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VOL. II, NO. 33.

1886

NOVEMBER 10.

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER

THE CANADIAN



JOURNAL

APR 27 1886

THE FIRST \$

WEEKLY

IN THE WORLD

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ONE DOLLAR PER YEAR

THE GREATEST POSSIBLE GOOD TO THE GREATEST POSSIBLE NUMBER

PUBLISHED BY

JONES, MACPHERSON & CO.  
BEETON ONT.

GRANT 1886

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We will always be glad to forward sample copies to those desiring such.

Send us the names of three subscribers with \$3 in cash and receive as a premium one C. B. I. Binder.

Send postal card for sample of leaflet, "Honey, some reasons why it should be eaten."

The CANADIAN BEE JOURNAL will be continued to each address until otherwise ordered, and all arrears paid.

Subscriptions are always acknowledged on the wrapper of first number after receipt.

American Currency, stamps, Post Office orders, and New York and Chicago (par) drafts accepted at par in payment of subscription and advertising accounts.

Errors.— We make them: so does everyone, and we will cheerfully correct them if you write us. Try to write us good naturedly, but if you cannot, then write to us anyway. Do not complain to any one else or let it pass. We want an early opportunity to make right any injustice we may do.

We can supply Binders for the JOURNAL 55 cents each, post paid, with name printed on the back in Gold letters.

Subscription Price, \$1.00 per Annum. Postage free for Canada and the United States; to England, Germany, etc., 10 cents per year extra; and to countries not in the postal Union, \$1.00.

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" " "Texas Bee Journal".....	1.80
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## TO CONTRIBUTORS

Communications on any subject of interest to the Beekeeping fraternity are always welcome, and are solicited.

Beginners will find our Query Department of much value. All questions will be answered by thorough practical men. Questions solicited.

When sending in anything intended for the JOURNAL do not mix it up with a business communication. Use different sheets of paper. Both may, however be enclosed in the same envelope.

Reports from subscribers are always welcome. They assist greatly in making the JOURNAL interesting. If any particular system of management has contributed to your success, and you are willing that your neighbors should know it, tell them through the medium of the JOURNAL.

## ADVERTISEMENTS.

### WE CLUB

	Price Both.	Club
THE CANADIAN BEE JOURNAL and.....		
Cook's Manual (cloth).....	\$2 25	\$2 00
A B C in Bee Culture (cloth).....	2 25	2 00
Quinby's New Bee-Keeping (cloth).....	2 50	2 25
Alley's Handy Book (cloth).....	2 50	2 25
Langstroth on the HoneyBee (clh).....	3 00	2 75
Heddon's Success in Bee Culture.....	1 50	1 40
" A year among the Bees, by Dr. C. C. Miller.....	1 75	1 60
A Bird's-eye view of Bee-keeping by Rev. W. F. Clarke.....	1 25	1 15

### "Foul Brood"

*Its Management and Cure.*

BY D. A. JONES. NOW READY.

This little pamphlet is presented to the Bee-keeping public with the hope that it may be the means of saving infected colonies from death by fire and otherwise. No expense is required to successfully treat the disease, other than the little time required for fasting.

Price, 10 Cents.

JONES, MACPHERSON & CO., Publishers Beeton, Ont.

## BEEES AND HONEY

TO ALL that are interested in Bees and Honey, send for our Free and Illustrated Catalogue of Apiarian Supplies. Address

M. RICHARDSON & SON.

Port Colborne, Ont

### THE BEEKEEPER'S LIBRARY.

We keep in stock constantly and can send by mail post-paid the following:—

BEEKEEPERS' GUIDE OR MANUAL OF THE APIARY, by Prof. A. J. Cook. Price, in cloth, \$1.25; paper, 1.00

A. B. C. IN BEE CULTURE by A. I. Root. Price, cloth, 1.25; paper, \$1.00.

QUINBY'S NEW BEEKEEPING, by L. C. Root. Price in cloth, \$1.50.

THE HIVE AND HONEY BEE, by Rev. L. L. Langstroth. Price, in cloth, \$2.00.

HONEY, some reasons why it should be eaten, by Allen Pringle. This is in the shape of a leaflet (4 pages) for free distribution amongst prospective customers

Price, with name and address, per 1000, 3.25; per 500, \$2.00; per 250, \$1.25; per 100, 80c. With place for name and address left blank, per 1000, \$2.75; per 500, \$1.70; per 250, \$1.00; per 100, 50c.

FOUL BROOD, ITS MANAGEMENT AND CURE, by D. A. Jones. Price, 11c, by mail, 10c. otherwise.

BEEKEEPERS' HANDY BOOK, by Henry Alley. Price in cloth, \$1.50.

A. B. C. IN BEE CULTURE, I. Root, in paper 50c.

SUCCESS IN BEE CULTURE as practised and advised by James Heddon—price paper cover, 50 cents.

"A YEAR AMONG THE BEES," by Dr. C. C. Miller. Price, 75c.

A BIRD'S-EYE VIEW OF BEE-KEEPING, by Rev. W. F. Clarke. Price 25c

FARMERS BUY THE CELEBRATED

## LARDINE MACHINE OIL,

—AS IT—

EXCELS ALL OTHERS.

Manufactured solely by

McCOLL BROS., Toronto.

TABLE OF CONTENTS

	PAGE
Advertisements.....	646
About the Query Department.....	655
Botanical.....	633
Canada at the Colonial.....	645
Commissioners, Tribute to our.....	653
Examining bees for winter.....	634
Inventor's right.....	657
Queenless colonies for fall.....	654
Straw for packing.....	654
Ventilation for hives.....	655

THE CANADIAN BEE JOURNAL

AND  
Bee-Keepers' Magazine

Both for the price of the

CANADIAN BEE JOURNAL.

See advertisement on another page for particulars

Tools For Bee-Keepers

HAMMERS.

We shall hereafter keep in stock a full line of tools suitable for bee-keepers. For ordinary use, where a person has only a few hives, etc., to nail, we have an iron hammer (with adze eye) which we can send you at 15c.

Then in steel hammers we have three styles all with adze eyes, which we sell at 40c, 50c, 60c each. Small hammers—steel face with adze eyes, just what are needed for trans-nailing, etc. No. 55, 35c; No. 52, 50c.

SCREW DRIVERS.

With good hardwood handles and of the best steel—nicely finished, round bits, in two kinds, No. 1, 5 inch bit 18c; No. 2, 6 inch bit, 20c.

TWO-FOOT SQUARES.

In iron squares we have two kinds—the first of these is marked down to 3/4 of an inch, and is marked on one side only, the price is, each, 20c.

The other style is marked on both sides down to 1/2 of an inch—price, each, 35c.

We have a splendid line in steel squares which we can furnish you at \$1.35. They are well finished and are usually sold in hardware stores at \$1.75.

TWO FOOT RULES.

A splendid line in rules we offer at, each, 18c. Then we have a nice box-wood rule at, each, 25c.

HAND SAWS.

Just at present we have but one line in these—26 inches long—A. & S. Perry's make—usually sold at 75 cents we offer them for 55c.

PANEL SAWS.

These are what are often called small hand saws, and for the finer classes of the bee-keepers work are indispensable. We have started out with two lines in these. The 18 inch are good steel, (Shirley & Dietrich make) and can be sold by us at 50c.

The 20 inch are silver steel (same make) price \$1: These last are a beautiful saw for that money.

PLANES.

Iron block planes, just the thing for dressing off hives, each, 75c.

Wooden smoothing planes—the best of the kind, 85c.

All the above goods are sold at prices 20 to 25 per cent below the ordinary retail way, so that when ordering other goods you may just as well have any you may want as the cost of transportation will not be any greater. These will be included in the next revision of our price list.

THE D. A. JONES CO., LD.,

BEEETON, ONT.

EARNES' FOOT-POWER MACHINERY.



Read what J. I. PARENT, of CHARLTON, N. Y., says—We cut with one of your Combined Machines, last winter, 50 chaff hives with 7-inch cap, 100 honey-racks, 500 broad frames, 2000 honey boxes, and a great deal of other work. This winter we have double the amount of bee-hives etc., to make and we expect to do all with this Saw. It will do all you say it will." Catalogue and Price-list Free. Address, W. F. & JOHN BARNES, No 472 Ruby St, Rockford, Ill.



**YES!** I take the Poultry Monthly and consider it the best Magazine published by a large majority. My fowls are now the best-paying stock that I own. I have cleared over \$400 this far, and business is just booming. I could advise every poultry keeper to subscribe for it without delay, as it is brim full of practical information.



**NO!** I did not subscribe for the Poultry Monthly, but intend to do so at once. I am told it is the best poultry journal published, I said I was too poor. My hens did not lay. They sickened and died. I had no poultry paper to tell me what to do, all because I wanted to save a dollar. I had to sell my place under mortgage. The "old woman" has gone back on me. My hair is getting thin, and the fact is I feel bad.

Special Offer For One Dollar

We want to place the MONTHLY in the hands of every one interested in poultry and pet stock, and will send the paper for the balance of this year free to all who subscribe now at \$1.00 for 1887 and mention the C. B. Journal.

Remember, the regular price of subscription is \$1.25 per annum, so do not fail to take advantage of this liberal offer.

Address,

THE POULTRY MONTHLY.

P. O. Box 215, Toronto, Can.

SECTION CARTONS

Or Pasteboard boxes for enclosing honey sections. We sold thousands of them last season and are receiving orders for thousands of bee improved for this season.

The improved Cartons are shipped in the flat all ready or the sections; all you have to do is to put on the label.

	Per 500	Per 1000
Price for 1 lb.....	\$3 50	\$5 00
" 2 lb.....	4 50	8 00

Sample by mail 5c.

