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West Maitland, N.S.W.: E. Tipper, June 29, 1907

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A MONTHLY JOURNAL DEVOTED TO BEE-KEEPING.

Edited and Published by E. TIPPER, West Maitland; Apiary, Willow Tree, N.S.W.
Circulated in all the Australian Colonies, New Zealand, & Cape of Good Hope.

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JUNE 29, 1907.

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In Cuba the best price for comb honey is 7c. per lb.

£3,923 worth of honey imported into Great Britain in the month of March.

It is estimated some 500,000 colonies of bees are annually brimstoned in Germany.

In Illinois there are 2450 beekeepers with an average of 23 colonies each, or 56,350 colonies.

In England amber Jamaica honey is quoted at 5 cents per lb.; fine pale, 6 cents; finest cream white, 8 cents.

There are probably 500,000 beekeepers in the United States, not one-tenth of whom are supposed to take a bee paper.

The census reports for 1901 show that there are in Ontario 116,403 colonies; in 1891, ten years previous, the number was 146,341.

Spain, with 1,690,000 hives furnishes 19,000 tons of honey out of 80,000 said to be the world's yield. Germany, with 2,000,000 produces 20,000 tons of honey.

For the past three years the honey business has been on a decline in Cuba on account of bad seasons. There are not half the bees now in Cuba there were three years ago.

The capital invested in Ontario in 1901 was given in round numbers as \$800,000 with a revenue that year of about \$300,000, and a product of about 2,500,000 pounds of honey.

Mr. Hopkins of New Zealand says that bees do not injure plants by carrying off the nectar, which is of no more use to a plant than sweet is to an animal.

In our yard, between business place and printing office, on one side of it we had 14 hives of bees. People were constantly passing within a few feet of them, yet they seemed in no way troublesome or affected by such passing.

The beekeepers' department of the Gould, Shaply and Muir Co., of Canada, who issued the "Canadian Bee Journal," was destroyed by fire on Feb. 11. As a consequence the business was disposed of to Messrs. Ham, Nott & Co. of the same city.

PUBLICATIONS RECEIVED.

"The Native Companion," an Australian monthly Magazine of literature and art, at 49 Elizabeth St., Melbourne. The proprietor, Mr. T. C. Lothea, offers £100 for the best novel. The issues to hand are very readable.

Catalogue of Beekeepers' Supplies by Dadent & Son, Hamilton, Illinois, U.S.A.

"Hoard's Dairyman," published at Fort Atkinson, Wis., U.S.A. It is one of the best agricultural publications we have come across, and seems to have a fair share of Australian correspondents and subscribers.

"Commonwealth Beekeeper," edited by Mr. W. L. Davey. It is nicely got up, and has some good original articles.

We acknowledge receipt of circular from Luigi Simoni, successor to Miss E. Bianconcini, Livorno, Leghorn, Italy. He is sending out queens from April to September at 15/- each. We would call his attention to our advertising columns.

YOUNG MAN (Experienced Apiarist), open for engagement for Coming Season, or would work an Apiary on Shares in any district. Apply to "APIARIST," c/o E. Brewer, Finch Street, Beechworth, Victoria.

Native Beekeeping in East Africa.

BY F. GREINER IN "AMERICAN BEE JOURNAL."

Saeuberlich, a missionary, who has been among the negro people of Africa for 18 years, tells in "Die Biene" what he has observed during these years in regard to beekeeping. The following is an extract:

The African bee is very light in color and slightly smaller than the Italian, and the brown or German bee. As to the stinging propensity, it is about on a par with the latter.

The kind of apiculture I am about to describe is probably nearly as old as the hills. The son learns from the father, and nothing new is added. As in other parts of the world, hollow trees are favorite places for bees to build their combs. The trees being large, and the timber hard, it required much time and expenditure of labor to obtain the sweet, particularly as the negroes' tools are very inferior, consisting only of a small axe tied to the helve with a piece of rhinoceros skin.

Although the negro does not economize in time, yet he must have come to the conclusion that it would be an advantage to furnish the bees such hives as would make it easier for him to secure his harvest. Advanced apiculture, therefore, consists in putting out decoy hives, and robbing them when they have become inhabited and are filled.

The manner of making hives is very laborious and the process slow. A saw being unknown, all the cutting is done with the aforesaid axe, and another tool similar to a carpenter's adz, but smaller. The latter is used in hollowing out log-gums, and is made in similar fashion as the axe, tied to the handle by means of rhinoceros or hippopotamus skin.

Soft-wood timbers are naturally preferred by the natives for hive purposes. The logs are cut in 3ft. lengths, then peeled, and eventually excavated or

hollowed out. It requires several days' work to hollow out one hive. At first this work is done roughly, and when in this condition the log-gums are transported to the village. Here they are finished up and made very smooth, inside as well as outside. The cover and bottom are fastened on with wooden pins. It is a most tedious process to work the "boards" out of logs, with the tools described.

A hole about two inches square is cut into each hive for an entrance near the center of it, and then it is ready to be put in some tree, often many miles from home. Each hive bears the mark of the owner, and this may be seen from a distance. It is usually recognised by the natives as evidences of ownership. Some of these "beekeepers" own as many as 200 such hives, of which, however, seldom more than half are occupied by bees.

Two methods are practiced to fasten the hives up in the trees. Some prefer to hang them up by means of ropes; others select a favorable spot on two stout limbs, then pin the hive to the tree.

In the putting up of these hives care is taken so to fasten them that neither wind nor quadruped animals can upset them. A certain four-footed animal, the size of a ground-hog, or larger, is very eager for honey or wax, and is apt to visit these hives. As expert climbers it is an easy matter to reach them. They will then upset them if they can, and help themselves to the broken comb, then on the ground. The natives seldom place more than two or three hives in one tree, generally only one. This work is done in September or October.

Towards the end of October the rainy season commences, and soon the ground is covered with grasses and flowers. The honey season is at hand. Usually the rain occurs at night. There is neither cold nor winds, and the bees work 12 hours uninterruptedly, day after day. After the beginning of this honey season we can see swarms of bees going over our heads every day. Occasionally the

attempt is made to hive a swarm, but only about one in 20 will stay. It is difficult to say why this is so.

With the beginning of January the real honey harvest commences; it lasts till July, and immense quantities of honey are stored by the bees. The natives never "tackle" a bee-hive till after sun-down. A bee-hat is unknown among them; it would be useless, anyway, as the face is only a very small part of the vulnerable portion of their bodies. When robbing the hives a torch-light is used, and a large portion of the bees are naturally burned. In consequence many a colony is thus totally ruined. The majority of hives are lowered to the ground by means of ropes before robbing them, and put up again afterward.

When the more distant hives are to be (mal) treated, caravans of from 10 to 20 men and women start out and are many days on their way. The combs are mashed down and put up in barrels and bags, consequently the honey contains many impurities, dead bees etc. The barrels are of wood, covered and bottomed with buffalo skin. The bags are made of goat-skins, which have seen long use as bedding previously. Receptacles for honey are never washed. It would be contrary to the common uses.

Much of the honey is made up into wine, of which the native is very fond. The men who climb the trees to obtain the honey from the hives are often well under the influence of this honey-wine, when doing the work, and it is no rare occurrence that some of them, on this account, have serious accidents happen to them by way of falling, breaking their limbs, etc.

LADY, Strong, quick operator, big experience, wishes position Apiary. Capable taking entire management.—L. M. D., c/o J. Edgar, Coburg, Victoria.

There are in the United States, 9 men having 1000 or more colonies each; a total of 12,100, averaging 1344.

✻ CORRESPONDENCE. ✻

J. H. P., Dubbo.—Some eight years ago I lost nearly all my bees, had only a few hives left, and nearly all the bees in this district disappeared. I struggled hard for my 250 hives, but no good. Two years ago I had 28 hives, but no honey. Last year I started with 40 hives, and had a little over five tons of honey. To-day I have 92 hives, and all good. I must thank you for sending the BEE BULLETIN so regularly. I would not be without it. Hoping you have had a good season this year, and wishing you every success with the BULLETIN.

H. V. S., Walcha.—This has been a very poor season for honey here. I don't believe it has ever been worse. Prospects for next summer are fairly bright, Trusting you have had success.

W. R., Paupong—Splendid rain on Monaro. Grand prospect for honey. About 3000 sheep and a quantity of cattle extra at Paupong for grass.

A correspondent from Earlston, Jamaica, writes: I enclose you subscription for the A.B.B. I should have sent this amount sooner, but I had great losses from drought, as stated in my previous letters.

