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West Maitland, N.S.W.: E. Tipper, November 30, 1907

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THE AUSTRALIAN Bee Bulletin.

A MONTHLY JOURNAL, DEVOTED TO BEE-KEEPING.

Edited and Published by E. TIPPER, West Maitland; Apiary, Willow Tree, N.S.W

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NOVEMBER 30, 1907.

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 Francis M. Collier, Port Pirie, South Australia.

THE yellow box honey-flow is on. We have had no swarms yet, due, we presume to our system of putting on supers early, cutting out all drone cells with larvæ in, and extracting before the combs were too crowded with honey.

The English Market.

Intelligence Department,
 Corner Phillip & Bridge Sts.,
 Sydney, N.S.W.,
 30th October, 1907.

Dear Sir,—

I have to acknowledge receipt of your letter of the 29th instant, and to thank you for the interest taken in the question of submitting samples of honey with a view to opening up a market in Great Britain. Your idea of publishing the matter in the "Australian Bee Bulletin" is an excellent one, and will, I hope, be the means of rousing interest in the matter with a view to some practical step being taken.

I shall be very glad to receive the sample tin to which you refer, and it will be despatched to the Agent General with any others received.

Yours faithfully,

H. C. L. ANDERSON,
 Director.

E. Tipper, Esq.,
 Editor, "Australian Bee Bulletin,"
 Wallabadah.

Intelligence Department,
 Corner Phillip & Bridge Sts.,
 Sydney, N.S.W.
 18th November, 1907.

Dear Sir,—

The sample tin of honey referred to in your letter of the 29th October has duly reached me, for which I thank you. I shall forward it to the Agent General with other samples which are now coming to hand.

Yours faithfully,

H. C. L. ANDERSON,
 Director.

E. Tipper, Esq.,

Editor, "Australian Bee Bulletin,"
 Wallabadah.

AMONG THE BEES.

SMOKERS AND SMOKE.

A good smoker is a *sine qua non* in successful bee-keeping, but many inferior ones are on the market. Two grave faults are often found. Many smokers are made without any grating, with the result that a cloud of ashes or burnt paper, sometimes red-hot, is vomited out on the poor, unoffending bees, singeing them and tainting the honey. Others have the holes in grating so small that it quickly clogs up, hindering the issue of any smoke at all, so that the bee-keeper loses control of the bees, and frequently evil consequences follow. Many of the smokers sold are mere toys, and prove traps to the unwary. Such are worse than useless in an emergency. Others are so stiffly constructed that they can scarcely get up steam, and prove a heavy tax on the muscles, especially when they have to be worked with one hand. Quite a number of the cheaper ones have no guards. Consequently they get overheated, and the operator's fingers suffer. A good smoker should have none of these defects, but be capable of pouring a long, strong, steady stream of smoke on the bees. Not that this is generally necessary, as in nine cases out of ten a very gentle puff is all-sufficient. Learners

should not be taught so much the use of smoke as the *abuse* of it. Too much is often worse than too little. I don't think I ever blew a single blast into a hive before opening it, and I feel sad for the bees when I see a bee-keeper blowing away with his smoker at the hive doorway for some minutes before manipulating. Open the hive quietly with jarring, lay all coverings aside but the quilt. Peel this off gently, giving just a mild puff of smoke—not poured at the bees, but softly wafted over the tops of the frames. This renewed periodically as the examination goes on generally suffices to restrain the bees from any overt or aggressive act. Until the summer is well advanced a gentle "zephyr" proves fully effective as a quietener or intimidant. Later when taking off surplus a gentle breeze is needed, but only when driving should a miniature hurricane be blown into the hive. Strong, malodorous blasts when taking off sections taint the honey with the fumes, and honey is so very sensitive to any strong odour that it imbibes and retains it for a long time. Although not dealing with carbolised cloths at present, it may not be amiss to repeat that they, when too strongly impregnated with carbolic or any kindred intimidant, very readily taint surplus. Great care should therefore be taken not to have the solution too strong or the cloth overcharged, as in either case the honey is almost inevitably bound to suffer in flavour and aroma. Many kinds of smoker fuel are very pungent, and pour out a heavily smelling cloud of smoke, which clings to the honey, marring its delicate and luscious bouquet, and at times making it assume a nauseous taste, highly objectionable to a delicate and sensitive palate.

Next to being provided with a good smoker, and knowing how to make a good use of it, comes the question of the best combustible to use. Nothing is more provoking when in the middle of some delicate or dangerous manipulation than to find, at the most critical moment, that

the smoker has gone out, and that we are left at the mercy of the bees, who may be in a most militant mood. See to it, then, that your smoker fuel is ready beforehand, and that it is a kind which burns well. Soft grey or brown paper, dried well in the kitchen oven before using, generally serves the purpose very well. Avoid thin, close-grained, hard-pressed, or glazed paper, as all these burn slowly, go out very readily, or even fail to keep alight. All paper made of soft, woody fibre, if loose and porous, should burn well and experience soon guides the eye to select the best. Corrugated packing-paper gives a splendid blast. Being, however, very porous, it absorbs moisture readily, so make certain it is thoroughly dry. Any kind of paper almost will serve the purpose if soaked in water in which saltpetre has been dissolved—about 1oz. of saltpetre to half a gallon of water. Dry the paper thoroughly and preserve carefully. Should the solution be too strong, and the roll of paper burn too quickly, it can be cured by inserting a sheet of common brown paper, thus making the cartridge of two layers. These prepared rolls never go out, consequently the smoker is always ready in an emergency. Rotten wood, planer shavings packed firm, rough tacking, peat, pine needles, cotton or woollen waste with a sprinkling of oil, are all suitable for fuel. Where they can be had, fustian, moleskin and corduroy equal to anything that can be used, and act best in the dirty, unwashed state of old, worn out garments. Puff-ball or fungus well dried was at one time much used, but it stupefies the bees, and strong tobacco acts in much the same way. Perhaps old, worn-out quilts coated with propolis may be classed in the same category, although with a vicious lot it may come in handy. They are certainly intimidants, and subdue the bees. It is only in very extreme cases, however, that this is necessary, because it is not an intimidant, but a quietener that we want. In nine cases out of ten we simply want a controller. Bees at swarming time are

gorged with honey. A puff or two of smoke gently wafted along the frames sends the bees to their cells to sip a little honey. Then, thus pacified, they are amenable to discipline, and submit to be overruled by their owner's tender and gentle handling.

When handling frames, &c., the smoker must stand with the nozzle up, and it will continue to emit a steady stream of smoke, ready for an emergency. If burning too quickly when thus placed, lay it down flat, and it will burn more slowly. If turned with the point of the nozzle in the ground, or the hole shut with a small wooden plug, it will burn very slowly, and ultimately go out.

Perhaps of the various smokers on the market, those of the "Bingham" type are the best and most reliable; but then there are pseud-"Binghams," as well as real ones.—D. M. M. Banff in "British Bee Journal."

