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A MONTHLY JOURNAL, DEVOTED TO BEE-KEEPING.

VOL. 3. No. 28.

JULY 28, 1894.

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
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MONTHLY MEETINGS.

TUESDAY, AUGUST 14TH.
TUESDAY, SEPTEMBER 18TH.
TUESDAY, OCTOBER 16TH.

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E. TIPPER.

C. MANSFIELD, Hon. Sec.

Master Charles Hatcher, North Shore, writes:—Seeing that you answer questions, will you kindly answer a few for me. This is my first year at beekeeping, so I do not know very much about it. I suppose that I am nearly your youngest subscriber, being just 17 years old. It is not a pastime that most boys would take an interest in; in fact in England few grown-up persons took any interest in it in the part that I came from (Devonshire.) But to my question. I have just made one Langstroth frame observatory hive (of glass) but before I put the bees in I should like to know if it is necessary to cover them up, or if they can work as well in the dark; also if I can keep them shut in for any length of time, if so, for how long. I only have one hive, which I bought in a box hive last March, since which they have gathered nearly 15lbs. of honey, which I believe is very good for the winter. I did not know till a little while ago that I ought to have fed them. I changed them into a Root dovetailed hive two days after I had them, and I like the hive very well, and unless you can recommend a better one I shall always have that kind. Can you tell me whether Pimento is a good honey plant, as in about a month there will be hundreds of trees in one mass of flowers about here. I shall have to mainly depend on the gardens around here, as there are not many trees of any kind around here. I am eagerly waiting for your next issue, and hope that it will be as interesting as the last.

[We are very pleased at receiving your letter, and to find one so young taking such an interest in bees. Re keeping them covered up the natural state in the hive is darkness, so we should decidedly keep them covered as much as possible. In cold climates, in winter time, bees sometimes don't fly out for months; but unless absolutely necessary to keep them closed for such a time we should not do so. A few days cannot hurt them much. The Root dovetailed hive is a very good one. Will some of our readers inform us about the pimento.]

During the month of April, £2,100 worth of honey was imported into the United Kingdom.

R. J. W., Gundowring, writes:—As I am starting a lemon orchard I shall feel obliged if you would in your next number tell me what seed I might sow and when, of plants that I might put in between the lemon plants that would be beneficial to the bees and not greatly exhaust the soil. The lemons will be planted at distances of 25 feet.—[Buckwheat will answer the purpose as well as anything.]

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Australian Bee Bulletin Office,
West Maitland

CONSULT US.

SHOULD you have a doubt on any matter in your apiary, or wish for any information, do not hesitate to write us, enclosing a 2d stamp. We will reply to our best per return, and give questions and answers in the following numbers of the A.B.B.

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NOTICE.

All Communications must reach the office not later than the 20th of each month to appear in that month's issue.

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HALF PAGE, per annum, £5; half-year, £3; per quarter, £1 15s.

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The Australian Bee Bulletin

A JOURNAL DEVOTED TO BEEKEEPING.

MAITLAND, N.S.W.—JULY 28, 1894.

AT the Annual Meeting of the N.S.W. Beekeepers' Union it was unanimously resolved to change the name to the National Beekeepers' Association.

The President chosen for the year is the Rev. John Ayling, the Presbyterian minister in charge of Pitt Town. As many of our friends in the other colonies might be curious to know something of the New South Wales beekeepers' president, we may state he was born in Surrey, England, in 1825. He arrived in South Australia in 1849. After spending about thirteen years in that colony he removed to Goulburn in New South Wales in

52. Eight years later Mr Ayling went to Port Macquarie. 1873 found the Rev. gentleman in Seone, where he remained for twelve years. He again removed to Pitt Town in 1885, taking charge of Pitt Town and Ebenezer, at which latter place stands the oldest complete church edifice in the Southern Hemisphere. He has always had a strong inclination for agricultural, horticultural, and floricultural pursuits, and possesses a practical knowledge of each subject. While acquainted with beekeeping under the old style, for nine years he has made the new a study, partly as a relaxation from his pastoral work, and very largely *pro bono publico*, knowing, he says, the necessity of utilising all resources in order to make a living, and that example is better than precept. To introduce any new method of working at an old occupation is always a difficult thing in rural districts. He has been tolerably successful in the various departments of apiculture, and commends it as a particularly interesting study and diversion from the usual routine of a country life. It will, he says, pay expenses, and that cannot be said of all

hobbies. At one time had 70 hives, but want of time compelled him to reduce the number.

One of, if not the most important officer of any institution is the secretary. If he is a real live man things hum. If not—well the least said the better perhaps. We have every reason to believe the present secretary Mr H. R. Whittell, to be a real live one. Although not a beekeeper he has had good scientific training, having passed as an officer in the Mercantile Marine, spent several years in surveying in the then almost unknown north-western portion of New South Wales; he is a member of the Council of the Linnean Society of New South Wales, and one of the founders and secretary of the National Horticultural and Pomological Society. He has been appointed one of the delegates to represent New South Wales in the Australasian Fruitgrowers' Convention at Mildura, in August, and it is his intention at the same time to visit South Australia and Tasmania. While doing so, he writes us, he will inquire into the state of the apicultural industry as well as the fruit industry. We feel assured when he returns to New South Wales after this trip, the beekeepers there will hear from him.

—o—

POSSIBLY the most important work done at the late Convention in Sydney was the initiation of a Co-operative Honey Supply Co. Limited. We are told by some that such has not succeeded in other places. If such was the case there must have been fault in the constitution or the directors. But co-operative societies have succeeded and are prospering to our immediate personal knowledge. And the prospectus in another part of this issue is formulated on the same bases as those successful co-operative societies. Not only so, but the gentlemen who are on the provisional directorate have been the promoters and for years among the leading men in carrying on those successful co-operative societies. One, the Maitland Co-operative Baking Society, has been in existence over twenty-five years. The Sydney

Farmers and Dairymen's Milk Company is another complete success. Many others could be named. Honey producers should remember, not only throughout the colonies but in the United States the total production of honey for every man, woman and child for the year 1893 WAS ONLY ABOUT ONE POUND PER HEAD! Householders round Sydney have nearly ceased to buy honey believing they could get only "made-up stuff!" The honey with the labels of a few well-known apiaries always sells. The honey of the Co-operative Honey Supply Co. will always sell. The honey consumption must increase. Read Mr Patten's paper elsewhere. Note, in the prospectus honey suppliers get larger dividends than non-suppliers. It is truly co-operative, no one can have more than ten shares or one vote. And of the provisional directors and secretary (Mr J. Trahair) we can only say they have ever proved themselves worthy of all trust that could be reposed in them. The existence, too, of the Co-operative Supply Co. will also better the position of the worthy middleman—for there are such. It will regulate prices, and be a strong big brother to back him up in all that affects the marketing of honey. We conclude by saying it is the duty of every honey producer in New South Wales to take shares in it, and the duty of every beekeeper in the other colonies to watch and copy. 120 shares were taken up by the committee alone.

We have a large supply of "Hopkins' Australasian Bee Manuals" to hand, which we shall be pleased to forward post free on receipt of 6s. 6d. postal notes.

This issue we are unavoidably compelled to delay a week later than the regular date of issue, the 23rd. It will however come out on its proper date next month.

The *Agricultural Gazette*, issued by the Government of New South Wales, has all its matter copy-righted. Our best thanks however, are due to the Department for

their kind permission to us to copy any articles that may be of use to our readers. We purpose availing ourselves of this privilege more fully in our next issue.

The New South Wales *Agricultural Gazette* for July contains two articles of great interest to beekeepers. One, by W. McDonald, forester, is entitled, "Our Timber Trees and Forest Culture," gives a description of the qualities and uses of the various timbers, complains bitterly of the wanton destruction, suggests ways of preserving and replanting, gives an account of what is done in England, Germany, France, and other countries; explains the pernicious effects of ringbarking in floods and droughts, and has the following pertinent remarks:—"Indeed it appears that our colonial timbers are eminently adapted for almost all the uses to which timber is applied, and while strongly advocating the introduction of foreign trees such as may be found useful and suited to our soils and climate, our own native trees appear to be generally of more importance." The other paper is by F. R. Guthrie, on "Australian Honey." It contains the results of analysis of eleven samples of honey, three of which were adulterated, one being only slightly flavored with honey. We might here state that at the request of the Convention Mr J. W. Pender gave Mr Guthrie some samples of very fine English honey, which Mr Guthrie promised to analyse in order to show what difference exists between it and Australian honey.

SPECIAL SUBJECT & QUESTION FOR AUGUST.

Special Subject—What are the bees now gathering honey from in your own immediate vicinity? We want a real lot of short pithy replies to this.

Question 25.—(By Thos. R. O'Grady, Grafton)—Whether is the mild bee that seldom uses the sting, or the intractable one that is a bit vengeful, the more profitable to keep?

SPECIAL SUBJECT FOR JULY.

EARLY SPRING MANAGEMENT,

J. D. G. CADDAN, Windsor.

Much I think depends on weather. At all times though make a careful examination of each colony to see if sufficient stores, and also if eggs or brood. If both latter wanting, be sure queen is in the hive, and if she is found, stimulate by uncapping honey (if present) a little every few days, but if no honey feed on good thick warm syrup. Be careful as to spreading brood too much. I prefer stimulating to spreading brood, and I do not like uniting weak colonies. See that floor boards are clean, and if water not handy provide some for in-breeding—bees require moisture. Keep water fresh and clean. Supering is important after you secure plenty of bees, and have increasing colonies and plenty of eggs and brood in all stages.

GEO. COLBOURNE, JUNE., Cave Creek.

The time of year that our honey flow commences should rule the spring management of our bees. And to know when our harvest will begin, we should have a thorough knowledge of our locality, and also the time of year that each kind of tree and herb commences to flower, and then work so as to have our hives running over with bees at the commencement of the honey flow. To attain this I find the following method the best:

As soon as the bees are bringing in pollen freely, I examine each hive to see that they all have good queens and plenty of stores. If any are found queenless, I give them one at once, if possible. And if any are short of honey, I give them some. The best way to do this is to hang a few combs full of sealed honey that was kept over from last year for the purpose. I now remove all the combs in which there is no brood, crowding the bees on as few frames as they can cover, from end to end and from top to bottom of the frames, using a plain division board (or dummy) at the side of the bees.

Any frames having honey in them, I hang on the other side of the dummy, so as the bees can carry the honey over as needed, and treat all the colonies in the same way, crowding the bees on as few frames as possible. Thus crowding the bees economises heat and stimulates brood rearing.

In about a week's time I again examine each hive to see how brood rearing is progressing. If the frames on the sides of the cluster are not filled to the corners with brood, I place them in the centre, putting the ones from the centre on the sides. In this way we get all the frames full of brood. If in this examination I find the bees

in any hive clustering on the other side of the division board, I give them one or two empty combs, as I see they can occupy.

At the end of a week I again open the hives, and see if the queen is crowded for room. If bees are on the other side of the division board, I give them more empty combs, always placing them in the centre of the brood nest, as by so doing the queen will fill them with eggs before the bees store any honey in them.

Never give more frames than the bees cover, as the end that we are aiming to reach is a lot of frames filled solid with worker brood, and not a lot of frames with a small patch of brood in the centre of each, as is too often the case where the bees are left to their "own sweet will."

I now examine the hives often, as there is great number of bees hatching daily, and when working on this "high pressure" plan, we want to give the queen more empty combs the moment she requires them.