Mr. W. Abram, Beecroft, writes, May 20: I did not have much chance this season, owing to the unfavourable season, but when latterly honey began to come in my Italians gathered almost more than was good for them, that is, they blocked almost all the brood room with honey, leaving but little space for breeding, and I had to give them room. It was too late in the season to do much in upper stories. Of late we have most excellent weather, and if that continues for a while longer it will bring the bees on splendidly, as they breed yet very well. Our homely troubles with sickness are not over yet,

God knows when they will be. Wishing you good health and prosperity. [Mr. Abram has our sincerest sympathy.--Ed.]

S. M. S., Narrandera.—Could you inform me through your valuable paper what to do in the following case. I have about twelve hives of bees I believe to be badly infected with foul brood. Would the foundation plan answer at this time of the year. I refer to the plan of shaking the bees off their frames on to frames of foundation, then feeding them on syrup. I thought perhaps it would be too cold for the bees to make fresh wax. If so, is there any other remedy you could suggest. ?

[In a late issue of the "American Bee Journal," at a meeting of the Canadian beekeepers at Ontario, the great foul brood specialist, Mr. McEvoy, stated he had been called on to examine a number of apiaries said to be infected with foul brood, and found in nearly every case the trouble was *starvation*. [Is it so in your case?] It is too cold at this time of the year for bees to make wax, and I doubt if there is any flow for them to make wax. Feed them well by giving them syrup after dark, so as to cause no robbing. Have the hives marked in the daytime, with space left for frame of syrup to be slipped in. The following is Mr. McEvoy's delivery in the matter:—"Speaking of the kind of dead brood, I meet it every year. Last year all over Ontario and in many parts of the United States there were immense quantities of dead brood mistaken for foul brood, and by many that had it before, and felt sure they knew what they were talking about. It was simply starved brood. After the apple-bloom failed, for a long period before they touched clover, in many places they started brood, and they run out of unsealed stores, and when they are caught like that they will not uncap the old honey fast enough to keep pace with the amount of larvae; the result is death. Part of the brood is well fed, some of it is starved and some does not get enough just before it is capped. Some of them will die under the cappings and some hatch out, and you cut the cappings and it will be recapped. The bees are poorly fed. Every year I have been called out in connection with these cases, and I found no foul brood. For every 4 or 5 cells of foul brood you will find 19 or 20 starved in the comb, and this is what causes mistakes and confusion. They say, "Oh, I have had it before and the bees cleaned it out." But sometimes it is foul brood, and it will clean the yard out, and it is just as well to be careful of what they get hold of. The

bee-yard is no place for a burying ground or a graveyard. But I would advise that you sacrifice your bees by treating the whole yard as dead brood. Let us go to work and feed them, and give them a double shake.—Ed.]

The First and Foremost Modern Bee Farm in Australia.

Epsom, Auckland, N.Z.,

June 20, 1907.

To the Editor "A.B.B.,"

Sir,—Following up my letter of two days ago, Mr H. L. Jones' letter in your March issue brings to mind something on the matter of the pioneer of modern bee culture in Australia, and I was surprised to learn that Mr. J. Carroll was so early in the field. The following is quite fresh in my memory, and if Mr. Charles Fullwood is still alive he would confirm it. In the season of 1877-8, at the request of a large number of correspondents in Australia and New Zealand, I commenced to make and supply *Langstroth* hives made exactly as afterwards figured in my book, and as I am using to-day. Shortly after, I issued a price-list in leaflet form, some of which were sent to Brisbane and fell into Mr. Fullwood's hands. He wrote immediately after and congratulated me on being the first in Australasia to start on the modern system, and in a short time sent me an order for 100 lbs. of comb foundation. We corresponded regularly for a long time, and I supplied him with several lots of foundation, and received a nucleus colony of Italian bees from him. In 1884 he came to N.Z. specially to see me. He wrote me a graphic description of beekeeping in Queensland for the first number of my bee journal, issued in July 1883, and which I embodied in the 3rd edition of my Manual in 1886.

Now, it seems very strange that had Mr. Carroll, as Mr. Jones says, been at the fore-front of beekeeping in 1872 and after, and that Mr. Fullwood who took such a great interest in modern beekeeping, never mentioned his name to me and

should have sent all the way to me for modern appliances. I myself had correspondence with Mr. Carroll, and done business with him, but cannot now say in what year, as most of my books were destroyed when I went out of business.

I cannot dispute Mr. Jones' word, but I feel certain there were no complete modern appliances, such as comb foundation, machines, *Langstroth* hives, sections, queen-rearing gear, and other such like things, out here before I introduced them into Australia and New Zealand (the hives and foundation in 1878-9 into Australia), otherwise I must have heard of them. In the season of 1882-3, and after I had agents in Sydney, Melbourne, Adelaide, Brisbane, and Hobart selling my comb foundation.

It would esteem it a great favor if Mr. Jones could favor me with a copy of Mr. Carroll's little work he mentions.

I am, etc.,

I. HOPKINS.

Sunnyside Apiary,
Minto,

15th June, 1907.

Editor A.B.B.

Dear Sir,—Though I am rather late in writing, owing to a recent illness, I trust you will allow me space to say a few words on Mr. Abram's letter about Mr. Garrett's Glenbrook Apiary. Mr. McDonald was the first to tell me of "A man on the mountain who kept Italian bees." In '86 we heard that Mr. Garrett was the man my brother wrote asking permission to visit the apiary, which was most courteously accorded. We reached Glenbrook Station. Mr. Garrett's son was there to meet us and we were most kindly received and welcomed at the apiary by Mr. Garrett and his sister, and were most hospitably entertained. Everything that could interest an embryo and most enthusiastic beekeeper was shown to us; any information likely to be of use to us most readily given; every question asked, and I assure you, they were legion, courteously answered, and

everything most kindly and carefully explained. Mr. Abram says "and what an apiary!" so say I, what an apiary! The prettiest one I have ever seen. The sweetest little rustic cottage, almost surrounded by about 300 Langstroth hives standing on terraces cut out of the hillside, the faces of the terraces covered with strawberry plants, fruit trees and flowers everywhere, great ugly stumps too large to be removed, converted into bowers of beauty with lovely evergreen vines, on one side a pretty little creek with a concrete dam thrown across it just where it wended its way through a gap in the mountain, and all this, house, hives, garden, dam, and all the work of one man and he an invalid, and a delicate little woman, both of them unaccustomed to manual labour of any kind.

The workshop in which we spent more than an hour both profitably and pleasantly was full of all kinds of labour-saving devices and little inventions that beekeepers delight in.

Altogether I can only say that day was one of the pleasantest days of my life. We fully enjoyed our visit, and fully appreciated the hospitality and courtesy of our hosts. I am glad to say that visit was the beginning of a close friendship, which has lasted ever since without a break.

We heard that day of Mr. Abram's visit for they were naturally indignant at his posing as an innocent *ingenu* who scarcely knew a bee from a blow-fly. Mr. Abram is wrong in claiming to be the oldest beekeeper in Australia, and the first to introduce Italian bees. It is a well-known fact that Messrs. Angus McKay, Fullwood, Peterson, Carroll and Garrett were running apiaries with Italian bees long before Mr. Abram came to N.S.W. Mr. Garrett's bees were leather coloured Italians, Mr. Fulwood's strain, the finest I ever saw.

He is wrong, too, in speaking of young Mr. Garrett as a stranger. He is no stranger to beekeepers in N.S.W. or Victoria, and certainly not to bees, as he

has been amongst them since he was a baby in arms.

I am, dear Sir,

Yours faithfully,

SOPHIE A. BRADLEY.

Beecroft,
20/6/07.

As I am so well known by the fraternity I do not see what benefit the industry can derive from any further controversy of a personal character which Mr. Garrett started, and which refers to incidents of twenty-five years ago, the more so, since I have given you the plain facts in the first instance. If you do not believe my words, why should I make you to believe them? If my action had been so bad, why did not the interested party complain at once, and not wait for about 25 years? I will, however, give you a clear and plain describing of matters at the time of my arrival.

I have never claimed the honor to be the first to introduce the honey bee into Australia. Australia, as you know, did not possess that bee, it was introduced from Europe, and that before my arrival, but it did no good as an industry. When I arrived 26 years ago there were several large bee farms in existence, notably the one owned by a Mr. Dunn, near Enfield, who had a large number of hives of the American style well arranged; another owned by Mr. Childs, near Liverpool, who had them in all sorts of boxes, about 200 in number; and there were many others who had from a few hives upwards, just as Mr. Garrett had at Glenbrook. But what has anyone of them done for the benefit and welfare of the industry? Soon after my arrival these beekeepers were almost beeless, and either gave it up or else let the bees do for themselves, and thus dropped out of existence without doing any good. Not so with me! I succeeded to establish bee culture as an industry. Then, and not before, did I let the public know of the success of beekeeping as an industry! Since then, not only have I written many, many articles of

bees to various papers, but I also aided everyone who applied to me for information and instruction. I gave my knowledge free, willingly and correct. Even now all my writings of many years ago stand good, and subjects which I treated years ago are now revised by others, in different words, but the facts are the same. Therefore I hope and believe that my doings for the benefit of the industry—not for my personal benefit—are so well known that I need not enlarge upon them.

