The Australian bee bulletin. Vol. 18, no. 3 June 30, 1909

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

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

THE AUSTRALIAN Bee Bulletin.

A MONTHLY JOURNAL, DEVOTED TO BEE-KEEPING.

Published by E. TIPPER, West Maitland

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

VOL. 19. No. 3 JUNE 30, 1909. PER COPY, 6D

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

Printed and Published by E. TIPPER, Proprietor, High Street, West Maitland, N.S.W.

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

"The Australian Bee Bulletin."

A Monthly Journal devoted to Beekeeping.

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

Published by : E. TIPPER, West Maitland, N.S.W. Aus.

MAITLAND, N.S.W.—JUNE 30, 1909.

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

Supply-Dealers.

Walter S. Cowell, Albert St., Brisbane, Q

Queen Raisers.

W. Abram, Beecroft.

J. Drage, East Adelaide, S.A.

M. Armstrong, Rosaville Apiary, West Maitland, N.S.W.

Honey Tins.

Chown Bros. and Mullholland, Ltd., Thomas St., Ultimo, Sydney.

W. L. Davey, Fairfield, Victoria.

Miscellaneous.

Prescott, Limited, 336 & 338 Sussex-st. Sydney.

Sayers, Allport Prop., Ltd., 4 O'Connell Street, Sydney.

Jules Lang & Son, 16 Bury St., St. Mary Axe, London, E.C.

BEEKEEPERS !

FOR your very generous assistance towards the formation of a bee keepers' union, accept my best thanks (appended is the list of names in favour of same). If we continue to express our views on all matters of general importance, beekeeping will be recognised as it deserves. Keeping bees is by no means an occupation that every body is suited for—it is an art, and its followers are entitled to better rewards than befalls the general lot. Here and there a few beekeepers are lucky to experience an excellent season and thus secure a large yield of honey. These reports are sown broadcast—but nothing is said about the seasons of partial failure that come in between the few fat ones in one's lifetime. Such exposition of the bright side only is misleading. Then again, there are some of those with whom bees are a side issue, and if they happen to get a fairly big crop they dispose of same at price which it does not pay the legitimate beekeeper to make a fair living by. But the cheapest sells best, and thus price-cutting goes on to the detriment of all producers. Sometimes this cutting of prices is done with a view of firing one another out ; but sometimes it is the other way about and both go.

Taking into consideration that properly ripened honey keeps for years, without any waste, that it requires no preservative, to be added to its keeping qualities, that it is the most wholesome, the most delicious food, which even babies may take, being so easily digested—if we observe that bee forage is getting scarcer every year, that the demand for honey is increasing whilst the production is decreasing, that other foods are rising in price—is it too much to say that honey ought to be higher in price than what it is?

The bee-goods' manufacturers, for instance, manage it differently. Here we find the price fixed, and the purchaser either pays it or gets no goods; he has no such choice as beekeepers allow others. The same applies to other goods. Why, then, should honey go begging? In other words, be sold at what the buyer is willing to offer. Let the producer fix the price. Next see that the consumer gets the honey at a reasonable figure.

Come along now and make suggestions for the betterment of this most important point.

W. ABRAM.

WEATHER INFLUENCE AND DWINDLING.

Whilst paralysis is undoubtedly the most dreaded disease, because no absolute remedy is known, here or elsewhere, the matter is somewhat different regarding dwindling. In this latter case the bees make no such progress as one is accustomed to note under favourable conditions, as a matter of fact they gradually go down; but the bees do not die inside or close to its entrance of the hive, as they do with paralysis proper—they seem to work, fly to the fields; but many never return, and some can be found on the flowers, some on leaves or on the ground, some still alive, but unable to return home. Gradually the hive becomes depleted of bees, and the remaining ones either clear out on a fine day, or they get robbed out by other bees.

Unsuited or insufficient food in the larval stage is said to be the cause of this; also scarcity of pollen.

I wish I could fall in line with these arguments; but my experience is different. While some are seemingly quite satisfied that scarcity of pollen is the whole and sole trouble, they omit to take into consideration that in other districts where pollen is in abundance, the same trouble occurs at times. Thus scarcity of pollen is not the cause; if it was, then bees with plenty of it in the hive or being gathered ought not to dwindle as they do. It is thus clear that there must be other causes. Or if unsuited or insufficient food in the larval stage was the cause, then the trouble should cease as soon as the food becomes normal. As this is not the case we must look for other factors as causing the complaint. I have made more experiments, I believe, than any other beekeeper, and published some of the results for the benefit of the fraternity, and as nothing better is known as yet, my contentions cannot be altogether wrong.

Before going further, let me mention that there must be a distinct understanding as to dwindling owing to unsuitable weather conditions, and dwindling owing to some other causes. The one is as distinct from the other as is starvation from any epidemic, though the result may be the same—death in either case. At times it can be clearly observed that it is absolutely impossible for bees to prosper, be that at any time of the season, or the whole season right through. There is either too much rain and vegetation makes such vigorous growth that there is no time to spare for blossoms, or it is too dry to allow nectar to secrete in the blossoms, especially if drying strong winds continue to blow day after day. In such circumstances bees reduce their energy to an astonishing low degree, even feeding them will not

act as an entire preventative. They reduce their brood considerably; bees become less and less in number, so so much so that one might almost conclude they suffer from some disease. But it is not so. The trouble is that conditions do not favour progress. As soon as normal conditions prevail again, sometimes quite suddenly, the sluggish bees become active, energetic, full of strength, and they tend their brood par excellence. It might be assumed that during such adverse times and conditions bees do not feed their larvae as lavishingly as in time of plenty, and that therefore, the late so tended larvae, which, later on become the nurse and working bees, would show weakness, owing to insufficient larval nutriment. But they do not. It may thus be agreed that dwindling of this kind has nothing in common with disease. It is a result brought about by variableness in fulfillment of nature's design. With care and attention much can be done to relieve serious consequences to some extent; but it cannot be avoided altogether.

Alluding to unsuited and insufficint larva food again, why should bees be able to fly out and perish in the field as they do? Is it, as some writers argue, that they wish to be out of the way of their younger sisters at home, and they thus commit, so to speak, suicide, sooner than return home again? I cannot believe that bees take such stupid ideas into their head. Why, then, do they dwindle? They leave the hive seemingly well; yet they do not return. Some allowance must be made for loss of working bees in winter and early spring owing to sudden changes in the weather; but that has nothing to do with the food they received in their larval stage. If, for a considerable time bees are subjected to sudden weather changes, they may dwindle to such an extent as to put their started brood in jeopardy of suffering from cold and insufficient food supply, although usually enough bees remain at home for nursing. Only when there is great need for some material required do they go out to procure same, and, in doing so, they may be overtaken by the same fate that befell their sisters. But if they are provided at home with what they need, very few will leave the brood. The solution of this is that the beekeeper can do much by providing the deficiency. What the bees need most is honey, water and warmth. If the beekeeper sees that they have these requirements they are greatly assisted. Pollen, though belonging to bee-food, is not of such great importance when breeding commences in early spring, because the bees have generally some stored away in the cells underneath the honey, and the honey itself contains particulars of pollen; so that the bees are capable to feed brood for some time without any extra pollen. In any case, I do not think anyone would assume that need of pollen in a hive causes the bees to fly out far and wide in search of pollen when there is none to be had. Honey and water they must have; and they try to get it at the cost of their lives.

Years ago I have pointed out that improper winter-quarters cause conditions which affect bees and brood in early spring, and perhaps, herein lays the cause to an effect. It all depends. Some winters are suited to bees, no matter how they are provided, so long as they have enough honey. At others, great care is necessary to ensure comfort during the various changes of conditions. In a hive, containing almost all sealed honey, the bees do not feel as comfortable as they ought, or would feel if they had sufficient empty cells for clustering. If there is too much empty space above the cluster they cannot concentrate their warmth. They need more food to produce more heat. If unoccupied combs contain unsealed honey, it will absorb moisture and be quite diluted in spring, tasting distinctly sour sometimes. Some of this honey is used for brood food, etc., in early spring. Is that likely to be any good? If, on the other hand, everything is just

right to make the bees feel snug when breeding commences, they can withstand adverse conditions. Is the honey likely to candy in the combs? The bees must have warmth and water to dissolve it, and for brood food they require a good deal as it contains from 60 to 70 per cent. of water.