Does Bee-Keeping Pay?

The question has often been asked by many persons, who contemplate starting beekeeping. The answer is yes, and pays well, better than most out-door undertakings, under proper conditions. It will not do for a man, who has never been strung to rush into business, because there are thousands, who could not keep bees under any conditions; some people suffer so severely from bee stings that it would be impossible. I know persons who have started beekeeping with a few hives, but after a few hours work with them, hands and faces became very much swollen, and there was great pain for a couple of days and nights, so the work had been abandoned for ever. Anyone attending bees must have patience and confidence, and handle them with great care, and be very careful not to kill them. There are also several parts in the State, where the honey is unfit for human consumption, and beekeeping in such places would not pay.

I have seen honey brought to Adelaide, which was nearly black, and tasted so strong of eucalyptus that I had difficulty in swallowing. Such honey has already nearly ruined the English market years ago, and from reports in the daily papers, some of this dark honey must have again found its way to London. In view of the foregoing, the first thing the intending beekeeper should do is to get stung. It's quite easy and inexpensive. Next note the effect. If this is not too bad, the next step should be to examine the class of honey produced in the district, in which he wishes to settle. If this is found to be a clear amber colour, of good density, and agreeable flavour, he could commence operations with confidence, always assuming he begins in a small way, and quickly learns how to manage bees.

Beekeeping will not pay on the following lines: to buy a number of hives, rob them when they are full, and pay but little attention to them at other times; a man must learn how to manage them, how to treat for diseases, and increase his stock up to the carrying capacity of the locality, all of which I think very easy to learn. No one who can stand a sting need be deterred, the main thing is to like the bees, and attend to them out of pure love of them, and not only for the sake of the money to be made out of them.

I was once told I ought to rob the hives, they were too full of honey, I said "it is too near winter, if I took that honey, they would not be able to gather another supply for their wants during the winter months, I think it cruel to rob them now;" my friend, said, "I keep bees for their honey, not out of kindness." The following spring mine threw off an average of two swarms per hive; his died out, so a natural love of the bees goes a long way towards success in beekeeping. Anyone having that love for them, and able to extract a sting, and in a good honey producing district—not

necessarily a heavy honey producing one, but good quality—need have no fear of the result. Careful observations will prevent any disease from ravaging among the bees.

The following calculations may give a rough idea for the cost of starting and working an apiary of fifty colonies for one year, in an average season:—

Debit.			
50 2-story 10-frame hives complete with frames and starters (at 8s)	20	0	0
50 Colonies Italian bees (at £1)	50	0	0
1 smoker (4s), 2 veils (4s), 2 knives (8s), Uncapping can (£1 2s 6d)	1	18	6
4 Frame Reversible Honey Extractors (A. Simpson & Son)	6	0	0
2 500lb. honey tanks	2	0	0
Bee brush and sundries		5	0
16 doz. 60lb honey tins (at 11s 6d)	9	4	0
			£89 7 6
Credit balance	23	10	10
			£112 18 4
Credit.			
10,000lbs. honey at 2½d	104	3	4
150lbs wax at ½d	8	15	0
			£112 18 4

From the above table you can see that after the first year, beekeeping would pay handsomely. I have not debited working charges, or selling charges, because most of work is performed by the apiarist himself.—*Garden and Field.*

"Gleanings" says it will pay beekeepers to give alsike clover seed free to farmers.

Many beekeepers, when extracting, keep hot water in which to dip the extracting knife. We have found, to keep the knife well sharpened, answers quite as well, with less trouble. An Italian is using electricity for the same purpose.



CORRESPONDENCE.

Dear Mr. Tipper,—I do not know whether you have noticed, and look upon it as I do, but to my thinking it is well that you and I, and all other beekeepers in New South Wales, are alive and able to take this stand, or else they will show us what's a rake. The Victorians are now on the way to great things, which ought to astonish all the world.

1st. They are having a bee expert, a Government bee expert.

2nd. They are going to breed bees that don't swarm.

3rd. They bid fair to supply all the world with honey at about 2½d. per lb.—that is if they have enough.

4th. An eccentric mind has revealed that bees from elsewhere are unable to prosper under the changed conditions of food and climate, therefore bees from abroad—except your 'neighbours'—are not to be admitted as prosperous.

5th. They are going to produce a race of bees immune to foul brood, paralysis, and other diseases.

I could worry you with other similar instances, but these mentioned will do for a while.

To the above hypotheses I make the following short rejoinders :

Ad. 1. As several other colonies and New Zealand boast bee experts, there is no reason why Victoria should not have one, if they can pay him; and may be he may yet become the Commonwealth Bee Expert. He cannot do any harm—the beekeepers will see to that, so what harm is there? It is a matter not worth mentioning.

Ad. 2. To prevent nature in its design is a dangerous task, and by no means so easily accomplished as it seems without trying, and I predict that matters will

not be so assuredly attained as expressed. The object is by no means a new one; it has been thought of and acted upon many years ago, yet bees do swarm now and then as they please. If you do not watch them carefully, of course you know it not. And what is to supplement the regular loss? Are you going to use a "breeder and hatcher," when you want to replenish your reduced numbers? Or shall we outsiders supply them? I have not had a swarm this season yet.

Ad. 3. Victorians have been so much troubled with overplus of honey, while bees in other parts are starving, that I have thought how to help them, and now I make my suggestions.

The first is this: As the bees fill or store the honey in the cells, all you want is a manufactured comb or combs in each hive, with a tiny hole at the corner of each cell, and a pipe thereto which ends in a bottle, tin, or 10,000 gallon tank. You see how easy it is. No more need for reversible extractors, ditto hives, or any other manual labour—all you need to do is to smoke your pipe (if you smoke) and if you don't, well do what you like. You will see by the contents in the vessel how the bees are getting on.

Next, I am going to find out whether the cable wires to other worlds—no, countries, I mean, are hollow inside; if not, then they ought to be, and all you need then is to attach them with your tank or tanks, and, presto! off flows your honey! In time I hope to improve on the above, but for a beginner it is not too bad, is it? And with a little more encouragement from Victoria, I hope to become quite an inventor, an expert, may be, and that for their sole benefit, too; but they won't forget me, will they?

Ad. 4. Victorians have now as many bees as they have tree-tops for, so they may ask the Government to provide rabbit—no, bee-proof wire netting or something, so as to exclude all bees from elsewhere to enter into their glorious Eldorado, to prevent them from not being

prosperous. Very kind that, is it not? But beekeepers in Victoria are not objecting to send their bees to anywhere, even if it pays them better to keep them, especially those having the right sort. Of course, they got their bees from abroad, just as all Australia did, but they have forgotten all about that, and that, according to the faddist's opinion, they ought not to have prospered—but they did in spite of it, so much so that they are domiciled all over the continent, besides, I have sent them to all the main islands adjoining, where they prosper also. I have sent them to South Africa. Thus, the Victorian bee expert will have his troubles before him to prove such silly assertion; but if there is nothing else for him to do he might as well have a try, only it will require more than present knowledge to succeed. In the meantime Victorian beekeepers will do as hithertofore—get their queens from me, because they find them useful and prosperous, and that in spite of the bad food and climate, which is said to effect the new comers—just fancy that!