May I ask, then: What other bee-keepers have done as much? What are their actions relative to bee culture? If superior to mine? What if I withheld the information I possessed, as some told me I should? What if I had given uncreditable or unreliable information?

To illustrate the position: Who discovered Australia, Captain Cook or someone else? The same applies to my case. The question is not: Who kept bees before I arrived? but who established beekeeping as an industry? and here my adversaries' arguments are futile, as I not only introduced modern beekeeping, but also bred, propagated and distributed the best honey bee—the Italian I brought out with me.

W. ABRAM.

BEEES AND TIMBER.

HORSHAM.—The Minister of lands (Mr. Mackay), accompanied by the surveyor-general (Mr. J. H. Reed) and land and forestry officers, with Messrs Thomson and Stanley, M.L.A.'s met at Brimpaen a large gathering of those interested in the Crown lands question and the bee-farming industry.

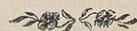
Thomas Dunton stated that the lessees were led to believe that they, when applying for land, had the privilege of selecting 640 acres out of their holding. He presented resolutions asking permission to select 640 acres at 10/- per acre and wished to know whether the intention of the Minister was to reclassify the land.

Mr. Scullin, on behalf of the bee farmers, pleaded strongly that the trees be conserved and the land left in its natural state. He stated that the income of apiarists on the land in question was £1,575.

Mr. Stanley, M.L.A. spoke strongly against the dual occupation.

The Minister stated that regarding blocks K and L, the lessees should still have the option of selecting 640 acres at 10/- but if the remaining part were taken up by relatives it would be subject to revaluation. There would be no restriction as to ringing timber so long as the department was satisfied by bona-fide occupiers. As to the claim of lessees to the other blocks that a promise had been made at the local land board that they also should have the right to select 640 acres the officers denied that such a promise was given, and there was no record of it. He would carefully consider the representations made him before coming to a decision. He would also reserve his decision on the request that lessees be allowed to ring useless timber, which request was objected to by the bee-keepers *Australasian*.

BEEES.—Pure Italian "Queen Bees." Prices for orders received in Australia: (a) During the months of April, May, June, July, August and September 15 shillings each. 11 Queen Bees by "Express" Pounds 7. Sh. 10. Not less than 8 Queen Bees will be sent by "Express" but in Benton Cages, post paid, even an Order for one would be accepted. Payment for Orders to be made in advance. Notice to all apiarists that Dr. Luigi Simoni in Leghorn has succeeded to the old established business formerly conducted by Bianconcini in Bologna. Luigi Simoni, Successor of Miss E. Bianconcini, Livorno, Leghorn, Italy.



PRICES OF HONEY.

Melbourne Leader.—Honey.—For prime clear extracted lots, $2\frac{1}{2}$ d to $2\frac{3}{4}$ d, demand dull; congealed and inferior lines lower. Beeswax—In good demand, $1\frac{1}{2}$ to $1\frac{2}{3}$.

Melbourne Australasian.—Honey: Inquiry a little better for good lines of good quality, $2\frac{1}{2}$ d to 3d per lb. Beeswax— $1\frac{1}{3}$ per lb.

S. M. Herald.—Honey, 60lb tins extra choice extracted 3d, choice $2\frac{1}{2}$ d, prime 2d, medium $1\frac{1}{4}$ d. Beeswax.—Dark $1\frac{1}{2}$ to $1\frac{2}{3}$, bright $1\frac{1}{3}$ to $1\frac{1}{4}$ per lb.

Maitland Mercury.—Honey, 2d to $2\frac{1}{2}$ d. per lb. Small tins 2, 3 to 2/6.

HONEY.—

Stocks are considerably reduced, and there is no difficulty in selling choice quality at $3\frac{1}{4}$ d. Medium lines range from 2d to 3d., according to quality.

BEESWAX.—

This line is plentiful and is slightly easier at $1\frac{1}{2}$ to $1\frac{1}{3}$.

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THE BEHAVIOR OF SWARMS.

BY ADRIAN GETAZ in *American Bee Journal*.

In a previous contribution, I stated that the the Societe des Apiculteurs Du Department de la Meuse had sent its members a series of questions concerning the swarming of bees. The first 21 questions were about the conditions that provoke the bees to swarm. The following questions were in regard to the behavior of the swarms after issuing. These are the subject of this contribution.

RETURNING TO THE HIVE.

About 2 percent of the swarms issuing return to the parent hive almost immediately after issuing. Several reasons may induce a swarm to return, but the failure of the queen to accompany the swarm is undoubtedly the most common. A swarm that returns is liable to issue again either the same day or the following day. Out of 5 swarms that return, one on an average does not swarm again. In such cases there has been a fight among the queens in the hive and one or more can be found dead in front of the hive. The dead queens or bees are never carried more than 4 or 5 feet from the entrance.

DISTANCE AT WHICH A SWARM SETTLES.

Out of 100 swarms issuing with laying queens, 12 will settle at less than 15 feet away; 34 between 15 and 30 feet; 23 between 30 and 45 feet, 21 between 45 and 60 feet; 7 between 60 and 90 feet; and 3 between 90 and 200 feet.

As to swarms with virgin queens, they may go anywhere, even a mile or two before setting.

The next question was in regard to where the swarms settle in preference, whether on trees, on the ground, or in empty hives. Unfortunately, the printers left it out in the blanks sent, so it is not answered. But the one following immediately, and asking how high from the ground the swarms settle (except those settling on the ground) brought out the

fact that half of the swarms settle at a height of 3 to 6 feet, and a fourth between 6 and 12 feet above the ground, the remaining fourth higher or lower.

FORM OF THE SWARMS.

Not considering those that settle on the ground, about 70 percent in settling assume the regular shape so often described the others assume irregular forms.

DIRECTION OF THE FLIGHT.

The direction taken by the swarms depends chiefly upon the position of the hives in regard to the bees, walls, etc., that may be about them. The information given is very indefinite. It seems that the majority of them go right straight from the hives. The figures given seem to show, nevertheless, a tendency to turn toward the sun, that is, toward the east in the morning and toward the south in the middle of the day.

COMMENTS.

In considering the above, and drawing conclusions, the conditions under which the observations have been made must be taken into consideration. The majority of the European apiaries are small and usually established in an orchard or a garden. These are ordinarily enclosed by a wall or a tight fence or a hedge. Outside there is often nothing but the open fields, with no kind of settling place at all. The hives, instead of being scattered, are, in most cases, placed close together, sometimes 2 and 3 rows one above the other upon shelves, a roof on the whole, and a wall behind, leaving a passage between the shelves and the wall. Often there is a special wall, the one enclosing the garden or orchard taking its place. The "rucher," as such an apiary is called, is placed against the northern or north-western wall whenever possible, so as to have the hives turned toward the south or southwest.

As a matter of course, under such circumstances the bees settle on whatever tree or bushes that happen to be in the

enclosure, and if there is none, they have to settle on the ground, or go away perhaps quite far to find a suitable place.

DEATH OF AN OLD BEEKEEPER.

MR. WILLIAM TAYLOR.

On Sunday afternoon last, the 19th of May, the town of Rylstone was cast in gloom when it became known that Mr. William Taylor had suddenly passed away. The deceased gentleman had been at work not many days prior to his death, and seemed in his usual robust health, but complained of feeling a little unwell. One or two of his intimate friends and relatives knew he had not been well for some time. On Monday Mr. Taylor took to his bed and on Sunday last at midday passed peacefully away, surrounded by his immediate relatives.

The cause of death was pleurisy, of which he had a very severe attack, which terminated in heart failure.

The deceased was a native of Rylstone, and had attained the age of 62 years, being born in the year 1845 on a farm rented by his father from the late E. Cox. (grandfather of the present occupiers of Rawden Station).

Mr. and Mrs. Taylor were married in 1866 in the little Wesleyan Church in Rylstone called Zion Chapel. Mrs. Taylor's maiden name was Miss Elizabeth Evans, her native place being Wales, but she was brought up in Oxford, England, from which place she came to New South Wales. Mrs. Clement and Mrs. G. Howe are her nieces.

The family were three sons, Thomas, Clarrie, and Llewellyn (the first two of whom are married) and three daughters, but the daughters died in their childhood. After the death of their daughters, Miss Lizzie Taylor (Sanstrom) was adopted,

and has since been a member of the family, and was highly thought of by the deceased.

