The Australian bee bulletin. Vol. 8, no. 11 February 27, 1900

West Maitland, N.S.W.: E. Tipper, February 27, 1900

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THE AUSTRALIAN Bee Bulletin.

A MONTHLY JOURNAL, DEVOTED TO BEE-KEEPING.

EDITED AND PUBLISHED BY E. TIPPER.

VOL. 8. No 11. JANUARY 27, 1900. PER COPY, 6D.

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The "Australian Bee Bulletin"

——— WAS ESTABLISHED IN 1892. ———

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

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

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

The Australian Bee Bulletin.

A JOURNAL DEVOTED TO BEEKEEPING

MAITLAND, N.S.W.—FEB. 27, 1900.

CANDIED HONEY.

A GREAT nuisance, is it not, that honey will candy! And so much of it does so too. The commission agents don't like it, as it has to be cut out or rendered down by boiling.

Honey after candying, being warmed to liquify, will not candy again.

Shall we give a suggestion? Jams are put up into convenient 1lb and 2lb tins. Why should not honey be done up the same way, much more than they are?

A 1lb or 2lb tin of good candied honey ought to be fully worth possibly more than the same weight of jam.

Surely the general public might be trained to like candied honey as much as liquid. Under our present system they are not afforded the opportunity of preferring candied to liquid. Our idea is, that those beekeepers who have honey that they know will candy when cold weather comes, *should tin it themselves*, and label it with their own name and apiary. Let it candy properly, which it will not do if once taken off the candy to liquify. We feel satisfied if the War Department had been offered a few tons of 1lb or 2lb tins of candied honey, there would have been less jam purchased, and our honey market would have been relieved to a greater extent than it is. And it is a matter also worth considering for our almost only foreign market—England. Perhaps the greater bulk of carriage would be a deterrent. One item of the matter is, the public would know candied honey would not be adulterated honey.

Our advice is let beekeepers tin their own honey before it candies, and sell it in small household quantities as candied honey, Try it a season.

Section strips make very good recorders for hives.

Honey is said to be a good cure for poisoned flesh.

In using white lead for paint, use zinc with it. It prevents it chalking.

The Dadants use straw mats, and are very satisfied with them.

In England, celluloid is used for quilts and queen-excluders.

Buckwheat sown now gives a good fall honey flow, but the honey is dark.

Brood-combs are known to have been in continuous use for 30 years and more.

Please send us names of neighbouring beekeepers to whom we can send trial copies of the *A. B. Bulletin*.

Gleanings has several excellent photos of young women holding swarms in answer to prizes offered.

Note Mr. Jones' gift of honey to the African army elsewhere. It is a good step in the right direction.

The professional beekeeper wants queens for honey gathering. The amateur beekeeper wants them for beauty.

Slack lime dumped on the bottom board will absorb all dampness thrown off the cluster during cold weather.

We had a big visitation of blue martins for about four days. Bees in their inside in plenty when shot. One between the tips of the bill.

Dirty drops from the smoker are caused by using moist fuel. Use dry fuel and you won't be bothered in this way.

A good feeder. An ordinary frame partly enclosed with a board on each side, so as to hold the syrup used in feeding, with a slip of wood floating on the syrup so bees need not drown.

Strange, notwithstanding the season's honey failure, and one or two unfortunate beekeepers giving up their bees and their connection with the A.B.B., our subscriber's list is steadily increasing.

A log of a species of bogwood tree, 100 feet long, that must have fallen and been embedded in the mud, several hundred years ago, has been dug up in Bettisham Lodge, England, and found

to contain honey comb and bees. The comb was in perfect preservation. The fall of the tree in the mud caused the perfect imprisonment of the bees.

N. E. France, says if foul broody honey is properly boiled it will cure the disease, even if not boiled the three hours recommended, but only 15 minutes. The trouble is with some portion, however small, that did not get boiled.

Mr. Coggshall has 14 apiaries, ranging from one half-mile to 20 miles from home. He had stopped employing local help, as no sooner did they get to be good for something than they started in the bee business themselves, and his territory was already badly overstocked.

Napthol beta and napthaline are carbonacious substances, or hydro-carbons. The chemical formula is C^{10} H. O.H. The crystals are white, insoluble in water, but soluble in alcohol. They are derived from crude petroleum.

The N.S.W. Beekeepers' Convention will be held on Tuesday and Wednesday, the 17th and 18th April, in Sydney.

We would call attention to the advertisement of Messrs. Lassetter and Co. elsewhere. This well-known Sydney ironmongery firm are adding drapery to their already large business.

Thanks, *Home & Farm*, for those good words. We will always endeavour to observe such. At same time tell our own readers that the *Home & Farm* is one of, if not the best Agricultural and Home journals in the colonies, and we supply it with the *A.B.B.* for 7/- per annum. We shall be very pleased to receive names for such.

Harry S. Howe, describes in *A. Bee Journal*, a Cuban apiary. The hives were five feet long and one foot square, open at both ends. Laid upon scantlings eighteen inches from the ground. The posts supporting same were set in cement, turned up in a ridge at the edge making a sort of basin which was filled with water, to keep ants out.

VICTORIAN NOTES.

R. BEUHNE.

DEAD BROOD—In the evening of a hot day recently when the thermometer had been up to 108 degrees in the shade I had occasion to examine a few hives, the queens of which I wished to supersede. To my astonishment I found what appeared the first sign of foul brood in every one of them. Some of the unsealed larvæ were of a sickly yellowish colour instead of the normal pearly white. On closer examination they appeared puffed up to bursting and some actually had burst the milky liquid adhering to the side of the cell. My first idea was that the brood had become overheated. To satisfy myself I examined about 100 colonies during the next two days and with three exceptions I found the same dead larvæ in all of them, quite irrespective of whether they were shaded or not, whether three frame nuclei or three story colonies. In some I could only find a cell or two, others had dozens, and in three colonies nearly all the open brood was in the same state and these I marked for observation. Now I am quite sure that it appeared in all the colonies in one day, for I had gone through the brood combs of about 50 on two preceding days looking for queens, and in these I found the same dead brood as in the others.

I examined many of them again a few days later, in most cases the dead larvæ had been removed. Where they were still in the cells, they had turned either grey brown or black but not ropy, it looked like foul brood but yet it was not. Friend Bennett, who was present on a visit, on seeing it playfully complimented me on being the inventor of a new bee disease. Being satisfied with our old friend foul brood and our later addition paralysis, I am pleased to be able to report that the trouble has entirely disappeared. Ten days after discovering it, it had disappeared in all but one of the worst afflicted. What there was left of it in this colony was black in color

and as hard as stone, so that the bees appeared unable to remove it. Since then they have however got over the difficulty by putting a false bottom of wax over it, and those cells are therefore only about half depth. Now, I should very much like to know whether anyone else has ever observed anything similar. I cannot account for it. The day was certainly hot but we have had hotter days before in previous seasons. The bees have an ample supply of pure water within a hundred yards, and although the brood combs of many were almost destitute of honey it appeared just the same in others fairly well stored, and there were no larvæ affected before that particular day and none since.*

DRINKING WATER

Many beekeepers, no doubt, use the rain water from roofs for drinking purposes, and I have on a previous occasion pointed out the advisability of having a strainer fixed under the down pipe, made, say with perforated zinc, easily removable to be cleaned occasionally. Drones, disabled workers, bees stung in flight, perished brood, etc., are all carried away in the air and the roof area receives its share. They roll or are washed into the spouting and into the tank where they are gradually dissolved and in time consumed as diluted bee broth, which when the tank is nearly empty becomes fairly rich. Some apiarists may as I do supply their bees with water from such tanks or mix water with feed for bees and where paralysis is present there must be some danger in water containing diseased bees in solution. The quantity of dead bees which will be found in the strainer in three months is astonishing.

THE SEASON.

The season continues as before, except in a few isolated places and near the coast. It is a very cheap season, no expenses for tins, frames or foundation, and no wearing out of smokers and extractors. Sugar is 15s. a bag, and I wish federation was in full swing so it would be a little less. No 25-ton gun apiaries this season, except last year's still in the papers. Bush fires are doing a lot of damage to bee forage, destroying the yellow box buds for next season where there is undergrowth amongst the trees. Quite a number of colonies have already succumbed in some apiaries to starvation. How many tons to the square mile this season?

HONEY EXPORT.