When the requirements are provided for, and general conditions favourable, but dwindling takes place, nevertheless, then there must be some other factors looked for, and very probably disease-germs are responsible. Unfavourable conditions for bees are often suited for disease germs, perhaps, partly owing to a lesser amount of formic acid production, which is the best disinfectant bees have to purify their home with. When bees succumb in large numbers in the field, though the weather is such as to enable their safe return, it may be taken for granted that there is considerably more the matter than scarcity of pollen or insufficient food supply in their larval stage. The complaint is felt most in early spring, but it is by no means confined to that period only. Paralysis is now acknowledged as a disease, as I first asserted it was, and is caused by germs destroying the digestive and intestine organs of the bees; but it does not always appear alike. In some instances, the afflicted bees appear to be full of solid matter, such as pollen grains apparently hard to avoid. In others they are filled with a watery, liquid fluid. Yet, liquid as it is, they do not seem to be able to pass the excreta. In some cases, neither of these described signs are plainly noticeable. Dwindling comes under the latter category when there are no conditional or circumstancial reasons to be assigned why they dwindle. This is difficult to notice at first, because the bees do not die inside or close to the hive; and, therefore, different conclusions are arrived at by different observers. Nevertheless, it is pleasant to note that what I wrote years ago regarding remedial steps to be taken, are now being resurrected by others—such as warm honey in small doses, to which a little salt is added; also to let bees build new combs when conditions favour it; and, to rear vigorous queens which produce active workers.

Diseases are infectious or contagious. Thus either may be brought about by introducing diseased bees, by healthy bees coming in contact with diseased ones, by honey from diseased stocks, etc.

Some want to make a machine of bees, to do just what is wanted, irrespective of natural instinct and habits of bees. They want to discard what is requisite for the bees well-being, and the bees play the disappearing trick. Would it not be wiser to allow the little creatures a little more latitude, to bear in mind that natural laws cannot be eliminated, no matter what our aim may be. Let them who will shake their bees as often and as much as they like; but why follow such ridiculous advice. Let those who like keep plural queens in a hive—I prefer one good one instead. Let them breed long-tongued, disease-resisting, non-swarming, non-stinging bees, etc. But who studies and follows natural laws and conditions will leave the faddist far behind in the result achieved. Bees are not yet a toy, and when played with too much they disappear. I do not suggest, however, that bees should be left entirely to their own sweet will. If that is done, nature's laws will rectify matters in their own way. What I mean to imply is this: Assist bees to fulfill the purposes they are designed for by the Creator.

W. ABRAM.

Beecroft, near Sydney.

COMMONWEALTH BEEKEEPERS' UNION.

Readers like to hear what others are doing; thus any communications are welcome.

Questions will be answered in the "A.B.B." if addressed to me.

In our district we experienced continuous changes in the weather the last season. During the first half it was very dry and either warm or cold; but the bees did pretty well.

Some rain came in January, and with it there was an end to honey, and until May the bees showed hardly any sign of activity, ceasing brood-rearing earlier than in other seasons, because they had to live on the stores in the hives. Later in may, and now during the warm hours of the day they are quite busy, storing honey even. Such are Australia's conditions--one never knows what is going to happen next. Who can assign any other reason but the influence of the weather? Our district promises, however, a good season to come. There have been two partial failures, so it is time for something good. Splendid rain of late will help the vegetation along. Wattle is already beginning to bloom in warm and sheltered situations.

May favourable conditions prevail everywhere to give the bees a chance to repay for care bestowed upon them.

List of those who have written to me approving of a Beekeepers' Union :

W. Niven, W. Brooks, D. W. Parker, A. J. Hunt, W. Jones, W. J. Benson, J. Smith, R. J. McAnally, G. R. Lord, E. F. Hunter, N. C. Sorensen, J. Pennington, A. R. Bell, J. J. Green, A. W. Pierce, J. Gorham, E. Fritz, A. J. Studwicke, R. Benson, W. Taylor, W. E. S. Tompson, J. F. Munday, P. Morris, J. R. Morgan, J. J. Branch, J. R. H. Gaggin, F. J. McIlveen, J. Parry, W. Muir, G. H. Crowhurst, S. E Bridgman. Henry Lord, W. Shaw, J. Woolard, J. Graham, M. Armstrong, E. W. Robertson, J. Burns (the only one says no), A. J. C. Vogele, Arch. McKellar, Chas. Goodacre, J. Goodacre, E. Abnett, E. Deacon, A. Hum, John Richardson, W. Abram.

UNION CORRESPONDENCE.

Alfred-St., Woolwich.

W. Abram Esq., Beecroft.

Dear Sir,—Having had several years' experience at bee-farming, in addition to a little selling experience in this city, and noting the worthily persistent demand on the part of apiary owners for better representation of their interests, I take this opportunity of roughly outlining to you —as the leading bee-farmer of this State —what I propose to do My immediate aims are:—

1. To establish a Sydney office and saleroom.

2. To touch nothing but honey and the bye-products.

3. To circularise all apiary owners with the object of getting samples surrendered, quantity held, time of delivery, etc., and to make preliminary arrangements about the prices.

4. To canvas small retail, in addition to large retail and wholesale shops, making a thorough speciality of honey.

5. To act as agent where desirable, in the interests of those buyers unable to come to town to purchase beekeepers' supplies.

6. To buy locally made goods, such as cans, jars, labels, etc., in a wholesale way, re-selling them to the beekeeper at a lower price than he originally paid for them.

7. To give sellers of honey a better deal than they had previously received.

8. To make no charges till the products are sold.

9. To organise and get estimates from every individual beekeeper of the goods likely to be wanted, in addition to an estimate of the probable output of honey.

10. To hand over this business, at any future date, to the proposed Bee-farmers' Federation, mentioned below, at the actual value (goodwill and similar claims excluded), provision being made for my transfer, the value of the business or plant, and my salary to be determined

by three gentlemen, one to be selected from each side, and the third by mutual agreement.

This agreement can be entered into immediately in order to establish my honesty in this matter.

My second and ultimately most important project is to organise and build up a federation of bee-farmers, whose objects shall be in conjunction with other things:

1 To hold an annual conference.

2. To raise the status of bee-farmers

3. To improve the quality of honey generally.

4. To prevent the sale of adulterated, low grade, or imitation honey.

5. To secure uniformity in tins, wrappers, and packages generally.

6. To have the freight charges on honey re-arranged beneficially.

7. To have all exported honey graded and stamped by competent Government inspectors.

8. To disseminate knowledge on bee-farming through the daily press and all agricultural newspapers.

9. To increase the consumption of honey by means of simple recipes printed on honey labels; cooking schools and classes; prizes for inventors of good recipes, using honey; distributing these recipes gratis through suitable channels; and, if considered beneficial, paying an expert in honey recipes to teach them.

10. To cheapen the cost of starting apiaries should the demand for honey increase sufficiently to justify fresh producers in the field.

11. To make it necessary for any one starting an apiary to serve—say three years—with a recognised beekeeper. Failing this, to pass a certain standard test.

Referring to the future of honey, the outlook can be considered fair when the fact is faced that the principal rivals, sugar, jam, syrup, treacle and glucose show a disposition to advance, should a marked change in price occur.

I shall be pleased to receive your opinion as to the probable financial success of these plans, in addition to any comments or suggestions that you have to make.

Yours faithfully,

V. G. VENESS.

[The subject matters contained in the foregoing, being of considerable magnitude, I may mention that I replied to Mr. Veness, as follows: "You say at the outset, what you propose 1-10; then you conclude that this agreement can be entered into immediately. If you mean to undertake such as you propose on your own, I think it a very good idea; if, however, you intend to have beekeepers to back you up, then their views have to be ascertained, and that can best be done by publishing yours in the "A.B.B." Will you, therefore, define your object clearly and let me know whether you wish the matter published. I shall be better able to assist you then." Will beekeepers express their opinion? I may have something more to say on the matter in next issue also, it being now too late to go into this carefully.—W. Abram, Ed.]

Alpine-St., Woolwich.

W. Abram Esq., Beecroft.

Dear Sir,—In reply to your letter, I wish to state that the agency would be established at my expense, the agreement entered into, and an office, sample and storage room taken by Monday week, I trust. In compensation for this, I am to retain the profits (if any) for the first six months. If the association—when formed—exercise their option of taking the business over before the expiration of this term, it is to be conditional upon refunding my outlay, as previously mentioned.

You are at liberty to publish the text of both my letters. As I find a difficulty in getting a complete list of N.S.W. bee-farmers' names and addresses, *I would feel indebted to you if you would forward me such a list at your earliest convenience.* In addition, I would like to know what your advertising rates are.

Should you deem the present time, or the conditions mentioned unfavourable, I should be pleased to hear from you at an early date.

Yours faithfully,
V. G. VENESS.

Mr. W. Abram.

Dear Sir,—I am pleased to see, by last "A.B.B.," the large nnmber of beekeepers that are willing to give their support in the formation of a beekeepers' union.

I quite agree with your suggestion that the officers of the executive should be near the place of meeting, thus getting together with the least expense and inconvenience.

I am willing to accept the names of the gentlemen suggested for the executive committee. They are strangers to me, but I am confident they would not have been submitted by you unless they were qualified for the positions.

Rules—I think they are very good, but I make the following suggestions. If the executive think it best not to adopt them, I am satisfied.

That the president, at the expiration of his term of office, deliver an address before union.

The secretary, at the annual meeting, place before the members a report and balance sheet of work done by the union during the year.

New Rule.—These rules can only be altered by a two-thirds majority vote after all members of the union have received notice with a statement of alterations intended to be proposed.

I herewith enclose postal note 5/-, my subscription fee to "The Commonwealth Beekeepers' Union."