Labels for the Carton 1 lb., \$1.00 per M.; 2 lb., \$1.25 per M  
14 oz. Glass Honey Jars \$5.00 per gross, also tin packages of all kinds.

Honey Labels—Best assortment in the U. S.—Send for Catalogue.

Wholesale prices to dealers.

A. O. CRAWFORD,  
S. Weymouth, Mass

# PREMIUM :: LIST !

PRESENTED FOR NEW SUBSCRIBERS.

WE WISH TO LARGELY INCREASE THE PRESENT LIST OF THE

## ==== CANADIAN BEE JOURNAL ====

before the new year, and to do this we make offers of the most liberal nature:

### ONE SUBSCRIPTION.

- To all new subscribers who send their names at once we will forward a copy of the little book, "Foul Brood, Its Management and Cure," for \$1.00—value..... \$1 10  
 One subscription to the JOURNAL with \$1.15 will entitle you to a copy of the new book "A Bird's Eye View of Bee-Keeping," by Wm. F. Clarke, Guelph,—value 25c—free.  
 One subscription to the JOURNAL with \$1.25 will entitle you to a virgin queen (value 50c) during the season of 1887—free.

### TWO SUBSCRIPTIONS.

- Two new subscribers with \$2 will entitle the sender to any one of the premiums below, free:  
 One copy of Clarke's "Bird's Eye View of Bee-Keeping."  
 A virgin queen during season of 1887—value 50c.  
 5 Show Cards (two colors Honey for Sale.)  
 One Winter Feeder (made up).

### THREE SUBSCRIPTIONS.

- Three new subscribers with \$3 will entitle the sender to any one of the premiums below, free:  
 One copy of Haddon's "Success in Bee Culture"—value ..... 50  
 One \$ Queen during the season of 1887.  
 One Canadian Feeder (made up).

### FOUR SUBSCRIPTIONS.

- Four new subscribers with \$4 will entitle the sender to his own JOURNAL for one year, and a copy of "A Bird's Eye View" both free, or four names and \$4 will entitle the sender to any of the premiums below, free:  
 One Queen, worth \$1.50, during the season of 1887.  
 One copy of Dr. C. C. Miller's new book "A Year Among the Bees," value..... 75

### FIVE SUBSCRIPTIONS.

- Five new names with \$5 entitles the sender to any of the following premiums free:  
 One copy Root's A.B.C. (in paper) postpaid, value..... 1 07  
 One Honey Knife, by mail, postpaid, value..... 1 08

### SIX SUBSCRIPTIONS.

- Six new names with \$6 will give you free any one of the following:  
 Root's A.B.C. in Bee Culture (cloth) value..... 1 25  
 Cook's "Manual of the Apiary" (cloth) value..... 1 25  
 Honey Knife, ebony-polished handle, value, postpaid..... 1 33  
 One No. 3 Smoker, fancy finish..... 1 30  
 Bound Vol. I, CANADIAN BEE JOURNAL..... 1 25  
 One Queen, (season of 1887)..... 2 00

### TEN SUBSCRIPTIONS.

- Ten new names with \$10 will give you free any of the following.  
 One force pump (per express) value..... 2 00  
 One Queen Nursery 20 cages (per express)..... 2 50  
 One Queen (season of 1887) selected, tested,..... 3 00

### FIFTEEN SUBSCRIPTIONS.

- Fifteen new names with \$15 will give you free, One No. 1, Wax Extractor, value..... 3 50  
 One Haddon Hive, painted and complete, value..... 3 25  
 1000 Leaflets, "Honey, Some Reasons Why It Should Be Eaten," value..... 3 25

### TWENTY SUBSCRIPTIONS.

- Twenty new names with \$20 will procure for you free.  
 Any style of Lithograph Labels you may desire to the value of..... 5 00  
 Two queens, selected tested (season of 1887) at \$3 each..... 6 00

### TWENTY-FIVE SUBSCRIPTIONS.

- Twenty-five new names with \$25 will give you free, One Honey Extractor (Jones Patent)..... 8 00  
 Or one Set Honey Scales (240 lb) with tin scoop, stamped..... 7 10

Address all your communications to

JONES, MACPHERSON & CO., Beeton, Ontar o.



"THE GREATEST POSSIBLE GOOD TO THE GREATEST POSSIBLE NUMBER."

VOL. II. No. 33. BEETON, ONT., NOVEMBER 10, 1886 WHOLE No 85

#### CANADA AT THE COLONIAL.

WE give below the report of the evening convention at Kensington, England, at which our Canadian delegates were prominent :

"At five p.m., the members of the B. B. K. A. held a *Conversazione* in the Conference Hall, which was well filled by a large assembly, including the Colonial delegates. The principal item on the agenda was Mr. Jones' interesting explanation of the system of bee-keeping and appliances now in use in Canada. His remarks were listened to with great attention, frequent applause interrupting the delivery of them. After tea and coffee had been served, Mr. Cowan took the chair and introduced Mr. Jones to the meeting.

Mr. Jones said it afforded him very great pleasure to meet so large an audience of English bee-keepers, and he earnestly wished the highest possible success to the B. B. K. A. He looked upon that body, with its branches, as the greatest bee-keeping Association in the world, comprising as it did upwards of 10,000 members, with a staff of experts and assistants of about fifty, to instruct cottagers and others in bee-keeping. It was far in advance of anything they held in America. He believed that the members of all the bee-keepers' Associations in America combined would not equal the members of the B. B. K. A. alone. He was not so much at home in making a speech as he would be in talking about the management of bees. He had not time to collect his thoughts, not knowing until a short time previously that he would be called upon to address them at that moment. He thought the members of the B. B. K. A. deserved a great

deal of credit for the able manner in which they had conducted the Association, and the excellent management it had been controlled by from the commencement. He was happy to find this opportunity of saying that the Ontario delegates wished to present to the Chairman, as a token of respect, a sample of the best honey brought from Canada. It was also with great deal of pride and pleasure that they tendered a similar offering to the worthy President of the Association, the Baroness Burdett-Coutts. He was sure that he only expressed the opinion of himself and all his fellow bee-keepers in Ontario when he said that nothing would please them more than to meet as many of their audience as possible in Canada. He did not know whether they could treat them as kindly and as nobly as their fellow-workers in England had treated the Canadian representatives, but they would do their best. He was sure that he spoke the feelings of his fellow-countrymen in saying that their stay here would ever form one of the happy recollections of their lives.

The Rev. Dr. Bartrum said, when the Chairman told him at luncheon that there were to be no speeches after four o'clock, he for once began to realise the story of Cinderella, and when the magic hour arrived he thought his duties as a speaker had ended. However, he cheerfully obeyed the call of the Chairman, and it was with the greatest pleasure he begged to acknowledge the kindness of Mr. Jones' remarks in reference to the B. B. K. A. It was a source of pleasure to them who ever proposed success to the Association, but when that commendation came from one who represented a colony like Canada, which proved itself inferior to none in bee-keeping, then he felt sure that all those who

labored in the Elysian fields of apiculture would feel that their cup of happiness was full. It was a common thing for people to say that Britain was played out, but he thought that the capabilities of the old country for honey raising were as good as those of any country in the world. He often saw honey said to be imported from Switzerland, which was sold in England and abroad, and often put on the tables of hotels at home and abroad, and miserable trash it was, very different from the Swiss honey produced by M. Bertrand, which was of the most exquisite quality. Nevertheless, here in England had a distinct advantage over Switzerland in honey-producing, because of the superior crop of clover and limes in the former country. The results of skilfully directed efforts had shown distinctly that England could produce enormous honey harvests; their Chairman had produced 200 and even 300 pounds from a single hive, not in one instance only, but in many cases. The increase of honey produce of late years had been remarkable. For one pound produced ten years ago one hundredweight was now obtained. He knew these to be facts from the experiences of his own neighbourhood. That wonderful progress in apiculture they owed chiefly to the B.B.K.A., and to several earnest men who had devoted a considerable portion of their lives to the furtherance of the aims of the Association. Amongst these they must not forget the name of their late lamented friend the Rev. Herbert Peel, whose energy, public spirit, singleness of purpose, and devotion to duty, were well known. Then there was Mr. Abbott; and as their Canadian friends looked back to the time of their pilgrim fathers, so did bee-keepers look back to those who had laid the foundations upon which later workers were able to build. They could not forget what Mr. Abbott had done in the dark days. Then there was their friend Mr. Cheshire, and he was sure that the B.B.K.A. were proud and delighted to welcome him once more amongst them. They all recognised his great ability, which had been devoted to their cause for many years. Then he must recall the memory of Mr. Hunter, and also not forget their friend Mr. Hooker. He dared say there were other names that ought to be thought of, but he must not overlook the gentleman who occupied the chair. In their friend Mr. Cowan they had a rare combination of qualities devoted to bee-culture, and to the work of the B.B.K.A. Both in his capacity of Chairman and private individual, and as the author of valuable works which are being translated into different languages, and as the editor of their paper, he was engaged in a noble undertaking. He had much pleasure in

wishing health, long life, and happiness to Mr. Cowan. (Loud cheers.)