The *Australasian* of Feb. 10th contains answers by "The Drone" to my questions under this heading in last issue of A.B.B. All those with whom beekeeping is their means of livelihood are alive to the necessity of an outlet for surplus production, but they differ in opinion as to the means of finding it, and doubt the wisdom of largely increasing production in anticipation of a profitable outlet being found. Personally I am willing to give the project as proposed by "The Drone" a trial, that is, whenever I have the honey to do so, and can afford to wait for the returns for a while. This appears to be the principal difficulty with others also. There are many difficulties in the way, but they are not insurmountable. On some points, however, I cannot agree with "The Drone." There is no parallel with butter and honey. The butter maker can improve quality and increase quantity by skill in manufacture and feeding. Nature manages both these for the beekeeper, in her own way, and the most skilful apiarist cannot alter the character of the honey nor produce it at will when nature denies it. "The Drone" says, "There need be no company to advance money to beekeepers. The whole season's crop can be sent annually." What, then, may I ask, is to be sent in off years? Will our customers, after being educated to a taste for our honey, wait for it till the following season? or is the London depot to hold sufficient to tide over the blank so as to keep up connections? In which case it means waiting for the producer or paying for advances. So far as I can see the attempt to open up an export trade cannot be made without a

*We had the same experience two years ago, caused by excessive heat.

floating capital, taking into consideration the characteristics of our seasons, the peculiarity of our honey, and the necessities of honey producers.

SOUTH AFRICA.

Rheinische Bienenzeitung says under the above heading: "The South African climate is eminently adapted to bee-culture. There is no winter proper. During the months of June, July and August, corresponding to the European winter, there are short frosts which arrest vegetation; during the other nine months of the year all plants thrive immensely in consequence of the even temperature. During the winter months bees suffer through the depredations of birds, particularly during their occasional flights. The spring honey flow is at the time of acacia and orange bloom. Unfortunately eucalyptus blossoms about the same time, so that the otherwise highly prized honey is nearly always slightly tainted with the eucalyptus aroma. The swarming time follows, after which there is a second flow from fruit bloom. The honey of the third flow is from heather and autumn flowers, and has a better aroma than that of the second flow. In the Transvaal the average yield for 100 colonies of Italian bees in straw skeps or gin cases as kept by the Boers is estimated at 6,000 to 8,000 pounds. Those who practise scientific beekeeping in Langstroth hives obtain over 1cwt. per hive, even in moderate years. Both the Transvaal and Orange Free State have enacted legislation against the sale of, adulteration and imitation of honey, infringement being punished with imprisonment up to two months.

PUBLICATIONS RECEIVED.

Journal of the Department of Agriculture of Western Australia. Containing a lot of valuable up-to-date information for all classes of land settlers. Mr. Helms contributes a lengthy article on Foul Brood or Bee Pest. This pest, Mr. Helms says, has caused the loss of whole apiaries in Western Australia.

"Our Western Lands, a vanishing asset, being papers from the pen of the Hon. E. D. Miller, and the *S. M. Herald's* leaders of 8th and 26th January."

Circular from Fish & Co., 189 South Water Street, Chicago. They are open to buy Australian honey. How about the duty?

Austral Culturist and Woman's Realm, including, The Horticulturist, Silk Culturist, Apiarist, Scent farmer, Poultry farmer, Rose grower, etc.

Speech by Mr. Druge, M. P., at the Drill Hall, Dec. 7th, '99, on the Real Causes of the War, and some of the elements of the Final Settlement. The rules of the Imperial South African Association, its objects and methods are given. The speech reviews the history of Cape Colony, the mistakes and weaknesses of British Governments in the past, and is a strong appeal to the patriotism of the British people throughout the world.

The Australian Agriculturist has an excellent photo of the N. S. W. Lancers at the Cape. The faces of a number of ones we well know are very distinguishable.

GOSFORD.

J. J. PARRY.

Just a line to let you know how we are faring round Gosford for nectar this season. Well, I think its the worst year we have had, since I started beekeeping. I had all my hives very strong in the spring, when everything was budding into life, and I managed to extract about half a ton from the fruit blossom. But the flow did not last long. The season seemed to be cut very short, which is seldom the case at this time of the year. So I've still got the same amount of supers on. But I expect by the beginning of March to have got a little honey from the blue gum, as a few of the trees are now coming into bloom. With regard to our beekeeping friends I think that the crops have not been too

heavy all round. Several of our Queensland brethren have done well this season, but our Victorian brothers, and likewise ourselves, will, I think by the end of the year, be on the wrong side of the ledger. I am not going into the various schemes set forth by the fraternity, for the better disposal of our honey, etc., or whether honey producing is a profitable business for one to go in for by itself, but to express an opinion on these apparent signs of prosperity for the beekeepers.

Now, Mr. Editor, your question at the head of your leader, is a question on which there may be a considerable diversity of opinion, and no doubt be a source of enlightenment to perhaps many of our beekeeping friends. You ask, (1) "Is the present failure of the honey crop an unmitigated evil." Then you continue, and state further about the failure of the honey crop, and say, that the tendency of a higher price, is the result, also this hardening of price must keep on. Well, this week I've been round pricing honey in Sydney, and I believe if I had tendered cash, I could have got pretty fair honies at my own price, comparatively speaking. Not because we will be a bit short this season that people are going to give big prices for honey. There is an upward tendency of general prosperity, and I will own, will to some extent improve the market, and might make the price a bit firmer. But honey is a commodity that the people only occasionally use, but if it was a food that was consumed by nearly every one daily, I could understand the scarcity, also a little increased activity in demand for labour, causing it to realize a better price. Once the price is down, especially with honey, its a job to raise it, and such a quick change of things is doubtful, but if it comes to pass I shall be pleasantly surprised. Well, to the above question I should say, that the present failure of the honey crop is an unmitigated evil. Well, until its proved to me that the increased price will amply compensate the fraternity for any smallness of the crop, I shall still maintain the failure to be an evil. But if it could be proved otherwise the evil would become a blessing.

Wait for the cold weather.

Mr. Editor, in December A. B. B., a Roma friend asked for someone to recommend a book on *Queensland flora*. I should have thought friend Jones would have been able to have assisted him being in the same colony. Well brother P. H. L. T., Roma, can get a useful work from the Department of Agriculture, Brisbane, which perhaps may be of some use to him, it is entitled "A Companion for the Queensland Student of Plant Life," by F. M. Bailey, colonial botanist. I may add that any one in Queensland can get a copy free on application to the Under Secretary for Agriculture, Brisbane. This work contains the classification of soils, also how to distinguish the edible from the poisonous or deleterious species of fungi. Likewise a glossary of botanic terms and hints about plant life in general. He can also get from the Department, a descriptive catalogue of Queensland woods. I do not know whether Queensland issues out any Agricultural Gazette like we have in N. S. Wales, if so, they are the works one in the bush should take. So in conclusion I may state, that the outlook is only encouraging to those that have got a good crop.

I ought to have written to you before re honey labels and tags that you done for me. These both in design and printing, must be regarded as highly creditable to your business. For cheapness and appearance, I don't think they can be beat, and have no hesitation in recommending them as the best I have ever seen for the money.

HONEY FOR THE QUEENSLAND TROOPS.

LIBERAL OFFER BY MR. H. L. JONES.

Some time ago Mr. H. L. Jones, of Goodna, the well-known Queensland apiarist, mentioned to Mr. A. J. Stephenson, M.L.A., that he had noticed that jam was being supplied to British troops in South Africa; and he (Mr. Jones) sug-

gested that, if consignments of honey were sent to the Queensland troops now at the front, it being a nutritious article of diet, might prove very acceptable to them. Mr. Jones offered to contribute 500lb. of honey for the purpose, and to appeal to other beekeepers in the colony to supplement that quantity, so that a large consignment might be sent. Mr. Stephenson heartily commended the proposal, and at once communicated with the Chief Secretary's Office in regard to matter, with the result that Mr. Jones has received the following letter accepting the offer—"I have the honour, by direction, to acknowledge the receipt of your letter of the 16th instant, addressed to Mr. A. J. Stephenson, M. L. A., and referred to the Chief Secretary, in which you offer to contribute 500lb of honey for the use of the forces in South Africa, and to appeal to other beekeepers to make similar donations, and to convey to you the best thanks of the Government for your patriotic offer, which will be gladly accepted. H. S. DUTTON, Under-Secretary." In connection with the appeal to other beekeepers, Mr. Jones desires us to say that, in cases where apiarists have not facilities for tinning the product he will be prepared to do the work at cost price. it is proposed that the honey should be put up in 2lb tins, and that it should be labelled with the name of the person who contributed it All honey sent to Mr. Jones, for the purpose of being tinned, should be forward to the Goodna railway station, carriage paid, with specific instructions. As the cost of tinning will be somewhat heavy, it has been suggested that those apiarists who are not prepared to supply honey might give donations towards the cost of tinning and any such amounts if sent to the "Queensland Times" Office, will be duly acknowledged in the columns of this Journal. It need scarcely be said that all the honey contributed should be of first class quality, as it would give the colony's product a bad name if an inferior article were sent. —*Queensland Times.*

HUSKS & CHAFF.

