch out of each of these frames every 21 days, or 75,000 from the fifteen frames. The average life of the bee is 45 days in the working season, hence it will be seen that the queen can place two and one-seventh generations of bees on the stage of action, to where one generation dies off. Two and one-seventh times 75,000 equals 160,700 as the number of bees in that hive during the basswood

yield, which is the greatest honey resource in the northern portion of the United States. It was a sight worth beholding when the bees were just starting for the fields in the morning, for they would rush out like an army, and then, later, the entrance would be one living mass going to and fro. From clover they gave 186 pounds, from basswood 287½ lbs, and from buckwheat 76 pounds, making 566 lbs. in all. Now, supposing that instead of securing this large amount of bees in one hive, I had not worked them at all, but had left the bees to take care of themselves, as the most of the doubting ones do leave their bees, what would have been the result? The queen would only have laid moderately, so that by the time the white clover had begun to yield honey they would have had only about from 25,000 to 30,000 bees. At about this time the bees would have swarmed, thus dividing their numbers, while there would have been no laying queen in the old hive to lay eggs for the basswood and buckwheat workers, for nearly or quite three weeks. Beside this, there would in all probability have issued one or more after-swarms, thus dividing the bees still more, thereby defeating the prospect of any honey at all from the old colony, so that were we to call 20,000 bees an ordinary colony as kept by the majority of bee-keepers we would not be far out of the way. This would give but about 71 pounds per colony had my bees been divided up in that way, so that in reality what would be called a big yield, when brought down in this way to its proportion according to the number of bees there were in the hive, is nothing very great after all, for no one would call 71 pounds of extracted honey per colony, in a good season, an exaggerated report. How long will it take would-be bee-keepers to understand, that it is bees that gather honey, not the number of hives they have standing in the yard. A large colony of bees will do more in proportion than will a small one, for the outside elements do not have that chilling effect on the hive of a populous colony that they do on a hive with few bees in it. Thus more bees go to the field, and all work to better advantage. The main secret in securing a large yield of honey, is to have plenty of bees, just at the right time to take advantage of the honey harvest; if gotten too early they are of little use, and if too late they only become consumers instead of producers. Thus we have the one item worth knowing, above all others, in a thorough understanding of the time of blossoming of the flora in our locality producing the largest and best honey yields, and then secure a large force of bees just in time to work to the best advantage on that flora. Failing in this our bee-keeping is not worth the time spent in it, while a right knowledge in this matter and bringing our pursuit up to our knowledge, gives us a mastery of the situation with plenty of money, for the sale of our honey, to jingle in our pockets.

BEEKEEPING IN ITALY.

Mr. J. W. Pender, Vice President of the Hunter River Beekeepers' Association and proprietor of Drumfin apiary, West Maitland, is on a trip on the continent. Writing to Mr. W. S. Pender, his son, on May 29th, says that he has arranged for a parcel of the best leather colored Ligurian or Italian queens to be forwarded from the apiary of Lucien Paglia about July 15th. In describing his visit to the apiary he says, "I left Bologna on the morning by train for a distance of 15 miles, having a guide with me who could talk German, French and Italian, and very few words of English, and a young man a relative of Miss Bianconcini, who was a Latin scholar. When I arrived at the apiary I found Paglia could not talk one word of English, but by my knowledge of Latin I was able to make known to the young man what I wanted. The apiary is very prettily arranged. The bees, which number about 200 colonies, are placed in a building having a two-storey brick central building used as workshops, store-room, office, extracting room, and bedrooms for the men employed. From this central building extending east and west are two wings forming veradachs, containing 50 stands in length and two in height, the hives facing south. The hives are worked on the Berlepsch principle, with door at back. There is a space of about $1\frac{1}{2}$ inches under the frames, apparently to allow for droppings to be cleaned out in the winter time. When all the frames are in their place a closely fitting glass frame is pushed in against the frames, having a hinged flap at the bottom one and a-half inches deep and the full width of the hive. A space of two inches is allowed between the glass frame and the outer hinged door to allow of a quilted packing for warmth in cold weather. It took them a long time to show me the queens of three different hives, as every frame had to be removed until the last one and hung on a frame-holder before their royal highnesses were found. The bees were very docile, no smoke was used, but they were handled

very gently by the men. The honey is preserved in the comb suspended on frames with an air-tight door to the store-room, which smelled strongly of sulphur. The room is apparently well fumigated for the destruction of insects, &c. The comb is as black as pitch. He showed me a fair sample of granulated tinned honey. The system of making comb-foundation is very primitive; the wax is melted and poured into a small metal frame about ten inches square, one-eighth inch deep, having the impress on a fitting lid, pressed down by hand into the liquid wax, which is cooled by being dipped into cold water, and the sheet is then lifted out of the frame. Although we find the Ligurian bee here in its purity they are a century behind us in their manner of working bees. I must defer all further particulars until my return.

THE BAY STATE HIVE.

By R. J. CRIBB.