The Chairman said he did not expect or deserve the compliment so kindly passed on him by Dr. Burdum, but he heartily thanked that gentleman and his audience generally for the kind way in which they had received those remarks. With regard to what Mr. Jones had said and done he begged to say that they were very pleased to receive their Canadian brethren, and to extend to them all the neighbourly and brotherly feeling they could. He desired to express his best thanks to Mr. Jones and the other gentlemen for the handsome samples of honey they had given to him, and it would be his business to see that the specimens also kindly submitted to their President should be placed in that lady's hands. He hoped that many others besides himself would have an opportunity of passing an opinion on the imports of Canadian honey. He was especially grateful to the Canadian bee-keepers for the way they had spoken of the B. B. K. A. He remembered with pleasure that it was only twelve years ago since the Association numbered 150 members, whereas now, with its affiliated Associations, amounting to something like forty-two, upwards of 10,000 persons were enlisted in its ranks. That showed remarkable progress. It was not surprising, taking into account the enormous increase in the produce, that some bee-keepers had a difficulty in disposing of their honey. Their Canadian friends had taught them a lesson in that respect. They had shown them the value of offering small quantities for sale at cheap prices which found ready purchasers, and thus begat a demand for the article. He was surprised but glad to notice that they even sold tins of honey at as low a price as 2s. He had no doubt that the action taken by the Canadian bee-keepers would give an additional fillip to the industry in England, and on that account they were very much indebted to those gentlemen. They argued that the public, who came and tasted the honey for nothing, would buy a twopenny tin perhaps, and the next time they visited the place probably they would purchase a sixpenny, or even a larger tin. These cheap rates were a capital means of getting at the poorer classes. He was sorry that these gentlemen had not come to their show in August, and although the British bee-keepers had not the same large quantity of honey to show there was a much larger variety of flavour. He hoped the Canadians would carry away some new ideas with them. He had travelled a great deal, but had never been anywhere but what he could learn something. He again heartily thanked them

all, and would always remember that meeting, which he thought would form a bond of union amongst bee keepers of the two continents, and friendships which nothing but death would part. He said there were other veteran bee-keepers who had not been mentioned. Mr. Raynor should not be forgotten, as he had done an immense deal for bee-keeping. Mr. Bligh was at the start, for he attended the first meeting ever held.

Mr. Jones then proceeded to give a description of the Heddon hive. He said the Heddon hive consisted of first a stand, next a bottom board, then two shallow brood-chambers, then two section cases, and the lid. The brood-chambers were so constructed that they were reversible, and invertible, or exchangeable. The supers were also invertible. They were of the right size to hold  $4\frac{1}{2}$  sections, and could be constructed to hold sections of any width. The supers had frames in them of the right size to hold four sections each, and by means of a small screw which pressed against the end of the section frames they were crowded so tightly together, that when inverted they would remain in position. This was considered a great advantage, because sections only partially filled and capped when inverted, would be completed much more perfectly than if allowed to remain in their first position; and the work would be done in a much shorter time. There was a half bee-space between the frames and edges on both top and bottom of the supers, and brood chambers. This half bee-space when inverted or exchanged always left one bee-space between brood or section frames. It was claimed by the inventor that this combination of principles adapted as it was to exchanging, inverting, or reversing, had superior advantages, enabling the bee-keeper to manage his bees more successfully, and with much less labor than usual, especially in the production of comb honey. When the honey harvest commenced, the brood-chambers were separated, the queen being driven by a few puffs of smoke into the lower brood chamber. There was then a perforated metal and wood queen-excluder honey-board placed over the lower brood-chamber, thus preventing the queen from entering the sections which were placed on immediately over the brood-chamber. The other brood-chamber was next placed on top of the sections, thus causing the sections in the supers to be in the centre of the hive. Half the brood being below, and half above them, caused the bees to go to work in the sections at once, and labour more vigorously to fill up the vacant space thus created. As fast as the brood issued from the

top brood-chamber the bees filled it with honey, and when filled and sealed after the honey season was over it might be used for winter stores. There was another advantage he must mention which was that the system he advocated prevented the queen from carrying on excessive breeding during the honey flow. It was very injudicious to raise a large number of bees at that time which necessarily consumed a large amount of stores which ought to be taken in their surplus. Those bees hatching just after the honey harvest was over were too old to go into winter quarters. Thus, they virtually became consumers instead of producers; whereas, if the energies of the queen were suppressed, and she was only permitted to carry on breeding sufficient to replenish the hive during the honey flow, and afterwards allowed to carry on breeding more vigorously a larger number of young bees would be thus secured to go into winter quarters, and of course would be of more value in the spring. The case with which comb honey might be taken enabled the bee-keeper to take charge of nearly double the number of colonies, thus making it possible for him to produce honey at less expense and leaving him a larger profit for his labours. Another important feature was that the queen-cells were all built on the bottom of the comb projecting down, so that they could be removed if necessary at any time by inverting the brood-chamber, the inversion being sufficient to destroy the queen-cells. Some people practised inverting every three or four days to destroy the queen-cells, and prevent swarming; but he found that unnecessary with proper management. In conclusion he invited a discussion on the merits of the hive, and would be happy to answer any questions.

Mr. Garratt asked whether the inversion should be done at a specific time; and, if so, when?

Mr. Jones replied that inversion might be done as soon as the cells were fully drawn out and filled with honey at the top, producing full sheets of foundation, and the comb was attached sufficiently to the section to prevent its lopping over when so inverted. He had inverted even before any capping was done, but he would not recommend inversion until the comb was fully drawn out to the top of the section and filled with honey. His experience was that bees did not suffer from cold, and that he had wintered bees even without a floor-board.

The Chairman said those who were old readers of the *Bee Journal* would remember, some ten years ago, a letter by Mr. Hunter, who found a hive wintering perfectly well without a

bottom board, but that was not a system that the Association could recommend. Still those who were anxious to do so should try the Heddon hive on a small scale. They must always remember that the English climate was a moist one, and therefore the strength of outer casing was an important consideration.

Mr. Blow wanted to know something about the non-swarming properties of the hive, and he asked whether the bees would not swarm out if crowded down in one brood-chamber.

Mr. Jones said experience proved that, so long as the bees had plenty of space in the sections and brood above, they were not inclined to swarm; but if they did attempt to do so it was only necessary to place the queen-excluder board on the bottom board, which gave the bees access to the hive through the queen-excluder, while the queen was unable to leave the hive so swarm.

In reply to the Rev. Mr. Raynor, Mr. Jones said that the Ontario honey season lasted from about the middle of June to the 1st of August.

Mr. Jones said another important point in connection with the production of comb-honey was brought out by the fact that the brood-sections of 2 inches in width were common in Canada at one time, but their use had now been discontinued, practical experience proving beyond questions that one and three-eighths or one and one-half inches would be filled and capped in much less time and in much nicer condition than the broader ones. It was asserted that much more honey could be secured by the use of the narrower sections, and in better shape, and there would be many less unfinished sections remaining in the apiary at the end of the season. The reversing of sections caused them to be completed in a much shorter time than by the ordinary system, and, as stated before, he strongly recommended it.

In answer to Mr. Baldwin, who contended that English bees preferred to build sections of 2 inches, and even larger, in the place of smaller ones, Mr. Jones said he would venture to prophesy that there would be more people adopting 1½-inch sections in five years' time in England than there were now using the sections of 2 inches. It was natural for bees to build the ordinary width of brood-comb, and there was a limit to the width they liked to build. The further man tried to get rid of their natural instincts by making them build wider combs, the less they were inclined to fill the sections properly, which caused bulging and irregular structures. It was stated by some that narrow sections required more capping, but he had

found that he secured more honey, which was the great object he had in view.

Mr. Garratt asked what should be the size of the entrance to the hive, and Mr. Jones replied that the entrance should be full size of the front of the hive during the honey flow.

In reply to a inquiry, Mr. Jones said that quilts were not necessary with the Heddon hive, the frames being next to the lid, leaving just a bee space between the top of the frames and the under side of the lid. The bee space should never exceed three-eighths of an inch.

Mr. Lyon asked whether in the event of two or three days' rain the water would not penetrate between the tiers? To which Mr. Jones said that the coating of propolis placed on the inside by the bees would effectually prevent saturation.

In reference to a remark made by Mr. Sambels, Mr. Jones agreed that the Canadian hive embodied some of the principles of the Crox-Stewarton hive.

The Chairman exhibited and explained the working of an instrument invented in Switzerland for securely fastening foundations in wire frames.

Mr. Jones said that a good many people wanted to know how they in Ontario managed their queen business, and he exhibited a new queen-nursery, which he had used with success, and appeared to have valuable features about it. It consisted of twenty cages, each holding a queen, where she might be kept in safety in any hive for weeks, or months if necessary. He had had frequently a hundred queens, and more, in a hive where the old queen was laying, breeding going on in the ordinary way, and he had kept them there for weeks without loss.

Mr. Cheshire asked if the queens would not be killed under such circumstances; to which Mr. Jones replied that the cages were so constructed that the bees in the hive could not reach the queen. A few bees were put in the cage with the queen to feed her.

A gentleman stated that he had put a queen in a cage very similar to Mr. Jones' on the top of a bar-frame hive, and soon after found her to be dead.

Mr. Jones said that he had had a similar experience in reference to one queen that had cost him a considerable sum of money. That queen came from Palestine. He placed her in a wire-cage sixteen meshes to the inch, and on examining her after a couple of days he found that the bees from the outside had got hold of her wings, feet, and legs, and had gnawed them.

off half way. That might occur where the queen had not sufficient room to move about.

Mr Meggy asked whether the bees shut up with the queen would not attack her; to which Mr. Jones replied he had never known such an instance. In every case he traced the queen's death to bees on the outside.

Mr. Sambels asked whether Mr. Jones had ever tried Mr. Simmins' method of direct queen introduction; to which Mr. Jones replied that he had tried it, but not with sufficient success to pronounce an opinion on its merits.

In reply to other questions, Mr. Jones said that sections should be slotted on all sides in order to obtain the best results, for by this means the bees were enabled to pass either up or down, or crosswise, with as great ease as they did over an ordinary comb, and they worked with more vigour when not cooped up in small apartments. Supers when tiering up during the earlier part of the honey flow should always be placed under, raising the partially filled super of sections on top; but during the latter part of the season when the honey flow begins to wane if supers are added they should always be placed on top. That would enable the bees to fill the lower supers first, and should any more honey be gathered than is required it will be placed in the super above.