As soon as the strongest colonies have ten Gallup frames full of brood, I take two of the frames from which I can see the young bees gnawing out in great numbers, and shake the bees off them, and then carry the two frames to a colony having but six frames of brood. This makes them equally strong, also give two frames of empty comb to the colony from which I took the hatching brood. Should I find any hive with less than ten Gallup frames filled with brood, I go to several of my strongest colonies and take one or two frames of hatching brood and adhering bees from them and place them in the weak colony (of course making sure that I do not take a queen along with them). I prefer taking only one frame of brood and bees from each hive (unless they are very strong), otherwise we perceptibly weaken such colonies. Always give frames full of empty comb in the place of the frames of brood that you take away. In this way none of the colonies appear any weaker, while at the same time our weak ones are built up to strong colonies. If we as apiarists were to devote our best energies to getting all our colonies to be equally strong at the commencement of the honey flow we would hear far less complaints of some colonies gathering twenty, thirty and forty pound of surplus, whilst other colonies in the same yard went up into the hundreds of pounds. I wish to say right here that with black bees it is almost impossible to have all colonies of the one strength, but the Italians it is easily accomplished if we work along the lines I have laid down in the above. When our brood chambers are full of brood and bees no time should be lost in putting on our surplus boxes or extracting supers (that is if honey is coming in, as it should be by this time) if we do not desire swarming. I would take half of the frames from the brood chamber, preferably those containing the most hatching brood, and place them in the extracting super, giving the bees frames of empty comb in place

of them ; or if you have not combs enough give full sheets of foundation. The queen is to be left in the brood nest, put on a queen excluding honey board, and set the upper story containing the frames of hatching brood and adhering bees upon the honey board ; leave them for a few days and then give them sufficient number of empty combs to fill the super. You will want to look at the frames containing brood that was put in the super, as quite a number of queen cells will sometimes be started. Destroy all cells unless the brood was from a really good queen, when if you need a few good queens you may save them, transferring them a few days before the queen will hatch, to nuclei or queen nurseries. In conclusion I would say that if any of the brothers or sisters know of a better plan of spring management, I hope they will give it to the readers of the A.P.B., remembering the injunction, "Freely ye have received, freely give."

MANAGEMENT OF WEAK COLONIES.

Written for the American Bee Journal.

BY G. M. DOOLITTLE.

As early in the spring as the bees can be looked over, all of the weaker colonies I shut on as few combs as they have brood in, using a division board for contracting the hive. They are now left until warm weather comes, being sure that all have stores enough where they can conveniently get at them to carry them until this period. They are now built up as rapidly as possible by reversing the brood, etc., so that by June 1st the best of them will have five frames of brood, others four and so on down to one, for the very weakest. As soon as the best has its five frames filled with brood down to the very bottom corners (and none are allowed more combs until they have them thus filled), a frame of hatching brood is given to one having but four frames, and an empty comb put in its place. In taking a frame of brood in this way I generally take all the bees there are on it right along, only being sure that I do not get the queen, so that all the young bees on this comb helps to give strength to the next weaker.

In a few days a frame of brood and bees is taken from each of these two five frame colonies and given to the one with but three frames, and so keep taking until all have five frames each. Do not make the mistake and try to strengthen the very weakest first as we are often told to do, for by so doing from $\frac{1}{2}$ to $\frac{2}{3}$ of the brood will perish from cold. By the above plan we are always safe and advancing warm weather is in our favour also.

In a few days, after all have five frames of brood, we are ready to unite, and if all has been done as it should be, the uniting will be done about

the time white clover begins to yield honey nicely.

To unite, look the frames over of No 1 until the queen is found, when this frame having the queen is put outside the hive. Now spread the frames apart of No. 2, when the four frames of brood, bees and all from No 1, are carried and placed in each alternate space between the frames of No 2, closing the hive. Return the frame having the queen on to No 1, placing beside it an empty comb ; adjust the division board and the work is done.

In two or three days put the sections on hive No 2, or tier up for extracting, and see what a "pile of honey they will roll up." At the same time place an empty frame between the two filled ones in No 1, and in a few days you will have a frame filled with as nice worker comb as you ever saw. Nearly all the old bees carried to No 2 will have returned by this time, so that No 1 is a splendid strong nucleus just right for building nice, straight worker comb.

As soon as the first frame is full of comb insert two more empty frames between the three full ones, and thus keep on until the brood chamber is filled. If at any time they should start to building drone comb, then use frames filled with foundation, for this is the time foundation can be used profitably. By fall this colony will be in good condition for winter, while No 2 will have given three times the honey the two would have done if left themselves, or had they been united in early spring.

QUESTIONS.

21. The best situation for an apiary, as regards aspect, locality, shelter, and convenience of working.

22. Is it necessary to specially prepare hives for winter in any part of Australia? and what preparation do you advise?

23. What is the best arrangement of hives and buildings for an apiary?

24. What is the best manner of keeping the ground around the hives, whether grass, clean soil, ashes or otherwise.

W. S. PLEFFER, Ingleburn.

21. The best of all sites for an apiary on New England is in a cherry garden, north-eastern aspect, open at north side to admit the sun, with a good hedge on the other three sides. Cherry trees require a well-drained soil ; so do bees. Bees require shade in summer, but all the sun they can get in winter, hence the advantage of placing under deciduous trees. Do not place under large fruits, such as apples, pears, &c., because in falling they would jar the hives. Forage—fruit blossom, clover, and within easy distance of forest reserve.

24. Do not let grass grow around hives; you may drop a queen and lose her. It is a harbour for spiders. Cut the grass off with a spade; you can then sweep away any dead bees, which falling among grass you could not do.

J. D. G. CADDAN, Windsor.

23. A good deal depends on plot and space. If possible, extracting room in centre; hives as convenient as possible, facing one direction, and easily seen from residence, so that swarms can be seen as soon as possible when they issue.

24. I prefer natural soil, and all grass and weeds chipped down and kept clean. A great advantage if queens are clipped, for you can see them without trouble, and no queens need be lost or trampled on when swarms come out.

GEO. JAMES, GORDON.

23. I much prefer to arrange my hives in pairs, with the entrances all facing east. I allow 10 feet between the rows of hives, and 7 feet between each pair; this allows plenty of room, and takes up far less space than if hives were placed singly. The whole apiary is arranged in a square, with honey house at one corner and workshop at rear; thus when working one glance takes in the whole yard, in fact everything is always under your eye.

24. At present my hives are arranged on bricks flat on the ground, and I keep the grass down with a Dutch hoe on a wet day when no bees are out, or else on a good frosty morning; but if I change I shall certainly make all stands of concrete, making them at least 6in. larger than the bottom boards as to width, but 12in. at front, sloping to the ground. To keep down the grass around the hives use salt; sprinkle it on the grass of a dewy morning, and the sun will kill it down.

R. MANKIN, Cowra.

23.—I don't think that there is any hard and fast rule, as situation and circumstances are first principles, but what I like best is to have the hives in rows on the side of a gentle slope, and my buildings on the low side. In the first place, while I am working, fixing hives, &c., I can see the whole apiary, and thus secure more swarms. And while extracting it is a little further to carry the combs, but I am not so much troubled with bees after the water that I have washed the extractor, &c.; by carrying it a few yards it runs clean away from me, and thus keeps everything tidy.

24. I have tried the three plans, and adopt the grass, for this reason—there are a good many ants about me; when I kept it nice and clean around the hives I had a few swarms killed by ants, and since I let the grass grow the last season I did not lose one swarm. It is not so attractive to a stranger, but I run my bees for a profit. I started last season with 48 swarms; made them up to 80, and extracted 10,280lbs. of honey.

W. S. PENDER, West Maitland.

23. The situation at your disposal will suggest the best arrangement, so no fixed rule can be laid down, but above all have the buildings so arranged as to give the least possible labour and distance in carrying combs, hives, &c., to and fro. The house in the centre is often suggested, but this does not permit of complete oversight of all the hives from the one window. If the hives are in rows, and these made to radiate to the house, a tram line laid behind each row, with a light truck running thereon, will very much reduce labour.

24. Almost anything good enough if time and muscle are spent in keeping in order; loose earth causes dirty hives in wet weather. In a permanent apiary concrete ought to be best; in an out apiary muscle and sickle.

H. L. JONES, Goodna, Queensland.

23. I prefer the hives arranged in straight rows on the side of a hill, with the honey house below the bottom row, and just about the centre. A horse and cart can thus be taken right up to the front entrance with very little risk from the bees, but if located in the centre of the apiary, as some advise, this cannot be done. The back entrance of the honey house from the apiary is nearly level with the grounds, so that a wheelbarrow of combs can be run right into the house. About the middle of the room there is a drop in the floor of 2ft. 6in., as described on page 155 of the "Australasian Bee Manual." The honey extractors, &c., are arranged on the top floor, and the honey runs direct into the strainers and cans on the lower floor. The ground at the front entrance is dug away, so that a cart can be loaded almost level with the lower floor, which saves a lot of heavy lifting. The above is a description of the arrangement of my home apiary and honey house.

24.—Would like to know. I have tried cement, salt, sand, ant-bed, coal cinders, sawdust, chipping, &c., most of which are too expensive, or fail to accomplish the purpose, in any apiary of any size. I have an abundance of sawdust, which would do nicely, but for the danger of taking fire, as a single spark from the smoker is sometimes sufficient to ignite it, and the worst of it is, it starts so slowly as to generally escape your observation. After losing a couple of colonies in this manner, I have discarded it, and am again reduced to the old, reliable reaping-hook.

JOHN SMITH, Brisbane, Queensland.

21. Pre-supposes that the beekeeper can have his own choice in the matter—and this appears to me to be impossible in the majority of cases, and so everyone has to tackle the problem according to his own special surroundings. But if beekeeper is born lucky, and can have all his heart's desire, then, as regards aspect in Australasia, let his hives face due north, have protection of some sort (fence or bushes) on south and east.

Site should be in a valley, not lying too low. Have good natural drainage—land sloping gently to north. "Locality"—Where there is plenty of maize and other pollen producing plants grown, and where there is a never failing supply of the best honey. (If Ed. of *A.B.B.* can point out that particular spot he can do more than I am able to do.) "Convenience of working"—Honey house should be as near south centre as possible, so as to be out of direct line of flight of bees.

23. Don't know.

24. Keeping the ground clean and free from weeds round hives is one of the every day trials of a beekeeper. Grass grows in everything but cement, and that is too costly to cover a bee yard with of any size. Sand is better than ashes, and more easily kept clean of weeds. Think that probably sea sand would do better than anything else, only it is expensive, and the public are not allowed to take it away. Ashes are ugly, and weeds thrive in them amazingly.

JNO. B. MASON, Tasmania.

24. While I can obtain clear sharp river drift sand for 2/- a load I shall use no other. Much to be preferred to quartz sand, which I first used at 2/- a bag, freight included. Quartz is dazzling white for a while, but contrasts too strongly with the hives' subdued tint, and then becoming soiled, its beauty fades, its cost remaining a memory. Sawdust I have had from the mills at a shilling per bag, but soon tired of it, having to pay freight also. It is not comely, having no stability; the winds scatter it and it reminds one of butchers' shops and the shambles. Ashes are not picturesque and are seldom to be had in sufficient quantity for many hives, and blow about in dry weather. Cinders from coal if obtainable from furnaces in vicinity form a good substratum for the hive as drainage, and can be covered with sand. Grass is objectionable, or any herbage whatever under or immediately round the hive, for obvious reasons: Retaining moisture, harbouring insects and impeding the search for clipped queens or signs of bee mortality and tracks of bee vermin, fowls, &c. The sand in my apiary is set a yard square and six inches deep. With a light hoe I can easier keep it clean than with a lawn mower. I can trim the turf, as it should be, to velvet like smoothness. For two or three show hives on a lawn this last would be my idea. The sand is easy to spray with salt, borax, or corrosive sublimate. If I could not get Sharp River sand I would obtain other sand and wash it.

CONTROLLING THE HONEY MARKET.

