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THE NEW ZEALAND AND AUSTRALIAN

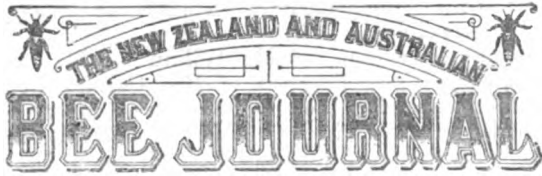
BEE JOURNAL

Devoted exclusively to Advanced Bee Culture.

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CALENDAR—DECEMBER.

THE weather during the three months of spring now past has been the most extraordinary we have ever experienced ; it would not have required a great stretch of imagination at any time during the above period to have supposed oneself in the depth of winter. With the exception of a fine day or so occasionally—which were very rare indeed—there was nothing at all to indicate that we were passing through the spring months ; on the other hand, the retarded growth of all vegetation, the heavy and continuous rainfall, high winds, and low temperature made one look upon it in the light of a prolonged winter. Up to within about ten days ago there was scarcely a clover blossom to be seen, and now that there is a considerable number of flowers about, owing to the low temperature and the want of sunshine, there is no sacherine matter being secreted in them. Looking at it from an apicultural point of view, the season so far has been the worst we have ever known, and we trust we shall never have such another. However, we still have hopes of the season improving and being able to take some surplus honey, for should the weather become settled and the temperature rise it will take but a very few days to cause an abundance of honey to be secreted, when every advantage must be taken to secure as much as possible. Although everything appears to be against the bee-keeper just now, this by no means should prevent him giving the proper care and attention to his bees and keeping them up to the mark, for directly the opportunity occurs for them to gather honey he will be well repaid for his trouble. It has often been remarked that, in seasons like the present one, if a few fine days set in there appears to be a greater amount of honey secreted in flowers in a given time than in ordinary seasons ; and it is astonishing the amount that will be stored by strong colonies in a few days when there is an extra good flow on. In concluding the above remarks we can only repeat what we have often said before, in anticipation of a good flow of honey coming—"Keep your stocks strong."

The instructions given in the preceding calendars will answer for this month ; but there is one important thing

we would advise, that is, should fine weather set in and with it a harvest of honey, to be very cautious about increasing the number of colonies. Bees are very apt to get the "swarming fever" the first opportunity they have after being kept back so long, and if this is not prevented it will most likely result in the loss of all surplus honey that might otherwise be taken, and the apiarist having to feed his bees to prepare them for winter. Directly it is discovered that honey is being gathered in fair quantities the surplus arrangements should be put on at once, and the brood apartment examined occasionally for queen cells, which should be destroyed when found. If any of the strongest colonies show signs of swarming, a frame of brood removed occasionally will often cure them of the desire; the brood can be given to others. We have, sometimes, in order to keep down increase, when a colony has persisted in building queen cells after we have destroyed several, allowed it to swarm naturally, hived it, cut out *all* the queen cells in the parent hive, removed one or two frames of brood, and placed the hive containing the swarm underneath it, gradually working the remainder of the brood below. This has had the desired result, *i.e.*, of curing the bees of the swarming mania and preventing increase.

OUR OWN APIARY.—Our bees are in good condition—thanks to the supply of food they have had—and already to take advantage of the first chance to gather a crop of honey. As yet they have scarcely gathered enough to maintain themselves, and we have given them spare frames of honey left over from last season. On looking through our notes we find that on the 6th of October several of our colonies (Italians) were preparing to swarm, and had queen cells well advanced; these we intended to swarm artificially on the following day, but very bad weather set in and we were unable to examine them again until the 19th, when we found that they had destroyed the cells and the old queens were still in charge. With the outlook at that time of everything being very backward, we concluded not to attempt any artificial swarming till we saw the honey season had fairly set in and the bees swarming naturally; this has not yet come about. Up to the time of writing we have only had three natural swarms, and these we have been obliged to feed. We hope, however, for better things this month.

We have just received an Italian queen that first saw the light, and was fertilized in Italy. She is darker than many of our own breeding, and very small, but no doubt her size is attributable to her long confinement and rough usage which would retard the development of eggs in her ovaries. The bees that accompany her are similar in all respects to those we have bred from the queens imported from America. Great difference of opinion exists as to the appearance of pure Italian bees, and we are very glad to have had the opportunity of comparing those of our own breeding with bees from a queen imported direct from Italy, and we are pleased to say that our own does not suffer by the comparison. We expect shortly a small trial consignment direct from Italy. We had imported previously twenty-two colonies from America.

If the parent stock is weak in the spring the early honey harvest will pass away, and the bees be able to obtain very little from it.—*Langstroth.*

AN IMPORTANT CONTRIBUTOR.

We have very much pleasure in stating that our old and respected friend Mr R. Wilkin, of San Buena, Ventura, California—the engraving of whose apiary adorns our front cover—has kindly consented to contribute regularly to the columns of the JOURNAL as soon as he has finished preparing for market his last season's honey crop. That this must be a pleasant, but not a light task will be understood when we state that he secured no less than 24 tons from his two apiaries of 1000 hives. Although, as far as we are aware, Mr Wilkin has not been in the habit of contributing to the Bee Journals, we believe there are very few, if any, apiarists living more competent to give sound practical advice on the management of an extensive apiary on scientific principles.

The subject chosen by Mr Wilkin for his future papers, viz.: "The Progress of Bee Culture in the United States during the past 25 years," is one that cannot fail to prove highly instructive and interesting to the bee-keepers of Australasia; and, as he informs us that he will quote from his private business journal kept during these years, we shall look forward with pleasure to the time when it will be convenient for him to forward his contributions.

THE JOURNAL.

WITH this issue ends the first six months of the JOURNAL's career. We hope the few of our patrons whose subscriptions expire with the present issue are so far satisfied with our efforts that they will renew them at once, in order that there may be no break in the delivery.

We are glad to inform our readers that the JOURNAL is gradually getting a very wide circulation; it is already being sent to all parts of the Australasian Colonies, England, Canada, and the United States, and as far as we can judge at present there is very good prospects for it in the future.

SWARM CASE.

WE beg to tender our thanks to "T.J.M." for his present of the "Swarm Case" that was exhibited at the Auckland Agricultural Show last month. We shall take the first opportunity to use it and report. The description of and method of using it is given by "T.J.M." on page 40, October number.

OUR TELEGRAPHIC ADDRESS.

THE Matamata estates, and in fact the whole of the Upper Thames Valley, have now been put in rapid communication with the outside world by the spirited enterprise of Mr J. C. Firth, who has erected, at his own cost, a telephone wire extending from Matamata to Waiorongamai, a distance of twenty miles. This wire connects with the Government telephone and telegraph lines, and has already proved of great service to the residents of the district. Our telegraphic address in future will be—Matamata, Waiorongamai. The mail address being the same as heretofore.