The Chairman proposed a vote of thanks to Mr. Jones, and trusted that he would not think any of the questions asked were idle ones. British bee-keepers were anxious to learn, and he hoped that their Canadian friends would find some information to take away from them in exchange for the valuable hints supplied by Mr. Jones.

The Rev. G. Raynor seconded the motion saying he had always been anxious to know the principles and working of the Heddon hive, but never fully understood it till that evening.

Mr. Jones briefly acknowledged the compliment.

Mr. Horton Ellis would like to hear the opinions of the Canadian gentlemen on the possibility and utility of crossings, for the purpose of obtaining a larger and more industrious bee. Perhaps this end could be attained by crossing the Indian bee, which was one-third larger than ordinary size, with the Ligurian.

Mr. S. Corniel said, that in Canada they had been unsuccessful in that direction.

Mr. Jones had made an attempt at something of the kind with the *Apis dorsata*, with the result that he had only a few specimens preserved in alcohol. Other races had been pretty widely disseminated. He had found that a Syrian crossed with an Italian produced a very good

honey-gatherer; but as regarded increase of size and length of tongue their record in Canada was nil.

Mr. Cheshire questioned whether much advantage would be derived from increasing the size of the honey-bee. The bee and the flowers from which it gathered its food were mutually related, and were no doubt the result of the principles of natural selection which had been going on for ages. He thought there was no doubt the size of the bee was established for the best; and if they had a bee of double size it would be necessary to increase the size of the blooms from which it got its food. He had found that the best working bees were those of a smaller size.

The Rev. G. Raynor said that there was no doubt that the humble bee gathered honey from many flowers on which the domestic bee could not work.

Mr. Jones was of opinion that it was useless to hope for any results by the crossing of the *apis dorsata* with other breeds.

Mr. Raitt (Secretary of the Edinburgh Association) thanked the B. E. K. A. for the kind welcome they had given him that day. The system advocated by Mr. Jones was the one upon which he had worked. The hive exhibited with a little increase in depth might pass for his own. He wanted to introduce honey into every home in England, Scotland and Ireland. He exhibited samples of heather and clover honey, and also a Russian log hive. With regard to Scotch honey, the further north one travelled the better was the flavour of the honey.

Mr. Jones said that a fine quality of honey was obtained from limestone hills.

The Chairman endorsed this remark, and said that there was no doubt but that the quality of honey was governed in a great measure by the nature of the soil.

Mr. McKnight said that they had no heather-clad hills, and that so far as heather-honey was concerned Scotland would retain its pre-eminence. But after all the flavour of honey was only a matter of sentiment and cultivated taste. The Scotchman believed in no other whiskey but his own, and the Irishman had a similar prejudice. No doubt the Scotchman in Canada preferred the taste of the honey from his own country, partly because it brought to his mind a recollection of his own heather-clad hills; but it only required an experience of the aroma of the white clover honey of Canada to destroy that prepossession. He had come to this country with a prejudice against Englishmen, not gained from experience, but from what he had

heard of them. He had been told that he could not reach an Englishman with a ten-foot pole—(laughter)—but he was glad to say that all those notions were dispelled. He was delighted with his sojourn in London, and he should go home to Canada with the most pleasing recollections of his visit. (Cheers.)

Mr. St. John Gunn said that he had one hive on top of his house which was 360 feet above sea-level, and he noticed that the honey in that hive was of a distinctly different colour to that obtained in his other hives on the ground. He had no doubt that difference of soil affected the quality of honey.

Mr. Jones specially invited his audience to pay a visit to the honey-house, where he would be happy to show them its contents and give them every information thereon.

The Hon. and Rev. Henry Bligh expressed his thanks to Mr. Jones and the other gentlemen for the valuable and interesting information they had supplied.

The Chairman exhibited a pair of gloves, made of American cloth, which were recommended by Italian bee-keepers for use in the manipulation of bees by those ladies and gentlemen who are afraid to use their bare hands.

Mr. Jones said that black gloves were not quite so good as coloured ones, and recommended brown holland gloves, dipped in linseed oil. He said that it was useful sometimes when manipulating with bare hands, to cut all the hair off the backs, which, singularly enough, irritated the bees.

Mr. Lyon said he always took good care to do that himself by singeing, but found it made the hair grow faster.

Mr. Jones said he had already learnt a great deal, but he was nevertheless anxious to take as much more information as he possibly could of English systems over to Canada, and he would therefore be glad to hear any descriptions of the English models and inventions he saw displayed about the room.

Mr. Hooker showed a reversible frame hive, the position of the frames being kept by metal ends at top and bottom. With two screws at the side all the frames could be clamped together, and the hive reversed bodily.

Mr. Andrews, of Hertford, showed some drawings explanatory of the anatomy of the bee.

Mr. Neighbour explained the principles of his improved hive to Mr. Jones, and the working broke up into small knots, the different appliances being examined and opinions passed thereon in a free and general conversation.

#### MR. PETTIT'S VIEWS ON THE PROSPECTS.

Being very much interested in the prospects for a European market I called upon Mr. S. T. Pettit of Beluont who has lately returned from England, as many of us are aware. Readers of the C. B. J. will regret to hear Mr. Pettit was quite poorly in health, it appears immediately upon his return home having a great deal of work to do in preparing his bees for winter he at once went to work and overdid himself and for several days was quite seriously ill otherwise readers of the C. B. J. and exhibitors of honey individually would have heard from him before this. I learned that Canadian honey was very much superior to that from any of the other colonies. Mr. Pettit has made a very careful inspection of it all and hopes to give a very full and interesting report upon this point and others at the meeting of the Ont. Bee-keepers' Association in December.

New Zealand was the only colony which at all approached Canada. Canadian honey is in a very fair way to become popular in England and prices too are such that Canadians are warranted in looking hopefully forward to a remunerative price for their honey.

Extracted honey is taking better than comb, many say they want honey not wax and we probably have reason to rejoice that such is the case, for although the comb honey arrived safely enough and might in the future, there is no doubt the shipment of extracted is less risky and will therefore be more popular with the Canadian apiarist. Many readers will be ignorant of the fact that heather honey cannot be extracted, and when the comb is cut the honey is of such a gummy consistency that it leaks but little and very slowly. Mr. Pettit stated that he expected before this exhibitors would have received checks from England for such sales as had been effected. I did not like to press Mr. Pettit, owing to his illness, for information nor did I wish to forestall his report at the O. B. K. A. meeting in December. This meeting for many reasons should be one of the most interesting and largely represented meetings ever held by the Association. The end which so many have desired a two days' session has been gained. We have a grant of \$500 a year and every bee-keeper so able should, and doubtless generally will, make a grand effort to turn out and have a voice in many important matters which must be brought up as well as this part could be benefited by the part of the program directly bearing upon bee-keeping.

H. F. HOLTERRMANN.

Brantford, Ont.

FOR THE CANADIAN BEE JOURNAL.

## INVENTOR'S RIGHTS.

**R**EGARDING friend Clarke's reference to my invention, in middle of last column, on page 589, it compels me to say what I would otherwise prefer to leave unsaid. My unexpected absence from the North American Convention was compelled by over work at home. "The Talk on Hives" which I had planned to give the convention, would have been strictly confined to general principles, avoiding all special reference to my late invention, in which I have a pecuniary interest. In no case should I have touched the special functions of my late invention, unless called upon to do so.

Mr. Clarke's account of Mr. Elvin S. Armstrong's exhibit of a late patented hive compels me to state the following: My patent was granted Sept. 29th, 1885, and made known to the public a few weeks later. On Nov. 17th, 1885, a patent for improvements in bee hives was granted Mr. Armstrong. Now it will be seen that neither of us had any knowledge of the works of the other. It will further be seen, by examining this patent of Mr. A's., that the hive upon which it is granted shows no conception of any double brood-chamber, nor does it possess one function or principle of my late invention.

Now it seems that Mr. A. all at once becomes dissatisfied with his patent granted two months later than my own, but invented and applied for prior to mine, and immediately takes out another patent dated Sept. 14th, 1886, lacking but fifteen days of being one year later than my patent. Let me here ask friend Clarke and all your readers, if, because Mr. Armstrong's late hive is patented, has he any right to add to his hive any of the features of my late invention. He has no right, either legally or morally. If he sent a model or drawing to the patent office, showing constructions granted to me, it was supposed by the office, that if he made and sold hives like the model, he would purchase of me the right to do so. In no case does this late patent cover any feature patented or shown by me. I can patent a button on a McCormick reaper, and send a model or drawing of a complete reaper, to the patent office, but if I offer these reapers (with my patent attached) to the public, I lay myself liable to prosecution for infringement, and so are the parties liable, who use the machine. The law specifies that any who make, use or sell, are all, alike, liable to prosecution. I made this, and many other laws, plain; in my patent quotations in my article in the *A. B. J.*, of April 7th, 1886. Allow me to re-quote the section bearing on this point:

"Addition to a patented machine or manufacture does not enable him who makes, uses or sells the patented thing with the addition, to avoid a charge of infringement. The above is true, even when the addition is a great improvement, and patentable or patented."

No doubt but that Mr. Armstrong's late patent covers points that we care no more for than we do for those covered by his patent of Nov. 17th, 1885.

As long as my brother bee-keepers will offer for sale, what they know is my property—the result of my labor—I deem it my right and duty to expose their wrong-doing. On July 23rd, 1886, between the time Mr. Armstrong saw my hive and patented his last one, with my inventions attached, he wrote me the following letter:

Jerseyville, Ill., July 23, 1886.