I. HOPKINS.

On reading your leader in last issue, in which you make suggestions you think practical enough to be considered at the coming Convention of beekeepers, I was forcibly reminded of what we did here in New Zealand some 10 years ago, or rather what we tried to do on the lines of your suggestions. If I recount some of our experiences in trying to carry out in practice what we considered the right thing, theoretically, the knowledge may be of some service to you. In 1884 a large number of our most advanced beekeepers formed "The New Zealand Beekeepers Association," and I may say our first committee was as practical a body of men as one could wish to be associated with. During the previous two or three years there had been a large increase in the quantity of honey raised, and as the demand had not increased in the same ratio the market was glutted, and prices declined rapidly. There was a great outcry among the beekeepers in consequence, and it was generally agreed that the middleman was in some way accountable for this. The latter was condemned, and it was generally agreed that we must avoid him. This question was deemed of so much importance that the very first work the Association was called upon to do was to checkmate the middleman by forming a Central Honey Depot in the City of Auckland, to which all honey was to be sent, graded and sold at prices fixed by the Association. The depot, though not officially attached to the Association was practically under its control, and the Secretary of the Association was Manager, his remuneration being a commission rate of 10 per cent on the gross takings. The depot was only at the service of members of the Association, but anyone could join the Association by paying the annual subscription, which was five shillings. Everything seemed to point to success, consequently a goodly

Mr W. B. Webster, in the *Beekeepers' Record*, says, in 1882, he pitted five single-queened hives against five with two queens in each. The former gave an average of 41lb, the latter an average of 157 from each stock.

number of beekeepers paid their subscriptions simply to get their honey sold who would not otherwise have done so, and quickly rushed in their honey till the store was full. So far, so good—Now for the sequel.

The discussion re the alleged roguery of the middlemen, together with the action of the Association in fixing prices for honey, had been made known through the press, and the consequence was, the middlemen took umbrage and left the depot "severely alone." They soon got supplies from outside beekeepers, who were only too glad to get rid of their honey, and were able to undersell our depot. Our next move was to start hawkers canvassing from house to house, but what with losses by swindling hawkers, the opposition of the middlemen, and the want of complete unity among our beekeepers, the whole thing turned out a huge failure, and this after doing our very utmost to make the thing a success. Three years afterwards I had the melancholy duty of collecting the balance of a number of consignments, amounting to several cwt., which of course was lost to the original owners, as well as their usual 5s. paid to get their honey sold. *Experientia docet.*

Our attempt to control the market, or to put it milder, to regulate it, has, I am sorry to say, not been the only failure in the same line. I may instance the British B.K. Association's honey depot established in London some few years ago, under what appeared to be the most favourable circumstances. That came to grief as well as others started in America. Then why suggest going over the same ground again. Depend upon it Mr. Editor your scheme of men under the control of a managing committee, &c., &c., would be altogether too expensive and unworkable. Let beekeepers put a good article on the market, adopt a brand and sell through respectable merchants. If the honey is uniformly good season after season the brand will soon become known and be in good demand. Middlemen or distributors are a necessity,

therefore don't try to interfere with legitimate trade. Honey is a luxury, and a good article at a reasonably low rate is the only way of creating a demand for it.

[We feel thoroughly assured had you started on the principles now adopted by the N.S. Wales beekeepers you would have had a different tale to tell. They are principles that have been tried and resulted in the greatest success. It has no intention of crushing the honest middleman, but to increase the consumption and thus retain good prices, and to make things better for all the producer as well as the middleman.]

SPECIAL WORK FOR JULY. N. Z.

In the North of New Zealand we have had some very fine weather, indeed, during the autumn, but, in the central and southern part of the colony there have been some very heavy storms of wind and rain since I wrote last, causing a good deal of damage. I have not, however, heard of any casualties among the bees, but no doubt they have suffered more or less like everything else from the effect of the storms. The advantage of having good shelter around an apiary is almost incalculable, as it depends almost entirely upon this, whether the bees suffer or not during high storms. In looking back over the past season, I can only conclude that it was a very peculiar one. In the first place it was an entire failure in the northern parts of the colony, and, although it was very good in some other parts, it proved much below the average generally. Then again there was a peculiarity with regard to the honey itself. In some districts near Auckland, the honey granulated in the comb shortly after it was gathered, a thing I have never known before. In several cases when the sections of honey were removed from the hives the honey was granulated although it had been capped over but a very short time.

BREEDING.

In strong colonies, during the present month, the queen will generally commence depositing eggs in the centre of

the brood nest, and greater activity will now be noticed amongst the bees, which may be noticed now to be busily engaged, especially on fine days, in carrying in both pollen and water for the consumption of the young larvae, which, if all goes well, will shortly emerge from the cells and fill the places of the older bees which will now soon die off. Pollen is absolutely necessary for the young larvae, and in some countries artificial substitute has to be provided in early spring in the shape of pea or other meal.

FOOD.

Care must be taken to see that the bees have a sufficient quantity of food, as should the stores run short the queen will cease laying and the bees probably drag the young larvae from the cells and carry them outside the hive. When feeding is necessary it should be slow, but continuous. Warm syrup given of an even ing in a feeder, over the mat, will prove beneficial or a comb of honey may be moved up against the brood nest. In the latter case the cappings of the cells should either be bruised or sliced off to enable the bees to more readily partake of the honey, or a mixture of sugar and honey may be given in one of "Simmins" feeders, placing it of course close against the cluster. Mr. Cheshire says that "the brooding, feeding and sealing of a single bee from the egg upwards costs as much to the colony as storing four cells with honey, an estimate which careful attention to this problem has shown me to be moderate, even for ordinary yields. Then the production of 1 lb of bees, i.e. 2 lb nearly of larvae, will reduce the honey stored by 16 lbs. The above quotation, from one of the most scientific beekeepers of the day, should be a most convincing proof to every apiarist of the utmost necessity of providing the bees, especially at the commencement of the breeding season, with abundant stores.

CONTRACTING THE HIVE.

It will greatly help to conserve the heat of the hive, if the space occupied by the cluster be contracted by the use of division boards, as described in the April number. The bees should only be

allowed as many combs as they can conveniently cover, and when the bees require more room, move the combs with adhering bees sufficiently apart and insert one of the empty combs in the centre of the brood nest. That is called spreading the brood, but great caution should be exercised by the amateur beekeepers in carrying out the operation, or more harm than good may ensue. The bees must be overcrowded on the other combs before it is attempted. Of course a fine warm day, when the sun is shining, must be selected for the examination of hives at this time of the year and the work must be got through as quickly as possible.

QUEENLESS STOCKS.

Should a stock be noticed to be carrying in only a small quantity of pollen, whilst others are heavily laden with large pellets, then queenlessness may be suspected and an examination made. Should they prove to be queenless the best way will be to unite them to a weak stock having a queen.

MATS.

These should be examined, and any damp ones removed and dry ones substituted. Recollect the bees cannot be kept too warm or too dry, and dampness in the hive often means ruination to the colony.

MOVING BEES.

Now is the best time for moving hives and rearranging the apiary if necessary. The colder the weather the better for this purpose. When it is only necessary to shift them a short distance they can be carried on a hand barrow; select a cold frosty evening, and after the new situation has been prepared and the new stands marked, shift them with as little disturbance as possible. When in their new position place some slight thing at the front of each hive, such as a piece of board at one, a bunch of ti-tree at another, and so on. The more these obstructions differ the better. The ti-tree, &c., should be placed so as to rest against the front of the hive, so that the bees when about to take their flight will notice something strange and take

fresh bearings and landmarks for guidance to their new home. If there are no trees or other prominent landmarks near the hive it will be well to place some conspicuous objects here and there amongst them. If this method is carried out as described very few bees will return to their old quarters, and there will be no appreciable loss.

In moving colonies long distances there is no need to take these precautions. All that will be required is to pack the frames that they cannot shift, and this may be done by placing strips of wood half an inch thick down between the frames at each end and wedging the last one off the side of the hive. The box should be moved forward flush with the end of the bottom board and secured to the latter by nailing on thin strips at each side near the ends. Having thus secured them and the cover in the same manner, in the evening, before moving them, after the bees are all in, tack a piece of perforated zinc or wire cloth over the entrance and they are ready for moving. In shifting bees in gin cases straw skeps, &c., the best plan of packing them is to turn the hive or box bottom upwards, and after putting wads of paper between the combs to keep them from shifting, tack a piece of scrim over the bottom, and they are ready for travelling any reasonable distance without injury.

WINTER FORAGE.

Eucalypti and acacias form perhaps the best winter forage we have in the vicinity of Auckland. The different kinds of acacias afford a succession of pasturage from late autumn well into spring, and beekeepers would do well, when they have the opportunity, to cultivate these plants as they will grow on any waste land. Honey plant seed should be sown this month, giving them some little protection until the frost is over. White sage plants will not grow in the colder parts of the colonies, unless in warm well sheltered situations. Horse mint forage, millilot clover, the Chayman honey plant and others of the like kind are hardy and will grow in any part of

Australasia. At the same time, as I have previously remarked, I do not advocate the sowing of seeds nor the cultivation of plants for the sake of honey alone. It would not pay to do so. Farmers, however, and others might well improve their pastures by sowing white clover and other honey producing plants which would provide abundant food for their stock and benefit the bees at the same time.

SOWING SEEDS.

It is not everyone that understands the best method to adopt for successfully germinating small seeds, and often by imperfect knowledge of the matter the sowing turns out a failure; generally when this is the case the vendor is blamed for selling inferior seeds. Of course when seeds are sown in the open ground bad weather may have the effect of preventing germination, but in ordinary cases, when delicate seeds are to be sown, the following method will be found the best—Procure some small shallow boxes, about four inches deep—candle boxes for instance cut down to the right depth—bore a number of half inch holes in the bottom and put a layer of shells or small stones over the bottom on which place a layer of moss or dry grass (this is to secure good drainage), now fill in to within an inch or so of the top, some good friable soil mixed with a little rotten manure. The top soil should be very fine with a slight mixture of silver or other sand. Now water well with a fine rose and allow it to drain for a few hours. Then sow the seeds thinly and cover by sprinkling some fine soil over the top. The depth of the covering can be judged by the size of the seeds. Very fine kinds require no covering at all and in no case should the seed be more than barely covered. Now water again very gently, and after allowing sufficient time for the water to drain off cover the box with a piece of glass, over which put a couple of sheets of paper and place it in the dark. In this way, if there is any vitality in the seeds at all, they will quickly germinate. Care

should be taken that the soil is not too damp or mildew will make its appearance and the seeds will rot. In three or four days if the seeds have sprouted gradually expose them to the light, and when large enough prick them out into nursery beds preparatory to finally planting out.

THE ENGLISH MARKET.

Mr. T. Bolton, Dunkeld, Victoria, writes:—Sir, The opinions expressed in your last issue by Mr. W. D. Russell and Mr. Burbank with respect to the sale of Australian honey in Great Britain are, I am convinced, correct ones. The masses have neither tasted our honey or heard of it; in fact anyone who has spent much time amongst the artisan class will know that honey of any sort or name is but rarely seen, let alone partaken of, by them; not because they have any prejudice against it, but because the current price of 10d to 1/- per lb is beyond the means of families whose breadwinner may be earning from 20/- to 30/- a week. The following, extracted from the Army and Navy Co-operative list, may be taken as a fair index of comparative prices of honey and its competitors for a place on the Englishman's table:—"1892, March. English honey 10½d, retail 1/8 in glass jars; French 10d, retail 1/7; Californian retail 8d, in glass jars, 1/2½; Ksar-Lye 10½d; West India, 11d in blueware. Jams range from 4½d to 7d per 1lb. bottles, cheese, 8d to 1/2, bacon, 8½d to 11½d, butter 1/- to 1/4."