The late Mr. Taylor's father died about 4½ years ago, having reached the ripe age of 93 years. He was one of the founders of Rylstone, and always took a great interest in the district. His name is mentioned in the 'Early History of Methodism.'

The deceased was a self educated man, as there were no facilities for schooling here in his younger days, and having a taste for carpentering, was apprenticed to the coachbuilding and wheelwright trade and resided in Mudgee, at which place he was in business with his brother, the late Thomas Taylor, as wheelwrights, etc., for about 5 years. Later on the brothers were in the same line of business in Rylstone, in the shop till recently occupied by Mr. Geo. Johnston, to who they sold out.

In the year 1870, on the breaking out of the diggings, Mr. Taylor made his way to the Gulgong goldfields, returning to Rylstone in 1872. He had a claim for a time on the Three-mile rush.

In his younger days Mr. Taylor was an active worker in various public organisations, and took a keen interest in political questions then claiming attention. When Rylstone was the centre of an electorate and times were stirring, the late gentleman took a prominent part, and was one of the foremost supporters of Mr. Wall, and was a staunch Protectionist. Prior to the great political contest between Messrs Wall and Fitzpatrick in 1895, the deceased had been appointed returning officer and retired from active politics, and one good quality displayed by him was that after his appointment as returning officer he refrained from trying to influence the public opinion. When the electorates (Federal and State) were subdivided he was appointed deputy-returning officer for both. He was also returning officer for the election of Councillors for the first Rylstone Shire. In his public duties he was most painstaking to a degree and on every occasion nothing but the warmest praise was bestowed for the

manner in which his duties were carried out. His modesty always kept any public commendation being known.

The late Mr. Taylor was a Justice of the Peace, member of the Local Land Board, and held the position of Hon. Secretary of the Horticultural Society, this Society owing its present flourishing position to the indefatigable efforts of its late secretary. He was also for 25 years a trustee for Rylstone Common and for many years chairman. In this capacity he rendered the town some of his best services.

The term of pioneer fittingly applies to the late gentleman. At all times he was looked upon as a straight going, conscientious man—one with a kindly unassuming disposition, ready at all times with a kind word for the afflicted and with his brains and purse willing to help towards the advancement of the town of his birth.

The funeral took place on Tuesday morning at 11 am., and was one of the largest yet seen in Rylstone. Residents from all parts of the district attended. It was specially noticeable that the gathering was representative of all the town in the widest sense—Mr. Taylor having friends on all sides.

The Rev. A. Brown, (Methodist) officiated at the graveside, and in addition to an impressive and comforting service, made a few remarks regarding the deceased. He said that though a service had been held in the house on the previous evening, he felt that the large and sympathetic gathering demanded that he should say something commendatory of the man whom they believed in and respected and trusted while he lived. After referring to his public life, which was faithfully lived, Mr. Brown mentioned that when resigning the Coronership deceased received from the authorities a highly eulogistic letter, congratulating him upon his honesty, integrity and efficiency with which he discharged the duties pertaining to that office. He also was a loyal and patriotic subject of the Empire. On the Saturday night, only a day before going

to his bed, he attended a public meeting in connection with Empire Day celebrations. The night being cold, it is thought he contracted a chill; pleurisy supervened, and despite all that medical skill and careful nursing and devoted attention could do, he passed peacefully away on Sunday last about midday. Mr. Taylor was ostensibly a man of peace; the friend of all; the enemy of none. He was also possessed of deep religious convictions—not always discernable by the casual observer, not even manifesting itself along the lines of the ordinary life of religious profession, but seen in his strict observance of God's laws, and the keen interest he ever manifested in all that pertained to the welfare and extension of God's Kingdom on earth. In committing his mortal remains to the ground to-day we do so in the full spirit and belief of our beautiful Burial Service—"In sure and certain hope that the dead in Christ shall rise to Everlasting Life."

Despite the scarcity of flowers, and the fact that many of Mr. Taylor's warmest friends were unable to give expression to their sympathy by floral tributes, the coffin and grave were strewn with flowers among them being a very handsome wreath from the President and Officers of the Rylstone H. and A. Society. Besides the floral tributes there were a very large number of letters, cards and telegrams of sympathy.

FEEDING.

There is no doubt that stimulative feeding is advantageous, especially if it is done at a time the bees have only sealed honey left, in moderate quantity. The honey which has been preserved through the winter is thick, and in order to dilute it properly to prepare the larval food, the bees are compelled to go to the nearest water and bring a quantity of this water to the hive. All bee-keepers have seen the bees pumping water from troughs, around wells, or from marshy

places, in spring. They will go out on a very cold day, when it is hardly warm enough for them to fly about, and will bring some of this cold water to the hive.

It is evidently used to dilute the too-thick honey, for just as soon as nectar is found in the flowers we see a decrease in the number of bees around the horse-troughs. When the crop is well on, this water-transportation ceases nearly altogether, to be taken up again as soon as the crop ceases. The nectar of the flowers is usually sufficiently thin to make good larval food without the addition of water.

Now, many of our practical apiarists save their bees the trouble of transporting this cold water, by giving them a small amount of sufficiently liquid food to fill the requirements. This food is warm when given. Just think of the difference between having to go out in the cold to get water—cold water—and finding this water in the hive, warm and sweet enough to serve the purposes for which it is intended!

Yet the practice of feeding for the stimulation of breeding is not generally followed, and is opposed by some noted bee-keepers. This is because it requires a great deal of care and attention, and in some instances it is overdone. But whether we wish to feed to stimulative breeding or simply to keep the colony from starvation, the fact remains, that feeding is often necessary. Warm food a little thinner than would be given in the fall, and in smaller amounts, is needed in spring feeding. As to the nature of the food, I think diluted granulated sugar is the best—even better than honey—because it has less odor and is less apt to cause robbing. We must remember that the bees have excellent olfactory organs, that the least odor is noticed by them. But they are most attracted by the odor of the product they consume—honey—as well as by the odors of the hive, the smell of old combs, the odor of the queen, etc. So it is of some importance to give them food which does not attract the neighbours, for the colonies

which need the most nourishment are often the least powerful and would be the most easily robbed. On the other hand, if inexperienced people think by feeding sugar syrup in spring we run risk of causing adulteration, they may easily be undeceived. The food given by a careful bee-keeper will all be used up before the beginning of the crop. Otherwise he would have an unprofitable account on his hands. If he is in doubt as to what he should do, let him only supply the bees in their needs.—C. P. DADANT, in *American Bee Journal*.

SECRETION OF WAX.

Many think wax-secretion is a voluntary act on the part of the bee, but I do not. You can feed your cow and she gives milk. Skimp her in feed and she gives less of the fluid. The naturally poor milker will not milk well with any kind of feed or care, no matter how good, nor will the good milker do poorly unless you make it hard for her to do well by allowing or making bad or unfavorable conditions. Milk is a secretion of the cow and she never thinks about whether she will give much or little, good or bad; and no more does the bee use reason and voluntarily secrete or refuse to secrete wax. That swarm with loaded sacs cannot field, and so hang and rest well-fed. While resting the wax-secretion starts; with many of them it was already in full operation because of the abundance of nectar handled, and in extra-good flows, the same loaded condition of sacs before swarming as after; so the next thing is comb-building—almost forced to do it by environments and instinct.

Some have written of strains of bees that put much or little wax in their comb as the case may be, as though it were a voluntary or intelligent act on their part. Is it? There may be strains of bees that by reason of more vigor, or some cause, incline to free or scant wax-secretion just as there are good and poor milk

secreters in cows, whatever caused it in the first place; but this alone does not account for heavy waxy or thin brittle combs. Many times a colony may have in process of secretion much wax, and the flow weakens so that there is not the demand to have comb that would be with much nectar coming in. Then, again, here may be an out-of-balance conditions caused by varying proportion of fielder to nurses. It is perfectly foolish to condemn a certain queen or colony because it has given different results from its neighbor, without knowing and understanding its conditions—the relation of factors. Relation and number of factors make all the difference, and one must decide intelligently or he may behead the best queen he has, and save the poorest one.—R. C. Aikins in *American Bee Journal*.

HOW TO RETARD SWARMING.