Certain serious defects in the Langstroth and almost all hives all over the world, including America, have compelled me to study and experiment with the numerous kinds made. The defects alluded to are the expansion or contraction of the walls of the hive, chiefly caused by sun and weather. The various styles of hives in use may be classed under the two following heads:—(a) Suspended or hanging frame hives, and (b) resting or supported frame hives. Among the first named are the Langstroth, Heddon, American, Gallup, Abbott, Dzierzon, and of the latter the Hoffman, Bay State, Quinby, and Harbinson hives are examples. The suspended frame hives have one serious defect caused by the expansion and contraction of the depth of the walls by which an alteration is made in the space between the bottoms of the frames in the top story and the tops of the frames in the lower story, which is called a "bee space." This may seem a trifling matter at first sight, but when working among bees, if the hive has shrunk considerably the frames in the top story will crush the bees, and probably the queen, on those of the lower story; or should the hive swell, making the bee space too large, the bees will join the two sets of frames together with comb, necessitating the use of a lever to remove combs, and consequently killing bees. The bees have certain instinctive laws or rules to guide them, and it is only by working in harmony with these that the greatest profit is obtainable. From time to time

ideas have risen as to the best way to construct a hive with fewer defects than any already in use, but without the desired result. It seems that the supported frame hives are less liable to defects than any other, and "The Bay State" as represented by the accompanying sketch, is one of the simplest if not the best hive. It is only after careful study of the Bay State hive extending over five years, that it is brought before the public notice. The hive in question is made by Henry Alley, the world-renowned apiarist of America, who was until very lately the leading authority on queen rearing. It was first introduced into this colony some six or seven years ago, and has been shown at several of our leading exhibitions. The hive as procured from Mr. Alley, of America (see sketch), consists of six parts—(1) The cover; (2) the walls or outside case; (3) the bottom board; (4) the inner cover; (5) a set of six wide frames for twenty four sections, &c.; and (6) the brood chamber, consisting of eight fixed distance frames, &c. The hive properly speaking consists of the bottom board, the brood frames, the frames of sections, the inner cover; the larger cover, and outside case are to protect the frames (and bees) from the extreme severity of the weather only.

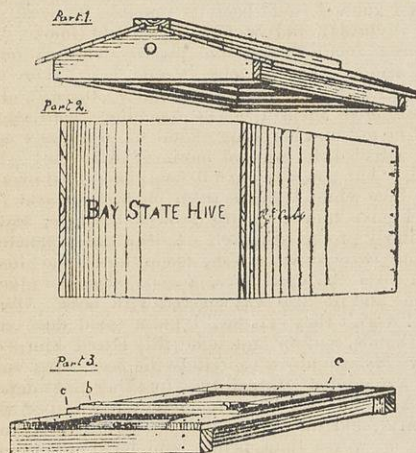
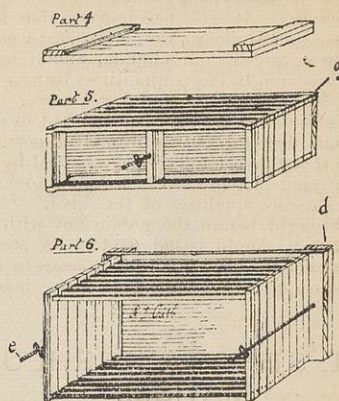


Fig. 1. The cover differs very little from any ordinary gable-roofed covers in use, the difference being that it has no mitred corners or rebated edges, while the holes in the gable ends serve to ventilate the hive and let any stray bees escape.

Fig. 2. shows the walls or outer case, which case is composed of four plain boards, nailing the sides on to the ends without rebating or mitres, the sides being $\frac{1}{2}$ in. thick and the ends 1 in. thick.

Fig. 3. represents the most complicated part, consisting of a number of half-inch boards nailed together to form a bottom board, being similar to those of the New Zealand and Simplicity Langstroth hives, with a sunken entrance, but



of much larger dimensions (see A). The strip of fillet c is nailed around near the edge and inside of the walls for the brood frames to rest on. As it projects over the entrance the bees pass under it in gaining access to the hive. This strip being raised off the bottom serves to keep the walls in place and also to raise the brood frames out of any damp which may get on to the bottom board. The strip B is simply a stop to keep the brood frames in their place.

Fig. 4 is a plain board $\frac{1}{2}$ in. thick, cleated at each end, which rests on top of the frames, taking the place of a bee mat or quilt in a Langstroth hive.

Fig. 5 constitutes the half story, so to speak, being six wide frames to hold twenty-four 1 lb. sections. The frames have a middle bar through which a bolt passes to screw them together. The sketch shows them in position with one board removed (g), but otherwise ready to screw up.

Fig. 6 represents the brood nest with one of the side boards (h) removed. The brood nest being heavier requires two bolts (x) to secure them safely. The frames are simply closed-end-fixed-distance-frames with the end bars projecting past the top and bottom bars to form the bee space.

The hive would be known amongst beekeepers as a "one and a half story supported-fixed-distance-frame" hive, with an outer case and cover to protect it from the weather. The advantages of this hive are:—

First, the ends of the frames resting on top of the others give an unalterable bee space of any desired size; secondly, the frames are "fixed distance" ones (that is to say, the edges of the frames abut against one another) and when cramped together between the two boards may be handled in one block without the outside casing, a great advantage to those who believe in handling hives more and frames less; thirdly the air space between the frames and outside case protects the bees from both extremes of weather and fourthly, the cover telescoping or fitting over the outer case coupled with the raised bottom

completely protects the bees and brood from the heaviest rain. It will be observed that these (and more particularly the last) features are especially suitable to our climate, and if honey is to be procured in large quantities frames will have to be handled less and hives more. The frames when cramped together and put in position remain firm without additional support. It is hoped that this brief description, aided by the accompanying sketches, will be found to bring out the superior qualities of this hive. This hive is brought before the public not with the desire that it should be adopted in its present form but that the good qualities it possesses may be embodied in a hive superior to any now in use.