Yours faithfully.
W. NIVEN SEN.

[Many thanks for your suggestions; but as the union's work is to be by correspondence, there may or may not be any annual meeting. If a conference is held, union matters may be discussed; but could not be definitely decided unless a majority of members were present and voted one way. The secretary and treasurer will have to sui mit reports each year by publication. I think it would be well to stick to majority rule only, as two-thirds means a big item, and it would be difficult to attain.—W. ABRAM, ED.]

Mr. J. Pennington writes:—I was pleased to read, in the last "A.B,B.," so many favourable replies to your invitation to beekeepers, urging them to form a real live beekeepers' union; and I have every reason to believe that they will not regret their actions. Enclosed please find postal note for the sum of ten shillings, being members' subscription to the union for my brother George and myself. Suggested Executive: W. Abram, President; J. J. Branch, Secretary; H. Lord, Treasurer; J. Parry and D. W. Parker, Committee. My brother wishes me to state that he votes the same as I have done.

Mr. D. W. Parker states:—I am still bee-mad, and have been continuously for about thirty years, having now about 40 hives of bees (as many as the place will carry) to keep me company; so I am taking an active interest in the proposed new beekeepers' union. I am not anxious to take any office, still will do what I can to help it along, until things are in working order. I dare say, this also applies to you. As far as I am concerned, I think it best for you to take the reins for the time being, and I have voted accordingly. The possibilities of the future of this industry are great, and much good can be done by the union if worked on right lines. Wishing the venture every success, and trusting you are in good health.

W. Abram, Beecroft.

Dear Sir,—Owing to inclement weather, I have been unable to get to see the beemen of this district *re* the union, of which you are so happily the head.

Our association does not meet until Wednesday, 24th inst., after which I hope to be able to send you full list of our members, together with their subs.

Attached please find prospectus received this day from N.S.W. Beekeepers' Association. Their object is splendid, and I've no doubt, the matter contained therein will be more readily handled by the union; and I do hope that all N.S.W. beekeepers will see the folly of holding aloof from the union, and by loyally supporting the movement, make it a union indeed.

We beekeepers get scant consideration from the Governing bodies, and doubtless by our dividedness, we deserve it. I have been told repeatedly, by those in authority, that we pay no taxes, and therefore have no right to be considered.

Notwithstanding that I can produce facts and figures to prove that on lands in this parish, sheep and bees would produce more wealth by 50 per cent. than sheep alone, no matter how great the so-called improvement, the Lords that govern go on subdividing into grazing, improvement and other forms of lease, which necessitate the destruction of timber, and valuable timber, too, thus compelling bee-farmers to become sheep-farmers; that is, if he desires to becomes a farmer at all. We never hear of a bee-farming lease. Yet why?

Some day we shall be weeping for the timber we have allowed to be burnt at the altar of the sheep. Therefore, I say go ahead, Mr. Abram, and make our union so strong, that beekeepers may be looked upon as producers, not parasites, as my noble sheep man infers.

I shall gladly support you in any way that I might be able. Wishing you every and the greatest success.

I am,
Yours truly,
E. F. HUNTER.

[Mr. Hunter's remarks are, indeed, very greatly appreciated, and are an inspiration to renewed vigour. The circular containing the following sentence: "Every person keeping a few stocks of bees, or selling or buying a pound of honey, is directly interestd; and on such we call for their countenance and support," speaks for itself, and beekeepers know how to treat such matter. It is worthy to mention that my principle is being adopted. But too late. Yes, beekeepers get not only scant consideration from governing bodies; they get none at all. But that shall be altered. Let every beekeeper assist by joining the union. Do not stand back for the sake of 5/-. Join at the outset, and help to improve our position, to help one another. Further, will beekeepers carefully consider, and make suggestions as to the needs and assistance required in the various districts to aid the industry? Of course, every matter of importance will be submitted by circular for vote, and *at all times, members should vote*, so as to get a representative expression on each subject.—W. Abram, Ed.]

To the Editor.

Sir,—I was not honoured by the receipt of a circular announcing the now-much-discussed meeting of the 12th of April.

Described in the "A. B. Bulletin" for April under the caption of "Beekeepers Beware," but taking advantage of the pseudo publicity afforded by the announcement at the Bees and Honey Pavilion at the R.A.S. Exhibition. I, as one beekeeper who did not have to take the last train for home on Easter Monday, was there to raise my hand in support of Mr. Abram's motion to submit the matter to the beekeepers by circulars, etc., a course which Mr. Abram has since taken, and which has had a belated imitator in the "New South Wales Beekeepers' Association." One of their circulars, which had been re-mailed from the country to a friend of mine, was handed to me recently as a curiosity for perusal, etc., and among the noticeable things was the name "A. Lord," possibly doing misleading duty for that of the familiar Henry Lord.

Another was, "Every person keeping but a few stock of bees, or selling or buying a pound of honey, is directly interested, *and on all such we call for their countenance and support.*" The Italics are mine, and shall be my only comment, notwithstanding that I agree that "in liberty, extravagance is economy." Then "Benefits to Beekeepers, Special Honey Pavilion, R.A.S. ground, special prizes R. A. Society."

If you will kindly turn to page 210, of the "A. B. Keeper for May, you will find, "A general meeting will be convened on or about the 5th of July, for the election of officers, adoption of rules, etc." So that some person has, or some persons have the effrontery, on behalf of this alleged institution, not yet in existence in the public sense, according to that showing, to claim the work done by others for the past decade, not that there is anything new or novel in those tactics to anyone who has the writer's acquaintance with the public beecraft and its politics for that period.

So much for the circular. Just a glance through the rules:—

1. "To secure the union and co-operation all interested in beekeeping." Is this to be done by the inclusion of half the beekeepers of the State, as members or shareholders, and the exclusion afterwards of their product as "inferior?"

2. "And by endeavouring to find new markets." Is that to be done after the manner of the export scheme? Because if so, it might be as well if scheme and schemers went overboard together.

3. "To endeavour to prevent the sale of adulterated *honey*." I fail to see the sense of getting into large capital hysterics about that matter, while the Trunkey bee-farmers (vide "A.B.B." for March, page 27) can only secure a nett return of 2d. to 2¼d. for ton lots. That bogey was exposed by the writer at the last convention, held in Sydney, at the Technical College, Ultimo, though the press credit was given to someone who appeared much more familiar than the writer with the commercial value of glucose. To put the matter briefly, it will not pay to adulterate what is as cheap as what you adulterate with, entirely apart from the evident folly of misleading the purchasing public that we adulterate, or connive at adulteration. "Beekeepers Beware"—of red herrings.

I have not time just now, nor will you probably have space, to more than just have a look at Rule 12. "The Association to consist of one President, four Vice-presidents, Hon. Secretary, Hon. Treasurer, and a committee, to consist of fourteen members." That looks well—on paper—and surely the ship with such a crew of captains ought to be well sailed—with such a plethora of officers there should be very little need for members in ordinary. It almost beggars the description of Mark Twain's famous agricultural paper with "not a farmer on the subscription list." I am aware that this is a rather generous gratuitous advertisement for "our friend the enemy," and express my right that any of themselves should have rendered the parting of our ways a public necessity in the interests of straight politics for public beecraft—as I have learned to regard such matters.

Yours &c.,
J. J. BRANCH.

J.R.C.—Longwood, near Mt. Lofty, S.A.—Here the winter is long and cold and bees do not seem to thrive too well, it being principally stringy bark ranges. However, I am trying my skill with a start of three colonies.

British Beekeepers' Association Conversazione.

In the unavoidable absence of Mr. Woodley, who undertook to read a paper on "The Production of Comb Honey," the Chairman explained that Mr. Herrod had kindly consented to open that subject in his place.

Mr. Herrod said that once again he had been called upon to step into another person's shoes, as he had done many times before, and he felt he could hardly expect to do that justice to his theme with which Mr. Woodley or Mr. R. Brown would have treated it. The latter gentleman had made the production of comb honey, for sale as well as exhibition purposes, a speciality. He (the speaker)