G. R. HARRISON.

Right yer are, Mister BEE BULLETIN, a heavy crop on a glutted market would have been little short of a disaster. But still, its mighty rough on the struggling man, but if he can pull through till next year the probabilities are that he will be able to catch a big crop if he has his pans right side up and a fair price and good demand. Let us hope so.

There are a few cheerful reports in last issue. I see that honey is coming in in Queensland, below the range in W.A. and on the south coast of N.S.W. It is pleasant to know someone is having a little luck.

You quote on page 223 from the Kanuck Bee Journal where Mich Madden has 2½ thousand pounds of white clover honey (extracted, of course), which he can realise 10 cents on; that means a lot more than 5d. per lb. with us, for if you look at Yankee and Kanuck catalogues and price lists you will find that 10 cents will buy quite a lot more over there than a heap of five coppers will here. Of course, that is only his clover surplus. He will probably have a few thousand from other sources. We don't seem to be able to do likewise.

How handy that decimal coinage for reckoning up cash. 2500 lbs honey at 10 cents; add a 0—25,000, point off two naughts and add the dollar sign—$250.00, and there you are. Two hundred and fifty dollars and no cents; yes we would be content with the sum without any odd cents.

About that Ant trap you speak of on page 224—I've seen ants walk up vertical tin and glass vessels—I suppose the secret is the dry dust at the bottom of the dish.

Friend Beuhne's notes remind me of some of the experiences of these observant beekeepers, Miss Bradley and her brother, Mr. T. Bradley. They found that the queen progeny of some queens could not locate the hive from which they had taken their flight, and

thus were lost, this was a serious fault in mothers.

That item from the *Leader* on page 226 re Apiaries on Forest Reserves is encouraging, if Victoria can give licences. Who will "bell the cat" and see if New South Wales can't give permission to set apiaries on timber reserves on a quarter logging or splitting licence.

In the "Bees shifting eggs" discussion I think the "noes" have it. That article of E. J. Atchley on page 234 is about the best record of observation I have met, of course, it's one of those questions which are hard to settle positively, but though never inclined to dogmatise upon it, I always reckoned that the larvae could not well be disturbed without danger, at least.

No honey in California. I presume that was written for '99, for Rambler would scarcely attempt to prophesy for the coming year (remember, it's the middle of the winter of their discontent just now) for 2½ thousand miles of coast line, and by the same token California's near neighbour, pugnacious little Cuba, won't have so many millions of pounds to export, with the war knocking things about and probably some of California's bad times to boot. London will surely have to pay a little more this time and eat a little more glucose.

That note from the sugar cane country on page 242 reminds me of the few months I was "in sugar." I had the supreme felicity of tasting honey raised from cane, the poorest treacle was a king to it. I didn't hanker after going into the bee biz in sugar country "I tell you."

We don't require to import second hand names such as Windsor, Newcastle, etc., when we can produce first hand, such sweet ripping names as Telangatuk, Merimbula, Tokakahi and all Australian names from last issue, and we don't have to call places Harry Smith or Tom Jones; pity we haven't preserved a few more of the melifluous native names.

One of your advertisers quotes the old saw about the early bird getting the worm. Well! I've met a few of the extra early birds—and they all seemed to have the worms—the old saw's all right.

The N. S. W. Beekeeper's Convention will be held on Tuesday and Wednesday the 17th and 18th April, in Sydney.

SEASONABLE WORK.

With us, during the past six weeks, there has been a flow from apple tree, the best flow from it for four years. Some of the hives have a good quantity of honey from it. Weaker ones that were not able to work up in time very little. So our work during the past week has been to give from those who have to those who have not. This work needs doing carefully, as hives left exposed too long will create robbers. Two persons working together can save much exposure time, more so than one by himself. Drones were by no means plentiful. Several virgin queens have turned out drone layers. This last flow has caused more drones to be raised, so we hope this evil will be remedied before the season is over, as our wish is to go into winter with all hives having good queens.

A good helpful fall flow is buck wheat. Those who have ground to spare can do no harm by planting such. The bees glory in it, and the seed comes in for poultry or cooking. It is a dark honey, but although not the most marketable, its chief value is a help to the wintering.

As this season has been a bad one there was no trouble in combs melting down from excess of honey, bees and heat. Tilting the cover up a little, and full entrances is the best remedy.

Those who are fortunate enough to have sections, should watch them carefully as the flow goes off, putting unfinished ones on the best honey gathering hives. In taking sections off, place

a bee escape between sections and brood overnight. The section case will be free from bees in the morning. We always use separators, and stick to the old style 4¼ x 4¼ inch. It is to our thinking the most marketable. They go square on a plate for cutting out.

Hives that are queenless, or have old queens, should now be seen too. If plenty of drones are flying, raise queens yourself. If not get laying queens from any of the queen raisers advertising in our pages. Queenless hives tolerate drones when honey flow is going off, which a hive with queens will not. In such a season as we are now passing through queen raisers must have great trouble with insufficiency of drones. Adopting the Dzierzon method of thinking, which as far as we can see, has not been affected by the new Dickell theory, when a queen is mated, the drones sexual organs are received into the queen, forming a ball called the spermatheca, and from which all eggs to be fertilised receive a male sperm on its passage outwards. This spermatheca contains many thousands of sperms. Eggs to become drones do not receive such sperm, only eggs to worker bees or queen. As the queen gets old the quantity of sperms becomes exhausted, and the queen only lays drone eggs. It is time to supersede her by the apiarist.

HISTORY OF A SOLAR EXTRACTOR.

It was off an unfortunate bad mark who could not pay £1 he owed for advertising. It consisted of a 10-frame hive body, inside of which were two tins, the bottom one half the depth of the hive, for the reception of the melted wax. Another tin with a perforated bottom fitted into the top of aforesaid tin. A sheet of glass in a frame formed the cover. It never worked properly as a solar extractor, and we put it aside in disgust. When the honey season came round, the two tins combined came in nicely for an uncapping tin. Laid aside again. In following spring, we wanted to raise tomato seed early. The box filled with mould, and the glass top, slightly raised, did nicely. Following Autumn we killed a calf. Hard up for something to salt it in. Lo, the solar extractor box with bottom fastened on, came in splendidly. Have we done. Oh no. We have been talking of getting an incubator, and lately read that one could be made that did not require a lamp. The solar extractor box again comes in view. Got a packing case some eight inches deeper than the solar box, and a foot longer. Placed five inches of sand on bottom, placed solar box in same, packing spare space all round with sand. Placed solar box in centre of same, with sand on its bottom, placed two dozen eggs on latter. Made rabbets in sides of solar to support bottom tin about three inches above the eggs. Filling it with water warmed to 140 degrees. On top of solar box placed a cover consisting of a box several inches larger than top, six inches deep, with handles made of fencing wire to lift it with, and also filled with sand. The sand in cover and sides keeps the water and inside at a fairly uniform temperature. The eggs we have learned should be from 80 to 103 degrees—not higher or lower.

So our discarded solar extractor has been, uncapping tin, hot house, salting box, and incubator. Oh yes, and we purpose making a window of an out house with the glass cover.

WAX AND HONEY PRESS.

R. BEUHNE, TOOBORAC.

A number of beekeepers have found a press, more or less built on the lines of that here illustrated, a great convenience. At first it was used only for separating the wax of old block combs and scraps from the refuse. It is now, however, also used for pressing the honey from cappings and thereby avoiding the dark colour and waxy flavour produced by the Solar wax extractor.