Mr. James Heddon,

DEAR SIR:—I have gotten up a reversible honey rack for my Crown Bee Hive, which I can use with or without the half bee-space, but prefer the half bee-space. I can also use the same rack and form a sectional hive by filling it with half frames, and as you claim the half-spaces and sectional plan as your invention, I would like to know what you will charge me for the right to use them, and to manufacture and sell. I want to do what is right, and do not wish to infringe on any one, and would rather pay a reasonable royalty than to have a fight over it, and to appear as infringing on your rights, for while I do not acknowledge your broad claims, and do not believe that any court would so interpret or sustain it, yet I do think the bee-keeping brotherhood owe you something for what you have done, and I believe you will find them ready when the smoke clears away to cheerfully give you all that is your own. You will please answer the above by return mail, and oblige. Yours truly,

E. S. ARMSTRONG.

You will see that this letter is part coax and part scare, but do not overlook the fact that it acknowledges that I am the inventor, and that bee-keepers owe me something, and you all know that they could not owe me something for nothing, and if I have shown the public something for which they would owe me, I prefer to have a voice in saying *how much* they owe me, and that Mr. Armstrong should not make and offer for sale any part of my invention, thus taking pay for what he acknowledges his customers owe me. Wouldn't he have appeared more manly, had he done as Messrs. Newman and Jones have done? In the same number of *A. B. J.* that contains the patent law sections, Prof. Cook says:

MR. EDITOR:—I wish you would repeat the excellent words of Mr. G. M. Alvé, found on page 168, which are as follows:—"I affirm that the Heddon principles are novel and cannot be found in literature or elsewhere. Let those who deny adduce the proof. The rubbish that has already been lugged forward does not deserve a critical man's attention."

Mr. Editor, I have no interest in this matter at all, only the grand interest of justice and fair play. For shame on us, if we are to repeat the Langstroth outrage! There is no bee-keeper of intelligence in the United States who has the faintest shadow of an idea that this hive, method or discussion would have been brought forward had Mr. Heddon kept silent. Mr. Heddon told me a year ago that he had a method that he believed would revolutionize our business. Why did I have to wait a year to know what it was? Only because it was original with Mr. H., and remained locked up a year longer. If any one honestly believes it, let him say it is a worthless hive and system. But, alack the day! when any considerable number of bee-keepers say it is not Mr. Heddon's. Firmly believing Mr. Langstroth to have invented the practical movable frame, I have ever stoutly maintained it; and I as truly believe Mr. Heddon to be the originator of the new system, and if found valuable, as I firmly believe it will be, I shall ever defend his rights.

Agricultural College, Mich., March 23.

From his letter and the work already begun by Mr. Armstrong, it would not be at all strange if he should attempt to make bee-keepers believe that he knew of my principles, previous to my patent. This would not do. None of them are shown in his patent of Nov. 1885, and Sec. 5, of my already mentioned quotations, says that,

"Patent law declares that the fact of abandonment and subsequent adoption of things claimed to be alike, is evidence sufficient to negate that claim."

I believe that when Prof. Cook stated that in the minds of our bee-keepers there is "not the least shadow of a doubt" but that I originated every principle that I claim, he spoke the exact truth, and I am of the opinion that in view of that fact, I think Mr. Armstrong has committed a great business blunder, as well as a moral transgression, in offering the results of my labor for sale, if this is what he is doing, as intimated by Mr. Clarke. To do a bee-keepers' supply business, it becomes necessary to ask for cash, with orders; that is for the dealer to ask his patrons for a credit, that they would be warranted in giving to none but the most moral men, as it is very easy for men in this business to defraud many patrons at once, all summing up to an amount that is tempting to any man unscrupulous enough to sell that which he admits belongs to another. I think the wise and cautious will not only consider this point, but will also remember that the user of a patented article is equally liable to prosecution for infringement, and is more frequently the only party from which damages can be collected. The hives are always owned by the infringer. But I believe we have among us a larger and grander class of men than the one just mentioned. I refer to those who desire to give honor to whom honor is due, besides more solidly rewarding merit by

paying the rightful owner for property they receive. I believe and concur in the following, which I quote from Mr. A. I. Root:

"I am very glad, indeed, to note the disposition among bee-keepers, of forbearing to copy the works of each other, patent or no patent. The supply dealer who would unhesitatingly copy something well known to be the property of another, without getting the privilege of so doing, by purchase or otherwise, would very likely lose more than he made, so strong is the disposition of our people to give honor to whom honor is due."

In the light of the foregoing I deem it unnecessary to ask the aid of the strong arm of the law until it has been demonstrated that the moral sense of our people will not give me all that I ask. Patent suits are very costly, tedious and destructive of harmony and good feeling, and something every well meaning man should avoid as long as possible. No patentee, however, should quietly avoid informing the public of his claims, for the purpose of collecting royalties of innocent persons after his inventions have gone into general use. Although all owners of patents can prosecute for infringements and collect royalty of all infringers any time between the issuing of the patent and six years after its expiration, covering a total period of twenty-three years, still I deem it just and shall respectfully ask all friends of justice to respect my late invention for improvements in bee-hives, and wish it to be remembered that I have publicly notified all in what my invention consists and that I wish to retain to myself the results of my labor, in this instance.

But for the disposition of a small minority of our people I do not deem patenting necessary, and should never have patented this invention but for the advice of well-known bee-keeping friends who advised me to do so, saying they believed it the best and proper way to place upon record and notify the public in regard to what I had invented and how I wished to dispose of it. Many erroneously conceive the idea that a patent creates the right of property in invention, while the fact is that all civilized nations agree that such is a fact in nature, and for that reason institute a patent office and system of grants, merely as clubs, with which rascals can be scared from stealing or be made to pay for stolen property. So several parties have asked me what I thought my patent would hold; the only rational answer to this is, that I do not know; no one knows, as the correct answer is buried in the bottom of a barrel of money. I might say two barrels for patent law suits are equally expensive to both prosecution and defence, and will always be avoided by decent men when not compelled in justice to their rights. Whether o

of in the lower courts, there is in my mind no doubt but that in the court of equity I would receive all that is due me as shown by my specifications and the state of the art at the time my invention was patented. As the price of my patented hive is less than that of my unpatented hive, in proportion to cost of construction, as sold by Messrs. Newman, Jones and myself, and as it is clear that a patent affords as great a profit at a less selling price, because it gives the exclusive sale to one or a few persons, it is true that so many persons will prefer to purchase of the owner, that those trying to make a living by selling that which all know, belongs to another, will, like Othello, soon "find their occupation gone."

JAMES HADDON.

Dowagiac, Mich.

We have given place to the above rather long article because we consider it simple justice to the inventor. That any one who will attempt to usurp the right of using and use the outcome of other men's brains is to be depreciated, and for our part, we should most decidedly decline to become a party to such a transaction, by being a purchaser of any such article so obtained, and we do not think there are many people, either Canadians or Americans, but will voice our sentiments.

For the Canadian Bee Journal.

#### TRIBUTE TO OUR COMMISSIONERS.

TO THE BEE-KEEPERS OF ONTARIO.

**G**ENTLY MEN and Ladies,—Messrs. Pettit, Jones, McKnight and Corneil will soon have finished their labors in London in bringing before the public of Great Britain the Canadian honey exhibit, and from accounts which are now beginning to reach us, we can judge that they have done their duty nobly. The objects aimed at in making the exhibit will be accomplished. A market will be opened for our surplus honey product, its excellence is now fully recognized and has been publicly acknowledged by the foremost bee-keepers of Britain in Congress assembled, and it is now known throughout the length and breadth of Britain that this Dominion is not a land of snow and ice altogether, but it is also flowing with milk and honey. Having said this much I now come to the point. The Ontario Bee-Keepers' Association meets in Toronto December 7th. Is it not fitting that these men who have left home and business so long for the advancement of the general interests of bee-keepers should receive some fitting acknowledgment of their services at that meeting? No time is to be lost, as barely a

month will remain in which to act in the matter. I hope, therefore, I will be pardoned if I now take the liberty of suggesting that Messrs. Couse, Macpherson, Clark and Pringle be a committee to arrange what form this testimonial shall take, Mr. Pringle as first vice-President of the association to act as chairman of this committee.

J. C. THOM.

Streetsville, Nov. 3rd, 1886.

Why did we not all think of this at once! True, after the time, trouble and expense these gentlemen have been at it is only scant justice that some fitting reception should be accorded them, and some definite steps must be taken at once. We call upon Mr. Pringle for suggestions, also upon other members of the committee nominated by Dr. Thom. We move that to this committee be added the name of the Doctor. Who will second the motion?

## BOTANICAL.

Do you know anything of the Hardy Catalpa? Do the flowers contain much honey? I was going to set out some but if they are no good for bees I will not do so. Please reply in next copy of BEE JOURNAL and oblige.

LEVI F. SEIBERCK.

Morrisburg Oct., 26th., 1886.

#### CATALPA BIGNONIODES.

This is a well known ornamental tree, a native of the Southern States but freely cultivated in the Northern States and Canada. Its wide-spreading top with comparatively few branches, large heart-shaped leaves, great profusion of beautiful compound panicles of white bell-shaped flowers, tinged with violet, and dotted with purple and yellow in the throat, present a very beautiful appearance. It attains a height of fifty feet, with a diameter of two feet, under favorable circumstances. Capsule cylindrical, pendent, a foot long; Seed winged and cut into fringes.

It is a valuable honey producer and well worthy of cultivation for bee pasture

C. MACPHERSON,

Prescott Oct., 29th., 1886.