BEE STINGS AND RHEUMATISM.

The truth, the whole truth, and nothing but the truth.

To the Editor *Australian Bee Bulletin*.

Dear Sir,—A few days ago, as your humble servant seated himself at the breakfast table, his wife said to him “poor old — is very bad with rheumatics; can't sleep; in dreadful pain; he's nearly mad,” I arose, Said my wife, “Where are you going? oh finish your breakfast first.” “Oh, never mind, I'll have some presently.” “Where is he?” said I. “Oh, he's just gone down to his shop, and poor fellow can't lift his arm a little bit.” I followed his tracks and accosted him thus: “Hello! what's up?” Reply, “Oh, I'm very bad; nearly off my chump,” “What is it? rheumatics?” “Yes,” “Oh,” said I, “that's nothing—I can cure you,” “You can!” “Yes, if you'll do what I tell you,” “What's that?” “Here, read these,” and I forthwith produced my authorities, consisting of several numbers of *Gleanings, Bee-keepers' Journal, A. Bee Bulletin, &c., &c.* “What do you think of it?” I said, “are you game to try it?” “Yes,” he replied, “anything to ease me,” “All right, when will you come up?” “Oh, I'll come at dinner time.” “No, come at once, nothing like the present.” “All right, I'll be up in a few minutes.”

I went home and informed my wife that he was coming up to undergo an operation; Oh, dear! what fun in prospect; how the youngsters gathered round to enjoy it.

Now, it so happened that I had some combs in the honey room with a little honey in them, and I was allowing a few bees to take this honey away, having left the door of the room open purposely to allow the bees to get in to the honey, and they were making their exit therefrom with their loads of honey by the escape over the window, so I easily secured about a dozen in readiness for the operation, when the subject to be operated upon put in his personal appearance. “Now,” said I, “you have read

my authorities for the pending operation, and I suppose you are quite satisfied that I have no other motive except to experiment upon you and test the cure; and you are quite prepared of your own free will, without any coercion on my part, to undergo the operation. I think, in case of an accident, you had better call your wife, and it might be as well to have all your children round you, and I should like you to make arrangements to pay me for the tin of honey you owe me for in case of an accident; and if you would like to leave any instructions re your funeral, &c., now is your time.” “Oh, all right,” he replied, “go on with the music.”

“Very well! now then take off your coat.” He did so. “Remember you submit of your own free will, and relieve me of all responsibility.” “Yes, go on with it.” Oh dear! oh dear! I must admit what fun I was having to myself. Isn't it glorious to see others stung so long as we don't get stung ourselves.

Well, the rheumatics were in his elbow, and his arm was terribly swollen; I tied a handkerchief round his arm, outside the shirt, above the elbow; I opened the sleeve and let in about a dozen bees, but devil a one would sting. Of course not, just what I expected, they were full of honey; so I released them and went to a hive that I knew I could back its inmates for stinging (hybrids), and opening it without smoke, I secured about twenty and placed about six on his arm. “There's one,” says he, “there's another—another one, that makes three.” I encouraged them a bit by touching them up, and he got another sting—total 4. But he was not satisfied, he wanted more. “All right,” I said, “but you will have to come and stand over the hive while I shake them on to your arm.” So I gave him a veil to protect his face, and similarly protected myself; I drew out a centre frame covered with bees, made him hold his arm over the open hive, a good shake of the frame and his arm was covered with bees. Oh, my! wern't they savage; I got a good dose on my hands, but he got none till I told him to move his arm about to irritate the bees, when he got a good dose of medicine; totalling 22 stings. I asked him how he felt, he said it was pretty painful, and his arm was very hot but the pain was no worse than before, and he thought he would go and lie down for awhile, “and if it does me good I'll come for another dose presently.” “Oh, no you don't,” I said, “enough's as good as a feast, you don't get any more here to-day.” So he went home (just across the street) to lie down.

Now, so far I had been enjoying the fun, but I begun to fear I might have rather overdone it, so I said to myself “Well, Taylor, old fellow, you must be prepared with your antidotes in case you have overdone it.” And thus preparing I anxiously went over in about half-an-hour's time to see how he was getting on, expecting to find him asleep, but he was sitting at home

quite jolly, and said he already felt relief; leaving strict instructions to be sure and send for me at once if he felt worse I went down town. About two hours after I was coming down the main street making for home, anxious to see how my patient was progressing, when I saw a small group of townsmen with my worthy patient in the centre holding forth as to the wonderful cure effected, and to my surprise the said patient lifted his arm to his head, and raising his hat, said, "Good day Doctor Taylor," and was jumping about as pleased as Punch (two hours previously he could not move his arm). I said, "My word, you don't mean to say it has had such a good effect already." "Yes, look," he said, again raising his arm, lighting a cigarette in his mouth, and waving his arm about; you've done me a good turn and I won't forget it."