I have spoken of the brood-combs getting just about full, so that the queen has limited laying room; and of the activity of the colony, and somewhat uncomfortable heat conditions. Abundant ventilation given at this time will remove one disturbing factor, and will hold part of the colonies, but not all. Give a set of dry brood-combs underneath the old one, and in this one put a comb having a little brood in it—give this at or near the centre. This is equivalent to ventilation, as it spreads the colony as two persons in a warm bed shifting to positions as far apart as possible, or taking separate beds in a hot night. It also gives both store and brood room, and will by all odds control in the great majority of cases. All this should be done *before* any queen cells are started, yet, if cells are building, their removal with the changes indicated will, in most cases, relieve the bees of the swarming fever. But should the colony still show disposition to swarm, they should either be divided, by taking away some of the bees, or some of the brood, or both. The removed part may be

taken clear away, and added to weak colonies, or made into new ones; or the queen, may be put in that added chamber spoken of to go underneath with one comb of brood in it, and over this an excluder or a board with a hole in it, or a super between the two bodies; the idea is to make the brood-nest proper, which the queen now occupies, seem to be poor in both honey and brood, but *specially little brood*. If a board with a hole be used, the hole should be covered with excluding zinc. Also provide plenty of ventilation or shade so as not to "cook" the upper chamber in a hot sun. Remember, too, that drones may clog a small zinc; I recommend the use of regular wood zincslath honey-boards.—*American Bee Journal*.

VICTORIAN APIARISTS ASSOCIATION.

The annual conference of the Victorian Apiarists' Association was held last week at the Federal Palace Hotel. The annual report showed that the work of the association had been hindered by the trying weather in November last, which reduced natural swarming, and left bees backward for redgum and yellow box flowers. Otherwise the season had been good. Regret was expressed that the Lands Department had delayed in granting bee-range areas. What was wanted was the control of timber on grazing areas by the Forest department. The beekeepers were ready to pay for their licenses, and the ringbarking and destruction of timber should be forbidden.

The report was adopted, and in the discussion on the motion, it was complained that the Lands department permitted bee sites to interfere with bee ranges.

It was decided—

"That the Department of Agriculture be asked to arrange with an expert beekeeper, approved by the association, pending the establishment of an experimental bee farm, to

furnish inquirers with information on beekeeping, and pay expenses incidental thereto."

The name of Mr. Beuhne was suggested as a suitable expert.

The conference dealt with various topics of interest to the beekeepers of the state. The principle matter was the export of honey. It was urged that systematic effort should be made to send a trial shipment of Victorian honey to England. It was explained that the charges would amount to 2d a pound in 2lb. tins. Various speakers explained that the principal difficulty was the smallness of the demand for honey. After a long discussion, Mr. J. B. Barnes made a suggestion that his firm should be authorised to undertake the shipment. He stated that he felt certain he could return the beekeepers at least 4d a lb. for the honey exported. He would provide the initiatory expenses. The beekeepers would send the honey, and would get paid when his firm got their returns.

The members present plied Mr. Barnes with numerous questions, and his scheme for exporting a trial shipment of five tons of honey was criticised and argued from every standpoint. In this discussion Messrs. Bolton, Beuhne, Sumsion, and Chambers took the leading part. Several motions and amendments were suggested.

Eventually Mr. Chambers moved—

"That the offer made by Messrs. Barnes Brothers be accepted, and that the five tons of honey subscribed be placed with Messrs. Barnes Brothers."

Mr. Beuhne seconded the motion, but before it was put Mr. Bolton suggested that the offer be reduced to writing, so that the association knew exactly what the position was. The motion was altered to provide for the making of an agreement, and was then passed unanimously.

A deputation from the conference awaited on the Minister of Mines (Mr. McLeod), and urged upon him the desirability of protecting their interests in the Forestry Bill to be brought before Parliament in the coming session. It was pointed out that at present an

apiarist obtained "grazing" rights for his bees over 3,000 acres of forest at a halfpenny per acre per annum. This they wanted embodied in the Forestry Bill. Mr. McLeod said he was in entire sympathy with the object of the beekeepers, whose industry utilised products that would otherwise go to waste, adding to the national wealth, without interfering with any other industry. As the law stood the Lands department controlled the land, and the Forest department had charge simply of the timber on it. The blue blocks were not under the Forest department at all. It was intended under the Forestry Bill to reserve certain forest land for all time, so it could not be interfered with. Other land would be reserved for timber-growing, and a third lot of land now carrying valuable timber, but suitable for selection, will be thrown open for selection when cleared. The old system of slaughtering forests would be stopped, and the object would be to provide for thinning out matured trees and maintaining the forest for all time. He thought the beekeeping industry should be maintained, and he would see that their interests were protected. The forests were for timber, which would be taken away in a more discriminating manner.

The question of exhibiting at the forthcoming Royal Agricultural Show was brought up, and the conference decided to send a special exhibit. It was also decided to request the Royal Agricultural Society to award larger prizes in honey section.

THE HONEY INDUSTRY.

A deputation from the Victorian Apiarists' Association made a number of request to the Minister of Lands (Mr. Mackay), on June 6.

The president of the association (Mr. R. Beuhne) said that the apiarists asked that the clause which prohibited apiaries from being established nearer than two miles to one another be strictly carried

out, that there should be less delay in granting bee permits, and that ten acres, the maximum area of land that could be granted to apiarists under the act, should be allowed to applicants, instead of only three acres. In the interests of the Lands department, as well as the honey industry, he suggested that it should be made compulsory for occupants of bee sites to establish at least 25 hives on their land within a reasonable time. By such condition, those who took a site merely for the purpose of keeping a legitimate apiarist off the land would be compelled to utilise the block, or surrender it. He asked the department to endeavour to prevent a man who had secured three sites, his maximum legal number, from putting dummy farmers upon other blocks; to allow sites to be fenced after only a rough survey had been made; and to exclude private land, and country bearing dead timber from the areas leased to apiarists.

Messrs. T. Bolton, W. L. Davey (secretary of the Apiarists' Association), J. Scullin, and W. Palmer spoke in support of Mr. Beuhne's statement.

The Minister promised to give favourable consideration to the suggestions laid before him. He believed that the honey industry would prosper, and he would do his best to help it. The requests in connection with the fencing of sites, and the increase in their area, appeared to be very reasonable.—*Australasian*.

DRONE LAYING WORKERS.

When a colony of bees becomes hopelessly queenless, it often happens that a number of the worker-bees—sometimes only one or two, sometimes dozens of them—begin to lay eggs in the cells here and there. Scientists affirm that the drone-laying ability is found in bees that have probably received a greater amount of the royal jelly than the average larvæ during the course of their development. This jelly or pap, produced by the sali-

vary glands of the nurses, is fed exclusively to the queen-larvæ during the entire time of their development, while a coarser food, containing pollen, or bee-bread, is fed to the larvæ of the worker-bees during the last stages of their larval existence. It is asserted that those workers that receive a little more than their share have ovaries partly developed; and while they are entirely unable to become impregnated, owing to the rudimentary condition of both spermatheca and ovaries, yet the rudimentary ovaries may produce eggs in small quantity. These eggs, like those of queens that have been unable to mate, hatch drones only. It is probably unnecessary to state the well-known fact of parthenogenesis in bees, which is the faculty of laying eggs by virgins, eggs which invariably produce males. This discovery is due to the immortal Dzierzon and was long doubted by many, but is capable of absolute demonstration.

When a colony becomes hopelessly queenless, that is, when there are no eggs or young larvæ from which may be reared queens, such bees as may have the ability to lay eggs seem to consider it a duty to replace the missing queen within the limit of their powers. One or more worker bees assume this duty. But their eggs are laid irregularly, sometimes, several in one cell, and sometimes on the side-walls of the cells instead of at the bottom. I have myself seen a half-dozen or more workers laying, at the same time, on a comb which had been taken out of the hive for inspection. Such a sight may be witnessed more readily with the Italians than with the common bees, because they are less excitable and do not become frightened and rush about when the combs are removed from the hive with a little care.

Sometimes the laying of an old queen that has lost her fertility is mistaken for that of drone-laying workers. This is of some importance, for although a queen may be successfully introduced to a colony containing a laying worker, it is almost impossible to succeed in the introduction

of a new queen, if there is an old queen in the hive.

The only way to make positively sure of the presence of an old queen is to search for her. But there is a slight difference between the laying of a worn out queen and that of one or more laying workers. The old queen lays but few eggs, and these are always at the bottom of the cells. She rarely lays more than one egg in a cell, this incongruity being committed only by laying workers, or sometimes by very young and very fertile queens which lack room, and have not yet reached their full ability in regular laying.

[We have disposed of laying workers by reversing the hive, putting it back a foot or two and placing another hive with larvæ or queen cell in its place. As the bees from the laying worker hive take flight they return to the hive in its place. Ed.]

CAPPINGS.