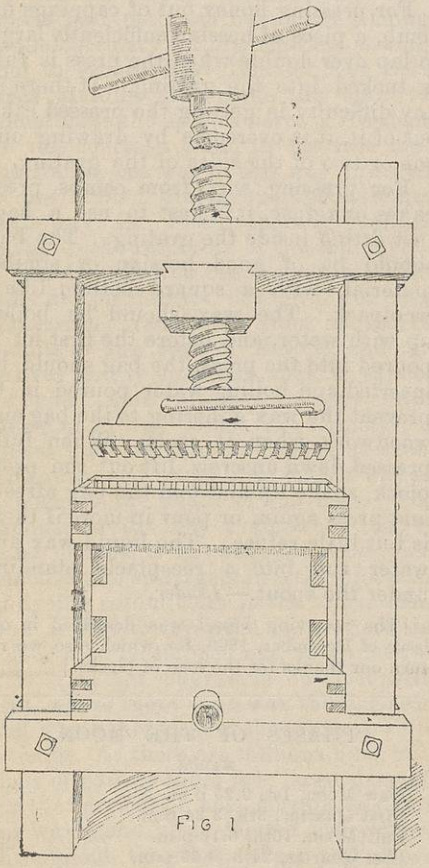
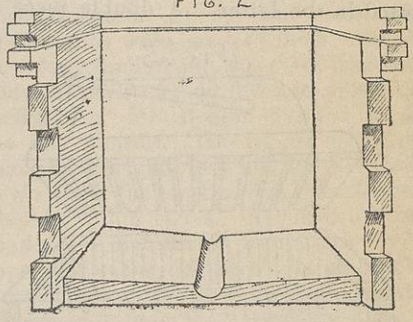


FIG 1

Fig. 1 shows the press complete, excepting that a board should be fastened across the top of the uprights with a hole to guide the screw, so that it works evenly and steadily. The uprights should either be securely fastened to the floor of a little platform or braced to the wall by stays at the top The frame consists of two uprights, about 2 feet 8 inches long, made of 6 inch by 2 inch timber, with cross piece of similar dimensions at the top, and a floor piece 12 inches wide near the bottom, the four being mortised and bolted together at the intersections, the screw block being slightly let into the cross piece and bolted. The screw is a 2 inch wooden carpenter's bench screw. The body of the press is made of ⅞ inch shelving, blocked or dovetailed together at the corners, and measures 11⅜ x 11⅜ inside by 12 inches deep. The bottom is fitted into the body flat on the underside; the upperside has an incline of 1 inch from the sides to the groove in the centre, which latter inclines towards the outlet in front, as shown in Fig. 2. A

FIG. 2



frame 3 inches wide runs round the top of the body, bracing it together, and projecting upwards by 1 inch over the top edge of the body, forms a rabbet ⅞ inch x 1 inch. The whole body is lined with tin inside, the groove terminating in a spout. Figures 3, 4 and 5 show the fittings inside the lining. Fig. 4 is the bottom of the grating, made of pieces of wood ⅞ inch thick and 1 inch deeper in the centre than at the ends, to correspond to incline of the bottom of the body, on the lining of which they rest. They are ½ inch apart, and slats ⅞ inch wide by ⅝ thick, set 3-16th apart, are nailed crossways on to the top of them as shown in Fig. 4.

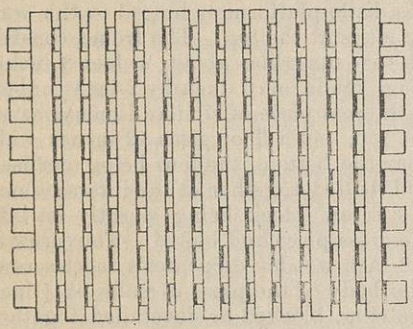


FIG. 4.

Fig. 3 shows the four sides of the grating, each of which is unconnected with the others, and consists of slots $\frac{7}{8}$ inch x $\frac{3}{8}$ inch, set 3-16th apart, nailed on to a piece 1 inch x $\frac{7}{8}$ at top, which rests on the rabbet at top of body, when inserted in the latter. A double piece of tin in a sawkerf made endways into the slats connects them at the bottom without obstructing the passage of the liquid pressed.

Fig. 5 is the press block, made of a piece of hardwood, with stout iron handle which is raised and a lever put through when the block is to be lifted. A board $\frac{7}{8}$ inch thick, and measuring 10 inches by 10 inches (which is the clear measurement inside the grating), fastened to the hardwood block, has slats the same as the sides of the grating.

For pressing honey out of cappings or comb, a piece of hessian sufficiently large to lap over double when the press is full is tucked into the grating. If there is any difficulty in getting the pressed cake out of it, it is overcome by drawing out one or two of the sides of the grating.

For pressing wax from combs, press cakes or refuse, it is best to use a bag, just fitting inside the grating. The bag should be of good hessian or similar material, with a square bottom like a woolpack. The wax should be boiled up with water, and before the first lot is poured into the press, the bag should be inserted and boiling water poured in to prevent the wax adhering to the bag and woodwork when it cools. When fully pressed down unscrew, lift out the press block, shake up and fold the bag afresh, and press again, or pour in more if there is but little refuse. The liquid wax and water run into a receptacle standing under the spout.—*Leader.*

FIG. 5.

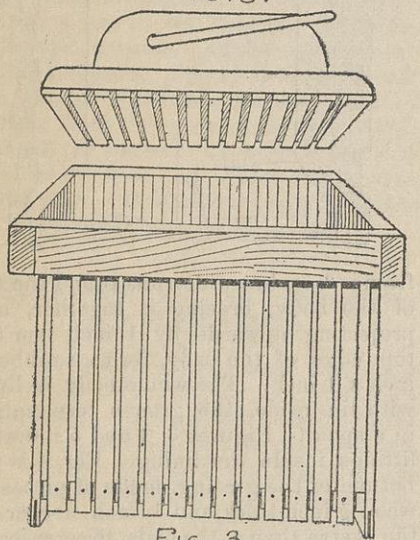


FIG. 3.

FIG. 4.

[The receiving vessel was described in our issue of December, 1899, for which also we return our thanks for the loan of blocks.]

PHASES OF THE MOON.

MARCH.

New Moon, 1st, 9.25 p.m.
First Quarter, 8th, 3.34 p.m.
Full Moon, 16th, 6.12 p.m.
Last Quarter, 24th, 3.36 p.m.
New Moon, 31st, 6.30 a.m.
Perigee, 1st, 10 p.m.
Apogee, 15th, 11 a.m.

APIS DORSATA.

AN INTERESTING ACCOUNT OF PROF. BENTON'S EXPERIENCE IN CAPTURING A COLONY OF THE GIANT BEES, ETC.

The acquisition of the Phillipine Islands has given new life to the old belief of the beekeepers of this country that the giant honey bee of India, which is known to be common in Java, Borneo, Sumatra, Luzon and Mindano, can be introduced in the sub-tropical regions of the United States. For several weeks letters and petitions have been coming to the Secretary for Agriculture, asking him to secure East Indian queen bees from Manilla and make the effort to domesticate the species here. Precedent for this course is found in the fact that the Italian bee was in this way brought to the United States by Commissioner Halloway in 1860, thereby adding vastly to the resources of the country.

The East Indian bee, known scientifically as apis dorsata, has never yet been successfully transferred from its native haunts to any part of Europe, and the natives stoutly maintain that it cannot be done. As a rule they are very much afraid of it, and do not care to molest it unless they can find a colony at a disadvantage and attack it in such a way as to compass the death of the bees. The product of the big Indian bee that is most desired is not honey, but the wax, which enters so largely into the processes of dyeing cotton cloth in the orient. The wax is used to cover the cloth where the colour is to be stopped out, very much as it is used for engraving on steel with acid, where there is no wax the dye sets, and where there is wax the original white remains. As there are millions upon millions of natives there is a large demand for the services of apis dorsata, and for his wax alone he is hunted everywhere throughout the east. Over and above the home consumption the Phillipines export from ten to twenty tons of wax annually.

The only attempt by an American to bring these giant bees to this country was made in 1881 by Mr. Frank Benton, now the apiarist of the Agricultural Department, who spent fourteen years studying the bees of Cyprus, Carniola, Syria and the east. He made a journey at his own expense as far as Borneo, studying the native bees wherever he went. He found the big bees in Ceylon and decided to try to take several colonies of them back to his apiary at Bairut, Syria. Far up in the mountains, with the aid of several natives, he found a number of the huge combs hanging from a tall cliff, a place which the bees had evidently sought to keep out of reach of wax hunters The natives were not very successful in getting the bees. Their way of doing it was to let a man down over the cliff by a rope, who by fighting the bees with a torch finally managed to slip a big bag over the pendant comb and so secure a mass of badly mashed comb, honey and bees. As these combs were some of them over six feet long, and from three to four feet wide the sack method did not prove effective, and Mr Benton decided to do the job himself. He rigged two scaffolds, such as painters use, and let them down under the combs.. On these he had placed two big boxes. At night he had his force of natives let him down by a rope, and swinging there a hundred feet from the rocks below and in constant danger of a general attack from the bees he succeeded in shaking the bees into one of the boxes, also catching the queen, and then putting the comb into the other. In this way he secured four colonies and carried them through three weeks' journey to Syria. But one colony was alive when he got there. This was much enfeebled by the hot weather and the confinement on the steamer, and when it was allowed a flight for exercise, as was absolutely necessary to keep it alive, it scattered and was lost. During the trip Benton was prostrated by jungle fever caught while in Borneo, and could not give the bees the care that might have brought them through alive, and so produced a plant from which queens

could have been produced and sent to the United States. The experience was enough to satisfy Mr. Benton that the giant bee is reasonably docile, and can be kept in a hive and handled just as Italians are.