Well, Sir, to finish my story, I can assure you that his arm has been better ever since, and he now wants another application, which he says he is sure will effect a perfect cure; and I would say to persons suffering with rheumatics *try it*. But please don't rush me, as I have had several applications already from other sufferers, and as you know, Mr. Editor, it knocks the bees about a great deal, especially at this time of the year, when the less they are disturbed the better; and I have no desire to start a hospital. Yours truly,

JOSIAH E. TAYLOR,
Cowra.

FYANS CREEK, VICTORIA.

To the Editor.

DEAR SIR,—I looked with some expectation when I received my last *Bulletin* for some remarks from some of the beekeepers of N.S.W. upon the extremely able paper on Foul Brood, which has been copied into your paper from Canadian sources.

Now, sir, I am of opinion that what appears there is a correct statement of the case, so far as it goes. But now the question is, what is to be done? And that sir, is the one burning question of beekeeping. If 212 deg. of heat won't destroy the bacilli alvei under 2½ hours, then boiling frames and hives is almost out of the question. It seems almost as if foul brood—like the rabbits—was "to be with us always." Considering the importance of the question, I would suggest a fund being raised by beekeepers all over these colonies (and no doubt American bee societies would join in), and the money so raised be used to employ some noted bacteriologist like Mons Pasteur, to devote such time as was necessary to study the whole case and if possible to discover a sure cure. It seems to me that if we could discover some volatile antiseptic or germicide which slowly volatilising in the hive would keep the air within the hive so charged that germs could not grow, and at the same time be harmless to bees, and to which bees would not object

the difficulty would be overcome. But again the question, what is that substance? In a few months we shall be face to face with foul brood again, and I think some suggestions from those who have been successful with any substance such as naphthol beta, or creoline, corrosive sublimate, or any other thing, which will do away with the necessity of putting bees on to starters in clean boxes till after swarming, will confer a very great boon upon fellow beekeepers whose hives are too small to be made to start again till they have bred up a bit, which they would do during August and September if not pestered with this scourge. Perhaps sir, you will give us a complete list of all antiseptics, germicides, &c., that would be most likely to be effectual, and also how to use. Last season I used Naphthol Beta, but could not get it to mix with water; it became flaky and settled to the bottom. Can you tell me how to use Naphthol Beta properly?

The next question of importance is: Where are we to sell our honey? It would require an act of parliament to make people buy honey this season. Short as the crop has been there is no price offering, and even best qualities are refused. Strained or bush honey stands an equal chance with the finest extracted. I hope the Conventions in the different colonies will attend to the export trade in a sufficiently energetic spirit so that the honey trade may be placed on some such footing as the butter trade. I am, sir, yours,

WM. D. RUSSELL.

[Mr. Russell will see elsewhere what is being done in the matter of foul brood by Dr. Helms, of the N.S. Wales Department of Agriculture, Foul brood was very bad in the Hunter River District some four years ago, but was thoroughly stamped out by the starvation process, and is not known at all three now.—Ed.]

MR. BRADLEY AND THE CINNAMON CURE.

Sunnyside Apiary,
17th July, 1893.

MR. E. TIPPER, A.B.B.,

Dear sir:—I am afraid there is some mistake regarding the matter of my having cured Foul Brood with cinnamon. I distinctly stated at the convention, that I never had but one case of Foul Brood in my apiary, and that occurred some years ago. I have cured Bee paralysis with cinnamon, and suggested its use in the treatment of Foul Brood.

T. H. BRADLEY.

P. S.—The origin of Foul Brood, and Bee Paralysis, is in my opinion almost identical, although the symptoms of the diseases are entirely different, and the time is not in my opinion far distant when this will be made clear. I forgot to say at the Convention, that essential oil of cinnamon, should be mixed with spirits of wine in the proportion of one of the former, to twenty or thirty of the latter, to get it to mix with McLean's Mixture.

BEE FODDER.

LIST OF PLANTS THAT BEES WORK
STRONGLY ON.

We are greatly indebted to Mr. Thomas Kitching, of Campbelltown, for the following. It would greatly help the industry if other beekeepers would supply us with similar information occasionally:

Season of flowering.	Name.	Common name.
April	<i>Crotolaria Lotoides</i>	Lotest
Nov.	<i>Ligustrum Lucidum</i>	Japanese Privet
July	<i>Lonocera Fragens & sorts</i>	Chinese Honeysuckle
Decr.	<i>Salimus Molle</i>	Pepper Tree
Oct.	<i>Salix Babylonica</i>	Weeping Willow
Nov.	<i>Berberis Vulgaris & sorts</i>	Barberry
Aug.	<i>Gledetia Tricanthus</i>	Honey Locust
Oct.	<i>Callacarpa Cana</i>	Beech Tree
Aug.	<i>Buddler and sorts</i>	Buddleya
Aug.	<i>Crataegus oxycanthus</i>	Hawthorn
March	<i>Duranta Eleisir</i>	
April	<i>Bacharris Halmafolia</i>	Tree Grounsell

STINGS FOR RHEUMATISM.