would not, however, pretend to go beyond what efficient beekeepers knew. The first point that would naturally strike everyone as most important was whether comb or extracted honey paid the producer best. As to that, of course they must be guided by circumstances. When a beekeeper supplied comb honey he parted with a valuable product—namely, beeswax. All knew that in the making of beeswax the bees consumed a large amount of stores, and the process told on their lives considerably; but the prime thing to consider, as he supposed everyone looked at the commercial side of the industry, was, "What is your market?" If your market was for comb honey, then it would be very foolish to try to force extracted honey on it, or *vice versa*. Plenty of beekeepers did not consider the production of wax. Personally, he liked to produce extracted honey, as with the production of sections, &c., difficulties arose, especially to the novice; there was the difficulty of getting the bees into the supers, and also the prevention of swarming. One could very easily prevent swarming in working for extracted honey, and he had known an apiary of thirty colonies worked for five or six years for extracted honey without a single swarm. Directly sections were worked for swarming took place. When a beekeeper began to work for comb honey he found that as the bees must be kept so warm there was a constant tendency to swarm. Some districts provided far better comb honey than others. For instance, where mustard was grown he would not advise the apiarist to produce sections, because mustard honey granulated quicker than almost any other. Another point was the strain of bees—a very important factor in working for sections. He was sure that Mr. Woodley and Mr. Brown, probably the best comb-honey producers in the country, had the right strain of bees for that purpose, and had given that matter their best attention. No doubt they had selected the best colonies in their apiaries specially for comb production. He had tried experiments, and had come to the conclusion that if good comb-producing bees were wanted, let them stick to British bees, which were far the best for that special purpose. Again, there was the question as to the use and the non-use of the excluder. He was for the use of it. (Expressions of dissent.) He quite expected that. There was no doubt the excluder did in some cases hinder the work of the bees, but, on the other hand, it was annoying when taking out sections, to find the best-built ones full of brood. He hardly thought, however, that there was much hindrance in using the excluder if it were properly adjusted. Some beekeepers put the slots of the excluder so as to run parallel with the frames, but if the slots were put at right angles instead the effect would be altogether different. Then there was a right and a wrong side to the excluder. In fixing it care should be taken to put the rough edge, caused by stamping out the slots, upwards; if turned the other way the bees could not pass through easily. Better still would be to take a piece of emery-cloth and smooth down the rough edges before making use of it. Should a beekeeper not wish to use the excluder, let him place a quilt so that it reached within an inch of the outside of the brood-combs, and allow the bees to come up round this; but the simplest plan was undoubtedly to use excluder-zinc. Then as regarded the receptacle for the honey. In the case of heather honey it did not matter so much what kind of super was used. The Rev. Mr. Lamb, of Burton Pidsea, exhibited at the Dairy Show some years ago, and when the show was over he disposed of his heather honey by cutting it up into chunks, wrapping it in paper, and the purchasers carried it away in their pockets. He (Mr. Herrod) wondered how they would have fared had it been any other kind of honey; but heather honey was so gelatinous that it would hardly leave the combs. Then the day of boxes, bell glasses, and caps was over.

Bell glasses were generally too large. If sold for table use, the objection was that the honey could not be used in small quantities; the moment the comb was cut it began to leak, and so spoiled the appearance of the remainder. Then with reference to the best rack to use. Undoubtedly the hanging section-rack was one of the best that could be devised. In the first place, it kept the sections perfectly clean. Secondly, they were held quite square—a great consideration. Again, it allowed of movement; by this he meant that the bees usually began building their comb in the centre of the supers, and if they did not seem to be spreading themselves properly he moved the outside hanging frames to the centre. With the ordinary section-rack it was difficult to manage this without crushing bees. The novice was usually anxious to obtain honey as soon as possible to place on the tea-table for friends. He had known them many times remove a single section for this purpose. This could easily be done with the hanging-rack. One thing against it was its cost, which was more than that of the ordinary section-rack, and whether the extra expense was justified by results was for every beekeeper to decide for himself. Now let them consider the ordinary section-rack. It generally held twenty-one sections, with following board and spring block, and often with tin T girders, to which he objected very strongly. In the first place, T Girders allowed of propolisation between the sections. Also, in carrying the racks full, more than once he had had the whole lot drop through the bottom simply because the girders were not strong enough to sustain the weight. Then also the sections were not held closely together on account of the piece of girder standing upright between each row, and if out of the square it was difficult to either glaze them or put them into cardboard cases. The section-rack he preferred had 7-8 in. slats running along the bottom to carry the sections, and the rack would cover the whole of the top of the brood-chamber. Some of those present, no doubt, knew the difficulty of using a rack built just to hold twenty-one sections; packing had to be used on one side or the other to prevent bees escaping from brood-chamber. They had to build out the side of the rack to cover the whole of the brood-chamber, and to keep the sections tight a following-board and spring were used at the side as well as the end. The style of rack he was advocating could be worked in conjunction with shallow frames on the same hive. With the ordinary rack, if a shallow-frame super were put above a section-rack both bees and heat could escape through the space left owing to the difference in size. If the section-rack was built out at the side it kept the sections perfectly square and forced them tightly together, so that there was no danger of propolisation. Care must be taken when using spring blocks to avoid the warping of the following-board. The point of the spring being kept towards the outside of rack would make the wooden part of block form a cleat across the following-board. Beekeepers did not always go the best way to work in removing sections; the plan of turning the rack upside down was the way to break a great many. Yet this often had to be done with the ordinary rack, and forcing out with the thumb caused greater damage still. As with the rack mentioned both side and end movement is possible, all this breaking is avoided. When sections were first put in the rack, it was a good plan to rub a little vaseline on the wooden slats to prevent propolisation.

The next point was the question of dividers. Should wood or zinc ones be used? There were drawbacks to wooden dividers, one being that they buckled very much. In the case of sections which were not as nicely built out as they ought to be, this buckling was generally found to be the cause of this fault. Another suggestion was, do not

use dividers that require to be fitted with individual sections. He liked a divider that reached to the top of the section, as this presented the extension of the few cells in the top row so often found. The thinner the divider used the better.

As to the best kind of sections there was a diversity of opinion. He, personally, preferred the two bee-way section rather than the four-way, fitting them with full sheets of foundation rather than starters. It appeared to him that a starter was the natural way for the bees to build their comb but, full sheets gave stronger comb, and saved the bees much labour.

All beekeepers knew how gently porters on the railway set down parcels and packages, especially those marked eggs, glass, or comb honey, and it was a common occurrence for sections to be broken in transit. Therefore, full sheets of foundation were necessary to get good, firm combs. A mistake was often made in putting the foundation right down to the bottom of the section; if they were to allow 1-8 in. or 1-4 in. from the bottom far better sections would be produced. As to the methods of folding sections, some people used a block, while others manipulated with the fingers. If they showed any tendency to snap when being folded just damp the V joints on the outside with a brush and hot water; do not pour the water into the joints. In getting bees into the sections a bait could be used. If a few sections from the previous year were saved, one of these could be used in each rack. In getting to the honey the bees would find their way through the excluder quickly, and having once got through would remain in the super if properly packed and draughts prevented. He remembered going to an apiary in the South of England in company with the late Mr. Carr. A beekeeper having complained that he could not get his bees into the sections, Mr. Carr looked at them and said, "They are never likely to go there as they are at present." He then put the quilt down along one side where a chink had been left, and in less than three-quarters of an hour the bees were working in the super. Their absence before was simply caused by the draught. In putting on a second rack always place it underneath the full one, as the less bees travelled on the face of the comb the better, because there were no door-mats for their tiny feet, and the cappings were liable to be stained in consequence. Also if the partially-filled rack was placed at the top of the hive, the honey would ripen quicker, and the sections would be sealed over in much less time than otherwise. The bees would also go up to finish their work, and be attracted to the new super. Sections should be removed as soon as possible. If that was not done a thickening of the cappings followed. For travelling that was a benefit, but on the show-bench it was fatal. Otherwise beautiful sections were often spoilt in that way. When removing supers they should not puff a lot of smoke into the hive before putting on the "Porter" bee escape. If this were done the bees perforated the cappings of sections, and so spoilt their appearance.

Very often he received honey for sale purposes which did not look nice, but which could be improved by bleaching; it should not be placed in the window, where the direct rays of the sun beat on it. If placed in a good light the colour of comb honey could be improved considerably. When removed from the hive sections should be cleaned from propolis, and then stowed in a dark, dust-proof, and warm place. In selling, he recommended them to dispose first of the honey obtained last. That sounded rather Irish, perhaps, but the honey obtained later in the season always granulated much quicker than that first produced. If honey came in freely, and the sections were built out quickly, they were always good ones.

Another suggestion was, do not keep putting on supers when the flow begins to decline. When supers are taken off, the unfinished sections should be put back in one rack, so that at the end of the season there would not be a lot of incomplete ones on hand. A further piece of advice he would give. Do not save the woodwork of the old sections to use over again. The audience would be astonished if he were to tell them of all he had seen in connection with this, even among people who might be expected to know better. He was not an appliance dealer, but nevertheless he advocated the use of new sections every time. He was quite disinterested in this matter, for he himself had not exhibited since 1901, and probably would not do so again; therefore he did not mind giving away a little experience. Good sections could be obtained in several ways. One method was to have a die made just the size of a section, then to take a nice shallow frame, cut out the comb with the die, and place it into the section, letting the bees afterwards fasten it round. (Laughter.) He has never done that on his own behalf, but when working for somebody else he was obliged to do it. Most beekeepers know that as the bees in a swarm are prepared for comb-building, they do the best and quickest work. Another way of getting sections was to hive a swarm on shallow frames with comb already drawn out, and a couple of section-racks above, and if honey was coming in freely the bees would be forced up into the sections, which they would soon fill and seal over. As to heather sections, where heather was obtained the beekeeper who had the most drawn-out comb on hand was the man who was going to secure the most honey. He was afraid he had detained the audience at great length, but he was still conscious that the subject was by no means exhausted.—"British Bee Journal."

BEEKEEPING IN LIGURIA.