It will be evident from the above that honey has little chance of becoming popularly used, whatever may be its source when as much per lb. is asked for it as for cheese, bacon, or butter, and twice as much as for jams, and I think it bears out Mr. Russell's contention that it is not a question of overcoming prejudice that we have to do with, but how to place our produce before consumers at a figure more fairly representing its intrinsic worth to the thrifty as food stuff. This figure it seems to me should not exceed

sixpence per lb sold from door to door into consumers' own vessels; and if it can be offered at that price, and a regular supply kept up of even sample, and with some satisfactory guarantee that it is genuine honey from our clime it would in my opinion speedily get talked of, enquired for and consumed. My own experience of shipping honey to England is that it will retail readily in small tins if grocers can be induced to lay in a supply; but, under ordinary circumstances it is useless to offer it to them by medium of a wholesale or commission house in London. The way to get it taken up by retail houses, is it seems to me, to first get it known and in demand by hawkers retailing it, and then through a proper canvass by the authorised agents representing us. When that time comes it will involve to all appearances the establishment of a depot at home with grading tanks and appliances, and means for tinning, bottling, packing and sending out our produce; bookkeepers, clerks, and what not, besides the overseer of all. Truly there is plenty of opening for our best talent in planning and discussing in the columns of your journal a workable scheme for carrying out our purpose or desire to send honey to the people of the old country with benefit to them and to our industry out here as well. If no one else can offer any thing better worth it why not discuss the scheme set forth some months back in the *Farm and Home*, a reprint of which has not, I think, been seen in the A.B.B. as yet. A start once made, no doubt many useful suggestions, alterations, or new schemes altogether, might be propounded and help to arrive at a well chosen line of action which can be supported with confidence by those interested in the matter.

Mr. W. T. Melhuish, Spring Hill, writes:—The bees have done very well here this season. It is wet and cold here now, I think we will have early spring.

THE N.S.W. BEEKEEPERS' CONVENTION.

The third annual Beekeepers' Convention in New South Wales took place on Wednesday, Thursday, and Friday, July 4, 5 and 6, in a large room kindly placed at their disposal by the authorities of the Technical College, Ultimo. Some sixty-four beekeepers were present. There was a magnificent display of beekeepers' appliances and things of interest to the fraternity around the room, Messrs. Hebblewhite & Co., R. L. Pender and Allport contributing very largely. Mr. Seabrook brought his combination hive; Mr Abram two frames of beautiful Italian bees; Mr H. L. Jones, of Queensland, Italian and Carniolan bees in spirits; Mr. Tipper a number of photographs of apiaries, also samples of lables, and some letters of Mr G. M. Doolittle's in frame; Mr Folbigg, of Chatsworth, samples of native bee honey from bush and scrub; Mr J. W. Pender, samples English honey; the Messrs. Bloxham Bros., of Sutherland, photo of a small swarm that had settled and started comb building on a shrub three feet from the ground. The officials of the College had been very assiduous to make things comfortable, and succeeded most fully. The ladies of the cooking classes, under Mrs Wickens and Miss Keegan, were not to be outdone, and each day provided dinner, doubtless cooked according to the latest economic and scientific principles. And perhaps it may have been owing to this that the clouds that seemed to hang over the deliberations of the assemblage at first seemed to vanish after the second day's dinner, and what was commenced in doubt and misgiving terminated most cheerfully and hopefully. Mr Gale placed his room at disposal for the use of committees. Mr Rumsey, jun., in charge of the library, was very attentive to the wants of the visitors in matters of letter-writing and other little kindnesses. And the various scientific wonders to be found in the museum and workshops of the immense pile of build-

ings—not the least of which was the flying machine—will give the visitors food for thought and talk for a long time to come. Interest was also taken in the depot of the Dairymen's Milk Company close by, with the golden cow on top. In an interview with the enterprising manager, he stated he had detected a dairyman adulterating his milk with water. The man was summoned, fined £5 and costs by the Police Magistrate, and £5 by the Company. This was very interesting to beekeepers, as they felt they could get honey protected from adulteration the same way—an adulterant needing not to be unwholesome, but harmless as water. Different to last time an excellent photographic group of those present was taken, of which we present our readers with a reproduction in this issue. We would suggest that for future conventions arrangements be made so that all visitors could board at the same place, instead of being scattered about the different hotels in the city.

There were a few faces we would have liked to have seen that were at previous conventions, but possibly the general election in its ferment prevented many. Mr R. Helms, of the Agricultural Department, was unavoidably away up country. Mr Guthrie, of the same department, was however present, and gave some valuable information. The only visitor outside New South Wales was Mr H. L. Jones, of Goodna, Queensland. Messrs. A. J. Murray and Matthews were delegates from Wellington.

As we are compelled to hold over to next issue a large portion of the report of the proceedings, we will conclude by stating that Mr. Roberts' paper on schoolteachers and civil servants competing with professionals in beekeeping, was warmly debated, and then the question allowed to drop; the initial steps have been taken for the formation of a co-operative honey company on a very sound basis; the name of the N.S. W. Beekeepers' Union has been changed to the National Beekeepers' Association,

the Rev. J. Ayling being president and Mr Whittell secretary, and the next convention will be held at Bathurst.

Among the pleasant memories of the Convention will be the visit a few of us made to the apiary of the Messrs. Bloxham at Sutherland. Fifteen miles from Sydney—the second-class return fare is only 1s. 3d.—close to the National Park, commanding a view of a magnificent expanse of country; their 90 odd hives well arranged, and their ground well planted with fruit trees—a most lovely spot, combining every advantage and comfort of city and rural life. A few of us also paid a visit to and enjoyed the warm-hearted hospitality of Mr and Mrs Seabrook, at St. Ives. None the less enjoyable for the two miles walk along a road lined with pretty suburban cottages, and orange orchards in every direction, loaded with the ripest of fruit. Mr. Seabrook is beyond question a “bee-master,” having passed his examination, and successfully competed in the English schools. His apiary is beautifully arranged, and the honey house and workshop show very marked intelligence. We felt that the National 1st prize for 1892 for Apiaries under 100, must have been rightly adjudged here.

We also passed a very pleasant time with Mr. and Mrs. Schroder at the Carrington apiary. Mr Schroder hails from the same bee farm in Germany as another N.S.W. beekeeper from Germany, being some four years his junior. We mean Mr. W. Abrams. Like him Mr Schroder is a firm believer in the Berlepsh hive. He maintains more heat is conserved, the bees are less liable to disease, the moth has no show whatever. He also told us he has cured foul brood—very bad cases too—by spraying with salicylic acid. The honey-flow this season in this district (Gosford) has been very poor.

Since coming home a fellow beekeeper has been telling us of a visit he made to Mr Gale's residence at Petersham. Not only is Mr Gale a great bee authority, but he is also an excellent pisciculturist, and has quite a number of tanks con-

taining some rare and most beautiful specimens of the finny race.

FIRST DAY.

Messrs. Gale, Wilshire and Abram were proposed as chairman. Ultimately by a show of hands, Mr. Abram was chosen.

Mr. Abram briefly gave thanks for the honor conferred on him; thanked those who had come a very great distance, and hoped they would try to make the Convention a success, and after returning home tell all they had heard and seen, so that others would benefit as well.

Mr. Wilshire congratulated Mr. Abram on his election.

Mr. Abram asked them to decide whether the secretary of the Union should be the secretary of the Convention.

Mr. Cadden hoped that the coming year would not be a barren one. The last year had been a disgrace.

Mr. Mansfield moved and Mr. Patten seconded—That Mr. Shallard be the secretary of the Convention. Carried.

Mr. Cadden was then called on to give his paper, “Selecting Judges and Judging in general.” After a few preliminary remarks he said:—

Although a stranger to many here, I am by no means a stranger at exhibitions, either as a competitor or visitor, for during the past 20 years, both here and in the neighbouring colony of Queensland, where until recently I resided, I have been a frequent prize winner, and during that time have closely observed the manner of judging and judges generally; and I know as well as anyone that at all times Societies have not been to blame in the matter of selection of judges. At times it is hard to secure for every department a really qualified judge, whose knowledge should be beyond question or dispute. Many persons are alive to the importance of obtaining fresh blood, and large sums are expended to improve the breed of our flocks, herds and stock generally; and manufacturers also in obtaining newest and best machinery to improve their goods and to keep pace with the demand for better articles. Whilst we are endeavouring to improve our exhibits, let us not forget that other matters may be benefitted also, and not because a system or practice has existed for any time, that such shall be continued, and must be right; and that improvement or reform

is not possible nor necessary. Go where you will, and at every exhibition complaints are heard of the manner of adjusting some of the awards. No doubt some of the remarks came only from confirmed grumblers, who bob up frequently, but amongst the chaff there must surely be a few grains of wheat, and some have solid cause for their remarks. Changes are constantly occurring, and advancement is the order, and unpleasant as it is to point out errors or correct abuses, still it must be done, and should be done without being accused of fault finding, or desiring to secure all the prizes at a show. For myself, I challenge anyone to say I wish to obtain awards except on the merit of the exhibit, and whenever exhibiting, if I saw I was fairly defeated I acknowledge it, and say my exhibit was not good enough, and try to do better in future. A few weeks ago a writer in the A.B.B. referred to myself as a novice, and would have us think that (as one only out of three judges in apiculture at R.A.S.) I was to blame for his failing to secure a prize. Well, I can only say my colleagues were not the men to allow a novice to rule them; even if he attempted to put on side; but I can say this (and it can be confirmed) that we each acted independently, and the decisions given were always unanimous, and according to our ability, conscientious; and I wish to add this also, that the gentleman who was steward of the section thoroughly understood his position and knew his work, and we received the numbers only and not the names of any exhibitor, and for myself no exhibitor was known. I only hope in future the names of exhibitors will be withheld from judges at every show, and that such will be followed everywhere. The subject I have been asked to introduce, of "Selecting Judges and Judging in General," one would think had been fully discussed at former conventions, but, as it occupied such a prominent position, being first on the list now, I can only say that the manner of selecting judges and the system of judging is not satisfactory, and does not meet with approval. To say that a judge should thoroughly understand that which he judges is like saying that a pump should always be connected with water, and yet this simple elementary rule is not always observed. Gentlemen are frequently appointed to act as judges who are no more fit for the work they undertake to perform than "the man in the moon." They may know something about it, but are ignorant of a great deal more. This may appear a strong opinion to advance, and to need sustaining. Well, I take the case stated in A.B.B. for February, 1894, where the judges at Wollongong are said to have cut holes in beautiful white comb honey to see if it was not adulterated. Doubtless others present can name other or similar cases. The selection and appointment of judges is one to which little thought is given by outsiders, but

which is, or ought to be, a question of serious import to committees, and that exhibitors have a right to demand more care in selecting judges than appears to be given by some Societies (at least one is reported in A.B.B. for May, 1894, where the judges were said to be selected *at random*. I have thus cited two cases, and both bearing strongly on points named, and I shall content myself with them.) for I have no desire to introduce personal elements, nor to bandy personal abuse, nor carp, nor cavil, nor magnify blemishes and minimise merits, but to endeavor to secure a good system of judging, and obtaining as judges only men who are thoroughly capable of performing their work in a satisfactory manner to the exhibitors generally, for without exhibitors we can have no shows. That judges should be straight, honest, unbiassed and disinterested persons requires no argument, and if unprejudiced and practical their standard of values is sure to be correct, and their verdict may be relied on. The question of knowledge, or want of knowledge, is not considered at all times. Not because a gentleman may have a high social position, nor even if extremely popular in his circle, nor if even holding a position secured by political influence only, nor if only a writer on some subject, should he be considered sufficiently qualified and appointed, rather than practical persons, who have sprung from the ranks, and have qualified themselves by ability. Another point, and a very important one. Assuming every judge has the knowledge, can we be certain that such knowledge is in every case fully and fairly exercised, or is there such a thing as a judge being what is called "got at." Now I have a conviction that judges are not invariably disinterested, and if local men are appointed all manner of devices are used to influence them directly or indirectly, and if some one does not actually speak to the man at the wheel it is found convenient to record subtle hints and suggestions upon the shirt cuffs, &c., so a little bird has whispered to me, and if any one asks where such things are done, I answer, as Rev. C. Clark in his lectures has said, "Such practices are very prevalent in Queensland, Victoria, and South Australia." Just here I must say a few words condemning the practice of some societies appointing as stewards of sections or divisions gentlemen who are exhibitors in the same section for which they are stewards, and during the time of judging all other exhibitors are excluded (and properly) from the building; but these exhibitors, being stewards, remain with judges. And I speak from what I have seen, that great pressure is used to influence the judges in favour of certain exhibits, and such a proceeding is unfair to the other exhibitors. Does any one imagine, if stewards present during judging, and they also exhibitors in same class, that they are disinterested? And you can easily see the injustice