Mr. John Pollock, Wingham, writes:—For thirteen years I have suffered from rheumatism in my shoulders and arms. I have tried several doctors, taking their medicine and rubbed their lotions, and I have bought every patent medicine that I saw advertised, got them rubbed in till my wife got disgusted with the job, and the servant promised to strike for higher wages. It is six months ago since I caught the bee fever on all the latest principles, and Mr. Editor if ever you tackle to tame a lot of bees, that will take you about 10 minutes to find the entrance to the hives for smart weeds and grass, and recollect you will be the first man that saw those bees since they were robbed last, one or two years ago, you may expect a sting or two. But I persevered in the job and the stings I got brought me the long looked for relief for I have not had the slightest attack of my old complaint for the past ten weeks, although the weather here has been bad enough to give even a wooden man rheumatism.

CROWDED OUT.

Owing to the Convention taking so much of our space in this issue we are compelled to hold over several important matters. Among others—the Hon. B. Suttor's paper read at the Convention; Mr. Ednie Brown's paper, the same; a "Jeremiad from the Richmond," by Mr. Gaggin; "A New Chum's Experiences," &c, &c.

MORE ABOUT THE CHOKO.

We are indebted to Mr. John McCoig, overseer of the State Nursery, Gosford, for the following:—

State Forest Nursery,

Gosford, 15th July, 1893.

Sir, In answer to your memo of the 12th now to hand, I write to inform you we have no Choko or Chayota to spare. We had only a few fruits this season and they are all distributed already. The choko does not thrive here, especially these two last wet seasons. We have grown it four years here and the first season being dry and warm it had a moderate crop, but since then it has borne shyly. We never had fruit and roots to spare to try its qualities as a vegetable. Both are used for culinary purposes. I feel sure it is only suitable for warm dry spots of a semi-tropical character. The seed germinates in the fruit and is planted fruit and all for a plant. We did not succeed in striking it from cuttings, but I think it would strike somehow like a Dahlia from the first shoots, with a heel in bottom heat. The Botanical name is "Sechium edule."

JOHN MCCOIG,
OVERSEER.

To Mr. E. Tipper,
A.B.B.

PIMLICO, BALLINA.

Mr. Watkin W. Morris, Pimlico, Ballina, writes:—The following particulars I send you for Government purposes, as wished for in last A.B.B.

Have ten colonies, increased from four this season by artificially swarming. One pure bred Italian, five Hybrids, (1st remove from pure), remainder blacks. Extracted this season from supers of 6 hives (I do not think it advisable to interfere with brood chamber) 310 lbs. honey, and were the honey not too thick to extract, I have about 200 lbs more in supers ready, as my last extracting was done early in April. Hope to increase to 50 colonies this season. Bees wintering well, Blacks but fairly so. Italians (pure), and Hybrids (1st remove only) for the future. Blacks last season only gathered sufficient to winter with. Hives (Simplicity). The principal source of last year's supply of nectar.

Clover is now springing well, expect it in flower very soon.

Am well pleased with the A.B.B., and consider it has done more than anything else in bringing all in touch with one another, particularly those in remote districts. Was not aware that the bee-keeping industry was anything like so large as it is in N.S.W., until your paper made it known. With every wish for the success of the A.B.B.

TWO QUEENS IN A HIVE.

Since March, 1893, I have had two queens in one hive, and have just examined to see that all is correct, and I found both queens on the one side of the frame and both in the very act of laying. One of the queens I got from a friend, as she was of a particular description. I introduced her to a nucleus colony, and about a week after they came out, and the queen somehow went into another hive, and, strange to say, she is still laying away as if nothing had happened. At first the bees balled her and tore every vestige of her wings off and in this condition I found her very soon after in good laying order. Yours etc. GEO. JAMES, GORDON.

JOTTINGS FROM QUEANBEYAN.

(By NOVICE.)

It may interest some of your readers to hear what the bees are doing in this district, and as none of "our folks" as far as I could learn have sent you any bee-news up to last issue of the *A.B.B.* I take upon myself the responsibility of furnishing a little, which, if not eligible for insertion in your valuable journal will quite willingly revert to the waste paper basket.

Well, to begin with, our past season (1892-93) was a very poor one, the bees, the blacks especially, gathering insufficient to carry them through the winter. Being a beginner, I have only 7 hives; all last year's (1892-93) swarms. I Italianised two of them. These are much in advance of the black bees, having very nearly filled their boxes. I was obliged to feed the "blacks" liberally and put them on three or four combs between chaff-cushions to give them a chance of coming through the winter, which here is rather severe, with frequent frosts and occasional falls of snow, the latter, however, being confined usually to the mountains on the west of the Murrumbidgee and about 9 or 10 miles distant from Bulga Creek. Our only honey-flow of any import came from a bush locally termed the Australian Blackthorn. This bush is very abundant in this district, blossoming profusely every year, but the bees seem to disregard it if any of the Eucalypti trees are in bloom. The honey obtained from it is rather dark, with a pleasant aromatic odour, and very palatable, although I have heard some say they preferred the Eucalyptus honey. The odour of the nectar is so distinct that of the flower, that it is easy to tell when the Blackthorn honey flow has commenced, as the air for yards round the hives will be laden with the delicious perfume. This Blackthorn odour was so strong this year (1892-93) that my wife and I distinguished it while sitting in the front room, the nearest hive being fully 20 feet from us. I believe the Australian Blackthorn is indigenous to the Southern Tableland, and as I have not seen anything about it in the *A.B.B.* up to last issue, I would be