Bee-keeping as a business has not been as profitable this year, owing to the extreme dry season, still Mr. J. W. Teat gives his report which shows what can be done in a poor season. He selected one colony in the spring to experi-

ment with and naturally gave it the most attention. It was one he got of L. C. Root of Mohawk, N. Y., consisting of 8 frames size 10 x 15. During the summer he has drawn 26 frames of brood and honey from this colony and formed five colonies of nine frames each, besides taking 106 finished, one pound sections, and 30 pounds honey in frames. The six will go into winter quarters with 9 frames each averaging 45 pounds honey to the colony. The above queen was given a frame of last year's comb, selected for its perfect comb. At 6 a. m. and at 2 p. m., of the same day upon examining it was found she had deposited an egg in every cell on both sides and allowing 24 cells to the square inch, she laid the remarkable number of 7200 eggs. With another queen he has done equally as well, excepting the honey record.—*American Exchange.*

## SUNDRY SELECTIONS.

### STRAW FOR PACKING.

**SUBSCRIBER.**—I have neither sawdust or chaff. Would straw that has been in a bed-tick for a season do to pack bees in for winter?

Rockwood, Ont.

The straw mentioned would answer all right, providing it was thoroughly aired before being used. Oat straw, if clean and dry, will answer first rate.

### EXAMINING BEES IN WINTER.

**S. DIBB.**—When bees are in cellar tiered up one upon another, can you tell if any of them are wanting food without taking them down and looking into them? Or in other words, can you tell by looking in at the entrance?

Dunroon, Oct. 26th, 1886.

You cannot very well tell without an examination, unless you can see in the entrance that the bees are dropping down in great numbers upon the bottom-board, when it is probable they are starving. You had better put the light hives on top when tiering up, so that you can at any time examine them if necessary.

### QUEENLESS COLONIES IN FALL.

**A. HUGHSON.**—Please let me know through the CANADIAN BEE JOURNAL how I am to manage a hive that has lost its queen. It is too late, I think, to send for one to some queen breeder. Can I put the bees in other hives that have queens, or will they do without a queen until spring?

October 25th, 1886.

As it is rather too late to procure a queen, you had better double up the queenless colony with your next weakest. You had better cage the queen in the hive with which added to prevent losing her, or you could unite them safely, in all probability, by putting in the combs alternately with those in hive with queen, and sprinkling the whole with sweetened water. The queenless hive will not winter safely in its present condition.

### SOME SUGGESTIONS TO THE ANSWERS OF QUERIES FROM FRIEND HEDDON, WHICH ARE WORTHY OF REMEMBRANCE.

Where the querist asks his questions by No's or numbers then, if the answer answers them by "yes" or "no," simply referring to the No, it makes awfully disagreeable reading. Notice that I have framed my replies so that the reader will know just what I am answering, without having to go back and refer to the question, hunting up the number, perhaps necessitating turning over a leaf.

### GATHERING STORES OCT., 23rd., 1886.

**J. C. BALE.**—My bees seem to have been gathering honey from some secret source this last two or three weeks. It is good, but thin. They have also carried a quantity of honey from one story to another. This also is thin. Will this need to be re-ripened, as it were, and capped over, to be safe winter feed? And will the first mentioned be dangerous unless capped over? Seems too late to expect this. All my colonies carried much honey from lower into upper story, whether queen was there or not; upsetting my arrangements for winter brood nest.

Hamilton Ont.

We hardly know where the honey has come from—probably from some candy factory—or cider mill—if the latter you could detect it in the flavor. You should have removed the surplus arrangement or top-story long ago. You had better remove top story at once, crowd up the bees to as little space as possible, put on cushion to keep the warm air down in hive and the bees may probably seal it over yet, unless the weather changes for the worse as respects bees. It will of course be better to be ripened and capped over although with good unsealed stores they will very often come through. If they have gathered the stores from a cider mill, you should remove it at once and feed sugar syrup.

## VENTILATION FOR HIVES.

A. BRIDGE.—I have learned from last winters experince that bees in their winter quarters in cellar require more air in their hives than the usual summer entrance. I use loose bottom boards on my hives and I intend this winter to raise my hives by using small blocks, one under each corner. In the C. B. J. dated May 19th., appears an article on wintering bees from the pen of, Wm. McKenzie, Port Burwell, Ont., he says in his article "in the morning of the day that I put them in the cellar I raise the hive an inch from the bottom board." Will it be safe to follow his directions or would it be better to raise them after they are put in the cellar. I will have to tier them up in the cellar and it would be much handier to raise them before they are put in.

West Brook Oct., 26th., 1886.

It will not make much difference when you raise the hives so long as you do not start the bees to flying. Evidently you winter with cover on the hives, or heavy cushion else you would not want so much air from bottom.

## ABOUT THE QUERY DEPARTMENT.

A. L. SWINSON.—Would it not be advisable to append name and address of persons asking or propounding queries in that department of C. B. J., unless specially requested by the party asking it, to withhold the same. I for one would be glad to see it done for many reasons and can't think it any way objectionable, but to the contrary rather a desirable addition to all queries, as well as to the answerers of the same. It is not to be supposed that the query department is specially intended for the benefit of the propounder of queries alone, but for all its readers as well, hence for that reason the propounding of queries should not alone be confined to the A. B. C. scholars, but more aptly adopted to our very best informed class, who know best the most desirable and intricate queries to propound for the benefit of the A. B. C. class who often don't know themselves first what to ask.

Goldsboro, Wayne Co., N. C., Oct. 24th., '86.

There is considerable weight in your argument, friend S. and hereafter only when we are requested not to do so we will attach name of propounder of query. And here we must apologise for the absence of this department from the C. B. J. of late. In a week or two we expect to be in "full sail" again and will then give enough extra to cover the loss caused by the omission.

## SPECIAL NOTICES.

## INCREASE YOUR HONEY SALES.

By a judicious distribution of our leaflets, "Honey, some reasons why it should be eaten" you can sell every pound of honey you have. Customers who used them last season speak very highly of them. Prices with name and address, per 250, \$1.25; 500, \$2; 1000, \$3.25. Send for samples.

## REDUCED PRICE OF SECTIONS.

We have a good many thousand sections cut and stacked up in boxes ready for shipment, and if there are any who feel like laying in a good lot of sections for the season of 1887, we will give them a specially low quotation, so that after counting the interest on the money for eight or ten months there will still be a good margin of profit in their favor. Of course these quotations will only apply to regular stock, unless where orders are for 100 or 1,000 in odd sizes. Regular sizes are 3 1/4 x 4 1/4 and 4 1/4 x 4 1/4 and in widths of either 1 1/4 or 1 1/2 inches. The prices we quote are, per 1,000, \$4.25; 10,000 or over, \$3.75. By the way, we didn't mention that these prices are for one-piece Linden (formerly Basswood) V groove sections. Dovetailed and spruce sections, we will furnish at 10% off price-list rates.

MICHIGAN STATE BEE-KEEPERS' ASSOCIATION.—The next annual convention of this association will be held in Ypsilanti, Mich., Dec. 1st and 2nd, 1886. H. D. CUTTING, Sec., Clinton, Mich.

ONTARIO BEE-KEEPERS' ASSOCIATION will meet in annual convention in Toronto (probably at the city Hall) on Tuesday and Wednesday, 7th and 8th, 1886, when the commissioners of the association will make a report of their trip to England, and other business of importance will be transacted. A full attendance is requested. W. COUSE, Sec.-Treas., Meadowvale, Oct. 25th, 1886.

GREAT UNITED CONVENTION.—The New York State, Eastern New York also the New Jersey and Eastern Bee-Keepers Association will hold their great united Convention in Albany, N. Y., January 18th., 19th. and 20th. This Convention will be one of the largest, if not the largest, ever held anywhere in this country, and it behooves every bee-keeper to attend—a grand exhibit of apianian fixtures is promised—An unusually brilliant programme will be prepared and announced later. Joint Secretaries.—GEO. H. KNICKERBOCKER, JOHN ASPINWALL, F. E. JOHNSON.

## HONEY MARKETS.

## BEETON.

For extracted honey, put up in our style 60 lb. tins, (packages allowed 30c.) we offer, in supplies of any kind:

Bright, clear honey in Linden, clover or Cts distinct flavors.....per lb. 10

Bright, clear honey in mixed flavors: " 09 1/2  
Amber colored " " " 09

These prices are for honey delivered in Beeton, freight paid.

## HORNING'S MILLS, ONT.

Demand for honey is very slow. We are offering now for best extracted 10 cents, other

quilities 8 and 9 cents. White comb honey 15 cents, 25 cents allowed for package. We offer the above prices in supplies of any kind except foundation.

S. P. HODGSON.

**DETROIT HONEY MARKET.**

The market is well supplied with comb honey and no change in prices. Best in one pound sections, 12 to 13 cts. Beeswax, 23 cts.

M. H. HUNT.

Bell Branch.

**CINCINNATI.**

There is a fair demand for choice comb honey in 1 and 2 lb. sections, which brings 12-15 cts. a lb. in a jobbing way according to quality and neatness of package. There is also a fair retail and jobbing demand for extracted honey in square glass jars, for table use, while the order trade for dark grades—from manufacturers—is improving. Range of prices for extracted honey is 3½ to 7½ per lb. on arrival. Beeswax is in good demand and good yellow brings readily 20 cts. a lb. on arrival.

CHAS. F. MUTH & SON.

**CHICAGO.**

Since my last quotation honey has come forward very freely and from information now at hand it would appear that the Middle States will have all the Honey produced at home this season that can be marketed or consumed, and that we shall not be apt to draw upon the Eastern States as we did last year. Best grades of white comb to-day at thirteen cents, Extracted six cents. and beeswax 25 cents.

R. A. BURNETT.

Chicago.

**BOSTON.**

Honey is selling very well but prices are very low, and we are often obliged to shade our prices in order to make rates. We quote 1 lb. comb, 14 to 16 cents. 2 lb. comb, 12 to 14 cents. Extracted, 6 to 8 cents.

BLAKE & RIPLEY.