"For centuries the Indian bee has been the subject of a good many large stories. Some travellers have said that it was so ferocious that it could not be hived. Others have claimed that it built its comb horizontally; while others said that the insect was an incorrigible nomad and bound to wander every year, so that it could never be kept in an apiary. It is true that they love the wilderness and build their combs on high trees, choosing long outstretching limbs from which to hang their long, single-tiered comb. They will also fight when molested by the wax hunter, whose usual method is to hold a torch under the comb and smoke out the bees, which fly about in great consternation and soon fall within the flame. Their wings are thus burned off and they fall to the ground and perish. With a club the hunter knocks down the coveted comb, and gets away, leaving behind him thousands of dead bees.—Washington, D.C. Star.

CUBAN HIVES.

The native creole or box-hive consists of a box about 4 feet long and from 8 to 12 inches square inside, and open at one end. Where lumber is scarce, hollow logs are sawed off and used in the same way. The hives are placed in an almost horizontal position, only being inclined enough to keep the water from running in at the entrance or open end.

The old adage, "There's nothing new under the sun," is strikingly proven in this case, for here it is that reversing is carried to perfection. When a swarm is placed in one of these long boxes, the bees take up their abode in the spot most suited to their fancy, generally near the middle, leaving a vacant space at each end. As the honey flow commences the bees naturally build comb and store the honey in the closed end, where it is better protected from outsiders. The first extracting takes place during the latter part of December, when the board is knocked off the rear end, and the honey cut and pulled out with long hooks. After this operation, the hives can be turned around and the other end closed up, the extraction of the other end taking place during the latter part of January. Two, and sometimes three, extractions are made during the season, besides a "l'impieza," or cleaning up, given the bees in August or September, when some honey and considerable wax is taken from them, thus reducing the opportunity for the moth-worm to get a hold on them.—*American Beekeeper.*

SIZE OF HIVES.

ADRIAN GETAZ, IN *A. Bee Journal.*

The question is: Supposing the large colonies could be wintered equally well, which would be the best—80 colonies of 12 combs and population in proportion or 120 colonies of 8 combs, the total population to be in either case?

The difference may depend upon the nature of the honey flow, and might not be very great; but it would undoubtedly be in favour of the large colonies. There would be only 80 entrances to guard against robbers instead of 120. It would take less bees to keep up the heat necessary for 80 brood nests than 120 smaller ones, on the same principle that it takes less fencing to enclose one field of two acres than to enclose two fields of one acre each. When supers are to be put on or taken off, there would be only 80 hives to open and smoke, instead of 120 and therefore a saving of time; and probably less swarming and less danger of starving in case of a dearth of honey in spring, or in adequate provisions in the winter. Whether large colonies can be wintered as well as small ones in the North, and in the cellar, I cannot say. In my latitude, wintering outside, the large colonies winter far better than the small ones.

QUEEN REARING.

The only natural time for bees to start and build queen-cells, aside from swarming or superseding, is when they are queenless. Colonies with good laying queens have no business building cells unless preparing to swarm, and there can not be any bees so reliable for *good* cells as colonies in proper shape made broodless and queenless. I do not mean to say or be understood that good queens can not be raised over strong colonies with laying queens, as we get good cells that way every year; but I do mean that there is no necessity for using colonies with queens, and that nothing is gained by doing so. Nor can they be relied on for cells at all times of the queen-rearing season. There are only two *reliable* methods of getting *all* good cells and keeping plenty of them, and these are the Alley and Atchley plans. If colonies are made queenless and broodless and given eggs, or larvæ 12 hours old, *a la* Alley, or larva, cocoon and all are moved, *a la* Atchley, every cell will be almost as near alike as two black-eyed peas, and all send forth thrifty and hardy queens. The Doolittle plan of grafting larva into jelly will not always give good, well-matured queens. We do raise fine queens by the Doolittle plan, but we have as many or more cells to destroy than when the dequeening plan is used. You ask "Why?" Simply because we have nearly one-third of the larvæ neglected, to some extent, when we graft them into jelly. I have seen larva lie and nearly die, after being grafted and resemble a pan-cake with about half enough grease to fry it. The bees by and by come to the rescue of the poor little sickly dwarfed larva and save its life, but no such will nor can develop into a good queen. We have raised many thousand queens by the Doolittle method, some good ones too, but we have had more drone-laying queens by this plan than by all others combined.—*Southland Queen.*

BEES AND GRAPES.

I have, according to your instructions, repeated my experiments of last year for testing the capacity of bees, under exceptional circumstances, to injure fruit, adding such other tests and observations as the very severe and protracted drought permitted. The house used last season 10 by 16 feet in size, having spikes partly covered with wire cloth, and large screen doors in each end, was used again this year. Two colonies of Italian bees, two of Hybrids, one of Caucasians and two of Syrians, were confined in this house. These colonies were without food in their hives, and at intervals of three or four days were fed a little syrup for the purpose of keeping up their vigour, and to prevent dying from starvation. A wood stove was placed in the house and a high temperature was maintained for a number of hours each day. The conditions incident to an unusually severe and protracted drought were present within and without. The bees were repeatedly brought to the stage of hunger, thirst and starvation, the test continuing for forty days.

Through the favour of Mr. T. T. Lyon, president of the Michigan State Horticultural Society, I obtained thirteen varieties of choice grapes from A. G. Gulley of South Haven. Every inducement and opportunity was afforded to appease their hunger and thirst by attacking the fruit, which was placed before them. Some of the bunches of grapes were dipped in syrup and hung in the hive between the combs, some placed before the hives on plates, and grapes were suspended in clusters from the posts and rafters. The bees lapped and sucked all the syrup from the skins, leaving the berries smooth. They daily visited the grapes in great numbers, and took advantage of every crack in the epidermis or opening at the stem, appropriating to their use every drop of juice exuding therefrom, but they made no attempt to grasp the cuticle with their mandibles or claws. I removed the epidermis carefully from dozens of

grapes of various kinds and placed them on plates before the hives. The bees lapped up all the juice on the outside of the film surrounding the segments of the grape, leaving the delicate film dry and shining, but through and beyond this film they were not able to penetrate. I punctured the skins of grapes of all kinds by passing needles of various sizes through the grape and placed these before the bees. The needles used were in size from a fine cambric needle to a packing needle. The amount of juice appropriated was in proportion to the size of the opening in the skins and the number of segments of the grape broken. The same was true in the case of grapes burst from over ripeness.

Bees are not only unable to penetrate the epidermis of the grape, but they also appear to be unable, even when impelled by the direst necessity, to penetrate the film surrounding the berry after the epidermis is removed. Grapes so prepared, without exception, laid before the hives until dried up. If but one segment of a grape be broken by violence or overripeness, the bees are unable to reach the juice beyond the film separating the broken from the unbroken segments until further violence or decay permits an entrance for the tongue. Clusters of sound grapes which I hung between the comb frames in the hives occupied by strong colonies were unbroken and sound after 15 days' exposure in the hives. The skins were polished smooth but none were broken. I also stopped up the entrance to several hives containing good-sized colonies in the apiary and in the wire-covered house, by pushing sound grapes into the opening, so close together that the bees could not pass through. By this means the bees were confined in the hives for days in succession, not being able to break down and remove the grapes, and although the skins of the grapes next to the inside of the hive were polished smooth, none were broken or injured.—Report of the United States etymologist of 1887. Bees vs. Fruit, Experiments by N. W. McLean, in *American Beekeeper*.

CAPPINGS.

From American and other Bee Journals.

Like the keeping of poultry, the raising of small fruit, gardening, and other minor branches of agriculture, the keeping of bees in localities adapted to the business can be depended upon to furnish their owner a comfortable living; but such fortunes as are amast in merchandising and manufacturing can never be hoped for by the beekeeper.—W. Z. Hutchinson, in *Canadian Bee Journal*.

Any beekeeper who is alive to his own interest, and that of his bees, should always be in such a position that he could at any time supply his colonies with combs of sealed honey (outside of a division board) after brood-rearing has once commenced, and the sealed honey has been exhausted, or when the bees are prevented from any cause whatever from bringing in a sufficient supply from the fields for the encouragement of the extension of the brood nest.—D. W. Heise, in *A. B. Journal*.