For years I have noticed that brood will not go forward nearly so rapidly where the brood-nest is located next to one side of the hive in early spring, for as the bees increase their brood, it seems natural for them to do this from either side alike, and where the first brood is reared but one or 2 combs away from one side of the hive, after a little they can only extend the brood in one way, on account of the other side of the brood nest reaching the side of the hive. Where I find brood thus located at this time, I always set it over to the centre of the hive, and whether I so find or not, I now place 2 combs which are the fullest of honey next one side of the brood-nest, one on either side, which helps brood rearing along amazingly. The great trouble in forcing early brood-rearing, so as to have it in time so that the maximum amount of brood shall be emerged into bees in time for the harvest of honey from white clover, seems to be to get the

bees to feed the queen prepared food in sufficient quantities so that she will lay prolifically quite early in the season; and the placing of combs of sealed honey next to the bees in this way causes them to remove the honey as brood-rearing goes on, and, in thus removing, more food is prepared than would otherwise be the case; and having the food prepared, the queen is liberally fed. The scrimping of honey in any colony now, is to be "penny wise and pound foolish," for unless there is either plenty of honey in the hives, or plenty coming in from the fields, brood rearing will go slowly, which means comparatively few bees in time for the harvest. I want as much as 20 pounds of honey to each colony at this time of the year so that they will not scrimp in feeding the queen or the larvæ now.—M. Doolittle in *American Bee Journal*.

The AMERICAN GROCER, speaking of the working of the new pure food laws, says: "Reports from every direction are that there is a surprisingly better demand from consumers for high-grade goods. The people are discriminating against inferior food products or such as are of debatable or questionable character. They are acquiring the label-reading habit, and are more inquisitive than usual as to quality. It has always been the claim of the AMERICAN GROCER that the sale of cheap and doubtful products tended to decrease and imperil the demand for the finest goods. Until lately it has been a hard task to find a retail store that carries absolutely pure jams, jellies, preserves or catsup. The food law has had a moral effect that is full of promise for the manufacturer and dealer in meritorious food products.

A South African correspondent writes:— I may say the bee-industry is still in its infancy in the Transvaal, and in fact throughout the whole of South Africa, and wishing to encourage Bee Culture amongst farmers, and fruit growers, I have therefore imported Italian Queens for breeding purposes.

TWO SIDES OF A QUESTION.

BY W. REID, SEN.

I read above on page 43, and as requested give my opinion as under:—

1st letter, 19/4/07, I should say if I instructed an agent to sell at 3d per lb. or higher, if he sold at a lower rate it should be at the agent's risk, and am of opinion that that agent owes 3d per lb., less commission.

This letter states the lids were soldered. Were they lever-top tins with a drop of solder on each side to prevent jarring out, so that the agent could easily remove drops of solder, and test the honey? or were the lids simply a piece of tin soldered over a hole, as this is very important to a salesman? If I were buying, I would pass the latter and refuse almost any price; if lever-top tins, I could sample before buying.

Again the fact of the honey being yellow box honey is no guarantee that the honey was the best, the same trees do not produce honey alike every year, and the same kind of tree will produce different honey in different localities. Yellow box does not produce the best honey, although it may be very good. There are several trees produce better honey than either white or yellow box. I have had experience both as a salesman and a honey raiser. I believe there are many beekeepers that have never tasted first-class honey. I expect my next crop of honey to consist mainly of white and yellow box. The worst honey for a salesman to get hold of is that flavoured with the turpentine tree.

I have not done much of late with railways. 15 years ago a broken ton would cost more than a full one.

Letter No 2, from agent, 25/4/07. I think if the agent could not obtain reserve price he was not justified in selling the honey at a lower rate.

Re tare, I never gave tare, I place 57½ lbs. of honey in a good sound lever-top tin, this makes just 60 lbs. Sometimes I may place just a lb. more, thus the tin is

weighed as honey. Should a customer return a tin in good condition, I allow 1/-; if good honey tins, they are prized rather than returned. I think a few ounces over-weight in lever-top tins would only be necessary, and nothing over in tins with only a hole and a piece of tin soldered over, as these could only amount to a blind exchange.

To wind up, both the beekeeper and the salesman may have been in fault, it is certain the salesman was wrong to sell under reserve, had he charged storage, he may have given more satisfaction.

Perhaps you could let us know in next number how honey was got up, either in lever-top tins containing label of the beekeeper or not.

[The tins were lever-top with a drop of solder on sides of lid. Yellow box may differ in different localities, but we have never seen different qualities of honey from it, and our experience has been it has always held its own at shows. We have never known any trees that give better honey. We would like a sample of yellow box from your district, and am willing to send a sample in exchange.—Ed.]

Honey and Noisy Enthusiasm.

The Youths' Companion contains the following which seems to have a lesson in it taken from the bees:

HONEY IN IT.

When the Salvation Army first came to America, 25 years ago, says the author of "The Prophet of the Poor," it found a ready advocate of its methods in the Rev. Thomas K. Beecher. Mr. Beecher had just had a lesson, in parable form, from a certain "Bro." Anderson, which he never forgot.

Brother Anderson was at that time the pastor of a colored congregation which was noted for the noise and enthusiasm of its services. Incidentally the old man wielded a whitewash brush, but he was known as an exhorter of no mean ability. One day he persuaded Mr. Beecher to address his congregation.

The occasion seemed a good one for reproving the congregation for their

uproarious methods, and Mr. Beecher did so. "Let all things be done decently and in order," he concluded. Then Bro. Anderson rose to speak.

"I love Brudder Beecher; I love to hear him preach dis afternoon," he said. "He's our good frien'. And he say dat some folks goes up to glory noisyn' shouting, and some goes still like, 's if they's ashamed of what's in 'em. And he say we better be more like de still kind, and de white folks'll like us more. He say de boys and gals stan' in de do'way and laugh at us, and mock at us 'cause o' de way we goes on.

"Yas, I see de boys and gels stan' all las' winter roun' de door, an' under de windows, and laff; and dey peep in and laff. But I 'member what I saw las' summer among de bees.

"Some of de hives was nice an' clean an' still, like 'spectable meetings and de odders was a bustin' wid honey. De bees kep' a-goin' and a-coming in de clover; and dey jes' kep' on a-fillin' de hive till de honey was a-flowin' like de lan' of Canaan. An' I saw all roun' de hives was ants an' worms an' black bugs, an' dey kep' on de outside. Dey wa'n' bees. Dey couldn' make de honey for darselves. Dey couldn' fly to de clover an' to de honeysuckle. Dey jes' hung roun' de hive and lib on de drippin's.

"So de boys an' gals hang roun' yar. Come in—we'll show you how de gospel bees do. Come in an' we'll lead you to de clover.

"You won't come in? Well, den poor things, den stan' roun' de outside an' have de drippin's. We's got honey in dis hive."

"As he spoke," said Mr. Beecher, "I seemed to see my own sermon shrinking and fading away.—"Am. Bee Journal."

CAPPINGS.

It is now known that there are at least four kinds of reproduction; Sexual reproduction, Parthenogenesis, Gemmation, and Fission. In Gemmation something

analogous to a *bud* (gemma) forms somewhere on the organism. It grows and develops, and finally separates as a new creature. In Fission the original organism gradually divides into two organisms just alike or nearly so. Joseph Cook, a distinguished preacher of Boston, once made a stir by claiming that the birth of Christ was a Parthenogenesis. Then he allowed himself to be frightened out of his claim, I believe. In my small field I would renew the claim. The birth of Christ was a Parthenogenesis. The birth of Eve was a Gemmation.—REPRODUCTION BY FISSION:—And here is another tremendous thought which has just been trying to get abroad in the world. In Fission neither one is parent, and neither one is child. Of the individuals produced by Fission, many die from various causes but none (it is claimed) die of old age. Life is a continually sub-divided stream, but it is the same stream. *Here is practical immortality, not in any heaven, but visible to man's eyes and right here upon the earth.* Why not an institute be endowed to study Fission with a hundred microscopes till the secret is discovered why the cells of creatures that reproduce by Fission do not grow old? And when they get that secret can they not make at least longevity out of it for human beings.—Haity in *American Bee Journal*.

The biggest beehive in the world is in Kentucky, and is known as the "Mammoth Beehive." It is in reality a huge cave, the main compartment being 150 ft high, while the floor covers 10 acres in extent.

Gleanings says:—If money is your god and you are living only to get all you can of it, let bees alone. If you thoroughly enjoy working with bees, and want to get all the enjoyment out of life you can, then wade right in.

TARIFF INCREASED ON HONEY IN EUROPE.—Both Germany and France have recently raised their tariffs considerably in the interest of agriculture. The raise applies to honey. The Canadians have also de-

cided on a pretty stiff tariff, on both honey and beeswax. In this country beeswax is free, and the duty on honey is not high—20 cents per gallon, which is not high enough to prevent good honey from coming here. The increase in the European tariffs may divert some Cuban and other West Indian honeys into the American markets. If so it may affect adversely the market for the bee-keeper and honey producer in this country, for manufacturing purposes; but we haven't much to fear from Cuban honey this year, as there is not much in sight.—*Gleanings*.