Ad. 5. If only beekeepers had thought of this matter before—how many millions of hives of bees might have been saved thereby it is impossible for me to calculate, that is, if there was anything it is. But there is not, so why waste more time over it. If you believe such hypothesis—I don't, my forty years' practice contradicts them. It does not serve the industry to draw conclusions which have yet to be proved by facts, and thus I go, sometimes, a bit out of my way to allude to them to avoid disappointment. However, they are not all of one—the master—mind in Victoria, as events indicate, therefore, they are best left to themselves just now. In the meantime let every N.S.W. beekeeper do his duty for the industry and themselves.

W. ABRAM.

Becroft.



Mr. F. W. Penberthy, of Elsmore, writes:—I have sold the apiary and freehold right out to Mr. F. J. McIlveen and I believe he will do well with it as he is a man with a vim.

J. W., Glenorchy, Vic.:—I live in the town so I am only keeping a few hives, which is all I can attend to, but I do not cut down the price. I have not sold any under 15/- the 60lb. tin. We have had a very dry spring, no rain to speak of for two months till the last two days, when we had a nice fall.

[Hear! hear! friend Wilson. We wish more would consider their fellow-beekeepers and sell their honey only at a fair price.]

YELLOW BOX HONEY.

Dear Sir, --I received honey safely and thank you. Quite a number have tasted your honey and remark it is excellent. It seems slightly stronger than our Monaro honey. I value it at £28 per ton here. My bees are doing first-class, boiling over with bees, have an excellent prospect, many of my hives containing 8lbs. of bees. My home apiary, all pure Cyprians, 74 hives spring count, and so far no swarms. We have had very dry weather, but there appears to be quite a change on now; about 50 points of rain.

There has been a terrible loss in stock, about half the sheep have died, and no lambs to replace them. Paupong is better suited for stock than anything else.

I am, etc.,

W. REID, SEN.

Honeyvale, Paupong,
via Dalgety, N.S.W.

Comb honey producers are recommended to keep a few extracted honey hives to supply the comb honey hives when at any time the flow slackens.

Concrete blocks, wedge shape, 5½in. high, and 5½in. square at bottom are recommended for placing under bottom boards.

The Story of Honey-Comb.

How it is Built; Why the Cells are Six-Sided; Cross-Section Views of Cells from Comb Built at Right Angles to Glass; the Wise Man and the Fool.

BY EDWARD F. BIGELOW IN "GLEANINGS."

(Continued from page 148 October issue.)

No one is fool enough to claim that a suit of clothes made on a machine is any more "artificial" than one sewn by hand. It is simply economy of labour. Yet hundreds of persons have the incorrect notion that there is a honey-comb made from wood pulp, punk, putty, paraffine, or from material other than wax. I say, "fool enough" advisedly, because a wise man changes his mind (when it becomes necessary); but a fool never. It would not be surprising in these days of sensational journalism and of false nature-stories if one should get the notion that artificial comb honey really exists; but the fool part comes in when a person, totally inexperienced with bees, stoutly and smilingly maintains that there is such a thing as manufactured honey in the comb. I feel sure that the inimitable fool expression of such a person is the origin of the colloquialism, "The smile that won't come off." No use. Do not argue. It won't come. "Why, I've seen it at the stores Grocer told me all about it—was several cents cheaper. I tried it; we didn't like it as well as the genuine." And then the beekeeper goes away, not a wiser but a madder man, and wonders why the fool-killer doesn't do his duty, and why every one (except the beekeeper) knows all about bees and their products.

It is however, true that there are many interesting problems about comb-building that even the experienced beekeeper doesn't know. To me one of the most interesting of these problems has been the fact that bees carry along at the same time the comb and the storage work in the sections in all stages of progress. If an empty super were put on a colony so strong that the bees "boiled" up into all parts of the super, so that there was

no vacant "standing room" left in any section, one would suppose that the work of comb-building would begin in all sections at the same time, and progress with about equal rapidity. But it doesn't. A few sections in the center will be completed before work has been started in some of the outer sections, and nearly all gradations may be observed between the extremes. From two supers on a ten-frame hive I selected one-half, that is 32, that exhibited seriatim every part of the progress from the first extension of the suggestive nest-egg starter to the completed fancy section. Another series, almost as well graded, could have been made up from the other 32 sections. Now, why was it that there were not 32 or more one-eighth filled, then one-quarter filled, then one-half filled, and so on gradually, *all* advancing "right dress," and about equally in a uniform line of progress, till all had been brought to completion?

Drone-cells and worker-cells are made from new wax, and are at first of pearly whiteness, which soon becomes yellowish. Queen-cells are made mostly from surrounding comb, so a queen-cell, if just completed, is aged in appearance if on old comb. Almost any material is used, yet not extravagantly. So economical are the bees that they "pit" the cell till it has the roughness of a peanut. This arrangement of material gives greater strength than the same amount would give in a layer of uniform thickness on the principle that a certain amount of material is stronger in a large hollow cylinder than in a smaller one that is solid.

Bees change readily from the building of worker-cells to drone-cells. They seem to have no trouble in making correct adjustments and angles. It is not at all uncommon to see a group of drone-cells near adjoining worker-cells on the same comb. One wonders why the bees change the size of the cells. When capped over for honey, both are of the same height; but when with

brood the drone-cell cappings stand above the surrounding worker-cells. The cappings of the drone-cells are made stronger by six bracing ribs of buttresses. This gives the whole capping a most beautiful appearance when viewed as an opaque object under a microscope. The Cappings of both cells, though extremely thin, are not air-tight. It is wonderful to observe how the bees adapt the comb to the form of the hive, often curving it, and sometimes making it cylindrical. In the arrangement of the several combs of a hive there is wonderful provision for the ventilation of every cell, and for the convenience of the workers in the various departments of labor. What a wonderful coincidence (or shall we say purpose?) is it that honey-bees do not make their cells of paper as do wasps, yellow-jackets, bumble-bees, and hornets! If they did so, the luxury of comb honey would be unknown. Honey-bees place their combs perpendicularly. All paper combs with which I am familiar are horizontal.

FOREST DESTRUCTION.

A SETTLER FINED £600.