CLIMATE AND BEE CULTURE.

BY T. J. M.

(Continued.)

TURNING our attention to the mean temperature of the summer months, we find that those countries we have named as famous for honey in the South of Europe and in Asia Minor, lie between the isothermal line of 66deg. and that of 77deg., which is the boundary of the torrid zone, while Palestine, Egypt, and Assyria, lie within the latter, the mean summer temperature of Cairo being given as 84deg., and that of Bagdad as high as 93deg. That of Rome on the north, and of Africa on the south of the Mediterranean, is equal—namely, 74deg, and the principal islands in that sea have probably about the same temperature. Tracing the line of 68deg. from the north of Spain westwards, we find that it dips down to the Azores, rising again traverses Canada and the most northern of the American states at a high latitude, and declining again as it crosses the western states; passes through California at San Francisco, where it is nearly coincident with the winter mean of 50deg. In the Southern Hemisphere it passes through Chili at Valparaiso, south of the Cape of Good Hope, and through the Colony of Victoria and the Province of Auckland,—all in a line nearly coincident with that of 50deg. mean wintertemperature. The northern parts of Auckland Province, and the Australian colonies of Victoria, South and West Australia, and New South Wales, lie within the same limits of summer temperature as Asia Minor, Greece, Italy, Spain, and the African shores of the Mediterranean; from Auckland southwards to Otago, and in Tasmania we find those gradations of summer temperature which stretch in the Northern Hemisphere from central France, Switzerland, and South Germany up to Scotland, while Queensland lies within the torrid zone, like Palestine and Egypt.

Thus we find that on the western Coast of both North and South America, and in the Southern Hemisphere, generally speaking, the countries which have a mean winter temperature of 50deg. to 51deg., have all a mean summer temperature of 67deg to 68deg., the range being only 16deg. to 18deg.: while those in the south of Europe and west of Asia, with the same winter temperature, show a summer heat varying from 68deg. to 74deg., and rising even to 93deg at Bagdad, the range being from 18deg. and 24deg. in general, and as much as 43deg. in the latter place. Owing to the peculiar distribution of land and water in the Northern Hemisphere, the Gulf Stream and other ocean currents, and the atmospheric movements connected with these, the isothermals are by no means parallel to the equator, or to each other at different seasons in the eastern half of North America, the whole of Europe, and the interiors of Asia. For instance, the lines of 32deg. winter, and of 77deg. summer temperature, which, at the longitude of Greenwich, are separated by some 40deg. of latitude, approach each other very closely in part of America, so that New York and St. Louis show a range of 42deg. and 41deg. respectively, between their winter and summer temperatures, and in Asia those lines actually overlap each other at Pekin, which shows an arctic winter temperature of 27deg., with a tropical summer heat of 79deg., the range being so much as 52deg. Similar cases do not occur at all in the Southern Hemisphere. The comparatively small

tracts of land which lie within the southern temperate zone show isothermals much more nearly parallel to the equator and to each other at the different seasons of the year, and the range between mean winter and mean summer temperature only varies from 16deg. to 20deg.; so that if we are told the mean annual temperature of any place, we may safely conclude that the mean winter is not more than 8deg. to 10deg. lower, and the mean summer not more than the same amount higher.

I am afraid that the above may be considered a very dry statement of facts already known to all who may take the trouble to look into them, and it may be asked what has all this to do with practical bee-keeping? I venture to hope, however, that it is all capable of a practical application, especially for those who are desirous of raising bee-keeping to the rank of an important industry in these colonies. We want to know in how far we may consider ourselves as enjoying natural advantages equal or superior to those of other countries; we find that as regards a winter temperature we may safely consider ourselves in that happy position; but when we come to compare the summer temperatures we meet with the anomalies I have above described. Now it remains an important question for us to understand whether with the same winter temperature as another place, but a more moderate summer heat, we are more or less favorably circumstanced as compared with that place. It would appear to me that, within certain limits, the more moderate summer heat accompanied by sufficient moisture must be more favorable for the production of honey than an extreme or tropical heat which is generally attended with a scarcity of moisture. As regards the tropical summers of Palestine and ancient Assyria some interesting questions present themselves for consideration. How far may the effects of the summer heat be modified by the peculiar position of each of those countries, the former in the valley of the Jordan, considerably *below* the ocean level, and sheltered by high land on each side, and the latter with its vast plains so richly watered by the Euphrates and Tigris rivers? And again, are those countries at present really as productive of honey as they were in the time of the Patriarchs? Or has the climate been considerably altered and rendered less fertile as is generally supposed to be the case in Asia Minor owing to the destruction of all the forests and the neglect to replace them by plantations?

(To be continued.)

Bay View Apiary, Kati Kati.

APIARY BOOK-KEEPING.

In answer to our request on page 29, September number, our esteemed correspondent, "T.J.M.," has sent us a copy of an opening of each of his books—Day-book, Register of Stocks, and Produce Register, which we have much pleasure in publishing. We give the two former in this number, and the latter will appear in next issue.

These books are very well arranged indeed, but, as our correspondent remarks, if the manner of recording details could be simplified, it would be a great boon. If a simple form of register can be decided upon, we will take steps to have some printed, &c., for sale. Our readers, by referring to the paper on "Apiary Book-keeping," in September number, will understand at once the method of recording details.—Ed.

REGISTER OF STOCKS.

APIARY.

HIVES No. — TO —

Season 18 — 0 — 18

No. of Hives.	Date when Hived.	Weight of Swarms.	Age of Queen.	Whence obtained.	Remarks.	1st Swarm.			2nd Swarm.			3rd Swarm.					
						Date.	Weight lbs.	Age of Queen. Hived.	Date.	Weight lbs.	Age of Queen. Hived.	Date.	Weight lbs.	Age of Queen. Hived.			
1			82/4	From last season	1st Nov. united with [swarm from bush	14/12/82	6	? No. 24									
2			81/4	do.				?	not	No. swarm	after						
3			82/4	do.	Strong colony	22/12/82	8	82/1 No. 27	31/12/82	3½	82/4						
4			82/4	do.	Weak	26/11/82	6	82/1 No. 18	7/12/82	4	82/4						
5			82/4	do.	Moderate	16/11/82	6½	? No. 17			after						
6			82/4	do.	Strong	31/10/82		(lost)	11/11/82	3	82/4						
7			83/1	do.	Moderate	11/1/83	8	? No. 29			after						
8	15/10/82	6		Driven from old box hive	Very weak								2½	82/4	21/11/82		United to No. 21
9																	
10																	
11																	
12	31/10/82	10	83/1	Shaw's bush	Strong, worked with 2 supers	1/1/82		(lost)	9/1/83	4½	83/1						

Hrvz No.