**NEW YORK.**

The market for new crop comb honey is just opening. We note an improvement in sales and prices. Most of the comb honey that has arrived is badly colored, which makes it second grade, and we suppose is due to a poor season and long finishing. We quote 1886 crop as follows:—Fancy white comb, 1 lb. sections, clean and neat packages, 15 to 16c.; fancy white comb, 2 lb. sections, clean and neat packages, 12 to 13c.; fair to good, 1 and 2 lb. sections, clean and neat packages, 10 to 14c.; fancy buckwheat, 1 & 2 lb. sections, clean and neat packages, 9 to 12c.; extracted white clover, kegs or small barrels, 6½ to 7c.; extracted California honey, 60 lb. cans, 5 to 5½c.; California Comb, 10 to 11c.; beeswax, 22 to 24c.

MCCAUL & HILDRETH BROS.

**PRICES CURRENT**

**BEEWAX**

Beeton, October 27th, 1886

We pay 33c in trade for good pure Beeswax, delivered at Beeton, at this date, sediment, (if any), deducted. American customers must remember that there is a duty of 25 per cent. on Wax coming into Canada.

FOUNDTION	
Brood Foundation, cut to "Jones' size" per pound	47c
" " over 50 lbs.	45c
" " cut to other sizes " "	48c
" " over 50 lbs.	46c
Section " in sheets per pound	58c
Section Foundation cut to fit 3½x4½ and 4x4½	per lb. 60c
Brood Foundation, starters, being wide enough for Frames but only three to ten inches deep	43c

**ADVERTISEMENTS**

**WANTED!**

**Comb and Extracted Honey.**

QUOTE PRICES.

R. F. HOLTERMANN,

Brantford, Ont.

**BEEKEEPERS' MAGAZINE**

Reduced to **25 Cents** per year

after JANUARY 1st, 1887.

SAMPLE COPIES FREE.

BARRYTOWN, N. Y.

**A GRAND COMBINATION OFFER**

We have arranged with the publishers whereby we can offer the

**BEE-KEEPERS' MAGAZINE**

OF NEW YORK, AND THE

**CANADIAN BEE JOURNAL**

For the regular price of the

**CANADIAN :: BEE :: JOURNAL.**

The "Bee-Keeper's Magazine" is a 32-page monthly, the price of which, in 1886, was \$1.00. The publishers, however, have so reduced the price that we are enabled to make this offer. This will give bee-keepers the advantages of two bee journals for the price of one.

**120 ACRES SELECTED.**

High, gray hummock and pine lands, not subject to over-flow, situated on the

**GULF COAST RIDGE,**

In Tropical Florida, 80° 50' lon. west of Gr. and 26° 35' north latitude, 16 miles south east of Fort Meyers, 2½ miles distant of Ostego Bay, crossed in its whole length by the lovely Estero Creek, for the culture of Oranges, Mangoes, Grapes, Pine Apples, Bananas, Cocoa-nuts, Datepalms, etc., and winter vegetables. Climate grand and delightful. Health unsurpassed. Water good and healthful. \$25 per acre, in lots to suit purchaser. This offer holds good till 1st of Dec. next, after that prices advance.

50 colonies Syro-Italian bees for sale. Cause of sale: Failing eyesight. Apply to,

GUSTAVE DAMKÖHLER,

Punta Rassa, Monroe Co., Florida.

**Queen City Oil Works!**

The Highest Honors and Gold Medal For Our

**PEERLESS OIL,**

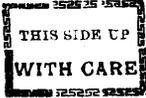
Manufactured only by

SAMUEL ROGERS & CO.

Toronto, Ont

OUR PAGE OF SPECIALTIES.  
THE D. A. JONES CO., LD., BEETON, ONT.

Shipping Labels.



These are for pasting on the tops of cases.  
Price, per 10...5c. by mail, 6c.  
" " 100.25 by mail, 27  
" " 1000.1 50 by mail, 1 60



Show Cards.

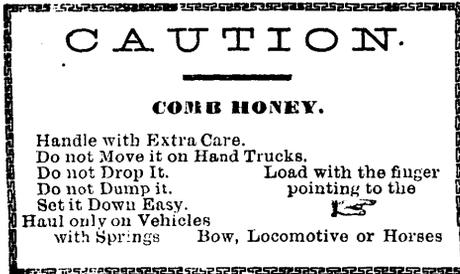
Size 12x18 in. each...07  
" " " per 10...40  
These are just the thing for hanging in the stores where your honey is placed for sale.

Lithographed Labels for Tins

We have lately reduced the prices of these very much. They are now

	Per 1000	Per 500	Per 100
5 pound labels.....	\$8 00	\$4 25	\$ 90
2½ " " .....	5 00	2 75	65
1 " " .....	3 50	2 00	50
½ " " .....	1 75	1 15	30
¼ " " .....	1 75	1 15	30
Labels for tops of tins.	90	55	15
Printing name and address, first 100.....	100		30
Each subsequent 100 up to 500.....			12
Printing name and address, per 500.....		500	75
" " " " " 1000.....		1 25	

Shipping Labels for Comb Honey



These are 7½ x 5½ inches, printed in red ink, in large bold faced type, on heavy paper and are invaluable to all shippers of comb honey. Keep them in stock and can furnish them by return mail. Prices: 25, 12c.; 50, 20c.; 100, 35c.; 500, \$1.50; 1000, \$2.75.

PRICES.

25, 12c.; 50, 20c.; 100, 35c.; 500, \$1.50; 1000, \$2.75.

Gem Jars

	Gross.	Half-gross
"Crown" brand 1 Pint	\$14 75	\$7 50
" " 1 Quart	15 75	8 00
" " ½ Gallon	19 00	9 75

Glass Packages.



The new screw top, which is taking so well we can ship at a home's notice. They hold exactly one pound of honey and make a splendid package for jams or jellies afterwards.

Prices per gross.....	\$10 00
" half " .....	5 25
" per dozen.....	50

60 lb. Tins for Extracted Honey.

WE MAKE THEM.

For shipping honey in bulk, this package takes the lead. It is the most convenient size, is encased in wood so that it will stand any amount of handling. Has a large screw top so that granulated honey may be taken out as desired.

This is the package recommended by the commissioners to the Colonial exhibition. We have sufficient to store 100,000 lbs. of honey ready to ship by return freight or express.

SCALE OF PRICES.

Each.....	\$ 50
Per 10.....	4 80
" 25.....	11 25
" 100.....	42 00

The cases are made of planed lumber.

Honey Boxes For Sale.



We have in stock a large lot of Manila Boxes, made to hold the 4½x4½ Sections, on which the Honey Comb Labels A and B are used, (see illustration), and we can offer them at very reasonable rates. Each box has a nice tape handle, and the package is certainly a very beautiful one.

MANILLA BOXES.	Per 1000.	Per 100.	Each
4½x4½.....	\$14 00	\$1 50	2 cents.

Send 3 cent stamp for sample.

Dextrine.

This comes to you in the shape of a powder, and is used for the purpose of gumming honey labels on wood and tin. Dissolve it in a little hot water, applying with a brush, and brush the gum over as well as under the label. Put up in packages of quarter half and one pound:

½ pound.....	9c.	By mail 6c. extra
¼ " .....	15	" " 12 "
1 " .....	25	" " 24 "

SUITABLE FOR THE SEASON.

**THE MAINE BEE JOURNAL**

is the only publication in Maine devoted entirely to Bee-Culture. It is a monthly, full of interesting and instructive reading. The subscription price is only 50 cents a year in advance. Samples copies free. Address  
t f JOURNAL, Thomaston, Me

**RAYS OF LIGHT.**—A new publication devoted to Bee-keeping and Poultry-raising. A number of the leading, most practical and successful Bee and Poultry-Keepers have already been secured as regular contributors. Its principal aim will be to advance progressive ideas upon the various topics of modern scientific Bee-Culture and Poultry-Raising. Subscription, 50 cents a year. Sample copy free.

J. S. MARTIN & CO.  
North Manchester, Indiana.

**Feeders.**

The demand for feeders seems to be growing. We offer three different styles suitable for different seasons:

**ENTRANCE FEEDERS.**

Double the usual size, each..... 15c  
" " " per 100.....\$12 50c

**THE CANADIAN FEEDER.**



This is for fall feeding and enables you to feed 15 to 20 lbs. at once with no danger of robbing.  
Made up, each.....\$ 50  
" " per 25..... 10 00  
In flat, each..... 35  
" " per 25..... 7 50  
" " " 100..... 25 00

THE D. A. JONES CO.

**THE CHAPMAN HONEY PLANT.**

In accordance with a previous notice in Bee Periodicals, I am now prepared to fill orders for the seed of the above plant at the following prices —

½ oz., \$1; 1 oz., \$2; 2 oz., \$3; 4 oz., \$5; ½ lb., \$8.  
One ounce contains from 1600 to 1800 seeds.

On account of extreme drouth my stock of seed is limited and persons ordering will be served in rotation. The seed should be sown in the early spring and general directions for cultivation will be given on each package.

This plant is not an obnoxious weed and is as easily eradicated as clover. Having carefully watched its habit of growth and its honey-producing qualities for the past six years I believe those who commence its cultivation in a liberal way will be better pleased than by commencing with a small quantity of seed. It has been tested by prominent bee-keepers all the way from Vermont to Nebraska and Ontario. We refer to the report of the Committee appointed by the North American Bee-Keepers' Association held at Detroit in 1895. The Committee reported at the Indianapolis, Ind., convention held Oct. 12th to 14th, and their report will be found in all Bee Journals publishing the report of that convention. Write all orders plainly and give your post office address in full.

**E. CHAPMAN,**

63-103 Versailles, Cattaraugus Co., N. Y.

**A YEAR AMONG THE BEES.**

A new bee-book of 114 pages, cloth bound. Price 75 cents. Sent postpaid by the author.  
C. C. MILLER Marengo, Ill.