The most sensational police court case dealt with in the Warialda district for a considerable time, was heard at Yetman on October 21, by Mr. J. Jamieson, P.M. The result, severe though it may be upon the individual who has drawn swords with the Department, should serve as a deterrent to indiscriminate destruction of timber, not only in this district, but throughout the State. Our readers will remember that at the sittings of the local Land Board in July last, an inquiry was held respecting the conditions attached to an improvement lease of 13,700 acres in the parish of Cox, county of Arrawattia, held by Mr. W. O. Phillips. The Board found that to a great extent timber of the class which the conditions intended to preserve had been ringbarked, and recommended that a fine of £25 be imposed

upon the lessee. We understand that the lessee was not pressed for payment of this amount. Whether the Department, in view of the rapid diminution of useful timber in the State, consider the acting-chairman and his colleagues had not recommended a high enough penalty, we cannot say, but the lessee was subsequently called upon to appear before the Yetman Police Court (the land is in that locality) charged under section 93 of the Land Act of 1884, with having destroyed 6000 trees.

When the case was called, Mr. Mant, of the Crown Law Office, conducted the prosecution, and Mr. Holman, M.L.A., (barrister) was counsel for the defendant.

Mr. Holman took a preliminary objection, that the lease under which Phillips held the area having been granted under Section 26 of the 1895 Act, the provisions of Section 93 of the Act of 1884 did not apply.

The objection was overruled.

Defendant pleaded not guilty.

Evidence for the prosecution was given by Mr. Thorburn, District Surveyor; Mr. Garland, C.P., Inspector; Mr. Moore, Forest Guard; Constable Goodwin and Messrs. Martin and Cordwell, ringbarking contractors. The evidence tended to show that a large number of trees exceeding the number mentioned in the information had been ringbarked by the defendant. Mr. Moore indicated that of every 30 trees destroyed 10 were worth 10s. each, and 10 worth 5s. each, and 10 worth 1s each.

Evidence for the defence was given by the defendant and two other witnesses, one being the manager of the lease. The evidence was to the effect that only a small number of such trees had been destroyed, and that the timber was not nearly so valuable as alleged by the Crown witnesses.

Defendant was found guilty of destroying 6000 trees, and was fined £600, or 2s. per tree.

In announcing his decision, the P.M. pointed out that he could inflict as high as 10s. per tree, and that the minimum was 1s. per tree.

Defendant was allowed 28 days to consider his position.—*Wairialda Standard*.

IMPROVED SWARMING METHOD.

Upon this subject Mr. Geo. W. Rich, in "Bee Culture Gleanings," writes:—"I believe the best method ever advanced is the Alexander plan, which I have tried, and it works to perfection, but it increases to one more colony, thanks to Mr. Alexander for this plan, for by trying this I have succeeded in controlling swarming, and also preventing all increase. Here is the plan: You proceed at first exactly as Mr. Alexander directs, by removing the old hive body, and place on its bottom a new body filled with frames of foundation or empty combs. Remove the middle frame, and from the old hive take out a frame with brood. Be sure you have the queen on this, and place it in the new body (put the frame removed from the new hive into the old); put a queen excluder board over, and set the old hive on. In six days examine the old hive above the excluder, and remove all queen cells. On the 16th day almost all the brood will be hatched; so place this hive at the bottom again, but take the queen from the new body and place her in the old body. Put on the queen excluder, and then a super with full sheets of foundation (as the bees are used to storing honey above they will go to work in the super); place the new hive on top of the super. In six days examine this new hive on top and remove all queen cells, and on the 16th day again remove the top hive to the bottom and place the queen in it; and now the old body, which has been on the bottom, place on top of the one you put the queen in; but leave off the queen excluder. Put on the super and add as many more as needed. Watch your bees in early spring, and when they begin to

prepare to swarm, then make the first change, and by the time the last change is made they will have no desire to swarm. By this plan the queen has been laying all the time. You have increased to more bees than if they had swarmed, and all in one colony. No increase."

NEWS.

We take the following from the "New Zealand Farmer." Will some of our older Australian beekeepers have a say on it:—

NEW ZEALAND HONEY ON ENGLISH MARKET.

A New Zealand beekeeper has just published the results of a shipment of honey made by him to England of 117 cases. The cases contained on an average 124lb., the total being 14,508lb., for which he obtained 5½d per lb.; total, £317 7/3. The expenses from Christchurch, including everything to the town of delivery, situated in an inland English county, amounted to £26 4/5, leaving a net balance to the shipper of over 4½d per lb.

Children attending schools in the Wanganui district are given instruction in beekeeping, and according to information that Mr. F. Pirani possesses beekeeping is a far more profitable occupation, at the present price of honey, than dairying.

High Court of Justice.

SPARENBORG AND ANOTHER V. BARNES.

This was an application by the plaintiffs for an interim injunction to restrain the defendant, John Nathaniel Barnes, from keeping bees at his premises, Braeside, Foxley Lane, Purley, in the county of Surrey, in such manner as to cause a nuisance to the plaintiffs as owners and occupiers of the adjoining land and premises on the north side and north-east of defendant's premises. It appeared that in September, 1905, the plaintiff Sparenborg purchased from the defendant a plot of ground at Purley, on which he built his residence named Winsome.

This plot was close to defendant's garden, where the bees were kept. According to an affidavit by one of the plaintiffs, the hives had increased in number from one to ten. They contained on an estimate half a million bees, which were a source of danger and annoyance to persons using the plaintiffs' garden. According to an affidavit filed on the part of the defendant, the plaintiffs knew of the existence of the hives from the first. Only six of the ten hives were full, and the bees were good-tempered.

Mr. Beebee, who appeared for the plaintiffs, submitted that the bees were a nuisance. It was not denied by the defendant that one of the plaintiffs had been stung. A bee might be entitled to its first sting.

Mr. Justice Parker.—It can only give one sting.—(Laughter.)

Mr. W. Saunderson (for the defendant).—There have only been five stings in two years, so that the damage done is not serious.

Mr. Beebee.—The defendant has recognised that it is dangerous, for he has offered to raise an 8ft. hoarding to keep the bees out.

Mr. Justice Parker.—I cannot restrain the keeping of bees at this time of year. The trial of the action can be expedited. The costs will be costs in this action.—“British Bee Journal.”

A NICE NECKLACE.

In the last week in August we made a start for our out-apiaries. To our second drive of some four miles; horse unharmed and left to rove at his own free will. Fire lit for breakfast. On a box under a large tree we sat waiting for the billy to boil. Something tickled us on the back of the neck. Surely the bees were not out then! A cold morning, too! A quiet movement on the land! No, not a bee, but a six-inch lively centipede came on the ground. He won't travel in undesired places any more.

CAPPINGS.

We have never had a strong colony of bees backed up with a hive full of worker-brood fail to give us a good surplus.

Don't spend any time in worrying over the frequency of poor seasons, but spend your time in preparing your bees to make the most they can of any kind of season that comes, then you will be almost surprised to see how few poor seasons there are. We have not had a really poor season in 25 years, while some of my neighbours complain of a poor season nearly every summer.