pleased to hear the opinions of other bee-keepers upon it. It is very important here as it comes to the rescue when we have a scanty Eucalyptus bloom. Besides the Australian Blackthorn, we have a great variety of wild flowering shrubs which however failed us last season (1892-93). Our Eucalypti trees are White and Yellow box, Apple-Bark, Stringy-bark, Bass-tard-apple, Peppermint, White, Red, and Blue Gum. During the season (1891-92) which was an exceptionally good one, every one of these blossomed profusely. I am afraid, dear editor, I have trespassed sufficiently on your valuable space to merit the waste paper basket, but I suppose I must chance that. Your little paper is undoubtedly a great boon to bee-keepers, it is the most interesting of Australian papers that I read.

[Far too good for the waste paper basket. Just what is wanted; with many thanks.—Ed.]

MARRAR.

Our dear good friend, Mr W. Pacey, of Marrar, writes:—I see that you have lost a subscriber. I hope that man does not live in this part of the country, or a few more of us might start borrowing our neighbour's *Bee Bulletin*. We want men who call themselves beekeepers to act their part in supporting the journal that advocates their interests. If there were fifty men taking the *A. B. B.* around me, and I could get the lend of it from any of them, that would not deter my paying my 5s per year for it, just what every faithful beekeeper does. The weather has of late been very changeable, and we have had a good deal of rain. It is very probable we will have a good spring.

DURING THE CONVENTION.—Beekeeper to waitress at hotel—"Have you any honey?" "No sir, but there's marmalade on the table." "Thank you, but we prefer honey." It was sent out for. If beekeepers would always ask for honey when away from home how many tons less honey would be in the apiarists' stores, and the bright cash jingling in their pockets?

BODILESS BEES.—Mr Tenant Donaldson informs us that last year he captured a swarm of bees a great number of whom consisted of heads and wings—no body. Can any of our readers give a like experience, or explain?

KINDS OF HIVES.

Mr R. J. Cribb, of Brisbane, writes:—Dear sir,—June number of the A.B. BULLETIN to hand. I notice on page 48, "Replies to R. J. Cribb," by "J. F. Munday." Now if Mr Munday and the readers of the A.B.B. will turn to page 37 of the May issue, it will be seen that not one question has been answered. The reasons put forth on page 37 seem to explain the questions clearly. These questions are asked of every bee-keeper who keeps bees for a livelihood. The object is to ascertain whether 1st (a) The "Langstroth" or another frame is more popular, and (b) the extreme length of the top bar; 2nd (a) whether the eight or ten frame Langstroth hives are preferred; whether the edges for storifying are plain, rebated or bevelled; (b) and whether the sides of the hives are half an inch or one inch thick. For example, a person may be supposed to answer the questions on page 37 as follows.—Question 1 (a) the Langstroth frame $17\frac{3}{4}$ by $9\frac{1}{8}$ (outside); (b) 19 inches overall. Question 2 (a) the Langstroth hive (8-frame plain edges); (b) sides half an inch thick. It is hoped the questions will be fully understood, and unanimously answered by every practical beekeeper.

Mr. F. S. Fisher, Red Hill Apiary, South Woodburn, Richmond River, writes:—I received the A. B. B. and consider that every Apiarist in the colony, should subscribe to it. The honey season here, so far, has been poor, although since the big flood, the bees have been doing fairly well. We are situated about two miles from the coast, amongst the hills, and it being warm and sheltered, and free from frost, work goes on in the apiary all the winter; in fact the winter is our main flow. I have extracted twice since the flood, and all supers are nicely filled up again. The flora at present in bloom, consists of black butt, tallow wood, Blue gum, and orange gum. I hope if the weather keeps fine to be able to make up for lost time. My Apiary consists of Italian, Hybrids, and Black bees, and consider the Italians or Hybrids to be far ahead of the Blacks, and intend to Italianize extensively this season.

WINGELLO.

Mr. W. Crawford, of the Italian Bee Apiary, Wingello, writes:—The honey crop about this part has been very poor this season. I have only taken an average of 20lbs. per hive from 70 hives, but have left plenty of stores for winter, and will be able to extract early in the spring. How I made a good honey extractor: I got a good spirits of wine barrel, 35 gallons, which does not shrink or leak in any way. Took out one end and inserted a honey gate near the bottom, and made the inside basket to hold four simplicity frames, the top gear something like the Cowan extractor and covered in, fitted up in a neat stand. When at work it runs very smoothly, and does not shake like most of the honey extractors. Mrs. Crawford and family won't use any other, and like it better than any I've had; and I think it will last a lifetime. It is painted neatly, and will hold 200 lbs. of honey underneath the basket. I also make extractors of the galvanised iron, but I prefer the barrel. There is no spray over the top when extracting, no matter how thick the honey is. Re thick top bars, I have given them a good trial and find them a great success. I make them $1\frac{1}{8} \times \frac{7}{8}$ in., and a groove run down the under side, which I fasten the foundation in. So you see the top bar is full $\frac{7}{8}$ thick. By giving the proper space, $\frac{1}{4}$ of an inch between the brood chamber and super, there is no burr or brace combs, and the bees build the comb nice and straight in them. QUILTS.—I have tried enameled cloth, table oil cloth, canvas, floor oil cloth, and linoleum, and I find none is of much use except the linoleum and flooring oilcloth, as the bees eat the others away in a short time. Linoleum cut the proper size, although rather heavy and stiff, makes an excellent quilt. The bees never eat it away, and will stick it down round the edge with propolis, so if the cover blows off it don't matter, it will remain on like a board and keep the bees warm and dry, and in summer prevents the sun from melting down the combs. I can recommend it and flooring oilcloth. I am now making my hives work without quilts. Not forgetting our worthy editor, Mr. Tipper, from whom I have just received some honey labels, which are got up in splendid style and cannot be beaten, and cheaper than I could get them anywhere else, and I trust that all bee-keepers will give him a trial and strain a nerve to make the *Bulletin* a success.