A GERMAN YARN:—A German bee-keeper undertook to carry some of his choicest bees to a bee-show. He took a train in Hanover with his bees in a basket at his feet. The bees escaped from the basket and crawled up his trousers legs. His actions soon aroused suspicions in the hearts of two women who occupied the same compartment with him. They pulled the bell-cord and stopped the train. When the bee fancier explained the situation he was placed in an empty compartment to have it out with the bees all by himself. Here he removed his trousers and began shaking them out of the window to free them of the swarm. Unfortunately they caught a telegraph pole and were swept away, bees, money and all. At the next station the irate station-master brought forth the reluctant bee fancier in a rug and he pawned his watch to acquire decent raiment to walk back along the line in search of his bees and his trousers.—*Extracted*.

Truth is frequently blended with fiction. The ancients found it often impossible to separate the two. Thus the length of a bee's life was long a sore puzzle—and often yet we moderns have to guess after the truth. Butler wrote: "Bees are birds of a year." Purchas says: they "lived one and a quarter years." Remnant gave them "three years." Aristotle "six or seven years at most." Pliny held "they never exceed ten years." Columella believed "strong bees live twelve years"

and finally Muffet generously heartedly gives them "thirty years"! Undoubtedly a good deal of the confusion arose by the various guessers confounding the length of a bee's life with the existence of the colony as a whole.—*Extracted*.

As regards breeding good bees I think that if we breed only from the very finest queen-cells, naturally formed in a strong hive, we need not worry ourselves overmuch about the drones. The best drone as the best chance in the marriage-race.

There are bee-keepers who accept with complacency a disastrous year, if indeed they do not rejoice over it. And not without reason, for your experienced bee-keeper will tell you: "Even if I should lose every colony I have, I don't know but I would gain by it in the long run. For it will drive out of the business some of those slouchy bee-owners who can hardly be called bee-keepers, and when they're out of the way I'll get enough more for my money to make up for the loss."

It must be said that we can not as yet bring our bees through a winter with that degree of certainty and uniformity that is possible with sheep, horses, cattle, and domestic fowls."

It appears that there are now established a number of breeding yards in German Switzerland, where they keep choice colonies for the rearing of drones, and they transport their young queens in nuclei to those yards to have them mated with these choice drones. By careful selection they claim to have some improvements already, and hold that they can make much more progress by continuing this method.

F. J. Miller says in *Beekeepers Review*, by short cut systemating he can with pleasure, handle five hundred colonies, doing all the work himself.

Second hand tins I have bought have been, as a rule, unsatisfactory in many ways. Quite a large percentage have leaked, more or less would be battered and rusty either inside or out, or both, and all were invariably *mussy*.

A GERMAN HONEY CAKE.— $1\frac{1}{2}$ pounds of honey of good quality and 1 pound of good butter are melted together, then into the blood-warm mass gradually add, stirring vigorously: 1 pound sugar, $\frac{1}{4}$ pound beaten almonds, some grated lemon-rind, 3 heaping teaspoons soda—in 10 cents worth rosewater—and 4 pounds of wheat flour. Knead thoroughly with the hands, and roll out the dough an inch or more thick. Bake in cakes with moderate heat.

HONEY IN INFANTS FOOD:—At first the child had half milk and half honey, liquefied with water. Then four parts milk, one part honey, with a little water. The child grew strong and plump, and never had a single pain, while it slept soundly the whole night long.—*British Bee Journal*.

Both alfalfa and red clover require specific bacteria in the soil in order to produce well. Bacteriologists do not quite agree as to whether these bacteria are variations of one species or two distinct tribes. The present writer has had good results with alfalfa on land without any artificial inoculation with alfalfa bacteria where red clover has been grown, but it was adjacent to a roadside where sweet clover (*melilotus alba*) flourished, and the bacteria of the sweet clover are said to be identical with those on alfalfa. It has been recommended of late, where one is not certain about his soil, to mix some alfalfa seed with the clover and thus develop the alfalfa bacteria.—*Exchange*.

There are, according to the government report for 1905, 1,050,127 colonies of bees in Austria, which return about 14,000,000 lbs. of honey and 600,000 lbs. of wax during the year.

The Connecticut Bee Diseases Bill provides that "the inspector shall give two day's notice, and is required to get written permission before proceeding with inspection." Another section provides that no bees can be destroyed without the payment of one-half their value by the inspector.

The annual report of the Lancashire (Eng.) B.K.A. showed that the membership now stands at 353, against 332 at the beginning of 1906, sixty-five new members having joined, and forty-four resigned from various causes. The expert visited about 400 beekeepers in the county, and examined 1,515 stocks, of which fifty-five were in skeps. A bee map of the county has been published showing at a glance the extent and distribution of the bee industry.

Swiss beekeepers have been experimenting at mailing eggs. Of 76 sendings, 22 were failures. From the other 54 sends sendings, 315 queens resulted, 80 per cent. of which mated and laid. Virgins are sent to the stations to be fertilized, and then returned.

I do believe in "long-lived stock," and I never kill a "real good queen" as long as she fills her hive with bees, from early spring and late into fall. I would much rather have a queenless colony in the spring, once in a while, than to make a rule to kill all queens when they are but two or three years. My queens must show decline and weakness, *i.e.*, approaching barrenness, before I pinch their heads off.—W. Stolley in *American Bee Journal*.

So far from anticipating that the time for profitable bee-keeping is nearing an end, if I had another £100 of capital I should not hesitate to invest the bulk of it in bees. There must be a good many people in the United Kingdom who think with me, for last year, having a few swarms to dispose of, I had, in answer to a small advertisement in the "B.B.J.," applications for more than 300. I believe the largest bee-keeper in England is located in Oxfordshire, and I heard a whisper lately—which I have no valid reason for doubting—that he sold over £600 worth of honey last season. He has certainly over 500 colonies of bees to work for him.—Writer in *British Bee Journal*.

The West cell-protector is a spiral wire arrangement that allows the bees to

get at only the extremity of the cell, for when bees tear down a cell they do not do it at the point but at the side. The spiral cage is separate, and put over the protector, so that when a virgin emerges from the cell neither can she get out nor can the bees get in.

THE PRICKLY PEAR.—In portions of West Texas, and over a great deal of South and Southwest Texas, the prickly pear has been regarded as an unmitigated nuisance; but during seasons of drouth the ranchmen of those sections have found it a very good cattle food after the spines have been burnt off over a brush fire or otherwise. Many ranchmen have provided themselves with "pear-burners," as they are called (large gasoline-torches), which are carried around over the pear-producing area, and the spines are burned off the plants. The slight scorching given the plant during the spine-burning process does not seem to affect the taste for the cattle, for they eat it with avidity, and it is apparent that, had it not been for the spines, this plant would long ago have been wiped out of existence. Since the impetus given the making of denatured alcohol it is claimed that these cactus lands will become valuable for the making of alcohol, and the owners are figuring on a large revenue from such. The "nopal (a prickly pear) leaf" is much used for poultices, and I know of nothing I like better for "drawing" sores or boils. The spines are scorched off over a fire, and the leaf baked through well, when it is split in two and a piece tied over the sore while as hot as can be comfortably borne.—"Gleanings."

The Bokhara, or a sweet clover (*melilotus albar*), is not cultivated to any extent in this country as yet, though it deserves to be. As a bee-plant, few flowers excel it. It is a very good plant for renewing the fertility of worn out misused farming land, for it will grow where other clovers refuse to grow at all. It is good for planting along railway cuts and embankments to prevent washing of the soil. It contains a large amount of cumarin as a substitute for vanilla.—"Gleanings."

MR. ABRAM'S CLAIM.

Auckland N.Z.,
June 18, 07.

To the Editor, "A.B.B.,"

Sir,—I have been much interested in the claim of Mr. Abram to have been the first to "exhibit" bees, (I think that was the term he used), at shows in Australia, which claim, through the controversy since carried on in your columns, seems to have developed into the claim of being the first to start beekeeping in frame hives on the modern system in Australia. I haven't your late issues by me so am speaking from memory, though the main facts are fresh to me.

I well remember his first starting in Parramatta as Manager of the "Italian" Bee Farming Coy, with Mr. McDonnell Sec. This was in 1883, and I dare say he will remember the controversy he and I had through the press in 1884-5, over the comparative merits of the "Berlepsch" (the hive he was then using) and the Langstroth hive, and the Victorian Beekeepers Association adopting the Langstroth as the Standard for Victoria on the merits of our argument.