I will close by saying, before I run off on the subject of wintering, that close attention to all things connected with your bees is the magic word that unlocks the door to success in beekeeping—“Gleanings in Bee-Culture.”

£3, 15s worth of honey imported into the United Kingdom in the month of August.

The British Bee Journal reports:—The honey season in Scotland, the past year almost a total failure. A slight flow in August, but not enough to give stores to last over winter.

The resolution to regulate the production of amateur beekeepers is a move in the right direction. Such resolution ought not to become necessary, but perhaps it is better to have something which is only part bad than have something saddled upon us and our industry which is decidedly vicious. A few days ago I was wondering why the grocery men could not get up some organisations and periodicals to entice every loose individual into keeping a store, by holding up all its shining sides and obscuring all its difficulties. Some real estate capitalist who has a lot of empty store buildings he would like to have occupied to engineer the scheme.—C. W. Dayton in “American Beekeeper.”

The South Australian Government assists the exportation of honey by giving 1d. per lb.

CAPPINGS.

FROM DIFFERENT SOURCES.

REQUIRING COMMISSION MEN TO GIVE BOND FOR THE FAITHFUL PERFORMANCE OF THEIR DUTY TOWARD CUSTOMERS.—The State of Washington is making an experiment which will be watched with considerable interest in all parts of the country. A law was recently passed by the Legislature of that State, compelling all commission houses to file a bond. Houses not rated at more than 20,000 dollars have to put up 3000 dollars for the faithful performance of their duty toward those who ship goods to them. Another provision is that an account-sales must be sent to their shipper within 48 hours after the receipt of the goods.—“Gleanings”

In Switzerland there are two bee papers, Belgium has six, and one in Flemish, Netherlands two, Germany and Austria thirty, France quite a number and including an edition of Gleanings.

We acknowledge receipt of Catalogue of Beekeeper's supplies issued by Dadant and Sons, Hamilton, Illinois, U. S. A., also from the U. S. Department of Agriculture, Bureau of Entomology of Report of the meeting of Inspectors of apiaries, San., Antonio, Tex., Nov. 12., 1906.

Dr. Miller and some others are recommending cleaning fingers of honey by rubbing them with earth. We ourselves would prefer a damp rag kept handy.

When sending honey away in quantity we have a tank that will hold 14 60-lb. tins with a couple of ridges along the bottom. The tins are rested on these ridges and then water added till within 4 or 5 inches of top of tins. A fire is placed under, and the water left till boiling. The honey gives off the candy, and remains so.

Damp weather is said to be inimical to the increase of bee moths.

There is no need to multiply words setting forth the luscious character of honey as the most delicious of all sweets to tickle the palate or tempt the appetite; nor to speak of the desirability of a plate of snow-white comb honey to set off the table when company comes. But there may be need to urge its importance as a wholesome article of food. Every person consumes an average of 65 pounds of sugar annually, an amount which the doctor's tell us makes so strong a draft on certain organs to prepare the sugar for proper assimilation that there result disorders of the stomach and intestines, and in some cases that dread scourge, Bright's disease of the kidneys. No such change is needed in honey; it is already converted, so as to be ready for immediate assimilation. The craving for sweets is natural to a child and it is better to satisfy it with wholesome honey than with poisonous candy. Ask him whether he prefers the honey or the butter, and see what he will say. And yet, a pound of honey will cost only half as much as a pound of butter, and will go as far.—Exchange.

JAPAN.—According to the Rhein. B. Ztg., Japan has an apicultural institute in the capital, Tokio. The regular term lasts three months, after which time an examination has to be passed by the students which are largely girls. Books, queen bees and apicultural implements are furnished the students half price. There are also many societies established who purpose it is to disseminate knowledge of apiculture. The books contain matter borrowed from European works principally.

A writer in a contemporary says:—With 1½ in. spacing we get great fat combs of honey, and then we run our uncapping knife deep, cutting the comb clear down even with the frame, and there is rarely ever a comb so uneven but the knife will uncap it the first time over. It is possible to uncap much faster, and there are fewer combs to handle. I do not think it would be

putting it too strong to say that two ten-frame upper stories, with eight combs in, can be uncapped as quickly as one with ten frames, and then the eight combs can be extracted in one-fifth less time.

[With ourselves while in the brood chamber of a ten-frame hive we put 10-frames, in upper boxes 8 and 9 frames is sufficient. It gives room and fat combs.—Ed.]

OLD IDEAS ABOUT BEES.—In olden days it was considered unlucky to purchase bees, and many of our forefathers would not on any account accept any coin or coins in exchange. A species of barter, however, seemed to prevail, and some other commodity was graciously accepted in lieu of a swarm or hive of bees. Carrying bees over running water was of old considered to militate against their future well-being; so, instead, long journeys were undertaken in order that this "feat" might be avoided.—Exchange.

With us the yellow box flow has not been a bad one. It has kept us fairly busy. During the month we have had occasion to visit one or two towns in our northern N. S. Wales. In both instances the trouble with the genuine beekeeper has been the small men, who only have a few hives, do not subscribe to any bee literature, and sell their honey at any price their local storekeeper is willing to give them, that price being the one quoted by the storekeeper to the genuine beekeeper as all he can give.

Being myself very susceptible to bee-stings, I have occasion to note that stings inflicted in the height of the season are far more painful than those received in the early spring. Whether the new honey is responsible for the activity of the poison glands I cannot say, but the formic acid is evidently produced for the double purpose of defending the bees' stores and helping to preserve them, and may, for aught we know, be used directly by the bees themselves for application to putrid brood. The development of vital force above referred to enables the bees to withstand the disease themselves, and

the access of energy encourages them to clear out foul brood material from the combs to the outside of hive, where after some hours' exposure to direct sunlight bacilli and spores are destroyed, this beneficial effect being due to the action of the ultra-violet rays on the oxygen of the air, resulting in the formation of peroxide of hydrogen—a powerful disinfectant—and not to the heat of the sun. A factor which probably aids the bees in their work as scavengers is the greater rapidity with which the dead larvæ dry up in warm, dry weather, such dried-up masses being more readily removed than sticky, ropy material. During a rapid honey flow the bees will clear out as many cells as possible to make room for the incoming honey.—Writer in "British Bee Journal."

At a meeting of the Central Society of Apiculture for France, held June 23, at the society's rooms in Paris, it was decided there would be a smaller crop of honey this year than last, hence it was decided to ask for all extracted honey 1.30 francs a kilo (about 12 cents per lb.), if the honey was in fairly small lots. For larger quantities, 1.20 francs would be considered very fair. All beekeepers connected with the society are expected to abide by this decision in the general interest of beekeeping. These are wholesale prices.

HOW FAR MAY SWARMS FLY.—"Gleanings" says:—We are of opinion that the distance it would go would not exceed three or four hours of flight, or at a maximum of ten miles. The bees of a swarm are usually heavy with honey, and such bees cannot fly very far without exhaustion.