of so doing, that it causes dissatisfaction, disputes and protests, and protests are always disagreeable things. The point system of judging, as adopted at last convention, is I consider a decided advantage, and by it the work is made easier, and the decisions must be more correct if competent judges are appointed; but in the hands of incompetent men it would be useless, for such persons know nothing about colour, aroma, flavour, &c., &c. It is a well-known fact that some persons have lost the sense of smell, therefore they cannot place aroma anywhere. Others are color blind, and a dark, black, or highly-colored exhibit is as good as any to them. Whilst others lack the sense of taste, therefore flavour is useless. Persons whose senses are defective or wanting should not accept positions they know they cannot fill either with fairness to exhibitors nor satisfaction to their own consciences. Frequently the duties of judges are so badly defined that no matter how ably or conscientiously a verdict is given it is not in accord with what we are led to expect. For instance, sections are classed and judged; then perhaps follow small frames, sections included. A mistake undoubtedly, for I find that this subject has been noticed, and at a meeting of N.S.W.B.K.A. in Sydney, November, 1892, it was resolved to consider any prize for a small frame at any show to mean a frame of not more than 90 square inches comb measurement. *A Bee Bulletin*, Dec., 1892. I now venture to offer suggestions for improvement. Let exhibitors give names of practical men in whom they have confidence, and insert such names as judges on entry forms when entering. Then committees have something to guide them in selecting judges; for, remember, exhibitors are only asking for practical men to judge, and they have a right to have a say in it, for they are entirely in the hands of judges, good or bad. Let the point system of judging as adopted at last Convention be adhered to. Let judges be brought from distant places and their travelling expenses paid. The Railway Commissioners issue tickets (if advised by secretaries of shows) to judges at half fares for the double journey. When judges arrive let them be met by the steward who has supervised the arrangement of the exhibits of every class, and knows where each is to be found. Let him place in the hands of judges, who are in his special care for the time being, marked schedules and cards—for in case of a protest these are invaluable. These schedules, which contain every entry in every class to be judged, do not contain the name of the exhibitor—each is represented by a number. In addition to marking the cards as first, second, or as the case may be each judge records the verdict arrived at, and opposite the number by which each exhibitor is represented on schedule and card; the number of points allowed each is entered in the column for remarks, and thus a valuable record of the "reason why," especially if competition is keen,

can always be referred to. When the prizes are awarded, these schedules and cards are handed to the secretary and assist in getting out quickly the press reports. For by filling in the exhibitor's name in space reserved opposite his number the position of every prize winner is seen at a glance. During the work of judging let no one interested be with the judges, and allow plenty of time for the work to be done, for skill counts for more than speed in this important work. If more than one judge is decided upon (although I am content with one good man—if possible a specialist, whose knowledge should be beyond question or dispute. But if more than one I should most certainly advise three, and let one of the three be looked upon as a referee, but each separately awarding points, and then if close or any doubt a third man is useful. But if two only act one perhaps says ditto to the other all through; or it is a case of giving a decision of the other's opinion and not each separately. Or one is cantankerous and nothing can be decided without calling in a third party to arbitrate. But with three you always have a good working majority.

Mr. Bradley gave an instance of incompetent judging at a dog show, where two judges, who knew nothing of certain dogs, gave the prize to the one they considered the prettiest of the lot. There was a necessity of good judges and men from a distance. There were places where beekeepers would not show because they felt they had no chance of getting a prize. He gave an instance of a prize for comb honey being awarded to brood nest.

Mr. Shallard suggested the Association should agree to one scale of points.

Mr. Patten said it was not so much a difference as to the scale of points as to get the judges to think alike. Every exhibitor thought his goose a swan. He believed in single judges.

Mr. Gale said it was throwing a very dirty sponge to say the judges were 'got at.' He had acted as judge for over twenty years, and during that time had never had a solitary complaint. Had judged at shows where stewards had been competitors, and in every case such individuals had drawn back.

Mr. Whittell said one of the most difficult things societies had to do was to get proper judges. A good remedy was to get judges to come from other colonies who would come as absolute strangers,

and not enter the building till the time of judging. If competitors would be content with the honor of winning the prize, and not its actual money value, he thought they might be able to stand the expense.

Mr. Bradley suggested abolishing everything in the shape of money prizes.

Mr. Patten alluded to the points arranged at the last Convention, and said it made no provision for odour in wax, and suggested that it should be amended for that.

Mr. Whittell moved, "That in the opinion of this Convention cash prizes should be abolished, and the money devoted to obtaining judges from a distance."

Mr. Cadden seconded.

Mr. Mansfield moved that a list of experts should be drawn up to be submitted to the various Associations. The trouble applied more to country associations than to Sydney.

Mr. Whittell's motion was lost.

Mr. Mansfield's motion was carried.

Mr. Taylor, of Cowra, gave an instance of where an exhibit got a prize that was not in the show at the time of judging, but was brought in after the judges had given their decisions.

Mr. Roberts was now called on to give his paper, "Should schoolmasters and other civil servants compete in beekeeping with professionals?" He apologised he had left his paper behind. The reading was postponed till the evening.

A number of schoolmasters present objected to the postponement on account of their inability to attend the next sitting. The chairman ruled the granting of the postponement.

Mr. Patten was then called on to read his paper on "Co-operation of Beekeepers," as follows:—

"The subject allotted me by the Committee is so wide in range that I have little hope of doing justice to it in the time allowed me. In the hope of not unduly fatiguing my hearers I shall break up the subject into three parts

(1) Forest Conservation.

(2) Production as it is, and what it might be.

(3) Distributing Products.

1. It must be evident to all here that unless

the source from whence our supplies come is kept intact and carefully guarded, the industry must ultimately fail.

I venture the statement that the bulk of our honey comes from the blossoms of the great eucalypt tribe. Whatever is procured from other sources is only as a drop in the ocean so to speak. Now the march of civilisation must and will gradually drive beekeepers from the seaboard. This is the order of things to be expected. There are other circumstances that appear to me to be *unduly* working against them, and if I am not mistaken, in some instances illegally too. I refer to the indiscriminate ringbarking of trees, and the wilful waste of good timber by splitters and timber getters. I believe the law of the land demands that no tree shall be "rung" under nine inches diameter. How far this law is respected most of you know. When a man undertakes to 'ring' trees by the acre for 8d or 9d, he has not time apparently, or inclination, to observe any restrictions, and strange to say the officer whose duty it is, or ought to be, to enforce same, when the work comes under his notice for inspection, performs the said duty in so perfunctory a manner as to lead one to the belief that he has viewed the work from an eminence through a cheap telescope.

Then again, am I exaggerating when I ask is it not a fact that for every tree felled by the professional axeman, eight others are killed before the finally selected one is chosen?

If things go on at this rate, in how many years will our forests be a thing of the past? I am afraid at the present moment in some parts of our land good timber is as scarce as at the North Pole, and in parts too where some years ago forests of excellent timber flourished.

I take the following from a Victorian daily paper of recent date: "The mining companies around Ballarat are beginning to feel the cost of timber as a burden of grievous weight. One company alone—the Brittania United—according to its manager (Mr. John Beckett) has expended since 1878 no less than £16,000 on timber, while for the same period the shareholders had received no more than £7,600."

This state of things should not exist. In the present day, when foreign countries are casting their eyes on our hard woods with a view of using them for wood blocks for paving, and railway sleepers, does it not strike you that the time is opportune when we, as beekeepers, should co-operate with the gentlemen interested in the abovementioned industries and lead them to see the necessity for conserving our forests? We want the live tree, they want the dead timber. Of this I am convinced, if some measure is not taken at once to stop the shameful waste of our forests, then good-bye to the beekeeping industry, and those other undertakings that appear so full of promise at present, will also come to a very untimely end.

2. Through the courtesy of Mr. Coghlan, the Government Statistician, I am enabled to place before you an array of facts under the head of "production as it is," that appeared to me so startling that I was almost inclined to ask the chairman's opinion whether they had not better be received *in camera*; on reflection, however, I have concluded that all countries are probably in like position, and it only wants a similar analysis of their statistics to prove it.

I find that the average number of hives in operation for the past four years amount to 44,195, yielding an average amount of honey of 1,046,528 lbs. This means nearly 24 lbs. per hive per annum for the home production.

The average amount of honey imported for the same period was 185,165 lbs. per year, while the average amount exported during that time was 3,236 lbs. per annum.

Now, if we take the population of the colony on the 1891 basis as a fair mean, viz., 1,165,390, it will be found that the home production of honey on the average per unit of such population was 14.4 ounces avoirdupois per year. The imports equal 3 ounces nearly, while the exports were only 1.25th of an ounce. Consequently the total consumption of honey per unit of the population only amounted to 17½ ounces avoirdupois a year in round numbers. Even this astonishing low amount is reduced when it is remembered that the beekeepers, who probably number less than 1-80th of the population, consume perhaps 1-20th of the total production.

To bring this matter home to our minds a little clearer, let us take the 1891 population of Sydney, 386,400. The average production of the whole colony is only 2½ lbs. a year per unit of Sydney's population! It is to be noted with satisfaction that whereas the imports of honey were as high as 414,661 lbs. in 1891, they had fallen to 58,913 lbs. in 1893. A gratifying decrease. On the other hand the exports for 1891 were only 2,381 lbs., but in 1893 they had risen to 4,980 lbs. A sign, if I mistake not, of progress and prosperity.

In view of the foregoing facts, this thought must have suggested itself to my hearers, "What can be the cause of such an existing anomaly as low production and equally low market price?"

Two reasons present themselves to me: 1st, Adulteration; 2nd, The failure of individualism in selling. As in America, so I am of opinion it is here, the great adulterant of honey is "starch syrup," commonly called "American glucose."

It is of course unreasonable to believe that all the glucose imported into New South Wales is used to adulterate honey, because we know it enters largely into such industries as confectionery, brewing, tobacco manufacturing, tanning, jam and jelly making, &c. But one thing is very evident, whatever comes into the colony is *all consumed*, and the way it reflects on the

honey industry is seen in this very strange coincidence to say the least, that when the importation of honey is high the importation of glucose is low, and *vice versa*, e.g., in 1891 honey imports equalled 414,661 lbs., glucose imports equalled 712,320 lbs., while in 1893 honey imports were only 58,913 lbs., while for the same year the importation of glucose rose to the enormous amount of 1,442,784 lbs.!!

I may mention that this commodity may be bought in Sydney at from £10 to £17 per ton, and also that one firm in Sydney alone used during one year 30 tons of glucose in their business.

That this article is very largely imported into N.S.W. can be seen from the following figures: The average import during the last four years amounts to 1,032,472 lbs., which means an average consumption per unit of population per annum of 14.2 ounces.

It is somewhat significant that the consumption of glucose very nearly equals the home production of honey, viz., as 14.2 is to 14.4 ounces! And also that for every pound of honey imported into New South Wales, 5½ lbs. of glucose came in!!

Would it not be advantageous then to the beekeeping industry, if honey producers co-operated with others to obtain a somewhat similar condition of things as exist in England with the coffee and chicory trade? To require the labelling of all bottles and jars with the true name of their contents? I am sure we should be quite satisfied to leave results with a discerning public if a bottler was compelled by law to plainly label his mixture—say, "Honey and Glucose."

It must be admitted that the go-as-you-please style of selling that has hitherto been in force has had a pretty good innings, and if the good old axiom "By their fruits ye shall know them" be applied to the results, it must be freely acknowledged the word "failure" sums that system up. What has it attained to? *The miserable consumption of 17½ ounces per capita per annum.* Individualism in selling has had its day, and died.

Let me ask you to follow me through a few figures, and see what on a very moderate estimate might be, could be, and shall be, with Co-operation.

I presume it will be admitted that 500,000 is a low estimate of possible consumers of honey for the colony. It would also be a moderate estimate to put the possible consumption by that number at 2 ounces per head per week.

On this basis there would be within a fraction of 28 tons of honey required per week, or 1456 tons per annum.