DAY-BOOK.

APIARY.

Date.	Memoranda of Events.	Honey Taken.		Date.	Memoranda of Events.	Honey Taken.	
		Ext.	Comb.			Ext.	Comb.
1882				1883			
October ..	31 Hived swarm from Shaw's bush, 10lbs weight, on 10 frames of comb foundation—queen strong, but age unknown			July	1		
November	5 Frames all worked out, put on super with 10 frames of comb foundation						
"	18 Extracted 2 frames	8					
"	20 " " "	16					
"	22 " " bees working very well	8					
"	30 " " destroyed queen cells	18					
December	2 Put on third box, between hive and super, with 10 frames c. f.						
"	11 Extracted 2 frames	7					
"	13 " " "	14					
"	18 " " "	13					
"	28 " " "	15					
1883							
January ..	1 Large swarm absconded, there being no one present at apiary. New queen dates from this time.						
"	3 Extracted 4 frames. Took out queen cells	11					
"	6 Extracted 3 frames. Took off top super	7					
"	9 Extracted 1 frame. An after swarm came off, 4lbs weight, which was given to No. 26	2					
April	22 Extracted 7 frames	31					
	29 Took all frames out of super; put bees down into hive, covering with mat; put back frames, partly extracted to be cleaned in super	4					
May	6 Removed super and made all snug for winter						
			154				

DAY-BOOK.
 This form should be printed on good common Account-book Paper, not too thick, blue ruled. Each folio, like this sample, should serve for one hive for two or three seasons. It would probably be convenient to bind the book with 100 folios, in a strong paper cover, like a school exercise book. Apiaries with more than 100 colonies should then have a Day-book for each 100.—T.J.M.

BEE-KEEPING IN AMERICA.

BY R. WILKIN.

TWENTY-FIVE years since, while at college at Wilmington, Pa., I attended an agricultural show, where, for the first time, I saw bees on exhibition. They were managed by Seth Hogeland in a moveable comb hive, which had been invented by L. L. Langstroth, in America, in 1852. On seeing Mr Hogeland lifting the combs from his hive with queen and bees adhering, handing them around to the spectators without anyone even being threatened with a sting, it occurred to me, if bees can be made so docile and the combs movable, the bee-keeper can learn all about the internal operations of a hive and know the condition of each colony at all times, and being thus informed can control them according to his intelligence. With these advantages I could see that a new system of management would be adopted and the entire business revolutionized. I was completely charmed with the new thought and loitered about the bee-hive most of the day; this day was the one which decided me in my occupation for life, for ever since I have done but little except work vigorously with bees.

It seems necessary to the success of the bee-keeper that he, in the first place, becomes thoroughly informed on all matters connected with his pursuit; then to muster all his energies, putting them and his very being into the business. Bee-keepers are generally great enthusiasts and take special delight in their calling. I assure you it was with no small degree of enthusiasm that I engaged in it, and on reflection I can see there was quite an amount of adherence to purpose in my make up, or I would not have persevered through the many difficulties that have attended bee-culture in this country during the last 25 years.

Since you, Mr Editor, have asked me to contribute to the JOURNAL I have concluded to give some history of the development of bee-culture in the United States as seen in my experience. As notoriety so far from home can be of no pecuniary service to me, I only consent to write some for your readers because I think it will be appreciated. You know everyone loves to be appreciated, and I think I am able to give many hints of real service to bee-keepers in your lands commencing, as they now do, where we were twenty years ago.

A Bee Journal is a necessity for keeping up communication between apiarists on all matters connected with their growing pursuit. I dislike profuse laudations of the first efforts of a new paper, but the first number of THE NEW ZEALAND AND AUSTRALIAN BEE JOURNAL which I have received, I think is quite creditable to the editor and publisher; and, judging from the considerable knowledge I have of its editor, I have much confidence in the JOURNAL becoming a valuable medium for conveying information on bee-culture. The *American Bee Journal*, the first paper on the subject of bees published in the United States, commenced about the year 1860, and soon after had to suspend publication for want of sufficient support—the trouble was our war. In a year it resumed, and I have had the satisfaction of reading it for eighteen years. *Gleanings*, now perhaps the most popular bee journal in this country, started some 10 years since with eight little pages, published every four months, at 25c. (1s.) per annum. Our Californian *Apiculturist*

started over one year ago, but is dead already. Quite a number of bee journals have sprung into existence and died, so I feel inclined to help a new one started where it is so much needed. I can hardly imagine how bee-culture in this country could have reached its present proportions without the stimulating and enlightening influence of bee journals.

San Buena, Ventura, California, August, 1883.

[WE take upon ourselves to say that Mr Wilkin may rest assured his contributions to the JOURNAL will be thoroughly appreciated by the bee-keepers of this part of the world. We are already under obligations to Mr Wilkin for valuable information in connection with bee-culture, and can testify to the readiness with which he will give advice, on any point, to a young bee-keeper. Being with regard to bee-culture in our infancy here, as compared with America, we require a guiding hand, and we know of no one better able to guide or lead us than our old friend, Mr Wilkin.—ED.]



(For the N. Z. and A. Bee Journal.)

All correspondence must bear the name and address of the writer, not necessarily for publication, but as a guarantee of good faith.

STANDARD FRAME.

I HAVE only just returned from England, so have not had an opportunity of saying anything on this very important subject in previous numbers. There is no doubt of the advisability of our adopting a standard frame as soon as possible. If we do so, manufacturers will make them all alike, have them always ready to supply orders, and will be able to sell them much cheaper than if there were several different sorts. Since the British Bee-keepers' Association decided on a standard frame, nearly all makers supply them with their hives, and I know that you can buy standard frames dovetailed for one shilling a dozen in many places, and never pay more than one shilling and sixpence per dozen for them, as those prices would not pay any one to make his own. The question is what size to adopt, and here the choice lies between the Langstroth—which is virtually the standard for America, and the British standard. I have tried both, and I like the British the best. The Langstroth I think a little too long, more particularly when the frames are hung across the hive (parallel to the entrance); and this method of hanging the frames is the most approved in England at present. I was at the Exhibition held by the B.B.K. Association at Knightbridge, in July, and nearly all the hives exhibited had the frames hung in that way, and were all British Standard size: 14 x 8½ (outside measure), with a top bar 17 inches long. It is true that these frames will not take the 4½in. x 4½in. sections exactly, but we can either use sections, 4in. x 4½in., as are commonly used now in England—six of which will fit the standard frame—or what is, I think better, use a wide frame without top bar, and with tin bottom, which will take the 4½ x 4½ sections nicely. This frame

was illustrated in the *B. B. Journal* for December, 1882, page 172, and seems to be all that can be desired. These frames can be either hung at back of other frames in a hive or in an upper story. I always use long double-sided hives similar to Abbott's Combination, which are very cheap, and I find bees winter splendidly in them. Were I to adopt Langstroth frames I would have to make my hives 21in. wide by 25in. long, instead of 18in. x 25in., which I now use, and this would make the hive too clumsy. The B.B.K. Association discussed the matter from all its bearings, and finally decided on the 14 x 8½ frame as the most useful and handy to manage.