Save the bits of wax and melt them up. Just so much extra profit which is going to waste in entirely too many apiaries.

There are 3,000 beekeepers in the County of Kent, England. In Warwickshire there are 500 on the roll of the B. K. Association, and the income of the same was, last year, £127.

Up to the year 1625 beeswax was used for seals, although a substitute had already worked its way into favour; but the sealing-wax of the present day was not thought of till after the abovenamed year, when by accident (a fire) the combination of shellac, resin and venetian red was discovered by F. Rosseau, of Paris. Since then this mixture has been used for seals and sealing bottles, etc.—“American Beekeeper.”

The bee season in the north of Scotland is said to be the worst for 16 years.

The most popular form of selling honey in Texas is in bulk comb.

TOP OF FRAMES.—In some countries the flat cover is recommended, nothing above top of frames. Our plan is a sheet of ruberoid or similar material, not too tight-fitting. That allows ventilation, and warmth for the bees to gather under in winter.

Sweet clover (*melilotus alba*) is a biennial, and it has been considered possible to have it blossom on the same land only in alternate years. By using the yellow variety a crop on the same land can be had each year. In America it is gradually gaining favour. If the seed ripens early that means a crop each year on the same land. Unfortunately it is branded as a noxious weed in N.S. Wales, though said to be a splendid honey plant. Quite a feather in the cap of the yellow variety, even if Colorado be the only State in which it will mature so promptly.—“Gleanings.”

A case is reported of a hive being queenless for a week, yet reared queens from a frame of eggs given them then.

Never stand in front of a hive to manipulate it.

Dr. Muller, in “Gleanings” says:—Leather-colored Italians are mentioned as coming from Switzerland. Strangely enough, a vote taken in the leading Swiss bee-journal showed a general consensus of opinion that all Italian blood should be suppressed and only pure blacks cultivated.

The result of the pure food laws now in sway in the United States is that the people are determined to know what they are eating every time they sit down to a meal.

Any metal changes the colour more or less. Of all tried copper was the very worst. Next came zinc; then clean iron; next, tin; next, rusty iron; and, lastly, common black iron. I had always supposed that copper would be the best metal in which to melt wax, but the sample plainly shows that it ought not to be used—at least, no one would want to chew the sample. Zinc should not be used, as the colour is very dark. I should say tin or black iron would be the most practical, all things considered. When the wax boils up on the hot dry side of the boiler it is quite apt to become darkened. A boiler full of melted combs requires less attention if kept on the edge of the stove so that it boils but slowly.

From my personal observation, I will state that on a person affected with the “rheumatic diathesis,” that is, one in whom the uric acid is already in the blood in excess, a bee-sting could very easily cause an attack of rheumatism by causing the uric acid to crystallize, just as it would from any sudden shock, as cold or severe mental shock.

Some Americans think that on account of the poorness of the honey crop this year, honey will reach a good price. May it be so.

DAIRYING.

Small Farms in Denmark.

Several Cold Country papers lately sent a party of journalists to Denmark to investigate the why and wherefore of the Dane's prosperity; and the “Standard” tells much of what they learnt. Chief among Denmark's lessons is the peasant farmer on the small estate which he owns himself. Of the little country's adult males 46 per cent.

are actual farmers, whose holdings are classified thus:

7 acres and under	68,000
7 acres to 50 acres	121,000
50 acres to 270 acres	51,000
Over 270 acres	2,000

The Dane who can persuade one of these 270-acre "monopolists" to sell him a block can borrow a third of the purchase money from the Government without interest. If he repays that loan he may do what he likes with his land; but he need never repay it all, only in that case he must cultivate the land. Every Danish farmer must breed his new stock from pedigree bulls and boars. His cows and pigs are inspected and tested; if diseased they are destroyed, and if not otherwise up to mark they must go to the butcher. He also has a genuine system of co-operative butter and bacon making, through which he not only sells his produce, but buys his feeding stuffs and other requirements; and he has a system of agricultural education as advanced and much more generally availed of than any other in the world. His country is too small to permit of much else, so he attends strictly to the business of dairy-farming, which he has almost reduced to an exact science. And having discovered these things the Cold Country papers didn't propose that Great Britain should remorselessly burst up its big estates and follow Denmark's example. Such a thing would have offended the House of Lords.—"Home and Farm."

Does Hand-feeding Pay?

When, at periods which have recently been all too brief for the peace of mind of the stock-owner, the producer begins to study the market reports through the eyes of a consumer, the problem of hand-feeding is revived. The land-holder is never faced with a more difficult question. He lays it down that he will not feed on purchased fodder if relief country is available. He will, if possible, shift all his stock, with the exception, perhaps, of

his studs, which it may pay him better to keep within sight even at a heavy expense. But the relief country problem is almost as stiff as that of costly hand-feeding. Relief areas are often indifferent; they offer no certainty. To remove stock is expensive, and so almost every season in New South Wales we have men holding on to flocks which are every day losing the strength necessary for their removal, in the hope that rain will fall. Very often a storm or a steady soaking fall comes along at the critical moment, the situation is saved, and the owner takes pleasure in his pluck, and his confidence. But when the risk is taken and rain does not come, the result is smash.

No rule can be laid down to assist men in their dilemma. Everyone must be guided by his individual circumstances. All hands cannot by any degree of foresight secure relief country, for the obvious reason that it does not exist. And when the dairy-man or flock-owner is in distress it is not kind to preach sermons from the text of fodder conservation. When a man is called upon to decide between letting stock die or buying feed for it, he wants to look well ahead. Of course, it pays to maintain stud animals at almost any cost at all, but ordinary flock sheep quickly eat their heads off when they get to work on bought hay and chaff. The average man begins tardily. He will feed the beggars for a week. That won't break him and rain must come. And so he starts. Rain does not come, and he is after a few weeks in the position of having added a few shillings a head to the cost of his flock. To stop feeding now is to make a bigger loss than if he had made a sacrifice when the grass failed and he probably goes on in the hope of getting his money back. But, as in the matter of shifting the sheep, suggestion is not easy. Whether a man feeds and how long he feeds will always depend more upon individual temperament and financial strength than upon any set principles.

PRICES OF HONEY.

Melbourne Australasian.—Honey.—The demand is inactive, $2\frac{1}{2}$ d to $2\frac{3}{4}$ d for prime clear extracted lines; cloudy or inferior qualities being difficult to place at lower values.

Leader.—Honey.—Prime clear garden samples are selling slowly at $2\frac{1}{2}$ d to $2\frac{3}{4}$ d, and from 2d to $2\frac{1}{2}$ d is the range realised for medium to good grades. Beeswax.—In this section trade is moderately brisk; up to 1/2 is obtainable for really clear lots, medium to good qualities offering at from 1/- upwards.

HONEY.—

Supplies are coming to hand more freely, but with the warm weather, the demand has slackened. Choicest quality is saleable at from 3d. to $3\frac{1}{2}$ d. Dark and strong flavoured lots are selling from 2d. to 3d.