Outlet for Fermented Honey.—Chalon Fowls, the man who got up so many cooking recipes, says that honey partly fermented is the very best for cooking purposes. Indeed, some bakers endeavour to get their honey into a ferment before they use it. Here is a hint for beekeepers who may have honey on hand otherwise good but a little fermented. There is hardly a doubt that many a baking concern will take honey fermented, even in large lots.—*Gleanings*.

The necessary though scarcely harmless bee formed the subject of a Country Court case at Bath lately. A Miss Kerley sued her next door neighbour for £50 damages caused her by defendant's bees. Plaintiff gave evidence that she had been badly stung twice, and that the bees frequented her garden to such an extent that she had to let it go out of cultivation. The jury gave a verdict for the plaintiff, awarding her £10, and the judge granted an injunction with costs on the highest scale. So you can't keep bees in a congested district.—*English Paper.*

With nearly twenty years of study and practice in beekeeping in widely different locations, involving more than 25,000 miles of travel, I may be pardoned for assuming to advise that we must learn well our locality, its peculiarities and varying resources and conditions, before we can hope to take anything like the full advantage of its capabilities. It is not less important that we should be thoroughly familiar with these, than with the natural habits of the bees themselves; and to acquire a practical knowledge of several different localities requires no small effort.—H. E. HILL, IN *American Beekeeper.*

A correspondent says that the old custom of serenading swarms with tin pans originated from an old act of the English Parliament, giving a person a right to follow his swarm, provided he rang a bell, or drummed on a tin pan, to give notice that he (the owner) was after the bees. This old act was passed something like a thousand years ago, and during the centuries since it is evident that the original purpose of the drumming was lost sight of, and that subsequent generations came to the conclusion that the serenading induced a sort of spell on the bees, causing them to cluster so they could be captured.—*Gleanings.*

The "Drone" in the *Australasian* says—Unfortunately, beekeepers have no effective combinations. Their "associations are not trade associations for profit, but debating clubs, eager to attain notoriety by appeals to Parliament, or seeing useless resolutions in print as to what they are prepared to do in the way of teaching them the business they already know by heart. Time no doubt, will even alter this state of affairs for the better, but time is valuable, and at present is being wasted, while misapplied energy is perhaps preventing the really required objects from being achieved.

All my sections are carefully graded, and clean as hands and care can make them. Those of the finest quality and color (white clover and sainfoin), well filled and sealed) except cells next to the woodwork), with combs built out and attached to the wood of the section; such form our first grade or "selected quality." These we glaze in lace paper and pay carriage to London or other places of about equal distance at 10s. per dozen; the next, or second grade, at 9s.; and all below that we just sell for what they are worth—say 7s 6d to 8s per dozen. We rarely have an inquiry for unglazed sections; and "glazing" means a big job with our two apiaries; but it pays.—W. Woodley, in *British Bee Journal.*

Now, I have done a good deal of grafting the past 30 years, and have never yet found anything come up to propolis, and as long as that is to be had I would never think of using anything else. Propolis is always accumulating with me, for it is as carefully collected as wax, and every year there is a demand on the store for grafting purposes. With 70 colonies of bees and a 6-acre orchard, supply and demand are about equal. Of course, the propolis has to be rendered plastic by warming over the fire before using, when, by keeping the lump against your breast, it will remain soft any length of time. There is no better grafting material than propolis, and if orchardists were aware of that fact there should be a good demand for it at a price that would make it pay to collect. —S. A. Deacon, in *A. B. Journal.*

Mr. C. L. Marlatt read a paper at the 11th annual meeting of the Association

of Economic Entomologists, U.S., on the "Laisser-faire philosophy applied to the Insect problem." He stated the same insect pests that now troubled orchardists, &c., were in existence thousands of years ago, in the same countries; that in those countries they were not considered plagues, because there existed countervailing influences that kept them in check. But when they were exported to new countries, where those countervailing influences did not exist, they became a dreaded plague. In course of a generation or two those influences grew, and kept the pest in check. He advised to use every means to combat the existing evil, but the diseases would gradually lose their virulence. Has it not done so in the case of foul brood in bees?

A great deal has been said about bees injuring fruit—some fruit-growers claiming that bees puncture the ripe grapes, suck the juice and destroy the crop. But from the physical structure of the bee, this is said to be impossible by scientific entomologists. It has no jaws like the hornet; it is made to suck, not to bite, and on close observation, and after repeated experiments, it has been found that where bees are found helping themselves to ripe fruit, the skins had been ruptured by the weather, or over-ripeness, or that hornets, wasps or bids, had first been the infringers. But after the skin has been broken from any cause, if there is a scarcity of honey, the bees, always anxious to be doing something, will endeavor to get their share in the plunder.—HON. G. E. HILTON, IN *A.B.J.*

W. C. Gathright says in *Gleanings*:—I have made many experiments, giving royal jelly to one batch of cells and another batch beside them without any; and if there is anything I am sure of about beekeeping it is that it does not make one particle of difference whether you put in the royal jelly or not, either in artificial cups or drone cells. Any one who wishes to prove this can go and examine the cell-cups, as I have often done, two or three times after putting in the royal jelly and the larvae, and they will find the royal jelly licked out clean. I have examined them thus dozens of times, and never have found a single instance where the bees would leave the feed which I put in the cell. Even when every cell was accepted they have always removed the feed which I had put in, and then commenced to feed the larvae to suit themselves.

BEES IN WAR.—We have heard so much about bees being used in war for the transmission of letters, etc., that your readers may be interested in hearing of a true story as to the use of bees in war. A Dutch pedlar and I had quite a time. He was buying old brass and rubber shoes. I wanted to sell him some brass, and when it was weighed out it came to 75 cents. Then he wanted to pay me in truck out of his pack. I told him I wanted cash. He said he did not pay cash, but I said he could not have it unless he paid cash. Then he offered me 40c., then 50c., and I finally said I would not let it go at any price. Then he wanted 50c. pay for his time, to which I objected. He said he would not leave till he got his pay, and he would charge $3 per day for what time he stayed. I ordered him out of the house, but he said he would not go until I paid him, and he said he would thrash me, and he used very abusive language for half an hour. Well, I did not know how to get him out, as he was a big, stout man, and I nearly 73 years of age, I was no match for him. All at once I thought of trying if the bees could persuade him to leave. Quick as thought I stepped out of the back door and snatched up a hive of bees and brought them in. I opened the hive and took out a frame of bees, and in less than no time the pedlar was tearing down the road, and I after him with the bees, but he was too quick for me. I have laughed every time I think of that scene; it was my first fight, and I came off victorious.—W. C. Wells, in *Canadian Bee Journal.*

PRICES OF HONEY, FOUL BROOD SPORES, &C.

W. ABRAM.

Dear Mr. Tipper.—After a quiet rest for quite a couple of years I am giving writing another trial to at least let you know that I am still alive, though not in the best of health yet.

A lot has been said and done in these times, and more than once did I intend to put my fingers into the pie, but any attempt failed. The knotty point—Exportation of Honey—has received a good deal of attention, but what do I find now? I find that the demand far exceeds what I can produce, both for home and foreign markets. Now, from reports I notice a failure in honey production everywhere. Where, then, is the honey to come from to supply and keep up the foreign trade? But if for reasons of scarcity we now lose the gained ground I am afraid it will take much to ever regain it again for any surplus we may have in the future. And then, the trouble is that buyers had it rather their own way lately, and have thus acquired a habit which it is hard to dissuade, especially regarding foreign buyers, so that they expect the article and cheaply. These factors, scarcity of honey in many districts, and the low price that buyers got used to, are difficulties of considerable importance, equal to our last year's trouble "How to get rid of the surplus," and they deserve the full attention of all interested in the concern, and the sooner solved the better.

Repeated results of experiments as to how much heat and for how long a foul brood spore can stand before it gives up its ghost for ever have been given. The last edition states that 2 hours 30 minutes is the minimum of time at 115 degrees C. of heat to kill the tough beggar. What glorious news this must be for many Australian beekeepers, since many places registered 115 degrees, not for hours only, but for days in succession, so that, trying as life under such circumstances may be, the beekeeper has the satisfaction of knowing that not a single spore is left with life worth living after the heat of late, unless somebody kept them in an ice chest or poured water down their backs all the time the heat was high in order to let them loose when all the scorching weather is over. Anyhow, in places where they existed and were not cooled down a bit now and then during the hot weather they must be dead now, and beekeepers should take special care to see that they are dead, or, if not, why not? In any case there is now no hurry to pass the Foul Brood Act at once, unless it is desirable to have inspectors carrying a few specimens of newly laid spores as a matter of curiosity from place to place. A hot summer is a blessing after all in a way if we only know how to appreciate it.

We have had about 6 inches of rain on 25th ult., and any amount of bloom with splendid weather since—bees doing well.