C. S. BAILEY.

Christchurch, 29th September, 1883.

P.S.—There is a frame in very general use in Canterbury which measures 16in. x 9½in., with a top bar 18in., which is also very good.—C.S.B.

THE STATE OF THE HONEY MARKET IN DUNEDIN.

SIR,—Being somewhat enthusiastic in bee-keeping, I naturally take some interest in—I had nearly said *your*, say—*our* N. Z. BEE JOURNAL, being also a storekeeper's assistant, I thought it would be an easy matter to forward you a quotation from this city of honey prices current, but I can assure you I was never more surprised than when I began to make the necessary enquiries, found that really not a merchant had any honey to quote. Last autumn my fellow storeman informed me that while I was out "a party from the north" had called in to know if we would buy any honey as he had a ton or two for sale and would be glad to get quit of same for 4d. per pound, "first-class." I may state that we bought from a merchant in Oamaru close on half-a-ton of really fair honey in casks for 4½d. per lb., last summer. I have heard that in the inland (from us) districts there are "loads of honey going begging for 2½d. per pound," but I can assure you that none at that price has come along here yet. We filled the greater part of ours into empty pickle bottles, costing 1s. 6d. per dozen, and holding, say 1½lbs., and sold same readily for 1s. each.

Again, a neighbouring fruiterer had, last fall, a lot of honey in section boxes, which he tells me did not sell readily, and which he declares to be "a bothering mess, the least thing causing the honey to run over everything." One of our merchants quoted 1lb. tins at 6s. per dozen—tins being made and filled by themselves, but with what I really could not say.

Now all this you will admit is very vague, and shews clearly that a market for really good honey needs to be made here. I never was in Auckland, but I look at it like this: You northern people have the best of us for a bee climate, and we ought to be the best market. In fact I have grave doubts as to whether, in the long run, we shall ever successfully compete with you in bee-keeping. However, I am going to have a try, though I have made a poor start, as likewise is a friend of mine who, I believe, has written you (Mr Brickell), who, by-the-by has made a better "first attempt" than I have. Last summer I had 9 hives in the old box style—2 of these I sold—which I became in the autumn very desirous of transferring to the Langstroth frames. I

risked doing so to my cost, for I now re-commence this spring with one hive if not a sadder a wiser man.

So my advice is *always transfer before midsummer*, and avoid robbing if you possibly can.

I have much more to write you, but as the mail goes early this morning I will reserve for some future occasion what I would now like to say. My wish is that you were more central, so that we could get down some of your Italians with some show of success.

WM. CHS. BROWN.

Maybank, North East Valley, Dunedin, Oct., 1883.

[We are obliged to our correspondent for his report of the state of the honey market in Dunedin. It is such reports as this that we are anxious to have from all the leading cities throughout Australasia, so that bee-keepers may be made aware of the likeliest markets for their produce. We have found it very difficult to get an idea of what is being done in honey in any place from any one merchant or tradesman; the only way that we can see at present until a regular market is formed, is for persons who are interested in the matter, like our correspondent, to do as he has done, make enquiries from a number of merchants and tradesmen in different localities and report through the JOURNAL; by these means we may form an approximate idea of the demand in our home markets for a good article of honey, and thereby take advantage of the knowledge to obtain the best rates for our produce.—Ed.]

FEEDING AND UNITING.

SIR,—I am exceedingly obliged to you for taking the trouble of writing me a special letter of advice, and have lost no time in putting your instructions into practice. I am afraid I have not fed sufficiently. I gave them 100lbs. of sugar which was soon consumed, but seeing so many bush flowers out I gave it up. I now see I should have fed right along, as the weather is still wet and cold, and the hives have little or no honey in them. In uniting the hives, I left on the stand a nucleus hive in which I put the queen and one frame of bees, removing the brood and the rest of the bees. I take it this is the way to save the queen. Any flying bees would also remain with her. I have united all hives with bees on only three or four frames. Where they covered five or more I have not meddled with them. I expect to finish to-morrow, and will then have about 50 fairly strong colonies.

I visited two or three bee farms last week, and with one exception, found a most deplorable state of matters. At Roseland the bees were dying wholesale. Out of 450 hives last season not much over 100 were alive. Mr T. U'Ren's apiary at Te Arai was the only one where the bees were in good condition. He had lost a good number, but had 170 with plenty of bees.

It is strange to have to feed bees to keep them from starving with abundance of blossoms all round. Last month there was the birch and pouriri, and now cabbage trees, gnaios, karakas, and lawyer are all in bloom, and yet there is hardly a pound of honey in the hives. Near Gisborne, where the soil is light and warm, clover is in bloom, but here only a stray head here and there is to be seen. At this time last year I was taking swarms and the surplus boxes were filling up. I look to the thistle to give us our main crop this season. They are coming up in myriads round about

here and when they flower in January the bees will have recovered from the effects of the miserable spring weather.

In a location such as mine bees should give a large surplus. Within a mile on one side is a range covered with manuka and light bush; the apiary is sheltered by a small bush of 20 or 30 acres; other clumps are scattered about within reach; while belts of cabbage trees and flax grow in the swamps, and all the rest is clover and thistle. No doubt the sheep dispose of most of the clover, at this season, but if we get a few weeks of hot weather they can't keep it down.

You ask me how I packed the interior of the hives when moving them. I didn't pack them at all, but saw that each hive was full of frames, so that they couldn't shake out of their place. The only breakage I had were sheets of comb foundation in empty boxes. It is very brittle in winter, and a good many sheets were cracked along the top.

I have just got a Bingham Smoker from America. It is far superior to the Simplicity Smoker. I lit it this morning and it burned all day by just putting in little chips of stick now and then. I don't use the smoker very much, but the old one was always out when wanted, whereas this one puffs away like a locomotive from daylight to dark. It would suit Mr Thomas and others of your correspondents who keep those savage sort of bees that fancy themselves smoke-proof. I find my bees very easy to handle, and that I don't need much smoke except when uniting hives—when they are inclined to be nasty.—I am, &c., GEORGE STEVENSON.

Upper Taraheru Apiary, October, 1883.