**FOUNDATION MILL FOR SALE**

I have still on hand one 12" inch Root Mill, latest pattern, new this spring, and used very little, in good condition every way for which I will take \$26. Just as good as new, everything included, free at express office. First come, first served. Samples of its work sent free.  
S3-tf FRANK W. JONES, Bedford, Que.

**BIRD'S EYEVIEW**  
**OF**  
**BEE KEEPING**

—BY—

**REV. WM. F. CLARKE**

**IS NOW READY.**

*The Price is 25c., Five for \$1.00.*

**Special Terms to the Trade. It is Interesting, Readable and Practical**

**JONES, MACPHERSON & Co.,**

**PUBLISHERS, BEETON, ONTARIO.**

## THE NEW HEDDON HIVE

We have bought out the interest of the inventor in his Canadian patent, and we are in a position to make and sell the Heddon Reversible Hive, got up in any shape to suit the purchaser—either in the flat or nailed.



The engraving gives a good idea of the hive. The brood-chamber is in two sections; also the surplus arrangement, which may be interchanged or inverted at will. The cover, bottom-board, and top and bottom of each sectional case has one-half of a regular bee-space, so that the surplus cases with the sections may be placed between the two brood chambers, or the latter may be transposed or inverted—in fact, all parts of the hive are perfectly interchangeable. The brood frames will ALL be bored for wires.

### A SAMPLE HIVE

includes the bottom board and stand; a slatted honey board; a cover; two 6-inch brood chambers, each containing 8 frames, wired; two surplus arrangements, each containing 28 one-pound sections, both with wide frames and separators, both of which can be interchanged or reversed at will. Price, nailed \$2.90; nailed and painted \$3.25. It is absolutely essential to order one nailed hive as a pattern for putting those in the flat together correctly.

### HIVES READY TO NAIL.

We have arranged several different combinations in these hives, so that our customers may make a selection from the sample hive nailed without waiting for us to quote prices; in ordering ask for the number which you desire, and no mistakes will be made.

**No. 1** consists of the stand, bottom-board, cover, two 6-inch brood-chambers, 16 frames with holes punched for wiring, and the slatted honey-board, price \$1.25 each.

**No. 2** is the same as No. 1, with the addition of one surplus arrangement, containing 28 sections, with separators—interchangeable and reversible. Price \$1.75 each; without sections, \$1.60.

**No. 3** is the same as No. 2 with the addition of another surplus arrangement, and sections

and is the same in all particulars as sample hive. Price \$2.30 each; without sections, \$2.00.

Those who wish the hives *without* the stand, or honey-boards, may make the following deductions from above prices: Stands 10 cents; honey-boards 7 cents. For extra brood chambers, with frames in flat, adds 45 cents each; and for extra supers adds 40 cents each. Separators of tin are included in these prices throughout. If separators are not desired, deduct for each super 4 cents.

### DISCOUNTS IN QUANTITIES.

For 5 or more hives, 5%; 10 or more, 7½%; 25 or more, 10%; 50 or more, 15% off these prices.

THE D. A. JONES CO., (Ld).

BEETON ONT.

Beeton Printing & Publishing Co.,

FINE BOOK, JOB, & LABEL PRINTING.

Send for our FREE "Honey Label" circular. Printing furnished promptly, and neatly done. Estimates of "circular" and other work on application.

F. H. MACPHERSON,

Manager, Beeton, Ont

3-t.

FRIENDS If you are in any way interested in

## BEES AND HONEY.

We will with pleasure send you a sample copy of our **SEMI-MONTHLY CLEANINGS IN BEE CULTURE**, with a descriptive price-list of the latest improvements in HIVES, HONEY EXTRACTORS, COMB FOUNDATION, SECTION HONEY BOXES, all books and journals, and everything pertaining to Bee Culture. Nothing Patented. Simply send your address on a postal card, written plainly  
A. I. ROOT, Medina Ohio

## BEE-KEEPER'S GUIDE,

OR

## MANUAL OF THE APIARY.

13,000 SOLD SINCE 1876,

The fourteenth thousand just out—both thousand sold in just four months. More than 50 pages and more than 40 costly illustrations were added in the 8th edition. It has been thoroughly revised and contains the very latest in respect to Bee-Keeping.

Price by mail, \$1.25. Liberal discount made to Dealers and to Clubs.

A. J. Cook, Author and Publisher

State Agricultural College Michigan

## MUTH'S HONEY EXTRACTOR.

Perfection Cold Blast Smokers, Square Glass Honey Jars, etc. Send ten cents for "Practical Hints to Bee Keepers." For circulars apply to

CHAS. F. MUTH & SON.

Cor. Freeman & Central Avenues Cincinnati

Sept. 1st, 1886

Jan. 1st, 1887.

# REDUCTION

For balance of 1886. From Sept. 1st, 1886, to Jan. 1st, 1887, will make prices on **SECTIONS \$1.00 Per 1000**, and larger quantities proportionately less. **FOUNDATION, 35cts Per lb.** for brood and **45cts for SECTIONS.** Equal, if not superior, to any other make. **Seven and one-half (7½) per cent reduction** on all other goods in Price List.

Dealers, wanting **LARGE QUANTITIES**, to stock up for the season of 1887, will be given special prices on application.

**Remember** my goods are noted the world over for fine quality and workmanship. Try me and be convinced.

**W. T. FALCONER,**

Jamestown, N.Y.

Manufacturer and dealer in full line **Apiarian Supplies.**

## ITALIAN QUEENS 1886.

For Italian Bees and Queens in their purity for beauty and working qualities they are equal to any in the U. S. or Canada. Comb foundation 40c. per lb. Untested queens \$1 each, \$11 per dozen; tested \$3.50 each. Queen reared in full colonies from egg; safe arrival and satisfaction guaranteed. Send for circular.

T. S. HALL,  
Kirby's Creek, Jackson Co., Ala.

ESTABLISHED 1855.

## BEE SWIX HEADQUARTERS

We have constantly on hand a large stock of Domestic and Imported Beeswax in original shape, which we offer to manufacturers of Comb Foundation at lowest prices. We guarantee our beeswax absolutely pure. Write to us for prices. Address,

**R. ECKERMANN & WILL,**  
Beeswax Bleachers and Refiners. **Syracuse, N.Y.**

## DADANTS FOUNDATION

is attested by hundreds of the most practical and disinterested bee-keepers to be the cleanest, brightest, quickest accepted by bees, least apt to sag, most regular in color evenness and neatness, of any that is made. It is kept for sale by Messrs.

- T. G. NEWMAN & SON, Chicago, Ill.,
- C. F. MUTH, Cincinnati, O.,
- JAMES HEDDON, Dowagiac, Mich.,
- F. L. DOUGHERTY, Indianapolis, Ind.,
- CHAS. H. GREEN, Berlin, Wis.,
- CHAS. HERTEL, Jr., Freeburg, Ill.,
- E. L. ARMSTRONG, Jerseyville, Ill.,
- ARTHUR TODD, 1070 Germantown Ave., Philadelphia
- E. KRETCHMER, Coburg, Iowa,
- E. F. SMITH, Smyrna, N. Y.,
- C. F. DALE, Mortonsville, Ky.,
- EZRA BAER, Dixon, Lee Co., Ill.,
- CLARK, JOHNSON & SON, Covington, Ky
- J. F. MASON & SONS, Mechanic Falls, Me.
- J. A. HUMASON, Vienna, O.
- C. L. GRAVES, Birmingham, O.

and numbers of other dealers. Write for **SAMPLES FREE** and Price List of Supplies, accompanied with

### COMPLIMENTARY

and UNSOLICITED TESTIMONIALS from as many bee-keepers in 1883 **We Guarantee every inch of our Foundation equal to sample in every respect.**

**CHAS. DADANT & SON,**  
HAMILTON Hancock Co., LL

1886. **ITALIAN QUEENS.** 1886.

**Six Warranted Queens for \$5.** Send for circular. No circulars sent unless called for.

J. T. WILSON,  
Nicholasville, Ky

## THE YUCCA BRUSH!!

BY MAIL SIX CENTS EACH.

I also manufacture a first-class article of Comb Foundation, and keep in Stock Sections, Honey Knives, Cane Smokers, etc. Write for particulars.

W. W. BLISS,  
Duarte, Cal

## ITALIAN AND CARNIOLAN QUEENS

By return mail, bred in separate apiaries away from other bees. Warranted Italians or untested Carniolan Queens, in June, \$1.10; 6, \$5.90; July, \$1.6, \$5. State which you prefer, BELLINZONA or GOLDEN ITALIANS. For full particulars and prices of bees, send for circular. Safe arrival and satisfaction guaranteed.

CHAS. D. DUVALL,  
Spanoerville, Mont. Co.



### Flat Bottom Comb Foundation.

High side-walls, 4 to 14 square feet to the pound. Wholesale and retail. Circular and samples free.

**J. VANDEUSEN & SONS,**  
SOLE MANUFACTURERS,

SPROUT BROOK, MONT. CO. N. Y.

THE

## Winter Problem Solved!

After twelve years of experimenting I have succeeded in solving this great problem of wintering bees without loss. I have also overcome Spring Dwindling so perfectly that with me it is a thing of the past. Four years ago I built my first underground clamp and since that time I have each year wintered a large number of colonies without the loss of one. It is positively the only perfect system of wintering and springing bees. See Canadian Bee Journal, Nov. 18, 1885, page 531.

### I Am Making Models of this Clamp in Cardboard

with three hives packed in it as I prepare them for winter with printed directions for using, for the

*Small Sum of One Dollar.*

*The Model Is so Complete and Simple that a child can understand it.*

**MODELS SENT BY MAIL.**

**SAMUEL BRAY,**

ALLISTON P.O., ONT.

**FRANK W. JONES,**

BEDFORD, QUE. AGENT FOR

### Pelham, Vandervort and Root Foundation Mills

Dealer in and Manufacturer of Apiarian Supplies.