QUESTIONS.

260.—When should the annual Conference of the N.B.K.A. be held? At time of R.A. Show, at Easter, or at mid-winter?

261.—Should what is termed an untested queen be fertilised or not when sold?

F. W. PENBERTHY.

260.—R. A. Show at Easter.

261.—An untested queen is a queen that has been laying from one to nineteen days.

F. WARD.

260.—If a conference is to be held, I would like it to be at Easter, as I believe we would get a larger attendance then.

261.—An untested queen should certainly be fertilized, and laying before it is sold. By the term "tested queen" we mean a thoroughbred queen purely mated. An "untested queen" can be sold immediately she commencs to lay, while to test a queen properly she must be kept for five or six weeks. Hence the difference in price.

A. AYLING.

260.—The conference should in my opinion be held about Easter time, perhaps at the end of the week, or the beginning of the week following, which will catch the folk who attend the show and have their interest quickened by our grand exhibits. The weather also is much more

pleasant for travelling and also a holiday in Sydney than midwinter. I think that any other time of the year would be more suitable than the one hitherto chosen.

261.—An untested queen should be laying well before being mailed. The difficulty in introducing virgin queens of more than three days old, particularly if received from a distance, makes them worth but little.

AUSTRALIAN YANKEE.

260.— I think that Easter would be decidedly the best time, that is if a conference is really necessary, which I very much doubt. Has any good come from those in the past?

261.— Yes, or how could she be an untested queen. If not fertilised she would be a virgin. Why don't people read the text books on Apiculture, Quinby's New Beekeeping for instance which I think the best.

BEEKEEPER.

260.— I always advocated the show time for our conventions.

261.— I never saw any advertisement offering unfertilised queens. The question is ridiculous.

H. L. JONES.

261.—Certainly she should be fertilised before being sent out, and clip all queens before sending out, and they must be fertilised before being clipped.

QUESTIONS NEXT MONTH.

GEORGE COLES.

262.—Do you consider a large number of bee stings likely to affect the general health? Suppose you receive a number every day?

263.—Suppose you are extracting from a frame containing unsealed brood, and the force causes it to move from bottom of cell, away from food, does it die? and if so is it likely to turn to foul brood?

CORRESPONDENCE.

J. P., Cope's Creek, February 8th:—Just a few lines to let you know how I am pegging along this poor honey season, which I and other beekeepers in this district are passing through. In August last I shifted my Apiary, consisting of 140 hives of bees to Cope's Creek, 14 miles distance from my old apiary at Inverell. They appeared to do well when I first brought them out to my present Apiary, the mountains around being covered with heath and other Spring flowers, but the beginning of October brought with it a white frost, destroying all the Spring flowers. From that time up to the beginning of the new year the bees appaered to rear very small quantities of brood, and altogether seemed quite discouraged. But since the beginning of the new year they have been breeding very fast. They are now working on stringey bark which is yielding nectar fairly well. I am working an apiary of 50 colonies for a friend on the halves system. This apiary is four miles distauce from my own apiary. I have every prospect of a good flow from Iron bark and white box next winter at my friend's apiary.

A. Ayling, Dubbo, Feb. 16—Dear Mr. Editor, you have not heard from me for a considerable time, but I have had no good to report, and my misfortunes have not been particularly instructive, as I have not even learnt *what not to do next time*. My experience is, I think, like many of your correspondents, particularly in the west. Two years ago I had a splendid season; last year was very poor, there was honey enough to give plenty of winter stores, but not enough to keep the queens laying as they should, so that they went into winter with nearly all old bees in the hive. The winter was exceptionally mild, so that the bees kept on the move all the winter, and so wore themselves out before spring came. The queens, for the first time in my experience, have left off laying altogether in the winter, so that in spring the stocks were weak; after the spring set in we had some very sharp frosts and cold weather, which finished matters. When I counted up after all was over I found that I had lost slightly over half of my colonies. Many of the neighbouring beekeepers fared much worse, one of the best known here losing about 95 per cent. of his colonies. I have a nice lot of wax on hand, the produce of my brood combs, but I find that it is not a satisfactory way of producing wax for market. So far as I can hear from others there was no disease among the bees worth speaking about. I had a little paralysis, but I am not much afraid of that. It was simply "spring dwindle," or the dying out of the old bees before the new ones were ready to take their place, and I think that the only way to prevent

saw such a fine show of bloom) before we had any field bees to gather the honey, so that we lost our crop for this year, and will not gather enough honey to pay expenses. The only consolation is that as the trees appear to bloom two or three months later each year than the last we may probably have a good flow in the spring and early summer next year, and we need it. The season has been so bad this year that we have had few swarms, and so could not make up for our losses. Perhaps my woeful tale may explain the cases of some of your correspondents, but I am afraid it won't help them much.

H.H., Benalla, Victoria.—The season here is a very poor one for honey; no bloom. I had a very good start at the beginning of the season from the box trees. Since then the bees are only just able to keep themselves. I have 40 strong, healthy hives comparatively idle, as there is scarcely any honey for them to gather. Must hope on, and trust that prospects will improve before the season is over. We had a splendid flow of honey here last season, but unfortunately I had not enough bees to collect it. This time I have the bees, and no honey compared with last year. I sold all my honey at 4d. lb. retail, and 3½d in bulk, without any trouble. and I could have sold tons more if I had it at the same rate, although honey was sold here in the local market at 2d and 3d per pound, but there was no comparison in the quality, hence the difference in price.

T. P., Candelo—The season here has been very good for this locality. Have extracted about 400lbs. of honey from eight colonies up to the present; expect another 400lbs. before the close of the year.

W. W., Kilmore East, Victoria—The season here opened well, with plenty of strong swarms and 50 good strong colonies ready for the work, but the scene changed. A few very cold snaps came and chilled the brood, and the yield of honey fell off to nil. The drones were suddenly all expelled. Queens almost that is to make arrangements with the clerk of the weather to have good sharp winters. To make matters worse for us, nearly the whole of the box trees bloomed in the early spring (I never ceased laying, and the colonies commenced to dwindle. They are just supporting themselves now by hard work. I think there is not a drone in the district if we wanted to fertilise a queen, and I see you are almost as badly off in N.S.W.

J. C. H., Palmerston North, N.Z., Jan. 17—Last season I secured a full crop of clover honey, 4½ tons of which I sent to London. It realised £45 per ton, so I think it must have topped the market. Last September and October I removed my bees from Waikato to near Palmerston N., a distance of over 400 miles by rail and boat. I removed 213 hives in two lots; it was a big undertaking. I did it to get clear of unextractable honey.

W.R.W., Swan Bay, Richmond River, Jan. 30—This has been the worst season on record up to Christmas. Since then we have had a short spell of dry weather, and the bees are doing fairly well.

H. A. S., Walcha, January 22nd:—We had a splendid summer last year for bees, but this summer is just the reverse; although plenty of blossom but little honey.

INVERELL.

F. W. PENBERTHY.

It was decided at the meeting of the Inverell Beekeepers' Association on the 15th to rise the price of honey about 15 per cent., on account of the great scarcity of honey.

This season is the worst I have known. A little honey coming in now; have not taken off any yet this season. The bees are in good condition. White box will not bloom this autumn—may in the spring; yellow box and red gum are in bud for next season, when I think there will be a heavy flow.

A LOT BEEKEEPERS DON'T KNOW.

BY VICTORIAN QUEEN BEE.

We fortunate beekeepers ought to be the envy of the fraternity. Just read this which refers to beekeeping on crown lands and leases.

From the Austral Culturist and Woman's Realm.

Last issue, page 5. A correspondent takes exception to our remarks there and says that :—

"There should be a clear distinction made in such statements between the value of the production (to the State) and the value or rent a beekeeper could afford to pay. You will have the lands people arguing that bee men can pay 1s. to 4s. per acre for their range. You don't expect a fruit grower whose garden yields him say £40 per acre to say that £40 is the value of the land. No; it is the rent value (after deducting all expenses—a fair profit and risks that he can afford to give. But even then, beekeeping is so irregular, never two good seasons in succession, that the gross production as you give it has to be divided up into at LEAST two years, with corresponding duplication of charges and expenses. Then again, it is not true that the yield of the tree tops is of greater value than the grass, except in a few districts of peculiarly good kinds of trees, so mingled and situated as to make long continuous flows, and where the grass is almost non-existent."