LYNDHURST, VICTORIA.

QUESTION COLUMN.

Mr. J. McFarlane, St. John's Wood Apiary, Lyndhurst, Victoria, writes :—The past season was very poor for honey in this district. From 60 hives, I only averaged $\frac{1}{2}$ cwt each, that being 30 lbs under my usual average. However I made up for the deficiency in sale of queens and bees, selling nearly double the amount of previous seasons. Bad as the season was generally over Victoria, honey is very dull of sale, especially extracted, Comb is getting scarce and is being enquired for, but prices do not harden, 6s to 6s 6d is all that can be obtained for the best fancy, and as low as 4s for dark. The price of extracted in bulk f.a.q. is 3d. Wishing the B.B. every success, &c.

APIS TRIGONA.

Our native Australian bee is about the size of a common house fly, with a drone-like shield on its head, and smaller posterior. It builds in small trees, about six or seven inches in diameter. The brood combs are horizontal, lying like sheets of paper on top of each other. Above these the hives are filled with a substance like india-rubber, full of passages, and at irregular distances. Their honey is stored in cavities like eggs, generally about the size of an ordinary queen bee's cell. They do not sting, but bite, and persons who have had to do with them have told us they would rather have a black bee's sting than their bite and annoyance, as they enter nose, ears and mouth. The honey has an acid taste, not altogether pleasant. We were informed by one gentleman that he saw a tree in which black bees had built a nest above that of the *apis trigona*, and the latter would attack the former, biting their legs and rendering them unable to walk.

14. Are you feeding your bees this spring; if so, in what way, and what kind of food are you giving them?

15. Do you prefer feeding inside or outside the hives?

14. No.

15. Inside.—T. H. BRADLEY, Appin.

14. No; not up to the present. Just the opposite—I am extracting.

15. Inside, when there is room to hang a feeder.—GEORGE JAMES, Gordon.

14. I am not feeding this spring, the bees have plenty honey; when I feed I give them sugar syrup or diluted honey.

15. I prefer feeding inside the hives by all means, as it prevents robbing.—W. CRAWFORD, The Italian Bee Apiary, Wingello.

14. No! I have no occasion to feed in winter. Bees gather honey to some extent all the year round.—T. H. A. CHAPMAN, Mitchell Island, Manning River.

14. No, extracting.

15. Very rarely have occasion to feed, unless a very weak colony, and then a frame of brood and honey from some strong colony is all that is required.—H. L. JONES, Mel Bonum Apiary, Goodna, Queensland.

14. No. I always avoid having to do that disagreeable job.

15. Give food inside the hive every time if it has to be done. An easy way is to suspend the vessel containing it mouth downward inside the hive, the mouth having a piece of muslin tied over it.—J. F. MUNDAY.

14. No; have not fed for these last seven years, when I did feed I used 3lb. honey to $\frac{1}{2}$ -pint water, boiled over a slow fire for a few minutes and skimmed, then I put it in a pickle bottle and placed a piece of mosquito net double over the top, and placed it in the hive upside down.

15. I prefer inside feeding.—J. W. HOPKINS, Sunnyhill Beefarm, Tickhole.

14.—I am feeding some stocks, as there is nothing like being on the safe side. I am using honey, taking out a couple of empty combs from the sides of the hives, laying them flat, and pouring the honey gently over the combs, then return them to the hives. Of course if honey is not available then sugar must be used, if the bees require to be fed.

15.—Inside the hive, by all means, and just about dusk.—W. SHAW, Mudgee.

14. I am obliged to feed or lose my bees. Feed them with cakes of candy moulded in soup plates, one of these placed over the cluster, then a piece of hessian, or empty sugar bag, and over this again a chaff cushion which fits in an empty storey or half storey. This warm covering is necessary on account of the cold nights we are having. Thermometer goes as low as 20 deg. Far.

15. Prefer inside feeding.—THOMAS M. WALKER, Rose Villa Apiary, Tenterfield.

14. Yes, for stimulating purposes, with an atmospheric feeder outside and away from hives, Good pure honey made milk warm, with hot water.

15. I don't know that I prefer either way. I use both,—inside the hive when my judgement has failed to give the proper amount of stores in the fall, and the outside temperature is too cold for bees to fly with safety; outside the hive in spring, always to stimulate the queen.—BINNI, Bolwarra.