M. Bertrand is so well known all over the world of beekeepers that a letter from his pen is of considerable interest, and that this is intrinsic the running reader may here see at a glance. "Scot," from whom we have heard lately, might make a note of the fact that Dr. Olivier is able to make a living "being a bachelor"! But such an evidently capable man would probably have no difficulty in whatsoever state it should please him to be. As to the district, San Remo and Vievola must be ideally allied. Imagine a combined honey-flow which runs from April to Mid-December! The round sections, one of which was shown at the B.B.K.A. meeting, are most interesting. A little expensive perhaps, as they hold about ¾ lb. of honey, and retail, Mr. Cowan tells me, for about 2 francs.—"B.B.J."

Are We Responsible for Damage or Injury done by our Bees,

BY E. A. C. LLOYD, BARRISTER-AT-LAW, IN "B.B.J."

The question—are we liable or not for any injury our bees may cause to our neighbours? is one which many a beekeeper must have asked himself from time to time. We all know that a dog is allowed his "first bite"; but the same cannot be said of a bee's sting, although in most cases the bee gets in its first sting whether it is allowed or not. How often do we read in the pages of this journal of bees raiding in great numbers houses in the proximity of their hives, attracted there no doubt by some sweet-smelling substance, or, maybe, prompted to go there by some instinct of their wonderful minds. It very often happens an such occasions as these that some member of the household upon whom they have forced their company suffers by being stung, and it might very

well happen that should the bees alight in very great numbers upon a person unaccustomed to bees the consequences might be very serious indeed.

We all know that by the Common Law of England, if we keep a thing or an animal on our land which is of a dangerous nature, and liable to do damage if it escapes, we keep such thing or animal at our peril, and, should it escape and do damage, we should be held liable for all damage which is the natural consequence of its escape.

For instance, if I store a very large quantity of water on my land in a reservoir, and it breaks the banks and floods my neighbours' lands, I shall be held liable; whether there was negligence on my part or not does not matter, and it will not excuse me to say that I took every possible precaution to prevent its escape.

The law classifies animals into two divisions, as follows:

1. Domestic or tame (*domitoe* or *mansuetoe naturoe*). This class includes cattle, sheep, pigs, poultry, cats, dogs, and all other animals which by habit of training live in association with man.

2. Wild (*feroe naturoe*). This class includes not only lions, tigers, eagles, and other such animals of an undoubtedly savage nature, but also deer, foxes, hares, rabbits, all kinds of game, fishes, pigeons, reptiles, and insects.

The law assumes in the case of domestic animals that they are not of a dangerous disposition, and not liable to attack mankind, and a person is therefore, in the absence of negligence, not liable for any injury they may do, unless the person is aware, or has knowledge of any mischievous propensity.

With regard to animals in the second class, animals *feroe naturoe*, the law says there is nothing unlawful in keeping such animals, but you do so at your peril, and the law will hold you responsible, independently of negligence, if they escape and do mischief.

This, then, seems to be the position of our bees. Whether it is the ordinary nature of hived bees to sting men or cattle seems doubtful on the authorities, though it is difficult to resist the fact that they very often do so. There seems to be no authoritative English decisions as to our position with regard to damage by bees, but the broad general principle seems to be that we are liable.

There was an interesting recent decision in the Irish Courts which seems to show that if you manage your bees badly and perform your operations at the hive clumsily, or keep bees in unreasonable numbers in an unreasonable place, you will be held liable for any damage which may result. In this case the parties resided on adjacent farms. The defendant, who was a farmer and acquainted with the management of bees and horses, placed and kept upwards of twenty hives at some distance from his own stables and farmyard, but at the back of the boundary fence between the plaintiffs yard and his own. On the occasion in question the defendent was using a "smoker" on his hive for the purpose of removing honey. There was evidence that he knew, or ought to have known, that the plaintiff was likely to be tackling his horse at this very spot, and that the horse was there, but he did not warn the plaintiff or take any other precaution on his account. Numbers of bees swarmed upon the plaintiff and his horse, with the result that the horse, being stung by the bees, dragged the plaintiff and threw him violently against a wall, causing severe injury to his spine.

The jury found that the injuries were caused by the bees having stung the plaintiff and his horse; that they were kept on the defendant's land negligently and in unreasonable numbers, at an unreasonable place, and with appreciable danger to the inhabitants of the adjoining farm; and also that the bees were to the knowledge of the defendant of a danger-

ous and mischievous nature, and accustomed to sting mankind and domestic animals.

The broad general principle seems to be, then, that, if the animal in question falls within that class of animals which are *feroe naturoe*, the man who keeps them must take the responsibility of keeping them safe.

We think that it can hardly be said that bees come within that class of animals known to be harmless by nature, for, as every beekeper knows, there exist bees which will attack mankind or domestic animals without the slightest provocation; on the other hand, there are bees which will suffer almost any amount of handling and will behave in a very domesticated and kindly way.

Apart from doing damage or injury, our bees may become a source of nuisance, which nuisance will be subject to removal at the hands of the persons affected. A recent decision on this point was decided at the Birmingham Assizes, in which two members of the county B.K.A. were concerned. In this case the defendant's hives, ten in number, were placed against a wall common to both parties, and within 20 ft. of the plaintiff's house. It appeared from the evidence that the bees invaded the plaintiff's house in such numbers and to such an extent as to become an annoyance to the plaintiff's wife and children. The plaintiff's bees were kept in a field 200 yards away from the house. The jury found that there was a nuisance, and recommended the removal of the hives to a spot 400 yards away.

It may be noted that such injury or damage or nuisance, as was complained of in these cases, would not be likely to happen in the case of the average beekeeper with his two or three hives. But it is clear that in the case of a beekeeper whose hives number many a very real danger or nuisance may come about, and it would be safer, both in the interests of the public and in their own, for beekeepers who keep many hives to keep them at a reasonable distance from places likely to be frequented by persons.

That Queer Disease—Doing Things at Berkeley University.

I was over to the University early in the month to see Dr. Anderson of the Dairy School, and before returning I thought I would see Mr Ralph Benton, of the Bee Department. A hunt through the "Bug Building" did not reveal his whereabouts; thence to the apiary back of the "Gym," near by. I found the gate to the apiary open, but my man was not there. I ventured in and looked at the "exterior condition" of the colonies to see how they fared in comparison with mine The day was not a propitious one, as have been few days since Christmas, still, many bees were flying, and, I suppose, working on the bloom of the acacias and the eucalpyti, of which there are many about Berkley.

A few of the hives did not show much animation, wherein they differed little from some of my colonies. Some of these weaklings were the ones troubled with the peculiar disease I have heretofore commented upon in these columns. There were many bees long dead in front of the entrance, and a number more were giving up their last breath, they having gotten outside the hive to let the life-coil slip away from them.

Mr. Benton still not heaving in sight, I ventured to poke my head into a room in the basement of the aforesaid "Bug Building" Sure enough, the gentleman I sought was there. He had several of his students in apiculture about him, and they were making a syrupy food for the bees, as he told me—some of the colonies were short of provisions. The students, some of whom were Phillipinos, went on with their work while Mr. B. and the

writer held short converse. Then the boys went out to dish out the rations to the hungry bees. Believing the "chief chef" of the feast should be present to superintend the banquet, I was about to take my departure when Mr. B. assured me there was no need of my being in a hurry to go, as the boys knew how to attend to the distribution of the life-giving syrup.

Then I remarked that the above-referred-to disease was prevalent in the apiary, and wondered if he (Mr. B.) had ascertained what it was. I had left some specimens of my diseased bees from the same cause, with the university man a few weeks before. He replied that he had not yet determined what it was, but one of the students had the matter under pathological study and was making fair progress with the subject.—Writer in "American Bee Journal."

HONEY.—

The demand has eased off somewhat. Choice Western is selling quietly at 3¼d. per lb., with an occasional sale at 3½d. per lb. Medium is dull at from 2½d. to 2¾d. per lb.

BEESWAX.—

The demand is quiet. Bright is worth from 1/2½ to 1/3½ per lb., and dark from 1/1 to 1/1½ per lb.

PIONEER BEEKEEPING.

BY J. J. BRANCH.

We had arrived with our load of bees at the Government Gardens at Port Macquarie, named after Governor Lachlan Macquarie, during whose term as Governor the town and settlement was opened up in about the year 1820, and as those gardens cradled the infant apiary that later gave birth to the potential giant of the north coast beecraft of the present, your readers may, perhaps, think that they, together with the town and district, deserve more than a mere passing notice. The town is laid out on the rectangular plan of survey, all the streets 99 feet wide, being directed to the cardinal points of the compass, the one exception to the width of streets, being that connecting the old military reserve on the Pacific shore with the commanding site of St. Thomas' Church (1826), probably for strategic reasons, this one street is ten chains wide. The gardens contained a reputed area of about seven acres, were situated almost centrally and commanded such an outlook as, perhaps, few apiaries ever had, from the "North Brother," at Camden Haven in the south to the distant blue peak known as "Anderson's Sugar Loaf" on Five Day Creek, a tributary of the Macleay River in the far north-west. The near distance covered by the business part of the town on the flat beneath to the westward, with the harbour and its tributary known as Coolunbung Creek or Lake (for the construction of a dam by the old convict system has converted the whole tidal bed into a lake.)