[We cannot understand how you could move your hives a long distance over a rough road without killing all the bees if the frames were not secured in some way from shifting and kept the proper distance apart. You say that each hive was full of frames so that they couldn't shake out of their places. By this we take it that the combs were jammed together, then how did the bees fare? Will you please explain?—Ed.]

HONEY MARKET IN INDIA.

SIR,—I enclose a cutting from the *Daily Telegraph*, of September 3rd, 1883, just to hand. It may interest some of your readers, especially as to there being an Indian honey market and a variety of stingless bees in the far East.

Being a bee-keeper for over 30 years, I had intended to have corresponded with the JOURNAL; but, unfortunately, various engagements and expectation of removal have prevented my experimenting as I had proposed doing. My first Ligurians I received about the year 1861, from the late Mr Woodbury, of Exeter, who was a learned writer on bees, and inventor of hives and a personal and much respected friend of the writer's. If all be well as soon as I am settled I hope to go in for some experiments suggested by the Rev. Mr Filleul, formerly of Weston-Super-Mare; until that time I must be content to be a reader of your BEE JOURNAL, which I hope will meet with the success it deserves.

To anyone that wants a hobby I would say go in for bee-keeping; it is not a very expensive one in this country. With my temperament I have found it wonderfully fascinating, and I have sat days together looking at the bees at work both in and outside the hives.

Over twenty years ago I saw the bees sting a queen I had put in a hive; some time after, friend Woodbury told me this—at that time doubtful proceeding on the part of bees—had been proved to be a fact, and then I told him of my experience, fear of ridicule had prevented me doing so before. I sent Mr W. from Dartmouth by post a queen with a few workers. She was dissected with another one morning under a powerful microscope for useful information which I may some day tell you.

J. NEWLAND.

Ngaroto, October 18th, 1883.

Bee-keepers will be interested to know that, according to the results of recent inquiries made by the Government of India, a large market for their produce appears to be open in our Eastern Empire. This at any rate is certain, that honey is everywhere in demand throughout the peninsula for domestic, medicinal, and sacrificial purposes, and that at present no attempt has been made by indigenous industry to meet it. The Oriental, wherever you find him, is a great consumer of sweets; and, just as the British workman turns naturally to a public-house to spend his spare halfpence in liquid refreshment, so the Eastern, seeking to recruit himself after a bout of work, looks out for the nearest lollipop stall. An occasional lump of sugar-stuff will keep a messenger on the road all day without complaint, and suffice during a protracted trial to keep the most unwilling witness in his place under the trees outside the court-house as long as the contractor for his services chooses. A master will reward his servants with a basketful of sweetmeats; a native gentleman regale a visitor with bonbons. Even the day-labourer, the coolie, the nearest Eastern equivalent for our navy, will extend his hours beyond the proper time with cheerfulness, if candy be the inducement to stay. Moreover, just as in the West we have hot-cross buns and pancakes, goose and plum-pudding, to mark our feast days and our fast days, so in the East they have their confections of sugar and aromatic seeds appropriate to high festivals and holidays. Under the trees, wherever a fair is being held, one of the most conspicuous and attractive features of the day is the sweetmeat-making. Stalwart men take up great armfuls of the half-kneaded compound and hoist it on to the cross-bar between poles erected for the purpose, or else upon the branch of a convenient tree. Its own weight makes the big lump gradually settle and sink down over either side of the bar or branch, and gradually elongate itself into hanging ropes. These the men seize, and, pulling them out to the full extent of their elasticity, throw them up over the bar again. Each thus takes hold alternately of the other's rope, and the regular cadence of the song which they sing as they work up and temper the sweetmeat, and the concerted swaying of their bodies as they advance to seize the dependent ropes and step back to stretch them, seems to have a special fascination for the crowd. For they will sit, all grown up men perhaps, and watch the preparation of the "Mehti," which they hope later on to eat, with as much solemnity as if they were assisting at a pious rite. And by and by the confection will be pronounced complete, and then, up and down in the shade of the grove and in and out of the booth, little children will wander shrilly crying the wares they have to sell, "Sweet, oh! sweet—and all fresh," and the strong men under the trees will have to labour hard and long to keep the supply equal to the day's demands. Nor should it be forgotten that in religious offerings also, candies play an important part. There is nothing the deities like better than lollipops—so, at least, the priests tell such votaries as cannot afford more costly offerings—and the shrines are, therefore, liberally supplied with sweet confectionery.

Now, honey is an important ingredient of many of those things for which Orientals, both human and divine, have such a sweet tooth; and at present the amount in the market is nowhere commensurate with requirements. Medicinally, as a gargle, and a cordial especially, the bees' treasures are in

equal demand in all the Presidencies, but are not always obtainable when wanted. Yet India has been specially favoured by nature in the matter of bees, for the indigenous varieties of those insects are very numerous. The Hindoo, however, classifies them much as children classify bears—there are, they say, big bees, middle-sized bees, and little bees; and the first two kinds are of no use for domestication, as they have stings. The third, they say, might be of use for hiving, but unfortunately it is very small. Some describe this stingless insect as “a quarter the size of the house fly,” others “about as large as a mosquito,” while one says “it should perhaps be called a gnat rather than a bee.” This delightful innocence of entomology is not more refreshing than the Oriental's idea of the sting of the bee being a fatal objection to its utility under cultivation. But we should not forget that he wears very scanty clothing, and that few of us, even the most expert, would care to go honey taking with no more personal protection than a waist-cloth round the loins, and a dab of yellow paint on the forehead. It would require something more than even the sang-froid of a professional bee-keeper to venture among the angry hives in such Garden of Eden apparel, and a good deal more than good manners in the insect to forbear attacking such an extent of undefended surface. There remains the fact that India possesses several breeds of bees which have no stings. We should like to hear some disciple of Darwin explain this development of the inoffensive bee. It would be simple enough if the people of India were all hide-bound like their rhinoceroses, or went about iron-clad, for stings would then, no doubt be given up by the insects as being of no use; but considering as we have already said, that their costume is so carefully adapted to the climate, and that the provisions to attack are so copious and extensive, the natural fact justifies some surprise. We could have understood the Indian bees having tips to their tails like scorpions, or being all sting; but, when it comes to their deliberately doing away with “the business end” of their bodies, we are compelled to credit the bees with a measure of good taste and magnanimity that entomologists have not hitherto done justice to. These harmless honey-makers, however, produce but poor stuff, and little of it, though in fairness to them it should be said the native has not tested their capabilities with any remarkable degree of judgment or intelligence. Our own apiarists, for instance, will agree with us that to tie a string round the waist of a queen bee and then tether it down inside a hollow tree is at best a crude and primitive way of attracting the future hive—especially so in a country where the ant, “*edax rerum*,” is omnivorous and omnipresent, and where lizards and large spiders, the particular enemies of bees, swarm in hollow trees. What the result might be under more scientific treatment remains, of course, a matter of conjecture; but meanwhile it may be accepted as established that the majority of the inoffensive species give only an inferior quality of honey, and that the quantity as compared with that of the insects which are less pleasant to handle is inconsiderable. It would seem, therefore, that if the experiment of apiculture in India is ever to be made in earnest, it must be made with the bees that have stings, and here the possibilities of yield appear to be almost without limit. At any rate, the quantities said to be produced by wild swarms of some of the larger and more ferocious kinds are so large as to be almost incredible. What, for instance, would our English hive owners say to a swarm that could produce in a year, without any artificial attention, two hundred pounds of honey and half as much wax? or to a wild rock bee that stores up, without assistance or any incentive beyond its own instinct for industry, an average of forty pounds in a season? They would probably think such insects as these to be well worth cultivation, and no one would disagree with them if they did. To be put against this amazing productiveness is, however, the fact that these bees, especially the large cliff-bee, are exceptionally fierce. They are tigers of their kind. Man himself is not safe from them, and beasts perish under their stings without a chance. Combined with the dreadful potency