Another view—take Sydney—applying the same low estimate of possible consumers, say 190,000, and the same low rate of consumption, viz., two ounces per unit per week, it would take for Sydney alone over 10½ tons of honey *per week* to meet the demand.

This is not a fairy tale, but an array of simple figures that could easily be reduced to matters of fact by a judicious system of co-operation among honey producers. As to what can be done on similar lines I have only to point to the dairymen and butter factories. What they can do for their industry *surely* we can do for ours. Co-operate then! Let us co-operate!

Suppose such a company in existence, and the results panned out as above, how would it effect present producers, especially those gentlemen who wish to see production retarded? Well, it is evident the output per hive would remain at its present level, viz., 24 lbs. per annum, and without further production the company would either have to cease operations at the end of four months in each year, or else import honey from foreign countries—a *very undesirable alternative*. But suppose, owing to keener efforts on the part of existing beekeepers, and the starting of apiaries in localities hitherto untapped, and possibly having a larger flow—unlikely I admit, but still possible—that the output per hive averaged 28lbs. It would require 116,480 such hives to supply the demand on the forementioned basis, *Over twice as many as existed in 1893*. Or to bring it home to our minds with greater force, it would take 582 apiaries of 200 hives each to furnish supplies. And for Sydney alone it would require the existence of 102 apiaries, each containing over 400 hives, Gentlemen, I have finished. If my remarks shall induce you to favourably consider my ideas as to the need and probable results of Co-operation, I shall rejoice."

A long discussion took place on Mr Patten's paper, in which the following gentlemen took part—Messrs. Gale, Streathfield, G. R. Humble, Trahair, J. E. Taylor, Whittell, Bradley, Wilshire, J. W. Pender, Abram, and Tipper. Ultimately Mr J. W. Pender moved, and Mr Wilshire seconded—"That it is desirable for the Beekeepers' Association of New South Wales to at once form themselves into a co-operative company for the purpose of disposing of our produce." This motion was unanimously agreed to, as was the following resolution, on the motion of Mr R. Patten, seconded by Mr J. W. Pender—"That Messrs. J. W. Pender, Bradley, Abram, Trahair, Wilshire, Taylor, Whittell, Gale, and Patten, form a committee to discuss a system of co-operation, and report to the convention this evening."

After tea, Mr Roberts again not being ready with his paper, Mr Tipper was called on to read his on "Marketing of

Honey," which we will give in our next. After which Mr. Roberts read his paper, as follows:—

"Mr. Chairman, ladies and gentlemen,—In bringing this subject before you this evening, I do not do so in any spirit of bad feeling towards any brother beekeeper, but simply to ventilate the unfair competition a certain section of the trade have to suffer. Some twelve or fifteen years back, beekeeping was carried on in a very primitive manner, bar-frames being at that time almost unknown in New South Wales.

Since that time however, the industry has made most rapid strides, and at the present time we have in New South Wales, according to Mr. Coghlan, fifty-two thousand some hundred stocks, and I am informed that it is safe to say that over 10 per cent. of these are worked by schoolteachers, postmasters and others, employed in Government situations.

We will divide these five thousand two hundred hives owned by Government employees into lots of one hundred, which would give profitable employment to some fifty-two families, and perhaps tend to alleviate some of the distress and poverty now prevailing in this colony. Then again, Government officials are able to compete against, and undersell, a man who has to rely upon an apiary for his sole support, through having their apiaries placed upon government property, for which they in most cases pay no rent.

No doubt I will be met by the argument that schoolmasters keep apiaries for the purpose of instructing the rising generation in the mysteries of the art, but I do not think that there is any need of that, as we have a very capable instructor in the person of Mr. Gale, who by the look of things will eventually have all the people in the country districts bee-keepers. I suppose in most country towns the schools are used for lecture rooms, and bees are used to instruct the boys, but I do not see that an apiary of one hundred or more hives are needed for that purpose.

Some one will perhaps argue that I ought not to object to any schoolmaster keeping bees as a hobby. Certainly not, but I think that in most cases the hobby-horse is considerably overridden.

I think ten to twelve hives sufficient for all purposes both as a hobby and for teaching purposes, for I am certain a person who has an apiary of 100 hives has quite sufficient to look after without any other occupation. I believe there is a rule in the civil service that a civil servant shall not engage in any trade or business outside of their appointment, but I am sorry to say this rule is entirely ignored by a great number of government officials.

I would like to have seen some more prominent member take this subject in hand, but I have no doubt it will be debated upon by those better able to deal with the question than myself.

I think it is the duty of every *bona fide* bee-keeper who has the interest of bee culture at heart, to give this subject their strict attention.

In conclusion, I may state that, having no axe to grind, I have simply brought this matter forward in the interests of beekeepers in general.

Mr Niven said he and his family gained their living entirely by beekeeping. If we looked at things in a broad way there was plenty of market for all the honey raised. The only thing was they should not neglect their own occupation. (A voice: The department will look after that.)

Mr Streatfield thought the paper read had been overdrawn. There are not many teachers run apiaries of 100 hives. A teacher would require all his available time and talent to carry on an apiary properly, and if he should be so foolish as to take up one occupation instead of another he would find himself going to the wall, and when the inspector came round his standard would be so far out that he would be reduced. Before a complaint could be made and a stone thrown there should be a cause. Statistics prove that the production is under the demand. Teachers have voiced that one occupation as well as others. Surely you would not shut him out. It was with difficulty that the teacher keeps bees. He was bound in his school. His school is his first stake, and his bees must go to the wall if they interfere with it. Teachers have been the most interested, the most industrious and energetic in the spread of bee management. He had spent time and trouble in teaching others to work in the proper way. The department takes notice, and asks how many pupils have been interested in bee culture. Some in favoured positions do make something out of it, but if a man must not use his brains when his daily work is done it is prohibition. He was sorry the subject had been brought forward. Beekeepers should have a broad feeling, and smooth the way and help each other as much as they could. He hoped they would receive the consideration they demanded. If the nail is to be driven home, and influence to be brought to bear at head-quarters, they were going

to aim a blow at its most intelligent, persevering and deserving men, and instead of co-operation would leave the best workers stranded on the rocks. We should work to bring more power and knowledge into it, instead of cutting ourselves off from it. For so we will not get many teachers if they are to be punished in the matter and shut out of the question. A mistake had been made in thus bringing the question forward, for as yet we are only on the confines of the industry, and want all the intelligence, perseverance and unity we can, and surely should not do anything that would hurt one class to the detriment of the whole body.

Mr Broadbent did not find a single argument in favour of the resolution. As to giving work to innumerable families—teachers had children. He had a boy that could work his apiary better than himself. If the question was carried it would do no good.

Mr Gale was in a position to throw as much light as any one. He was glad the paper was brought forward. The paper had been largely overdrawn. He did not know more than two teachers with 100 hives, 4 with 50, and 5 with 10, and there were very few that could get over it. The postmasters were the worst paid civil servants in New South Wales, and surely they would not take away the little they could make in the struggling position they were placed. The schoolmaster held a most important position. He was master of the whole village—children, fathers and mothers, and so of the whole neighbourhood in which he lived. They gave practical and theoretical knowledge, and were looked up to as the highest authority on beekeeping. About two years ago he (Mr Gale) visited a school teacher of a seventh class school who had to support his wife and eleven children. Two of this teacher's biggest boys had taken up selections, on which they had started beekeeping, and were in a position to get a good living, and the teacher was training up others the same way, but he had only ten colonies of bees. While he (Mr Gale) was there,

a squatter came over to ask him for some information re bees. All these teachers have to launch out in order to carry on, and surely you don't begrudge the money laid out, possibly £10, to educate their children. If you shut the teachers' mouths and put hobbles on their hands it will be good-bye to their Conventions.

Mr Trahair said—If we try to handicap the schoolmasters we should make a great mistake. Why should any one man be compelled to do away with his freedom after his contract is up? Nothing to do but go home and go to bed. His firm didn't compel him to do it. Everyone should have recreation. What he gets from working overtime gives him a chance of getting recreation. He (Mr Trahair) did not think any body of men should try and curtail what sort of enjoyment they meant to have. It was a good thing the paper was brought up.

Mr Abram said the previous speakers were not practical beekeepers. He would call on a practical beekeeper.

Mr Gale asked what was a practical beekeeper.

Mr Abram: One who gets his living by it.

Mr. Bradley.—Schoolmasters are permitted to keep bees. A great many of them do keep bees. But is keeping bees bee-keeping? It is against the rule that school-masters should have a trade. Is not the man running 300 hives of bees not running a trade? Mr. Munday pointed out 168 hives on his ground, and another apiary has over 300. Is that a trade or not? And had his house rent free! Mr. Munday can well tell the H.R.B.K.A. honey can keep for three or four years. Can I (Mr. B.) do so? He takes what I say rightly belongs to me. He had no objection to school-masters keeping bees. Would it answer to count his colonies by the 100. Mr. Mansfield counted more than seventy swarms, and advertised in every number of the *A.B.B.* Some of them have comb mills and run a trade in comb foundation. Do the government intend they should run a trade in comb foundation? In the queen trade, have not the school-

masters competed and cut down so low that really the practical bee-keeper will not attempt to compete with hem. He had brought out queens and was getting £2 apiece for them. (Laughter.) The school-masters got some and undersold him; 30s. was his price, and last year he sold three queens. He had to pay his rent, and was it right to pay a man in opposition to himself? A case came under his notice of a large shed stocked with honey; the owner would not sell it, but would wait till he could get a better market. The first note of discord among bee-keepers was sounded by the school-masters.

Mr. Streatfield said such remarks really came with bad grace from anybody.

Mr. Tipper reminded Mr. Bradley that he had not advertised while others had, so it was not to be wondered at he only sold three queens.

Mr. Bradley moved, "That a deputation be appointed to wait upon the Minister for Public Instruction to ascertain from him whether when granting permission to school teachers to keep bees he contemplated them taking up bee-keeping as a calling, and entering into competition with professional beekeepers in obtaining a livelihood."

Mr. Broadbent said Mr. Munday worked his apiary by his family, and rented the ground he worked it on.

Mr. Pyeman said teachers paid rent for their places. He paid £50 and Mr. Munday £80. He had gone in as a beekeeper with seven swarms, but started no less than thirteen residents. He had taught all his pupils and lost his bees. School-teachers had lost their political, their religious and social rights without grumbling, and now they were not to keep bees, not to keep canaries, not to keep poultry.

Mr. J. W. Pender moved, "That the matter drop." Let bee-keepers bring this matter to head quarters, and not bring it forward in this Convention at all. They had always been friends, but if this debate was continued there would not be friendship, but hatred.

Mr. Kitchin was a public servant, but

had started bee-keeping for his son, who was a cripple.

Mr. Whittle seconded Mr. Pender's amendment. That teachers should educate their children, they were deserving of consideration. He happened to have relations in the Department of Public Instruction, and the rents they were assessed at were far more than if they were put into the open market to meet. He had happened to tell an ex-Minister for Public Instruction that this discussion was likely to take place, and that gentlemen's sympathies were with the department in its efforts to spread the cultivation of a taste for bee-keeping.

Mr. Bradley did not object to 20 hives but to their running their colonies by the 100.

Mr. Gale contradicted that school-teachers counted their hives by the 100. Mr. Mansfield or Mr. Munday had not more than 100, and Mr. Worrell, at Balkham Hills, had not more than 50.

Mr. Allport said, looking at both sides, he received more money from civil servant beekeepers than they received for products. They were a benefit to the beekeeping fraternity.

Mr. Cadden suggested the postponement of the debate till the morning, and hoped, for the sake of the teachers, the matter would settle down, and that they would come back in the morning after a night's rest, smiling.

Mr. J. E. Taylor was rather sore on the subject. He did not object to teachers keeping bees to teach the boys. He gave an incident where a customer of his took honey to work out a "dead horse," and his (Mr. Taylor's) honey was unsold. No man could attend to bees and teaching.

Mr. Broadbent said a teacher's first duty was the school, and he was a very foolish man indeed if he left himself open. The check was so strong he must do his duty, or he would soon be put out of his work.