BEESWAX.—

Sales are steady. Dark, 1/3; choice lots up to 1/4.

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Foul Brood and Remedy.

Foul brood is a disease of the brood or larvæ of bees, and to describe the appearance of brood affected with this disease it is necessary to first describe the appearance of healthy brood. If a brood comb is examined there will be found cells with eggs in them, and others containing grubs of all ages from the newly hatched larvæ of the size and shape of the "c" of ordinary print to the large grub completely filling the lower part of the cell. There are also cells, covered over with a cap, which contain brood in all stages from the full grown grub to the young bee ready to gnaw its way out and emerge from the cell. If the brood is healthy the grubs have a pearly white appearance with a glossy and tight looking skin, and the cappings of the covered cells are the shape of a watch glass or at least straight. When foul brood is present some of the grubs will be yellowish in colour, flabby looking and not curled up so much, while the cappings will be flat or sunken, and, perhaps, here and there shows irregular holes. If these cells are opened a brown mass is visible, which when probed with a straw or match is of a gluey or ropery nature. This ropiness or brown matter is the principal means of identifying the disease, and should be looked for whenever the unhealthy appearance of the grubs or the sunken or perforated capping of sealed brood cells gives rise to suspicion. Some of these symptoms, or all of them excepting the ropiness, may, however, be present and yet the case may not be one of foul brood but one of starved, chilled or overheated brood which with the disappearance of the

cause will right itself. The brood of a colony of bees which form anyone of these causes is in an abnormal condition is, on the other hand, very liable to infection, should the germ of the disease (*bacillus alvei*) be introduced into the hive, and it is therefore well to watch for developments and occasionally to examine it by probing any sunken, suspicious looking cells.

Black bees are more predisposed to foul broods than Italians or Cyprians; at any rate, from some cause or other they contract it frequently whilst, on the same spot and under the same conditions, Italians keep free from it. Foul brood is now pretty well distributed all over Australia, with the exception, perhaps, of Queensland, or portion of that State. It is more or less virulent in different localities according to the different conditions of season and food supply or the hereditary constitutional vigor of the race and strain of bees. Practically, the rules which apply to animal life in general in connection with diseases, also apply to bees. Where constitutional weakness, semi-starvation, unsuitable food or abnormal conditions of temperature exist, it only requires the introduction of the germ to cause an outbreak of disease; and in combating foul brood it is necessary to bear these factors in mind, otherwise success in treatment will be merely a matter of accident and cannot be expected with any degree of certainty.

There are three methods of dealing with foul brood, viz:—Destruction, elimination of the disease, and chemical treatment. The destruction of bees, combs, hive and fittings is of course an effective method and where only one or two hives are affected and the disease is of a malignant type it is perhaps the quickest and best method to adopt. It is, however, wasteful, as the bees, wax, hive and frames destroyed have a value of from 10s to 30s, and the utter destruction of the diseased colonies is no guarantee against the appearance of the disease in other and new hives even though all

hives, healthy, as well as diseased, are destroyed. Destruction, usually brought about by burning the hive, bees and all, after all the bees have returned for the night, is therefore not to be commended, except for an odd case of a virulent nature. The elimination of the disease is effected by removing the bees from the infected hive and combs. Put them in a temporary hive placed on the spot occupied by the old one previously, and leave them without food for 24 to 48 hours but with the exception of the queen allow them liberty. The queen may be caged to prevent the bees swarming out and absconding, or, as they will sometimes do when deprived of brood, entering a neighbouring hive. The cage employed for this purpose should have an opening, covered with a piece of queen excluding zinc such as is used in honey boards which will prevent the queen leaving the cage but will allow the workers access to it. Otherwise the bees are to all intents and purposes queenless and may leave the hive. After the lapse of 24 hours they may be fed with syrup made by dissolving sugar in an equal weight of boiling hot water, the syrup to be given warm (about blood heat) and if there is a scarcity of nectar not till after sunset so as to avoid attracting robber bees from other hives. If a honey flow is on, feeding may be dispensed with. In three to four days the bees will have built some pieces of comb on the bars of wood which instead of frames have been placed in the hive and from which the cage containing the queen is suspended. The bees may now be returned to their former hive which in the meantime has been thoroughly cleaned by being immersed for several minutes in boiling water in which soap and soda has been dissolved, and allowed to dry in the open air. If the same frames are to be used again they should, after the combs have been cut out and boiled down for wax, be treated in the same way. When properly dry the frames are supplied with starters or full sheets of foundation. The

temporary hive is moved aside, the cleaned hive with the frames put in its place, and the bees transferred to it by shaking them out on to a cloth placed in front. The queen may be kept caged with advantage for a day or two more till the bees have again settled down and commenced to build comb. If any comb has been attached to the cage it will be best to transfer the queen to a fresh cage. The comb built by the bees during their stay in the temporary hive is treated as infected and boiled down. If the bees cannot obtain a liberal supply of nectar from flowers immediately after this treatment feeding should be continued for a while, because although they may not be actually starving it is necessary that they should raise the greatest possible amount of brood immediately after being established in the clean hive, otherwise the small number of bees emerging from the new combs after twenty-one days will not be sufficient to replace the old bees then rapidly disappearing from old age. It is not absolutely necessary that the bees should build their own combs. Instead of frames with foundation, finished combs, stored with honey and pollen, may be given from clean hives which have a surplus and as soon as there is brood in these a comb of sealed brood from another hive may also be given them. This will dispense with feeding and prevent the colony declining too much during the first three weeks after treatment. R. Beuhne, in the *Journal of Agriculture*.

POLLEN.

At a recent meeting of the British Beekeepers' Association, a Mr. Hayes gave a reading on Pollen. With regard to the importance of pollen to bee-keepers, it was as well that they should remind themselves of what pollen consisted. Was it not the essence of the plant or tree and its fruit? The roots, the bark, the branches, and the leaves were only auxi-

liaries to the flowers that bore the pollen. This fact demonstrated its importance. The fertilising dust of the flowers, as they were accustomed to briefly call pollen, was, as most present were aware the ovules with a cellulose covering, something like the covering of an egg, the shell. A better name for this dust was pollen-grains, the size of which varied from 1-200th to 1-2000th part of an inch. Of course, to see these grains separately a pocket lens was necessary, or better still, a microscope with a $\frac{1}{4}$ -in. or $\frac{1}{2}$ -in. objective would be of great assistance in studying the shape and size of these grains. Each plant had its own particular coloured pollen. The form of the various grains was most interesting, and many were beautiful, some more or less beautiful than others; and each form and each colour was identical with the tree that bore it. Investigations of this sort formed, in his opinion a good nature-study. The microscope provided the mean of identifying the source and purity of the honey. The bee-keeper from any sample of honey he took was able to trace the origin of such produce by recognising the pollen-grains, which, as already explained, differed in size and shape and colour according to the plant from which they were obtained; thus he was enabled to say from what source his honey was derived.