of the venom is a liability to provocation to which only a parallel can be found among beasts of prey when on guard over their young. For these swarms will attack a passer-by if he even makes any unusual noise. A gun fired off in their vicinity sets the whole cliff buzzing, and the bees—though hornets would almost seem to be a better name for them—if they catch sight of any moving object, whether man or beast, while thus irritated, throw themselves upon it with a malignity that is always terrifying, and an effect that is often fatal. Animals have as a rule no hope of escape, for in their panic they attempt to escape by headlong flight, a useless endeavour when pursued by insects so swift of wing. But human beings, either by lying down and feigning to be inanimate, or else by rushing into the nearest water and defending the head till sundown, make their escape, though not always, as the memorial cross on the banks of the Nerubudda, at the Marble Rock, testifies only too well.

From the above, then, it is evident that India possesses an abundance of bees, and offers also a prodigious market for honey, but that hitherto, owing to local causes, the industry has never been systematically developed. Whether it can ever be, except in purely European hands, is very doubtful, for the native of India has little taste for new enterprises. At present the honey-takers belong only to the lowest castes of the people, chiefly the poor jungle tribes, who literally pick a subsistence under the trees and off the rocks of the wildest parts of the interior of the country; and to enter deliberately upon a system of bee rearing would seem to the conservative Oriental like descending to a lower sphere of work to take the bread from the mouth of inferiors. As it is he only recognises their existence with a lofty indifference, and to compete with them in the bazaars in the vend of honey would present itself to him as an intolerable social degradation. So that to induce the Hindoo to turn to apiculture it would be first of all necessary to persuade him to revolutionise both his apparel and his ideas of caste occupations. But in the hills, where the thrifty mountaineers have no compunction as to the kind of work they will do so long as it helps them to make both ends meet, the experiment could be made under far more favourable circumstances; while the numerous mission stations—where the profession of Christianity levels all distinctions of caste, and requires a more liberal distribution of clothing over the body—would seem to afford excellent nuclei for bee-cultivation. In the meantime, however, an exceptional market would seem to be fairly open to the European producer. Not only has everyone in the country a sweet tooth, but offerings, if made in honey, are specially acceptable to the divinities.

[We shall be very glad to receive from Mr J. Newland the information he speaks about regarding the dissected queens. From the fact that our correspondent was a personal friend and co-worker in bee-keeping with the late Mr Woodbury we have no doubt that he could give the readers of the JOURNAL some interesting and useful information in connection with bees.—ED.]

BEE-KEEPING IN VICTORIA.

SIR,—I have received the October number, and am very much pleased with the JOURNAL—the more I see of it the better I like it. I am a subscriber to the *British Bee Journal*, but I find yours is better adapted to this part of the world. There must be a wonderful difference between New Zealand and Victoria with regard to honey resources; we cannot afford to make or purchase frame hives, honey extractors, comb foundation, and other appliances all at once, it will not pay. It very often happens here that for two or three seasons running we have no honey at all, and have to resort to feeding the bees; then comes a season like the last,

when honey is so abundant that it can be bought at 3d per lb.

I have a small garden in the centre of the town about 35ft x 60ft; in this I have, besides shrubs and vegetables, eleven hives of ordinary bees, nine are common boxes and two are frame hives. The latter are made according to my own views with regard to size for suiting this climate best; the frames are 8in by 10in in the clear. The old hives I have I shall not throw away, but fit them up with frames as I need them, for, as I shall never be able to supply the London market with honey, I think I need not trouble about sectional supers at present. If New Zealand was not so far off as it appears to be by the time it takes to receive an answer to a letter, I believe I would not make any more hives, but send to Bagnall Bros. for some at once. Do you think I have too many black bees in my small place to keep Italians as well, or must I get rid of the blacks first?

H. NAVEAU.

Hamilton, Victoria, Oct., 1883.

[We believe if you used all the modern bee appliances such as you mention you would find your bees would pay; it is just the use of these that make the difference between paying and non-paying. We can quite understand the state of bee-keeping in any place where honey can be bought at 3d per lb. You *must* adopt modern improvements and be up with the times in bee-culture before you can reasonably expect to get top prices for your honey. Probably 3d per lb. was quite as much as it was worth. We have found consumers more ready to pay three and four times that amount for a really good article, and this can only be obtained by the use of improved apiarian appliances.

With regard to keeping Italian bees, the number of blacks you have will not make any difference, providing you have sufficient room to keep your hives a few feet apart, and there is enough pasturage in the district for your bees. We presume you would Italianize all your black colonies as soon as possible.—Ed.]

BEE GLOVES.

SIR,—Having noticed your article on the above on page 52, November number, I will give you a description of those I wear. I use an ordinary pair of strong cotton gloves, having a pair of worsted-knitted stocking legs sewn on them for gauntlets. Over the cotton gloves a pair of good calf-skin gloves, a size larger, having nearly an inch cut off the tips of each finger and thumb, and where they open inside the wrist to button stitch in a piece of wash leather, to act as a tongue in a boot. These are what I have used since my arrival in New Zealand, and we thought the stocking-legs was a happy thought of our own; it seems not, although we never heard of it before to-day. Wetting the gloves is also quite new to me, but I think very good, in a solution of soda especially. With worsted-knitted gloves over cotton I have found them sting through, they find out the thin part of the knitting; but cotton over knitted woollen is more safe. It really means this: if you cover the hand with anything of which the thinnest place is thicker than the length of the bees' sting, then you are safe—and consciousness of safety adds so much to the calm and proper manipulation of bees.