Across the harbour in the foreground lies Settlement Farm, the original agricultural clearing of the young community. Beyond the farm and forming its northern boundary the silver streak of the Hastings River winds westward to where distant Seaview, old ere northern continents and kings were yet unborn smiled early welcome to the radiant morn.

In the middle distance to the northward of the river Mount Cairncross stands sentinel-wise between it and its tributary, the Wilson River, which drains the area of Roland's Plains and *Marlo Merrican*, literally thunder land, from *Marlo* thunder and *Merrican* land, while to the south of the river looms the precipitous face of Broken Bago, the northernmost sentry of the Comboyne Plateau which (extending south and west) connects with Mount Comboyne or "Signal Hill" (from the aboriginal *comboyne*, a signal) for upon the precipitous point of this peak overlooking the coastal belt for many miles, the ancient aborigine lighted his signal fire, which might be seen from Cape Hawke to Smoky Cape or, roughly, 30 miles in each direction.

If your readers will pardon this attempt at panoramic description and will kindly accompany me in imagination to the top of the hill at the rear of the gardens (and overlooking them and all the beautiful expanse westward), where stands the building than once did duty as the Military Barracks mess rooms, but is now the Public School, I will tell them a little story of a boy who went to the historic school when it was the "National School." If you can imagine yourself present among the boys there, say 50 years ago, drawing water from the bricked well 90 feet to the water and seeing one lad fall down that awful 90 feet, you would have seen another lad go down in the lowered bucket to the rescue. The lad who fell down the well is now a well-known resident of the district, while his chum, who was lowered by the windlass and bucket to find him safe and sound, became known to the readers of this journal many years after that event as John Stuart Dick, Beekeeper.

I give the story as it came to me and, as an instance of how the boy may be the "father of the man," just permit me to say that the late Mr. Dick (when all other enterprises had failed him), out of an abandoned oyster lease and plant which he purchased, built up a property that furnished the model for the oyster fisheries of the State. As a then resident of the district I saw the strenuously practical character of his work and so far enjoyed his confidence as even to know from his own lips the exact amount of the original purchase money.

That same old school was in later years honoured by the attendance of the present principal of Adelaide University, another had the Agent-General for Queensland on its pupil's roll, while the old Parish School of St. Thomas' sent Louis Becke to the reefs and palms of the Insular Pacific.

So much for some of the surroundings of this historic apiary. I next purpose to give an outline history of some of those built from it.

VICTORIAN APIARISTS ASSOCIATION.

ANNUAL CONFESSION.

The Annual Conference of the above Association was held at the Federal Coffee Palace Melbourne, on June 22nd, 23rd and 24th.

There was a large attendance of delegates and Mr. R. Beuhne, the President, was in the chair. The Chairman welcomed the delegates and after referring to the lapse of the 1908 annual meeting, owing to the disorganised state of the Society, he briefly reviewed the business paper

for the present Conference and expressed the hope that the discussion on the various items would be both interesting and profitable.

The Secretary, Mr. W. M. Wignall, then read the minutes of the Special Meeting held on the 10th of February, which had been called in order to bring about a re-orgnisation of the Association, and after some explanatory remarks as to the action then taken, the minutes were confirmed on the motion of Mr. E. Jackel, seconded by Mr. L. Wills.

Secretary's and Treasurer's Report.

Gentlemen,—The Association being in the re-organising stage, there is nothing very definite to put before you, therefore what is herein stated may be taken as a progress report only. No annual meeting has been held since 1907, and to some extent the Society has lapsed in consequence. However, in February of this year your executive called a special meeting of members, at which the prospect of carrying on the work successfully was discussed. It was resolved by the meeting to make a strong effort to increase the membership and usefulness of the Association. To this end it was decided to issue a special circular to all beekeepers in the State pointing out the advantages of membership. This has been done, and up till now a fair response has resulted. Meetings of the Executive have also been held monthly since February for the purpose of dealing with current matters relating to the industry, and also to prepare the business paper for the present Conference. It was with regret that the executive received and accepted the resignation of the former secretary, Mr. W. L Davey, and a minute has been placed on record appreciative of his services both to the Association and the industry generally. With regard to membership, there is as yet only a small minority of beekeepers on the roll, but it is hoped that the outcome of the work already done, and the conference now being held will be a large increase of members, and that the Association will steadily grow into such a position as will enable it to voice the wants and aspirations of the beekeepers of this State.

Respecting the funds of the Society, it may be explained that at the commencement of the re-organisation there was no money in hand, and the balance sheet herewith submited is to be taken as a tentative one only, the figures of which will again be included in a statement of accounts for a period ending May 31st, 1910.

Balance Sheet for period ending June 8, 1909.

INCOME.—To Members' subscriptions, £8/2/6.

EXPENDITURE.—By rent Federal Coffee Palace 2/7/6; Printing, 4/0; Stationery, 10s; Sign-writing, 5/0; President's Expenses, £1; Postage (special circular) 1/6/4; Postage (general) 12/8; Balance, 1/17/0.

W. M. WIGNALL,
Secretary and Treasurer.

The Rialto, Collins-st., Melbourne,
June 17, 1909.

On the motion of Mr. J. T. Colston, seconded by Mr. T. Armour, the report and balance sheet was received and adopted.

Mr. E. Garret addressed the meeting on Item 4, Grasshopper, Fungus and Bees, and in the ceurse of his remarks pointed out the danger of loss of bees by means of the fungus, and gave an account of his experiments with it. He said that so powerful was the poison that grasshoppers, after having been dead for a month, could be crushed into powder and again used as a destroying agent without any further addition of fungus. As beekeepers were in the dark as to the actual effect on the bees if taken by them, he thought some expert investigation should be made by the Government in order to ascertain the effect of the fungus upon bees. He had written to the Department, but up to that time he had received no answer.

Mr. J. Jackel thought that toxin and phosphoreus poisoning might be included in the investigation by the Government.

Mr. Bingham (Tasmania) moved that the Agricultural Department be asked to fully investigate, scientifically, the effect of grasshopper fungus upon bees, and also the toxin and phosphorous poisoning. The motion was seconded by Mr E. Garrett and carried.

Mr. D. M. Morgan gave an article on the question of Substitute for Pollen. (This will appear in next issue.)

Mr. T. Bolton gave an article on the question of Bee Diseases; Need for Legislation. (This will appear in next issue).

At the conclusion of the discussion of this subject it was resolved that the Agricultural Department be asked to give every possible assistance in discovering a substitute for pollen.

The President read a Paper on Spring Losses of Bees, and it was decided to get expert Departmental investigation upon the matter.

Mr. I. Barrow, of Messrs Barrow Bros., Melbourne, gave an address on the Marketing of Honey. (This will appear in next issue.)

Mr. J. Knight, Chief Inspector of Exports, gave an address on Export Trade. (This will appear in next issue.)

Mr. A. D. Hanley, of the Victorian Government Forest Department, gave an address on the Eucalypts of Victoria. (This will appear in next issue.)

DEPUTATION TO MINISTERS.

The Conference was concluded on Thursday, and subsequently members waited on the Ministers of Agriculture and of Lands to place before them certain proposals for the introduction or amendment of legislation in the interests of the beekeeping industry.

Prior to the conclusion of the Conference the following resolution was agreed to:—"That in the opinion of the Association it is desirable to adopt a uniformweight in tins for honey of 56lb.

The following office-bearers for the ensuing year were elected:—President, Mr. R. Beuhne; vice-presidents. Messrs. T. Bolton, J. Scullin, E. Jackel, G. Bingham, F. Barnes and L. Wills; secretary and treasurer, Mr. Wm. Wignell; correspondent. Mr. R. Beuhne; committee, Messrs. J. and W. J. Barnes, C. B Sumsion, L. Wills, M. J. D. Morrison, L. B. Lundy, P. Shanahan, G. Rich, H. Cutler and T. Armour; auditor, Mr. F. Barnes.

The first deputation was to the Minister of Agriculture (Mr. Graham.) Mr. J. Thomson, M.L.A., in introducing the deputation, stated that the bee industry had passed the experimental stage, and had grown so important as to justify encouragement.

On behalf of the deputation, Messrs. R. Beuhne, J. Scullin, T. Bolton and W. J. Holden asked the Minister to introduce legislation similar to that existing in New Zealand, for the regulation and protection of the industry. They pointed out that the industry was imperilled by the spread of certain diseases, such as foul brood, owing to the negligence on the part of some beekeepers, and that legislation was therefore required to control the industry. It was quite possible for any irresponsible individual to settle down with a few hives in the neighbourhood of an apiary that had cost thousands of pounds, and completely destroy it by exposing diseased honey. Other requirements were the appointment of a scientific expert by the Government to investigate bee diseases, and the establishment of a branch of the agricultural department to supply novices in beekeeping with reliable information, just as the department supplied information to people engaged in other forms of farming.