We would say in reply that in such remarks the value of the production to the State is always meant, and not the nett value to the apiarist. He has expenses of production, and out of even 4s. an acre of production there may only be a profit of 6d per acre or 3d. per acre over cost of production. And if you take some parts where the horse costs 10s. to 15s. a week for feed and you need two or three of them, even big yields every three years show little or no returns after paying expenses. This is the outcome of experience. And as regards the value of tree tops in comparison to the grass we would say that in many if not most, of these thickly timbered areas of land not suitable for agriculture there is little or no grass, and experience of some in the N.W. would not carry five sheep to the 30 acres, when such will carry one colony of 10,000 bees, and bring in a return (not profit) of £2 to £4 in a GOOD season. I do not think five sheep would give the same gross production. What do others think about this? Let us have it.

The new epoch has surely made a beginning in our industry, a new system is about to begin when 10,000 bees can be put on to a honey flow and produce £4 worth of honey.

A good swarm averages 6lb or 7lb weight, and 6000 bees weigh 1lb, therefore 40,000 bees is much nearer the mark than 10,000 (though I should put it at 50,000 bees for a good return of £4 per hive.

The beekeeping editor of the new paper must be trained rather poorly when he says 10,000 bees bring in a return of £2 to £4 (10,000 bees would only do the inside work of the hive, without gathering £4 worth of honey).

And this is the paper which advocates the cause of the experts, and is a sample of what kind of men pull the strings in the Silk Association. It is high time apiarists far and near arose in one body of indignation and trampled these cliques of supply dealers and amateur enthusiasts under their feet.

This paper has been issued three times and three times running has it made mistatements and mistakes, and is not written in the interests of our industry.

Perhaps the bee editor of the *Culturist* will read up on bees a bit before issuing the paper again, or is it this sort of trash supplied by the convener of the National Beekeepers' Committee, or a supply dealer, if so they ought to bring out that "patent steel foul brood stamper" that friend Beuhne advised them to get, and I'm sure beekeepers large and small will flock to the committee and worship them—or kick them.

N. B. K. A.

A meeting of committee of above was held at Mr. Trahair's, Newtown, on Friday evening, Feb. 23rd.

Present—Messrs A. Gale, (President) in the chair, J. Trahair, Sec., Roberts, J. J. Branch, Nancarrow, Tipper, Abram, Cadden, F. Ward, aud J. D. Ward.

Minutes of previous meeting were read and adopted.

The honey schedule of the forthcoming Royal Agricultural Show was considered, and several amendments made. It now reads as follows :—

HONEY.—(Manufactured Products.)

Entrance Fee—Members, 2/6; non-members 5s.

735 Foundation Comb, 3 sheets, various grades. Manufactured by exhibitor. First prize 10s.

736 Australian made Hive (Langstroth) fitted with frames and ready for use. First prize 10s second prize 5s.

737 Any other variety, fitted with frames and ready for use. First prize 10s; second prize 5s.

738 Best Observatory Hive with bees, 8 or 10; frame. 10s

BEES.

The following sections to be the bona-fide production of the exhibitors.

739 Best leather coloured Italian Queen and her progeny. First prize £1, second 10s.

740 Best Yellow Italian Queen and her progeny. First prize £1, second 10s.

Champion Prize of £7, for the best collection of the products of an apiary.

COMB HONEY.

741 1 doz. 1lb. Sections. To be composed of uniform sections. First prize £1, second 10s.

742 Large frame of honey not less than 100sq. in. of surface on each side. First prize £1, second 10s.

743 Small frame of honey not less than 50 sq. inch. of surface on each side. First prize £1, second 10s.

747 Most attractive display of Comb Honey. First prize £2, second £1.

EXTRACTED HONEY.

745 1 doz. 1lb. screw top jars, or bottles extracted (liquid.) First prize £1. second 10s.

746 1 doz. 1lb. screw top jars, or bottles of extracted (granulated) honey. First prize £1, second 10s.

744 Most attractive display of extracted honey, liquid and granulated. First prize £3, second £1 10s.

BEESWAX.

To be the bona fide product of exhibitor's own apiary or apiaries.

748 Yellow, not less than 10lbs. in each exhibit. First prize £1, second 10s

749 White, not less than 10lb. in each exhibit. First prize £1, second 10s

750 Full size frame of empty comb, naturally built. Prize 10s.

751 Full size frame of empty comb, built on comb foundation. Prize 10s.

Mr. Tipper suggested samples of the prize winning honey should be sent home to the Agent General, to be exhibited at shows in the old country for competition.

Mr. Gale suggested the matter be left to the time of the opening of the Show, when the matter could be put before the Minister or other person.

On the suggestion of Mr. Gale, it was moved and seconded that press reports of our meetings be sent to the several daily papers. Also that their representatives be invited to attend our meetings.

Mr. Tipper asked in consideration of the depressed state of the industry, whether such publicity would be wise.

Mr. Gale in answer alluded to not 50 tons being able to be got together for export.

Mr. Gale stated that Mr. Fegan, Minister for Agriculture, had promised to do his best to get the Foul Brood Act passed this session. He (Mr. Gale) had suggested to him, there be no inspectors, but this Association have power to administer the Act.

In conversation, Mr. Roberts said he was now quite satisfied foul brood could be introduced with the queen.

The Secretary read a letter from Mr. Abram, respecting the charges for exhibits at the forthcoming Show.

In reply he said there would be six tables in centre of pavilion, 6 feet by 8 feet, the charge for which would be £2 2s each. Exhibits on side tables, there would be no extra charge—only the 2/6 for members ot the R. A. H. A., and 5s for non-members of such.

It was resolved that application be made to the R.A.H.A. to place wire netting around the honey exhibits to protect them from the public.

Mr. Gale suggested the honey pavilion be made a special opening after the show opening, and that the Minister for Agricultural, the chief Inspector of Schools, Dr. Morris of the Technological College, and other influential persons be invited to take part.

It was moved and seconded that the annual Convention be held at the time of the Show, on Tuesday and Wednesday, the 17th and 18th April.

R. P., Garland:—Things are not booming here just now, the honey flow at best being below fair and very patchy and irregular at that. Doubtless this is in a great measure the reason that I find so much difficulty in requeening my hives. In most cases queens introduced have been balled or killed outright. Nearly all queen cells that I have put into full colonies have been destroyed, even in protectors, and those that were allowed to hatch were killed, I believe, at the time and on account of disturbance made in giving frames of young brood, and several hives have torn down their own cells more than once. I have had no trouble in hatching queens and getting them fertilized in nuclei, and when the disaffected hives have become

very weak they have accepted queens. Some time since I obtained some Cyprian-Italian queens, and the strain is now in most of my hives, and I am very much inclined to blame them for a very large part of the trouble, and would like to know if it is the general experience to find a difficulty in re-queening such. The trouble has not varied with the honey flow, but no doubt its irregularity has disturbed their tempers. I have previously succeeded in rearing as many queen cells as I desired under the Doolittle system, but recently, even when honey was coming in most freely, I could not get more than two cups accepted, seldom any, and those that were completed were afterwards built round with comb and almost smothered, in one or two instances quite. During the last week or so I have tried introducing on the following plan: I cage the queen to be introduced without food or bees for half-an-hour, and then simply let her go on a comb belonging to the hive I wish to give her to, and notwithstanding that honey is now scarcer than at the time of my former failures, I have had no trouble this way either with hives that had refused all previous attempts or those that had been de-queened but 24 hours, being strong evidence I think, in favour of Mr. Doolittle's idea that the queens are often to blame, for after having been starved, as stated above, a queen seems to have but one idea, namely, to fill herself with honey. In one of my hives I find stray cells amongst healthy brood, capped and otherwise, in which the larvae have turned into a dry, hard, dirty white substance, attached with white threads like fungus roots to the side of cells or rather cocoons, which all come away together when pricked out. Can you tell me the cause of this?

[Same as we had two years ago. See Mr. Beuhne's letter elsewhere—"Excessive heat."]

A lot of very valuable copy held over to our next.

A TIMELY SUGGESTION.

BY TWO SHILLINGS AND SIXPENCE.

As a member of the abortive Victorian Beekeepers Association, (demised during the last two years) I would like to ask through these columns, what has become of the £7 balance in hand? I heard that Mr. Chambers intended calling a meeting of members to place this balance to the best possible use, last June.

Judging by the breakneck speed he works his meetings, the intended meeting will probably take place during the June of the year 2199, and will be attended by our great, great grandchildren. As it would be impossible for me to be present in body at that meeting, I would suggest to the secretary, that he convene a meeting to be held at the same time as the projected Beekeepers Convention by the Silk Wormers, in April or May, whichever month is decided upon, so that we can vote the money to the Bushman's Fund, the Charities, or the Worms. Of course we might raise a monument with the balance, in honour of the indefatigable Secretary, and inscribe words of pathos and beauty to his memory, but I "ha ma doots."

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