AN OLD BEE KEEPER.

Ngaroto, Nov., 1883.

REMEDY FOR BEE STINGS.

A STRONG solution of carbonate of soda is a first-class remedy for bee stings, mosquito bites, scalds, burns, &c. A supply of this should always be kept handy in a small bottle well corked. To apply, moisten the parts affected two or three times. AN OLD BEE KEEPER.

Ngaroto, Nov., 1883.



FROM KARL BROS' APIARY.

SIR,—On page 43, October number, Mr Stevenson asks what we did with our comb honey raised last season.

We extracted all our white clover honey, which we can do freely, but when the flax honey came in we found that it was impossible to extract it, so we put on extra stories with two-thirds of our frames containing full sheets of foundation and one-third with starters only, as we had run short of comb foundation. After all the combs had been worked out, filled with honey and sealed, we took them off the hives. A portion of the comb built on the artificial foundation we broke up and strained; all containing pollen we saved for spring feeding. That built in the frames containing starters we kept for home use.

We went into winter quarters with 120 colonies, and got them all through successfully; they are now all very strong. We have a good many nuclei for queen rearing. The bees have been doing splendidly for the last two weeks in the bush. They are bringing in pollen wholesale from the kahikatea and bukatea, which are now in blossom. The white clover is beginning to flower pretty well here, and in two or three weeks our busy time will commence again.

We have just fitted up four tanks in our honey-room for ripening the honey in; they are made of corrugated iron, five feet high and two feet six inches in diameter. We intend to have them on blocks or stands high enough to run the honey into barrels after it is ripened. We think the tanks will be much better than barrels to ripen the honey in, as barrels are apt to leak after they have been standing in a warm room for some time.

Our honey house is painted black both on the roof and sides, to absorb the heat; the temperature last season inside went up to 98deg.; we think that should be hot enough to ripen honey.

Ohaupo, Oct. 24th, 1883. KARL BROS' APIARY.

Later.—Since I wrote you last we have had a deal of bad weather here; the bees were doing better three or four weeks ago than they are at the present time. I have been obliged to feed, and have used three bags of sugar during the last three days. There is lots of white clover in blossom just now, but no honey is secreted in the flowers, owing to the temperature being so low and so little sunshine. The honey season was rather late in commencing last year, but it is still later this. However, I am in hopes of our having a good season yet.

November, 1883.

J. KARL.

[Your apiary must be situated in a specially favourable locality, as at the time you state your bees were

carrying in pollen and white clover flowering pretty well, we were having very severe weather, and scarcely a clover flower to be seen, although we have thousands of acres of clover round us.

We presume your honey tanks are made of galvanized iron; if so, will not this be hurtful to the honey unless waxed?—Ed.]

GISBORNE.

THE weather here continues very cold and wet, with high winds; as bad weather for bees as could possibly be. Honey comes in very slowly, and some of my hives had dwindled so much that I have doubled up to 70 to begin the season with. I don't know if it is the right thing to do, but I have taken frames of brood from all the strong hives, and distributed them among the rest. This will retard swarming, and equalise the strength of the hives. Clover should begin to bloom very soon, when it is to be hoped things will take a turn for the better.

G.S.

Waerangahiki, Gisborne, Oct., 1883.

MR. WILKIN'S REPORT FOR 1883.

I PRESENT to you, at his request, the compliments and report of Mr R. Wilkin, San Buena, Ventura, Cal., with whom I was working through the month of June.

The season of 1883 has been, with us, a peculiar one. Early rains in the fall of '82 raised the hopes of farmers and bee-keepers. A great deficiency of rainfall during the winter nearly destroyed them. The last week in March found the ground dry, the crops suffering, and the people fully expecting a dry year. A good rain about the last of March and the first of April, with showers in April, and the rare event of heavy rain in May, again changed the outlook; bees began to prosper, increase, and store. This state of things continued till the latter part of June, when unusually hot weather suddenly put a check upon proceedings. While bees can easily gather winter stores after this little surplus will be taken from them.

Mr Wilkin has 1000 colonies of bees, present count, in two apiaries. He has 720 colonies at his Sespe Apiary, where he started with something less than 500 in the spring, and where there are upward of 2000 colonies within two miles of one point. He has 280 at his Matilija Apiary, where he started in the spring with about 190, and where fewer bees are kept. From the former apiary he extracted 15 tons of honey, and from the latter 9 tons. If room would permit, I would gladly enter at length into a description of the systematic arrangements at the Sespe Apiary; I will only say that everything works smoothly and perfectly. Mr Wilkin uses an eight-frame extractor, *i.e.*, one that empties eight frames at once. One person can run it easily, and I think it demonstrates the fact that time can be saved by emptying a larger number of frames than two or four. Mr Wilkin both devised and constructed it.

Of course, in so large an apiary, various anomalies will occur, such as bees swarming with a virgin queen when they have an old clipped queen in the hive; bees swarming when they have only a caged queen (just introduced) in the hive, and finally returning, &c. But are we not disposed to make too much of these occasional circumstances, and state them in a way that

would make a beginner think them liable at any time to happen? For instance, instead of every man who has ever known a swarm to leave without clustering acquainting us with the fact (and we have heard from many already), suppose that those who have known one per cent. of all the swarms they ever saw to thus depart report to us, and we will see if the number does not decrease materially. I have known swarms to apparently leave without clustering, and then have found them clustered, after all, a long way from the apiary. While admitting that they sometimes go directly to the tree, I think that merely seeing them depart is not conclusive evidence.

I will add, that results at Mr Wilkin's apiaries may be taken as a fair average for Ventura County, a few apiaries having done much better and others not so well, according to location.

A. NORTON.

—Gleanings, Gonzales, Cal., July 10, 1883.

[We are very glad to hear of our old friend Mr Wilkin getting a good crop of honey once again. The past three seasons in California have been very poor ones, but those who have stuck to the business will now be repaid for their perseverance.—Ed.]

QUERIES AND REPLIES.

We shall from time to time give replies through this department to questions pertaining to bee-culture, propounded by our subscribers. We would ask our correspondents to be as concise as possible, and to number their questions 1, 2, 3, and so on.