The Minister in reply said that unfortunately he had had practical experience in beekeeping, and knew what the effects of the diseases were. What members of the deputation had said was perfectly true, and he promised to take the matter up seriously, and try, if possible, to introduce a bill next session.

The deputation then waited on the Minister of Lands (Mr. McKenzie), and pointed out certain defects in the administration of the bee clauses of the Land Act 1905. At present, they complained, holders of licenses of bee sites trespassed on the areas held under licenses for bee ranges, and they sought protection from such trespassing. Complaints were also made that the onus of prosecuting trespassers rested on the owners of licenses for ranges, and it was considered that the department should undertake the responsibility of prosecutions.

The Minister considered the requests were fair, and promised to give them due consideration.

DISEASE OF BEES IN THE ISLE OF WIGHT.

We have received from the Board of Agriculture and Fisheries the further report, just issued, on the bee-disease which has devastated the apiaries of beekeepers in the Isle of Wight It will be remembered that in 1907 Mr. A. D. Imms, B.A., of Cambridge. was sent down to the island by the Board, and reported the results of his microscopical investigations, and since then the matter has been under the investigation of Dr. W. Malden, M.A., of the Pathological Laboratory, Cambridge, who has taken up the bacteriological side of the subject, in which he has been assisted by Dr. G. S. Graham Smith.

Dr. Malden visited the Isle of Wight in May, 1908, and got all the information he could gather from the beekeepers on the spot. After describing the symptoms, he says the mortality caused by the disease is much more noticeable during the summer than during the winter months, the end of May and June being the months in which the disease is most rapidly fatal.

In his anatomical investigations Dr. Malden does not entirely agree with Mr. Imms, for he found that in healthy bees, taken from a hive after a few days of bad weather, the colon was distended to quite the same extent as in many of those diseased. Bees from the same healthy stock, caught as they returned on a fine day, showed an almost empty colon, a fact that Mr. Imms seems to have overlooked. The observations show that the distension of the colon cannot be regarded

as a condition peculiar to the disease, and Dr Malden thinks it only a secondary effect of it. Having failed to discover by dissection any definite and characteristic changes by which the disease could be diagnosed, Dr. Malden carefully examined the separate organs by means of stained and unstained microscopical preparations. He found no changes in any of the organs until he examined the chyle stomach, which in many cases showed marked changes in section. In the normal bee the cells of the lining membrane are well defined, but in diseased bees many of the cells appeared swollen and ill-defined, and detached cells appeared in the lumen of the gut in increased numbers in advanced cases; whilst those which remained in position were vacuolated, irregular in shape, and had irregularly staining nuclei. In the most advanced cases the lumen was filled with desquamated cells and granular materal.

Bacteriological examination showed the blood, tracheae, salivary glands, and other parts to be free from bacteria—evidence that the disease is not accompanied by a general bacterial infection. A large number of bacteria were found in the colon, but on attempting to differentiate the organisms by cultures on several media, and thus isolating the different species, they were all seen to be in both diseased and healthy specimens. Dr. Malden finally directed his attention to the contents of the chyle stomach of healthy and diseased bees, and here he was able to distinguish in the latter certain plague-like bacilli which were not present in healthy specimens, and these organisms he is led to believe are the cause of the disease. In stained film preparations the bacillus appears as a short, round-ended, thick organism, with darkly staining ends and lightly staining central bands, (polar staining), and closely resembles *B. Pestis* in general appearance. He therefore proposes to name it *Bacillus pestiformis apis*. A single infection experiment was made with a culture of this bacillus. A healthy stock of bees was placed in a hive in a greenhouse, all openings being closed with muslin and the bees fed on syrup. When they had become accustomed to this treatment, broth cultures of the bacillus were mixed with the syrup. Within a few days considerable numbers of bees had died, and the bacilli were found in their chyle stomachs, which also showed the fragile condition found in naturally infected bees.

In the summary of his report Dr. Malden says that many difficulties presented themselves in the investigation of the disease, as bees sent in small numbers for investigation travel badly, a large proportion being dead on arrival, and as putrefactive changes set in rapidly, the bees are rendered useless for examination. It was also impossible to obtain specimens for considerable periods, owing to the apparent temporary cessation of the epidemic. For this reason at a later period a stock of diseased bees was obtained, the hive placed in a muslin cage, and the bees fed on syrup, and the experiments were made with bees from this colony.

The characteristic features of the disease are a more or less rapid mortality amongst the bees, disinclination to work, some distension of the abdomen, frequently dislocation of the wings, and later, inability to fly. The disease can only be recognised by observing the general conditions of the stock. Anatomically the bees show a fragile condition of the chyle stomach, all other organs being normal. Bacteriologically plague-like bacilli were frequently encountered in the chyle stomach, and they were not found either in the brood of diseased hives or in the chyle stomachs of healthy bees. Dr. Malden, therefore, regards them as the cause of the disease. He admits, however, that he has not fully established their relationship to the disease, and until some satisfactory cul-

tivation methods have been discovered the bacteriological diagnosis of this organism must in most cases remain in doubt, for organisms stimulating it in morphology probably exist.

Spring Management in Securing Workers for the Harvest.

BY OLIVER FOSTER.

Possibly some one who hasn't tried it, may infer that about all there is to do in running out-apiaries for comb honey is to shake swarms, or follow some substitute "system," put on supers and take off honey. This reminds us of a late rumor of an extra advanced, scientific system of poultry culture, which practically reduces the labor to shovelling in the feed and gathering the eggs.

As a matter of cold fact, "in this locality," about two-thirds or three-fourths of the work involved, from first to last, does not come within the bee yard at all. We might call it "shop work" if we include with the shop, the ware rooms for supplies and storage, the grading and packing room, the wax room, the paint yard, etc. Several or possibly all of these departments may be included, however, in one room.

The preparatory and supplementary work does not usually show up for itself in the figures, and for that reason it does not receive the attention and credit that it deserves, and consequently it is sometimes slighted or neglected; nevertheless, success or failure depends very much upon the thoroughness of the shop work.

In the series of seasonable jottings which I am requested to furnish for the "Review," and of which this is intended as the first number, I hope to look into some of the important factors, which, as I see them, contribute to the solution of the problem of out-apiaries for comb honey.

I shall not aim to prescribe minutely a formulated system, or order of exercises to be followed, which, by the way, would necessarily have only a limited, or local application. I think it best for each to build his own system, carefully examining all the material in sight, taking note of general principles involved, testing such as seem commendable, selecting such as prove to be worthy of a place, and applicable respectively to the various situations in hand.

If the fall work has been thorough as it should have been, there is not much to do with the bees in early spring. There is plenty to do in the shop, for this is the time for laying the plans and for working out the preparations for the season's operations. But everything else must wait, when the bees *do* need our attention.

In order to locate my point I wish to quote from Mr. Gill,—"Review" for Jan. '06:

"The previous autumn I see to it that each colony has a vigorous queen, plenty of bees and honey. Then when March comes, I let them alone, and when April comes, I let them alone, and when May comes, I let them alone; until at least the 20th of the month."

Now this is a splendid ideal to which to aspire, but it is not always practicable to meet those conditions perfectly, and when we think we have done so, we must not presume too much upon the outcome, but as soon as there comes a few warm days in the spring, so that the bees can fly freely, the operator should be on hand to note conditions.

If he is in the yard during an hour of free flying, a superficial external diagnosis will answer as far as everything is all right, but it is likely that some of the colonies will not respond, and others will do so but feebly.

We may find 85 per cent. in fair to good condition, ten per cent. have lost two-thirds to nine-tenths of their bees, and five per cent. are dead.

It may be that all of the colonies had an equal chance in the fall, as far as we could know. What has caused the difference ? I don't know. May be one colony was of a nervous temperament and worried. Another was parsimonious, and in the fall gathered the juices of melons or fruits, or maybe cleaned out some empty vinegar barrel Another may have been disturbed by a mouse. We will simply look out for causes under our control for next time, and then expect some loss

It is not the loss of ten to fifteen per cent. of the colonies that concerns us. These are easily made up when the season comes; in fact we will need all of those empty hives, and more too, to control swarming; but we must not allow one of those depleted colonies to be robbed out. It would endanger the dissemination of the spores of foul brood. If you know of no foul brood existing for many miles around, there is not much danger, but there is still a little.

The robbing mania is always demoralizing to the robbing colonies. Many of their number are stung by rival robbers, as well as by their victims. Many others get chilled from being smeared with honey and trying to work when it is too cold. The stimulation is unnatural, out of season, and it does more harm than good. After the unprotected combs are cleaned out, and sometimes before, an attack is often made upon weak colonies that would otherwise pull through all right.

Uniting Colonies.

To unite two colonies, remove the poorest queen. Place the queen right over the other, with only a piece of burlap (gunny sacking) between them. Close the lower entrance. Form a temporary entrance for the upper-hive body by raising it a little at one end, and close the opening thus formed over the burlap, except about two inches of its length at one corner, where the burlap may be cut a little shy, to allow one bee at a time to crowd through from below.