Mr. Patten said there was nothing so bad as giving a little instruction and getting nothing out of it. He had proved within the bounds of possibility, that

at a very low estimate there was a probability of six times the amount of honey now produced being consumed. They should not look upon it as a state-aided industry on the part of civil servants, but receiving it as wages for services rendered. The public had no right to discuss what he should do in his private time. As school-masters, they were authorised to give practical lessons on bee-keeping, and if they failed to do so they failed to do their duty and to earn their money. And as to any surplus honey, was there more harm to the industry in selling than giving it away. To prevent him selling it might be a premium to fraud and deceit.

SECOND DAY (THURSDAY,)

Mr. Abram again took the chair.

The discussion of Mr. Robert's paper was again brought on, but both motion and amendment being withdrawn, the matter lapsed.

(To be continued in our next.)

MORE GOOD WORDS.

The *American Bee Journal* of May 24 contains the following:—The second volume of the *Australian Bee Bulletin* was completed with the March number. Scarcely does a new beepaper show such signs of improvement in so short a time. Surely, our Australian brethren are making apian history very rapidly indeed. We wish their valuable journal still greater success, and its publisher all the prosperity his splendid efforts merit."—Thanks, Brother York. Our ambition is that when the *Australian Bee Bulletin* has reached the same venerable age your journal has it will be as fully entitled to the same honorable name as yours now does—"The Old Reliable."

Mr. H. V. McGee, Narrabri, writes:—At present we are having cold winds, accompanied by steady rain, and from appearances every likelihood of a continuance. From appearances of different kinds of honey-producing trees here, I think the coming season will be a good one for honey.

July 28, 1894.]

The Australian Bee Bulletin.



BEEKEEPERS' ANNUAL CONVENTION, HELD AT SYDNEY, JULY, 1894.

MR. JOHN SMITH, GOODNA.

WRITES:

In April number of *A.B.B.* Mr. Stringer re "a new hive" asks if this straw frame hive is my own idea. At the time of writing that I did not know that an oblong straw frame hive had ever been used, but have since found that something of the sort has been in use for a long time in Germany. But it differs from my idea in that the frames appear to be fixed, and to get at them you have to turn the hive up-side-down. This renders it very unhandy to manipulate, and so far as I can see is not much better than the old straw skep, which style of hive may be traced back to a remote antiquity—the date of its invention is probably lost in the "mist of ages." The design may have been suggested by the "great pyramid" itself, only I don't think the Egyptians at that period kept bees, otherwise the sons of Jacob would not have taken with them a present of honey when they went down to Egypt to buy corn. Hives will possibly ere long be made of compressed paper or wood pulp, which when painted, would be waterproof, lighter, and drier than wood. Solid wood hives are not good enough.

On page 42 of May number of *A.B.B.*, W. D. Russell, of Victoria, appears to be counting his chickens before they are hatched, and is sore troubled as to how to get rid of the hundreds of tons of honey which he expects will be sprung on the market this season. How would it do to wait till we get the honey before fretting about getting rid of it. The poet says:—

"The things that make us fume and fret,
Are the things that have not happened yet."
Mailing queens from America to Australia has been very unsuccessful this season, the prevalent idea of failure being that the bees are smothered in the mail bag; or if mails are fumigated, that the fumes of sulphur kills them. I am of opinion that the candy has something to do with it. You recollect that friend Root thought he had solved the candy question by putting a strong man to

knead the candy in place of a woman. Other queen rearers are bound to admit that the candy does not always come right. In view of these facts I tried a little experiment some months ago that may interest shippers of queens. Circumstances prevented my investigating as far as I had intended, but others can experiment along the same lines a little further. I had received a cage from America with queen and all bees dead, and very little candy eaten. Candy looked good, and cage was well ventilated. I immediately put a queen and thirty bees in the cage and fastened on the lid; in three days all were dead. Then I made some candy of ordinary sugar and honey and a little flour. I put this in the cage with another queen and thirty more bees; in seven days all were dead. At the same time I took a double cage which was better ventilated. In each side I placed our own candy and a queen and about a dozen bees; these lived eleven days. The bees did not appear to die by one or two at a time, but all seemed to perish at nearly the same time. We make no pretensions to be experts in candy making. I would like to suggest that American queen shippers try how long they can keep queen and bees alive in shipping cages with various kinds of candy. Temperature at time of experiment, 75 to 80 in the shade in day time, average 70 at night.

One of your correspondents in Western Australia—wrote some months ago—about the great quantity of honey, *he expected to get from the "Banksia, or Australian Honeysuckle."* He said he would write and let readers of *A.B.B.* know how much he did get. Just kindly joggle his memory, Mr. Editor, and tell him to send along as soon as possible the results of his experience with the Banksia. As a matter of fact there are several species of the Banksia, but the kind found on the Swan River, Western Australia, exceeds all the rest of the genus in size, attains a height of 50 feet and yields a large amount of honey.

Possibly your correspondent could also put us in the way of getting some seed to try here.

[Some short time since we received more Christmas tree seeds from Western Australia. The sender did not enclose his name, but we took it they came from Mr. John Ayre. At any rate, we will thank him for them. We have planted some and also forwarded some to Mr. John Smith.]

MR. PETERSEN'S HIVE.

Mr. H. Peterson, Wattle Flat, writes us:—You are correct in your foot note to "Tasmania," in A.B.B. of May, saying that I am using the "long idea" hive. It is a one story hive, with two entrances and holding twenty Langstroth Simplicity frames, and one division board. Mr. J. Carroll, of Queensland (the gentleman who first introduced Italian bees into Australia by a Panama or 'Frisco boat, after some failures), published a small book on practical beekeeping, some twenty years ago, I think. I have lost my copy, but no doubt it is in your library. Well, this gentleman was very successful with a hive he called the "Simplicity," holding up to twenty eight "American" frames, and one division board. and having two entrances, and which he considered best for extracting purposes: I consider the hive I am using handy in my locality for: 1. quick work extracting, 2. doubling up; 3. superseding inferior queens by rearing queens at one end of the hive in strong colonies, during the honey flow; by inserting queen excluding zinc division board; 4. more easily detecting foul brood in its early stage; 5. less expense for hives.

STRAY NOTES.

—BY J. WILSON-GREEN, QUEENSLAND.

Does clipping queen's stings prevent them fighting? I think not. Try two young ones, sisters, and see if one is not killed. But, I am convinced that mother and daughter will agree, until the old

one dies, and, I am more than ever inclined to believe, that, if the young one turns out a drone layer, the bees will kill her and rear another, as I mentioned in Nov. '92, number of A.B.B., under "Superseding Queens," as I have had the same occur in four instances since. I see you mention sheep recommended to keep down grass, &c. I have tried them and other animals, but without doubt the best of all are geese. I had three geese and a gander and they did grand one season and they eat it down just where it was difficult to get at it, near and under the hives. They never knock off covers or do any damage to the bees, and the three geese laid and hatched their brood of young between the hives. But as I had young fruit trees in apiary, they started to eat the young wood, and I had to turn them out. But where there is no fruit, &c., they *can't be beat*.

Lively time. Sixty six swarms in February last besides after swarms returned, as I had not time to cut out royal cells.

Why do some advocate a one story hive, however large? Some of my new swarms are in 10 frame single story hives; they have brood in about eight frames, but only a small patch, whilst those in two story eight frame hives have six and the inside of the other two frames, equal to seven, full clear up to the top bars; only a small quantity of honey in the extreme corners and the queens are just starting in top. Needless to say they are the colonies for honey.

Everything points to a good honey flow this season. Ironbark and bluegum yielded well; Ti Tree in full bloom, and as soon as that is over Wattle and Mangrove will be in. The latter, one of my best sources. What we want now is a market and better price, as last season's short crop and 2d was about the highest average price in quantity, and when freight and other charges are deducted not much left, and what will it be with a good crop?

BRAVO AUSTRALIA!

We have sincerely to congratulate Mr. H. L. Jones, of Goodna, Queensland in his success in mailing queens safely from Australia to America. Messrs F. A. Lockhart & Co., of Lake George, New York, says, a queen and seven workers "arrived alive and to all appearance in fine condition." Mr. A. I. Root, acknowledging receipt of another queen says "she came through in good order and all were alive. We should say that your experiment is a complete success." The honor to Mr. Jones is the more as all the bees seemingly sent for a long time past across the water here, arrived dead, and it is for an Australian to, as it were, break the spell by such phenomenal success.

At the recent meeting of the Texas State Convention a unanimous voice was in favour of natural swarms.

Mr. George Fackender, Unandera, writes:—The people of Illawarra are beginning to see the advantage of keeping bees, even on a small scale. They greatly help to fertilize our clovers. They are beginning to Italianize most of their colonies, and, although last season was a very bad one, for honey, I hope to see Illawarra the proverbial land, flowing with milk and honey. Wishing the A. B. B. a brilliant future, &c.

Mr. Wm. Ferguson, Bungowannah, writes:—I am well pleased with the A. B. B. as I get a lot of useful information from it. The past season has been a very good one for honey in this district. I extracted 35 cwt. from 32 hives. The only kinds of timber within range of my apiary are white box, yellow box, red gum and a few apple trees. I work a two story hive with zinc excluders. I have ten eight frame hives and the rest ten frames. I kept an exact record of the honey extracted from each hive and found that the ten frame hives averaged 22 lbs each more than the eight frame hives.

Pressure of space again compels us to again hold over to our next the article, "What a visit to the Carrington apiary did."

Mr. H. W. J. Taylor, Minmi, says:—The suggestions given under the name of "Binni," re ringbarking, in your last issue, is, in my opinion, wrong. Instead of a limit, say nine inches in diameter, under which no tree shall be rung; let it be nine inches above which no tree shall be rung. I know in our district trees under nine inches produce very little blossom. I feel quite sure if our bees had to live on the sweets they gathered from the trees under nine inches, in our district, we would soon give up beekeeping and say it did not pay. We must admit that ringbarking is an improvement to land where it is needed for grazing purposes. Had I intended being present at the Convention this year I would not have made this comment here. I notice Mr. Abram says the croaking noise we hear in the hive is not caused by the drones. Will he be so kind as to tell us what it is caused by?

Mr William S. Pleffer, Armidale, writes:—I have received three copies of your interesting and valuable little periodical. It ought to be in the hands of every lover of bees. I have learnt some new ideas from its pages, so please put my name on your subscriber's list. My earliest recollection of bees was some 35 years ago, when I saw a fine swarm clustered on a large bathurst bur at the corner of Piper and Bentick Sts., in Bathurst. About the same time I also saw a man tanging bees with a belt which clustered on the roof of his house. Soon after this we removed to the country. I and a sister were playing among some bushes when sister exclaimed, "see what I have found, such a lot of blowflies on a bush." I saw it was a swarm of bees so went and told father, who hived them. I have kept bees for 25 years with varying success. Foul brood is the New England beekeepers bane, it reduced me to two colonies last spring. I now have nine, and hope for better times.

To Unite.—Put a sheet of brown paper on top of one hive, with a small hole in it. Then place the other hive on top.

In reply to J. A. Springhurst, Victoria, we shall be pleased to take Victoria postal notes in payment of subscription to A.B.B.

Cheshire says that the brooding, feeding, and sealing of a single bee, from the egg upwards, costs as much to the colony as storing four cells with honey.

Why is Wax Yellow? A German writer says that, like the young of nearly all animals, the young bee on first emptying its bowels discharges fœces of intense yellow, and this colours the comb.

Mr. R. M. Knight, in the A.B.J., says the process of ripening unripe honey injuriously affects both the flavour and aroma of honey, whether this is carried on in, or on outside the hive.

A means of preventing foul brood is given in late American bee journals. Spray the tops of the frames three times in the breeding season with a weak solution of carbolie and a little salt.

Mr. R. L. Chambers replies to a letter of Mr. Bolton's, in the *Home and Farm*, that the bonus for exporting honey was not awarded last year by the Victorian Government, on account of the small quantity available, and that not of the best quality.