QUERY.—*Size of Langstroth Hive.*—In looking over the *Bee Manual*, published some time ago, I see (chap. v.) that for making the Langstroth hive the following dimensions are given:—Length, 20½ inches; width, 16 inches; and depth, 10 inches. "The upper edge of the outside of both ends and sides should be rabbetted ¾ in. on by 5-16 in. deep. The inside bottom edge of both ends and sides ¾ in. on by ¾ in. deep to allow each box to fit on top of any other." Would you kindly inform me if there is no mistake in the above measurement, as I have found it impossible to make them fit. After cutting the timber to measurements specified, I find the outside measurement of top of boxes to be 19¾ in. by 15¾ in., the inside of bottom of hive 19 in. by 14¾ in. Of course, by the above I mean the rabbetted parts that should allow for one box to fit in the other, consequently I have been rabbeting the bottom edges ¾ in. on by ¾ in. deep, as I find that they fit pretty correct that way. By answering the above you will greatly oblige me, as I have not had the opportunity of seeing any "Langstroth hives," the bees in this district being generally left to take care of themselves.—An Inquirer. Hokianga, October, 1883.

REPLY.—There is certainly a mistake in your measurements somewhere; those given in the *Manual* are correct. If you had followed out its instructions, the measurements would have been 19½ in. x 15½ in. both top and bottom inside of rabbets, instead of those you give. Although we have taken pains to make everything as plain as possible in the *Manual*, we would strongly advise beginners who wish to make their own hives to obtain one made up from the manufacturers as a pattern to make them by. Probably the time saved in having a pattern to work from

would more than re-pay the cost of it two or three times over.

QUERY.—Hive Cramp.—In your last issue, under the heading of "Appliances for the Apiary Workshop," you say:—"To steady the jaw when screwing up, a short piece of inch board is nailed on the bottom which slides between fillets nailed between the horizontal pieces; this forms the cramp." Would you kindly explain this a little better; the jaw you say is only 16 inches long, so it must rest on the horizontal pieces; what shape is the inch board that it nailed on to it, to slide between fillets? By answering this question through the columns of your JOURNAL, you would greatly oblige—N. Schumacher, Inglewood, October, 1883.

REPLY.—We omitted to state that there should be a piece of batten 2in. wide by 1in. thick by 4in. long, nailed or screwed to the bottom of the movable jaw. This batten drops between the fillets which are 1in. square, and it is on this that a board 8in. long by 6in. wide by 1in. thick is nailed to run in a groove inside each horizontal piece formed with two fillets on each side. We thank you for directing our attention to this omission.

VISITORS.

Two young gentlemen, Messrs J. L. Shadwell and W. F. Robinson, bee experts, members of the Middlesex Bee-keepers' Association, lately arrived from England in the s.s. Ionic, bearing letters of introduction, have just paid us a visit. It is their intention, as soon as a suitable place can be procured, to start bee-farming, for which purpose they have brought with them a number of appliances. As one of their first requirements will be bees to start with, we call the attention of those who have any to dispose of to Messrs Shadwell and Robinson's advertisement in another column. We think the gentlemen are fortunate in choosing the Auckland district for their future operations, and we extend to them a hearty greeting.

CIRCULAR RECEIVED.

We have received from Mr Thomas B. Blow, of Welwyn, Herts, England,—expert of the British Bee-keepers' Association,—his circular and price-list of bee-keeping appliances. It is a neat pamphlet containing eight pages and cover, enumerating every modern appliance a bee-keeper requires, and is sent free on application. We notice that Mr Blow is the taker of a number of first-class prizes for apiarian implements. His advertisement appears on the cover.

HONEY AND FRUIT TINS.

We are in receipt from Mr George McCaul, of the Galvanized Iron Works, Thames, a sample each of his 1lb. and 2lbs. honey tins, and 2lbs. and 4lbs. fruit preserve tins. They are all made on the same principal—the centre of the tops being cut out with a die and flanged. The tops are already soldered on, with the exception of the centre pieces, the flange of which fits in a groove. After the tins are filled the centre pieces are put on and the flanges soldered. With the aid of the groove or channel for running the solder in, a novice should be able to make a neat job of the soldering. The tins are well made, and at the very low price they are offered by the gross, should command a large sale. Mr McCaul's prices for the above will be found in his advertisement on the cover.

HONEY MARKETS.

AUCKLAND, December 1st, 1883.

We beg to quote honey as follows:—Wholesale, 1lb tins, 8s to 8s 3d per doz.; retail, 1lb tins, 11s to 12s per dozen. Bulk honey, wholesale, 4d per lb; retail, 5d per lb. Extra fine, 6d per lb.

AUCKLAND AGRICULTURAL AND MERCANTILE Co., Limited.

ENGLAND.

By last mail news, honey was still in good demand at average rates. The value of honey imported into the United Kingdom during the month of August, 1883, amounted to £6,262.

—British Bee Journal.

AMERICA.

NEW YORK, October 15, 1883.

HONEY.—White clover and basswood in 1 lb. and 2 lb. sections, 17 @ 21c.; dark to second quality, 14 @ 15c.; extracted white clover, in kegs and barrels, 9 @ 10c.; dark, 8c.

BEEWAX.—Prime yellow, 27 @ 29c.

H. K. & F. B. THURBER & Co.

SAN FRANCISCO.

HONEY.—There is a fair jobbing trade. Offerings are not large. Choice qualities command extreme figures. c. c.

White to extra white comb	...	...	16 @	20
Dark to good	...	...	10 @	13
Extracted, choice to extra white	...	...	8 @	9½
Dark and candied	...	...	6½ @	7½
BEEWAX—Wholesale	...	...	27 @	28

STEARNS & SMITH, 423, Front-street.

—American Bee Journal.

SPECIAL NOTICES.

We have given up all the space we can in this issue to the clearing up of correspondence and matter that has been waiting insertion for some little time.

NOTICE TO BEE-KEEPERS.

Mr H. H. Hayr wishes us to state that he keeps on hand and for sale all kinds of apiarian appliances. We believe he is agent for Messrs Bagnall Bros. and Co.'s bee-keepers requisites. His advertisement appears on the cover.

QUERY AND REPLY DEPARTMENT.—Correspondence for this department should reach the editor not later than the 15th of each month, when replies are required in the next issue.

ADVERTISING DEPARTMENT.—Advertisements for the next issue should reach the publisher by the 24th of each month.

Correspondence for publication may be sent at book post rates i.e., one penny for every two ounces, providing the book post regulations are complied with, and the words "Press Manuscript" are written on outside of cover.

Our Correspondents will oblige by writing articles for publication on one side of the sheet only.

P.O. Orders for Subscriptions, Advertisements, &c., to be made payable to J. C. Firth, Chief P.O., Auckland, and sent under cover to H. H. Hayr, High-street, Auckland, or P.O. Box 186.

SCALE OF CHARGES FOR ADVERTISEMENTS.

Single Column.	£ s d	Double Column.	£ s d
Three lines	0 1 6	Page	2 10 0
Per line afterwards	0 0 6	Half page...	1 7 6
Inch of space	0 3 6	Third of page	1 0 0
Quarter column...	0 8 0	Quarter page	0 17 6
Half column	0 15 0		
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