At our next visit we will remove the burlap, allowing the united colony the full run of the two sets of combs if they can well protect them.

If there are three or more very weak colonies, I prefer to shake them all together, into one normal colony, or what they will make, and be done with them. Give the united colony the best of the brood and honey in proper shape, making two stories if necessary, and cage the best queen in the center of the brood nest with candy to be eaten through in two or three days, according to the usual formalities of introduction, and remove all other queens. It will be well to scratch the cappings of the honey also, so that all hands will get busy at once, otherwise the queen cage may be balled, which means danger just ahead.

If robbers are feared, place one thickness of newspaper over the entrance, slightly punctured. If they are very persistent, sprinkle a little coal oil on the paper.

Saving Weak Colonies Individually.

Colonies that would well fill out three spaces between four combs may be profitably saved with their queens, by placing them into four-frame or five-frame boxes of thin material and snuggling them together as described in the January "Review" for wintering nuclei.

Before leaving the yard we will see that all colonies are safe for the next month, as we do not expect to see them again within that time. Gather up all loose pieces and especially see that all combs that have been removed from the bees are secure from robber bees, whatever storms may rage.

When settled warm weather seems to have come, each colony should be placed on its individual summer stand, separated one or two feet from any other colony. Any change in location of colonies should be made when few, if any, bees are flying. In placing them, always turn the hive body the other end on its floor board and contract the entrance. This causes the bees to first try to get out at what is

now the rear end of the hive, and by the time they have found the new outlet at the other end they are in a mood to mark where they are at.

When all have become accustomed to the new order, and when the weather is favourable, we will make a thorough internal examination of each colony to see that all conditions are right for rapid breeding. We will make thorough search for foul brood if there is reason to suspect its presence, find and clip each queen where the hive record does not show that she is clipped, and note on the record this clipping date. This, together with any other noted data concerning the queen, will identify her, and reveal her age as long as a clipped queen is found in this colony, as we will always change the record if we change the queen, and if she is ever superseded, this will be shown by the wings.—"Beekeepers' Review."

SHAKING BEES.

BY D. M. MACDONALD.

Of very many new systems, discoveries, inventions, or whatever descriptive heading they may have been classed under, it may be written in the words of the late laureate:—

"They had their day; and ceased to be!" Evanescence is written on the face of many of them, and quite frequently they go up like a rocket, to come down like a stick. The newest rocket is the "Shaking" discovery of a writer in the American "Beekeepers' Review." What permanence or staying power it may have remains to be seen; and I have some serious doubts of the efficacy of shaking as a means to the end of securing more honey in the supers. It is worth experimenting with the plan, however, and, if it is tried extensively, the tests should prove effectively if the game is worth the candle. If it does no great good, it can do no special harm, so, few, if any, evil consequences will follow a limited trial under varying conditions and surroundings.

While this part of the plan has yet to be proved a success, it is worth calling attention to a few points where the shaking plan has been practised from early times. Our fore-fathers united too late or weak swarms by shaking each lot in its own straw skep, dumping them down in one mass on a sheet, allowing them to walk in as one united body to another skep; and then, if any signs of strife were observed; the bees got yet another shaking in their new home, so that they were thoroughly mixed. The result was that they amalgamated and lived peacefully and happily as one body ever after. We moderns unite frequently in much the same way. If the inhabitants of two contiguous frame hives are to be joined, the process is simple. Shake them down, frame about, alternately from each of the hives. It they are first allowed to walk into a box or skep, and then shaken about like so many peas, they will walk amicably as one united body into their new home. Joining nuclei can be done in the same way. Driven bees can be added to a weak or medium colony to strengthen it for the heather on a similar plan, shaking all round. Driven bees, as has been for long well known, can be dealt with as their owner desires, after the agitation brought about by the driving. But, better still, the shaking they get compels them to forget their sense of locality, and enables them to renew their bearings. so that they locate wherever they are planted down, taking new observations of their new home. Even in the same bee garden they settle down to the new site, happy and content. Apiarists who meditate shifting any of their hives to a new stand this or next month might take a note of this, and experiment with this plan of securing that the bees will stay where their owner desires.

Nothing intimidates bees more than a good shaking, such as is given in transferring them from one hive to another. The beekeeper may handle them like so many flies, if he knows how to deal with them in this manipulation. I have frequently taken them up in handfuls, and allow them to run all over the bare arm to demonstrate to the uninitiated, what can be done with these insects with stings when one knows the way how. This is the whole secret of the docility shown by bees when exhibited in a cage to interested spectators at shows.

Before the days of queen cages, our fore-fathers used to carry out a large proportion of their queen introduction on this system. In the skep days they drove the bees, securing or killing the old or failing queen during the process. After giving the bees, now queenless, a few good tosses, they dropped down the strange queen in their midst, shook them out on a platform in front of their hive, and allowed them to run in at their leisure. The introduction was invariably successful. In my novitiate days I did most of my re-queening in this way. I got an English driven lot of bees with a young queen guaranteed, shook the frames of my now queenless lot, allowing their occupants to walk into a skep. After a good shaking had been given to both lots, they were dumped into another receptacle, again well shaken together, and afterwards thrown in front of the hive, and allowed to march in as a combined body. I think I never lost a queen, and bees were particularly good-natured during the manipulatien.

Speaking of queen introduction reminds me of another model plan for safely introducing even a virgin queen. Shake bees off one, two, or more frames, as desired; confine them queenless in any box or hive, affording ample ventilation; place them in a shed, cellar, or some dark place until they realise their forlorn condition; when the roar, or wail, denoting that they have discovered they are motherless is set up, you can safely introduce your queen by simply letting her drop down amongst the crowd, shaking them up at the same time. They will quickly settle down to a condition of contentment, indicating that they have the bond of union which knits them into one whole. —"Irish Bee Journal."

TWO POINTS OF VIEW.

What the Beekeeper Said.

My stocks this year are sound and strong,
In fact I think I shan't be wrong
In hoping I may take ere long
Two hundred pounds of honey.
What's that? A swarm? Oh, how insane!
Which hive? What! That one swarmed again?
It's quite enough to turn one's brain—
And yet—It's very funny—

I could have sworn I'd killed their queen.
Either—how dense I must have been,
Or else—whatever can they mean?
Hello! here comes the rain!
Shall I be scored off by a bee?
I'll put them back and *make* them see
They've got to do what pleases *me*.
(Next day) Great Scot! they're out again.

What the Queen Bee Said.

Two new queens out? Why, then, I fear
There won't be room for *me* in here:
Go out, and seek a lodging near,
Then all fill up with honey.
Last night our master paid a call.
And turned us over, great and small,
Then killed the largest *drone* of all
With lots of ceremony.

I'm sure he has some deep-laid plot—
So swarm while yet the weather's hot,
For who can tell, if we do not,
We shall not all be slain?
Well, here's a door. so in we go—
What? Our old hive! Not if I know!
Shall this mere man coerce us so?
Out, bees, and swarm again!

J.C.L. in *British Bee Journal.*

PROPOSED RULES

(SUBJECT TO ALTERATION.)

Styled : THE COMMONWEALTH BEE-KEEPERS' UNION.

1. Objects and aims to aid and assist beekeeping in all its branches.

2. Members are beekeepers or have particular knowledge of bee-culture.

3. President, Secretary, Treasurer, and two other beekeepers form the executive to carry into effect, to the best of their knowledge, all matters submitted to them by members regarding union business.

4 Vital questions or subjects shall be decided by members voting per post.

5. Subscription to Union, 5/- per annum, dating from 1st July each year, payable in advance.

6. All expenses, except time, incurred by any of the Executive on behalf of the Union's business to be paid them out of funds of the Union.

7. Members agree to abide by majority rule.

8. All correspondence to be addressed to the President for the time being until otherwise arranged, who shall publish in the "A B.B." or send each member (not a reader of the "A.B.B.") periodical reports of the Union's Executive works.

9. Members are requested to submit to the Executive matters which they desire to be decided on by vote or referendum.

SUGGESTED EXECUTIVE.

(Alphabetic).

ABRAM, W., Beecroft.
BRANCH, J. J., Enmore
LORD, H., Technical College.
PARRY, J., Narara and Parliament House.
PARKER, D. W., Turramurra.

N.B.—You are requested to strike out any name you object to and submit another instead, or add thereto others, and to state opposite each name President, Secretary, etc., then address to me, at *your earliest*, as it is intended to publish results in the July "A. B. Bulletin"

If you enclose postal note 5/- for membership, I will hold myself responsible for same and remit same to duly elected Treasurer.

Full particulars, *re* formation are published in the "A. B. Bulletin," and copies will be sent free on application.

Results of voting and all further information will be published in the "A. B. Bulletin," for which reason it would be advisable to subscribe thereto. It is now being edited by W. Abram.

Beekeepers are desired to send in their votes and subscription not later than the 15th of July, when a meeting of the Executive will be held, and results of voting published in the July issue of the "A.B.B."

W. ABRAM,
Beecroft, near Sydney.

(Name) .....

(Address) .....