He had mixed artificial pollen (pea-flour) to the extent of a $\frac{1}{2}$ lb. packet with a tablespoonful of honey and sufficient syrup to make its consistency like that of good thick cream. He then took an empty comb and ran the liquid into the cells, afterwards placing this comb on the outside of the brood-nest. He found the bees very readily cleared the mixture out, and took the contents into the interior of the hive. He had also fed them with the same mixture made into a firmer consistency on the top of the frames, but they had not taken it quite so freely as they did from the combs.

Each plant bore its own particular kind of pollen, which differed as to size, form, and colour according to the source from which it was derived; and a study of all this enabled anyone to trace the origin of the honey. For instance, take pollen from hawthorn or lime or clover, whichever was prevalent in a given district, place each under the microscope, and observe its characteristics. Then take a honey sample, place it in a glass, stir it up, and leave it till the pollen-grains settle at the bottom; then with a pipette put these on a glass and examine them under the microscope, when the different grains from which the honey was gathered could be compared with the specimens taken direct from the plants, and identity established.—“British Bee Journal.”

HONEY BOARDS.

These are almost a necessity to the man who is producing comb honey in a large way. The prevention of brace combs is a very great saving to both the beekeeper and the bee.

In 100 colonies the comb built and honey stored between the sections and the top of frames amounts to no inconsiderable total, and, although not entirely lost to the owner, is a matter of very great inconvenience and loss of time to him, when such time can ill be spared. When removing racks where brace combs have been built, these are of course, torn away, and a long stream of honey is pouring out on everything around from the bottom of the rack as it is lifted off. If robbers are about they are soon doing a lively business.

They and the bees in the hive are soon fighting over the honey laid bare on the frame tops, and before the hapless owner can get the mess cleaned up the whole place is an uproar.

Smoke as he will he cannot drive the poor honey-daubed bees down, and is forced to mix up bees, honey and all in the cleaning up process, while his hands, tools and everything about are likely to

get stuck up with honey. Then the sections and the rack all have more or less comb and honey sticking to them, which takes a lot of time to clean off. All this honey would be much better stored in the supers, and this desirable result can be obtained by use of a suitable honey board. A frame is made to fit exactly the top of hive, and to this is nailed slats $\frac{1}{4}$ in. thick and spaced $\frac{3}{8}$ in. apart. The frame itself should be about $\frac{3}{8}$ in. thick, so that when the slats are nailed on and the board is placed over the frames there is a bee space between the slats and top of frames all over, so that bees have free range between them. The slats must be only so wide that the $\frac{3}{8}$ in. space between them will come directly over the centre of top bars of frames, the slats running parallel to top bars. When on the hive one should be able to see only the centre of top bar of frames, between the slats which cover over the space between each top bar, but still allow space for bees to come up. Brace combs will still be built in this space under the slats and between top bars, but not above the honey board, and the sections will come off as clean and free from comb as when they were put on. I have not found that this arrangement prevents bees from coming into supers in the slightest, and if left on the hive no better winter passage could be desired.—Writer in the “Irish Bee Journal”.

Russia is said to lead the world in encouraging tree planting, and training its youth.

The “British Bee Journal” says;—Mr. T. Stapelton, Gwinear, Cornwall, is of the opinion that the Isle of Wight bee disease is identical with an outbreak which occurred in his apiary about 1904. He cured it by wedging the hives up on all four sides, thus giving abundance of air, and this treatment succeeded in every case where adopted early enough. His experience leads him to believe that it is a foul air disease.

Pure Cyprians.

I do not know if it is right for one like me to call Father Abram to account. Re his remarks on Page 150, in last issue of "A.B.B.," he writes: I wonder if they are true pure blood, or only by name. Dear Father don't worry any longer about that. I have had three imported queens from an apiary of 200, and have another on its way out to Australia. I have bought those queens in good faith, and find there is more money in them as honey-bees than any other race I have tried. They are true to colour and marks. Father Abram remarks: Practically it does not matter as no European or American beekeeper advocates them unless for sale. Will Father Abram answer this: Is it necessary for American beekeepers to keep 200 Cyprian beehives for the sake of selling queens? Would it pay me to keep 100 hives of Cyprian bees for the sake of selling less than 200 young queens annually, seeing I draw my living from the sale of my honey? Nothing like that, Father Abram, I sell my Cyprian queens with just as good faith as you do your Italians. It is quite possible that Cyprian bees would thrive where Italians would fail, and it is quite possible Italians would thrive where Cyprians would fail, I have no proof on either side. I could just as easily say that the greater number of the Italian beekeepers prefer the old black variety of bees; I must admit there is no comparison here. Now, Father Abram, I am quite willing to term you as a father beekeeper, always read your letters in various bee and other papers with profit, and thank you for same. You are running Italian bees believing them to be the best; I am running Cyprians believing them to be, at least, the best in some localities. I can afford to leave our fellow beekeepers to judge for themselves without saying no European or American beekeeper advocates them.

W. REID, SEN.

Honeyvale, Paupong,
via Dalgety, N.S.W.

THE BEE WORLD.

The Americans are noted for doing things on a big scale, and it holds good in beekeeping as well as in other matters. The following are a few of the many extensive beekeepers in the States with the number of colonies owned by each:—

	Colonies.
M. H. Mendelson, California	1700
J. H. Flory, California	.. 1600
Willie Atchley, Texas	.. 1600
Bert Hopper, Colorado	.. 1500
L. E. Mercer, California	.. 1500
W. H. Laws, Texas	.. 1300
R. M. Spencer, California	.. 1200
C. B. Howard, New York	.. 1000
M. A. Gill, Colorado	.. 1000
J. F. Macintyre, California	.. 1000

Giving a general average of 1340 colonies.

There has lately been some correspondence in the "British Bee Journal" on the question of profits in beekeeping, and a contributor has collected a few statements from prominent American beekeepers. He says:—"At times we hear 'grumbles' that bees do not pay. Here are some low averages. Mr. Alexander says:—"About five dollars per colony, spring count, clear of all expenses, is a moderate estimate of the profit from the business." Mr. W. L. Cogshall, one of the most extensive beekeepers in the world, estimates he would be 'well satisfied with an average profit of two dollars.' Mr. Root, in his 'ABC,' estimates that 'in a locality not overstocked the annual income per colony clear of expenses will be three and a-half dollars.' We in this country generally count on a very much higher profit, yet I am by no means certain but that anything from 10/- to 20/- would be very near the mark in taking, say, the average yield of a whole county over a series of years. Even thus beekeeping pays." Those who have seen Bulletin No. 18 on bee culture, by Mr. Hopkins, will note that his estimate of the profits from a well-conducted apiary, "from 17/- to 20/- per colony," is about the same as given above.—"New Zealand Farmer."

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