From the "Beekeepers' Review" we learn—A Frenchman named M. Beanne, came across a clutch of partridge eggs. He placed them in the top of an Abbott hive, containing a strong swarm, with a layer of wadding, and another of chaff. In eight days after, fourteen little partridges were hatched.

Mr. G. F. Hachenberg, M.D., writes to the *American Bee Journal*, that not succeeding in getting swarms to go into old hives where the bees had been destroyed by moths, he well scrubbed the insides with a saturated solution of table salt. It was a complete success, "it was simply glorious to see the bees rush into these hives, and to stay." All animal and insect life are fond of salt, bees not excepted.

Sample of Cape ivy forwarded by Mr Hefferman, Broga. It is very plentiful here in the Hunter district, flowering most profusely, yielding plenty of pollen but little honey. Flowering at this season makes it very valuable, pollen for brood-rearing being now so essential

In *Gleanings* Dr Miller 'gives a communication from a Dr Murdoch who is trying to produce a larger race of bees by specially selecting and feeding drones. He has succeeded in raising worker cells $4\frac{1}{2}$ and 4 to the inch, and drone cells $3\frac{1}{2}$ to the inch. The additional length of tongue of a larger bee might fertilise the red clover.

Mr. W. Parker, Sutherland, writes:—The Ironbarks and the Stringys are well in bud, so I hope to do something with my bees this season. As you must be interested in bees, I would like to mention for the information of beekeepers, that the "Cosmos" are not only a splendid honey producing plant, but also give plenty of pollen. I have closely observed this the past two seasons. I find the best time to set the seeds is in December, and they are a mass of flowers in March; they want to be transplanted about 2 ft apart. I trust you will pardon my occupying so much of your time, but my excuse is, "I am very fond of bees."

Mr G. R. Harrison, Orange Grove Apiary, Lower Portland, writes:—We have got little more than a couple of tons for the season, but could extract another quarter of a ton. We have raised the number of stocks from 40 to 80, with young queens, mostly well mated Doolittles. We had a little paralysis, but it did no great damage. All are in splendid trim now. Bush fires did us a lot of harm, in spoiling 50 per cent. of our early spring forage. The peppermint tree will be in full bloom early in September, but the orange trees have such a very large crop on that I fear the bloom will not be so great next year as it was last, but still there are good prospects in a good many directions.

PROSPECTUS

OF THE PROPOSED

BEE-KEEPERS' CO-OPERATIVE HONEY SUPPLY COMPANY, LIMITED.

Capital £1000, divided into 1000 Shares of £1 each.

PROVISIONAL DIRECTORS.

[ELECTED AT ANNUAL CONVENTION.]

J. W. PENDER, MAITLAND.

JAMES T. WILSHIRE, SYDNEY.

J. E. TAYLOR, COWRA.

ROBT. PATTEN, BOLWARRA, MAITLAND.

H. RAWES WHITTELL, PENNANT HILLS.

ALBERT GALE, SYDNEY.

JAMES TRAHAIR, SYDNEY.

The principal objects of the Company are:—

1. To supply a guaranteed pure and unadulterated Honey direct from the producer to the consumer at a cheap rate.
2. To encourage and develop the apicultural industry by establishing a central depot for the proper storing, classifying, packing, distributing and exporting apicultural produce of all kinds.
3. To establish branches in any place or country where a market may be found, for the purpose of commanding a speedy, certain and profitable sale for Honey, &c.

THE METHOD proposed for carrying out these objects are:—

1. To establish a depot at or near Sydney where all Bee-keepers may consign their Honey and other produce; upon receipt of which they will be classified by a competent person, and a certain percentage to be determined by the Directors (say 25 per cent. of the value) to be paid in cash to the producer, the balance on sale of consignment.
2. Honey carts to be sent out each day loaded with honey in bulk, jars, sections, &c., after the style of the various Milk Companies' carts, so that honey in any quantity can be drawn off and delivered into consumers' own receptacles. By this means it is expected that in time bottled honey will only be required for despatch to remote places. The consumer benefitting under this system by avoiding the cost of the jars, labour and expense involved in labelling, &c., &c.

3. All shareholders actually producing honey and sending supplies to the Company will be paid a higher rate of dividend than shareholders who are not Honey suppliers, in the proportion of $\frac{5}{8}$ to $\frac{3}{8}$, or as 12s. 6d. is to 7s. 6d. in the £. Shareholders in the Company not to be charged storage on consignments awaiting sale; non-shareholders the same rates as now paid to commission agents. This is proposed with the object of getting all shares taken up by Honey producers only.

4. Honey, &c., to be purchased from Shareholders and producers at rates to be decided (on classification by competent person) by the Directors. Shareholders' honey, &c., to be bought before non-shareholders. The shareholding producers will thus be enabled to obtain full market price for their produce, while the increased price obtained by the direct supply will be distributed as dividends.

5. No shareholder to hold more than ten shares and not more than one vote. As the objects of this Company are complete co-operation, it is expected that every bee-keeper will take up shares, if only one or two. Upon 800 shares being taken up the Company will be declared formed; if not by the 31st December, 1894, the money, less actual expenses for stamps, stationery, &c., will be returned.

The shares are now offered on the following terms: 5/- on application, the balance in calls not to exceed $\frac{2}{6}$ per share at intervals of not less than three months.

Intending shareholders are requested to fill in the attached form, and return it to the Provisional Directors, care of James Trahair, Esq., Hebblewhite & Co., Sydney.

THE BEE-KEEPERS' CO-OPERATIVE HONEY SUPPLY COMPANY, LIMITED.

To the Provisional Directors, Beekeepers' Co-operative Honey Supply Company, Limited. _____ 1894

GENTLEMEN,—I hereby apply for.....shares in the above-named Company, and I herewith enclose the sum of £....., being the amount of application money at.....per share. I request you to allot me that number of Shares upon the terms of the Company's Prospectus, dated the.....day of.....1894, and I hereby agree to accept the same or any less number of shares that may be allotted to me, and I authorise you to register me as the holder of the said shares.

Name in full.....

Usual Signature

Occupation

Address

How J. E. Taylor, of Cowra, Cures Robbing.—Close the entrance fully up with flour. The robbers inside will force their way out, and you can see where they go. The robbers outside will not force their way in, but the bees of the hive will. He told us it was very effective.

Dr W. R. Howard says that the spores of foul brood, when excluded from the air, retain their vitality indefinitely, but that an exposure of from twenty-four to thirty-six hours will kill them; that a temperature approaching boiling point must be continued nearly an hour to destroy them; and that an exposure to an atmosphere below zero for three days will not destroy them. Could foul brood germs float in the air there would be no hope of curing the disease.—*Beekeepers Review*.

Mr A. J. Murray writes—I wish to remove some colonies of bees to a distance per rail. Would you kindly advise me as to packing or securing, &c. The hives are all Langstroth pattern, cottage roofs, tops and bottoms moveable.

[As to removing hives per rail now in the winter time there's not the anxiety needed as in summer. During the day time see the frames are well secured to the rabbits so they cannot shift, and the follower also be well tightened up by wedges or screws. Screw the tops and bottoms on to the bodies. Van Deusen clamps are very useful for this purpose. Or you might well rope them up, they cannot shift. After dark, when all the bees are well in, cover the entrance with wire cloth in such a way no bee can escape. Were it summer weather, and much soft honey in the comb, would turn the hives upside down. Then comb and honey would not fall and drown the bees and brood. But such is not essential at this time of year.

A correspondent at Manly writes:—I do not see any "seasonable operations" paragraph in your journal; this being less transcendental than the rest of matter usually in each month's pages, must have a special attraction for beginners. My environments are perfect as far as native flora is concerned. Near my few hives is the large area of the Quarantine Station, from which the public is excluded, so that it is at present one mass of wild flowers. Every morning I find a number of dead bees outside some of

the weaker of my hives (although none of them are really weak). They have plenty of honey in store, and I contract the entrances over night to exclude cold winds and chill. I have also noticed in the mornings inside, on the glass of an observatory hive, a very heavy dew. At your leisure I would like to know if this is owing to defective management.

[Re the seasonable operations we try to make the Special Subject and Questions do this, making it applicable to the month, and inviting the experiences of the best beekeepers in the colonies on the same. For instance, in May the question was, the Preparation of Hives for Winter. Now in July the Special Subject is Early Spring Management, i.e., to get bees into good order and strong for the spring time. Re the moisture, if you have full-width entrance, that is all the ventilation needed. The bees if any way strong see to the rest. Top ventilation of any kind is unnecessary.

Mr. John Sutton, Drakes Brook, W.A., writes:—I have much pleasure in thanking you for your useful publication, the *Bee Bulletin*. I am only a novice with bees, still have already got so much attached to the few colonies I have, that I have determined to go in more, and have them Italianised as soon as ever I can do so. Your book is a boon to me here, and if it misses a mail I feel that something is wrong. Like Mr. R Wolfe, I have to thank Mr. J. Ayre, of Perth, for his kindness, on calling on him with a friend last December, to look at his bees, I was a silent observer, but I left with a strong desire to try my hand with these pets. And now I have four good colonies, that are doing well, and are working away between the showers just like the busy little bee we used to read about when I was a boy. I will not fail to let you have an article for the *Bulletin*, once I get fairly on the way, and get to fairly handle my stocks properly, as, all being well, I will try and rear queens next season, and go in for extracting. Wishing you every success with your venture, which I'm sure is a credit to your office, and I hope for your sake is a financial success as well as otherwise, &c.

[Many thanks Mr. Suttor for your good words. Western Australia news is always welcome.]



If you want to secure a good Honey Harvest

TRY A

❧ **PROLIFIC QUEEN** ❧

From our celebrated strain of Honey Gatherers and Even Sealers.

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Orange Blossom Bee Farm, St. Ives, Gordon, N.S.W.

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HONEY MEANS MONEY.

THE Ligurians or leather-coloured bees are not equalled by any breed yet discovered in the world, for producing honey. They are as quiet as any, and, to my eye, as handsome. To show my faith in this statement, I will undertake to forfeit the sum of £10 to the National Beekeepers' Association, on the following conditions: Place 10 hives of Ligurians (leather-coloured) and 10 hives of ANY other breed in the same locality under similar conditions, and if the Ligurians do not take the cake, then the Association takes the sum named. Who will take up the challenge? To secure the greatest possible vigour by avoiding too close breeding, I am procuring for this season's breeding a dozen queens from various renowned breeders in Italy.

I am also getting a couple of dozen of the renowned five-banded queens from America. These will be kept at a separate yard three miles away. So purchasers can have their choice; either Ligurians (leather-coloured) or the five-banded queens at the following prices, viz.:—

Untested, 1 for 7/6, 4 for 20/0. Tested, 1 for 12/6, 4 for 40/0.

Breeders (equal to imported) 1 for 20/-, 2 (one of each breed) 30/-

Imported (either breed) 1 for 40/-

First prize for Purest Italian Queen and Bees, Sydney 1894. Bronze Medal and Diploma for honey at the World's Fair, Chicago, U.S.A.

Mr R. N. Bryant, Post Office, Haydonton, writes:—"Mr Mansfield's bees are the best bees I have seen (for pure-bred Italians). The drones are marked with the gold bands, which was not the case with the bees I got from others. I have seen several of other breeders' bees, and those I got from Mr. Mansfield could give any of them a long start."

C. MANSFIELD,

HUNTER RIVER APIARY, LARGS, N.S.W.

NOW IS THE TIME

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REMEMBER!

We make the best Comb Foundation, and will even say that America can produce none better. Our wax room is fitted up with the most modern appliances, including—

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NONE CAN BE BETTER.

SEND FOR NEW CATALOGUE BEFORE THE END
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R. L. PENDER,

Manufacturer of Beekeepers' Supplies,

WEST MAITLAND, N.S.W.

JULY 28, 1894:]

The Australian Bee Bulletin



Queens !

Italian Bees !

Colonies !

Nuctei. &c.

Send for Price List.

W. S. PENDER,
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6 to 12	each 1.25
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

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