14. My bees will not want feeding I hope, as I left them as much as they require. If, however, they want feeding I have plenty of extracted honey which I will dilute with water, making a thick syrup.

15. I feed inside from simplicity feeders, in a super over clusters, so as to rouse them as little as possible.—JOHN AYLING, Pitt Town.

[We would ask the postal authorities not to deface the writing on post cards by stamping on the writing. There is plenty of room on the address side.—Ed.]

14. The best way to feed bees is to always leave plenty honey in the hive; don't be too greedy. I shall feed the colonies that have the best drone producing queens with honey diluted with hot water.

15. Inside. Get some empty jam tins without top or bottom (by placing them in the fire the bottoms come out easily), cut a hole in cloth over the brood nest; stand jam tin over it, invert 2lb. glass jars or pickle bottles containing honey with muslin tied over the mouth; put on empty

super to cover same. These same feeders can be used outside entrance by standing tin, &c., on blocks, but the night must be warm and the beekeeper must be up early to see that all the honey is taken away, or there will be a row among the bees.—J. E. TAYLOR, Cowra.

14. Yes, to bring the bees into condition to secure the flow from white clover, which will begin about the end of August. By that time most of the hives will have their second batch of brood emerged, and with my 100 colonies I should harvest at least 2000 lbs. from this source. I feed the bees on the scrapings of candied honey from tanks, tins, &c., dissolved, so as to be similar to nectar, by the addition of water. I place the food in a milk pan which holds about half a bucket, putting lightly over it a quantity of grass for the bees to stand on while sipping. By this plan not a bee is drowned. Of course I set the pan of food a short distance from the bees.

15. Outside the hives; it is more natural, necessitates more exertion and consequent engendering of warmth in the hive, and I think not so conducive to robbing.—C. MANSFIELD, Hunter River Apiary, Largs.

14. Yes, as I have had opportunity of doing so, but, for the last six weeks, the weather here has been so intensely cold, and so cloudy and wet, that the bees have not dared to venture outside the hive, and I have hardly dared to expose them, even for a few moments, to the chilling blast. I am feeding with honey; in some cases I have fed in the hive, with sealed honey in frames or in sections. In other cases I have fed with extracted honey—firmer than winter butter—which I have pressed into inch augur holes, put within a short distance of each other through an inch board, which is made to take the place of a frame near the centre of the hive. Now I am feeding, as the weather permits, with firm honey softened and thinned with warm water, and placed in the sheltered open in dishes, over which, and lying in the liquid food, I put covers of clean chaff-bagging material.

15. I have not had sufficient experience to pronounce an opinion, but, if the weather be at all fine and the days warm, even for a few hours in the middle of the day, I have a decided preference for open feeding, and for the following reasons:—(a) I have cause to think that the colonies which I fed in the hives this winter, and some of which have perished for want of food, were robbed unknown to me before the most severe weather set in. (b) In open feeding the true state of the whole of the apiary can be ascertained with careful observation; and, by tempting the bees to a little outing in the sunshine, you help them with food, and warmth, and fresh air, to increase the warmth and healthiness of the hive.—W. C. HUGHES, Spring Hill.

14. I intend feeding some of my bees at Drumfin this spring, i.e. stimulating certain colonies for early drones to mate with young queens. I will start feeding in a day or two. I will use honey diluted with one and a half to two parts of water. I do not intend feeding my bees for honey gathering at the out apiary, because they are now ready for a harvest, and have been so all the winter, in fact there is plenty of bloom around the hives on which the bees work, every favourable opportunity, but the weather is greatly against them. Just sufficient honey is gathered to keep up brood rearing and give a small surplus.

15. I prefer to feed inside the hive, and at night. Put on a half story cover frames with a mat leaving about one inch space, at ends of frames, uncovered to allow bees access to half-story. Put in any sort of shallow dishes, with floats to prevent bees drowning, and it does not matter whether honey or sugar syrup is fed. Only feed enough to keep bees going about four hours, so that everything will be cleaned up and quiet by the morning. If honey is used, mix one part of honey and four parts water. By doing as above no robbing will be commenced. I object to outside feeding. 1st. Bees are often enticed out in cold weather to die. 2nd. I do object to the expense of feeding my neighbours bees, when my own require it. 3rd. Weak colonies are inclined to be robbed. 4th. In the fight for the contents of the feeder, more or less is wasted, and bees smothered with the syrup, and suffocated for they breath through spiracles on the body, and if these are covered with syrup, and bees get to rolling in the dirt, the loss is more than they gain, for when a bee once gets down after being daubed with syrup, especially in cool weather, there is very little chance of it finding it hive.—W. S. PENDER, Drumfin Apiary, West Maitland.

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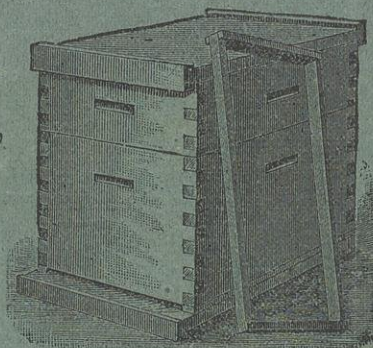
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