So far from Mr. Abram being correct in his claim, I may mention that Mr. C. Fullwood, then of Brisbane; Mr. David Glass, of Ballarat; Mr. A. E. Bouney, of Adelaide; Mr. T. L. Hood, of Hobart; and Mr. Herman Naveau, of Ballarat—without mentioning others—have a prior claim to Mr. Abram, as they were all using the Langstroth hive, and other implements of modern bee culture before Mr. Abram was heard of as an Australian beekeeper.

My "New Zealand Bee Manual," was largely circulating throughout Australia in the season of 188.-2, from which a number constructed their own Langstroth hives before Mr. Abram came to the colony so that I don't think he has a right to the claim he has made.

I am yours etc.,

I. HOPKINS.



DAIRYING.

BUYING A DAIRY COW.

In buying a dairy cow one has to depend largely upon one's own judgment but there are a few points that it is well to look to. It is not always possible to tell just exactly whether a cow is going to be a first-class cow or not, but one can pretty nearly tell.

When a buyer goes to purchase a dairy cow he should look at her at a distance, say, of 25ft or 30ft, and take in her general conformation. She should have a feminine look, nothing of the steery character about her. The first view he should take is right in front of the cow. Look at her head and breast. She should be large and broad across the breast. Do not pay so much attention as to the difference between the legs as between the points of the shoulder blades; they should be wide in that particular place. She should have a good, broad, strong mouth, one that will be able to take a great deal of grass in a short time, upon the same principle that a mower that is 6ft will cut more grass in a given time than one that is only 4½ft. She should have large nostrils, so that she will be able to take in a large supply of fresh air; a large nostril generally goes with a good lung cavity. Then the face should be clean cut and wide between the eyes, and the eyes should stand well out, giving a dishd appearance to the forehead. If that is found the buyer will be pretty sure that he has a cow with a large brain. A large brain is required, because the brain is the seat of the nervous system, and it is through the nervous force that the milk is liberated from the blood.

There should be a good width between the horns, and the horns should not be too close, and there should be a good space between the jaws. The reason for this is that the glands that form the saliva are there, and if they are strong the cow is in a position to secrete and give off a very large amount of saliva when chewing

her food, and this helps digestion. A good cow should be clean along the neck and thin, without anything in the form of a crest, the neck running back into the shoulder and sharp at the shoulder withers and running up to a sharp edge, and then extending wide in the shoulder blade, so as to give a large amount of room in the chest cavity. Running along the back bone she should be strong, and the back bone standing up lean looking. In a beef animal that is well covered in, but in the case of the dairy cow just the reverse should be the case, the backbone should be strong, because the spinal cord is the means by which the nervous force is carried from the brain through the whole system of the cow. Branches are set off from that spinal cord and each section of the vertebræ.

The ribs should be well spread out (says an exchange), and coming down, showing a large barrel, so that the cow is able to take in a large quantity of rough food. Running back to the hip bones they should be long, and a good space between the ribs, and wide between the hocks, and a good length from the hocks to the point of the tail.

Coming to the hind-quarters, a cow should show wide between the hock bones, giving her the appearance of a wedge running towards the front. Then standing behind and looking down inside to the legs, they should be incurving with plenty of room for a large udder, and then they should be cut away, taking the tail as plumb as a line, giving a very light quarter—just the reverse of what is required in a beef animal.

The udder should come up well behind and running well down a good width, and well forward. When the cow is giving milk the udder should be full and plump, and when she is milked out, the skin should hang in loose folds, so that she does not show very much in the way of a large udder when she is milked out. Sometimes we run across cows that have fleshy udders; it is a difficult thing to tell whether they have been milked or

not, and that is not a very desirable cow. On the udder there should be four nice teats, so that they will just fill the hands and nothing more, neither too small nor too large. The skin of the udder should be soft and pliable, covered with a fine silky hair, with no indication of coarse hair. Coming forward from the udder are what are called the milk veins that enter the body. They should be as large as possible, and the more crooked and twisted up the better. They are called "milk-veins," but they do not contain milk. They simply contain blood.

PREVENTING ABORTION.

In a recent number of the "Live Stock Journal," an English dairy farmer, in the person of Mr. R. Linnell, of Byfield, describes his method of preventing abortion, which is at least worthy of attention from all farmers who have been troubled with this disease among their dairy cattle. Mr. Linnell says:— "If, when the cow has gone half her time, the farmer will commence to give her one pint of hemp seed per week, and continue to give her the same quantity each week up to within one month of the time she is due to calve, I think he will find she will not abort. Each cow will require one pint of hemp seed weekly for four months. The same rule will apply to a mare, and half a pint for a ewe or a sow. How I became possessed of the recipe I forget; but I have tried it for many years, have sent it, I think, to every county in England, as well as abroad, and never knew or heard of one instance in which an animal treated as above was aborted.

A NOTE OF WARNING.

The following is taken from the Melbourne "Australasian" of March 30:—
London, February.

Butter prices are practically unchanged from last week, though the tendency is rather in the downward direction. This is hardly surprising in the face of the heavy supplies from Australia

and New Zealand, which are more than the demand can cope with. Large quantities of colonial butter are now being taken for the shilling retail trade, but, great as the demand for this trade is, it is not sufficient to absorb 86,000 boxes weekly, and this has been the average arrival of colonial butter this month.

Should it be a note of warning to many who have gone into dairying in the belief that a milking cow returned a profit of £1 per month, buying land in fictitious values, to find the £1 per month, in too many instances only became 5/-. On coastal farms, where the rainfall is good, such may be the case, but few farms of the dry interior go much beyond the 5/- or 6/-

The rugging of cows during cold weather is advantageous in that the external bleakness is protected against, and a radiation of external body heat is, in a measure, prevented. The rug should be removed on warm sunny days and at intervals of a day or two in any case, to allow the animal to lick herself, and to prevent chafing skin. It should also be removed and replaced with a dry one after heavy rains, otherwise the expenditure of animal heat in the drying of the rug is very great. In other words, the cow is encased in a cold, wet blanket without any means of drying on sunless days other than the body heat of the animal. The temperature of the cow is from 101.5 to 102 degrees, a little higher in the evening and a little lower in the morning. —"Vic. Journal of Agriculture."

An American writer says:— I have many old Langstroth hives given me by cotton planters, who attempted bee-keeping and left the business to their negroes and made a complete failure. It requires your undivided study and close application, love of your occupation and devotion to it to succeed. I found that my greatest loss was from hives too full, causing the bees to cluster on combs of honey and thereby chilled to death.

FAGGING CHILDREN.

Revelations made before the Presbyterian Assembly now sitting in Melbourne by the Rev. A. I. Davidson, of Noorat, concerning the laborious work imposed on children of school age by many parents engaged in dairying have arrested public attention. The evil is known to prevail extensively in certain parts of the Western district. According to the "Warrnambool Standard" the testimony of many teachers is most emphatic on this point. They state that in certain schools many of the children, on arriving in the morning, are more fit to be put to bed than to be given instruction. They are physically fatigued from the arduous work they have performed, and are obviously suffering from insufficient mental rest. A thorough inquiry should be made into the allegations, and reliable information obtained of the extent to which the practice complained of exists. This could best be accomplished through the agency of the Education department, which could obtain reports from teachers.—*Australasian*.

IN-GROWING TOE NAILS.

W. Henty, "Firwood," Croydon, Victoria writes:—

Dear Sir.—I feel it a duty to write and thank you for your Wonderful Cure for In-growing Nails, from which I had been suffering for years. Having spent over £40 trying Doctors and other advertised cures. My own medical adviser said there was nothing for it but operation. A friend of mine sent me a paper from the Fassifern district in which the Collier Cure was advertised, and I sent for your cure, having little or no faith in it for the price. But I am glad to be in a position to write it has thoroughly cured me, and I shall never fail to recommend the wonderful Collier Cure for In-growing Nails.

I Guarantee To Cure the Most Stubborn case.

— £50 Forfeited if a Failure. —

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26th Annual Price List of Best Italian Queens from the First Bee Farm in Australia, recognised as Absolutely the Best Bee Farm for the supply of Queens, Hives of Bees, &c. Always winner of most prizes.

QUEENS—Untested, 5/- each.

Tested, .. one 10/-; three, 25/-; six, 45/-

Select Tested, one 15/-; three 40/-; six, 70/-

Extra Choice, one 25/-; three, 60/-; six, 105/-

Untested from imported, 10/- each; tested from imported, 15/- each; breeders, 25/- each.

Also, Swarms, Hives of Bees, Implements Foundation, &c.

W. ABRAM,

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P.S.—My knowledge and experience of nearly 40 years practice enables me to breed and supply Queens Superior to Any, possessing the Most Desirable Qualities combined. Desiring to maintain that High Reputation, I again submit for your consideration the fact that I can supply to satisfaction, if you give me description of your requirements. Thanking you for past favours.—I remain. yours truly, W. ABRAM.