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VOL. II, NO. 27.

1886

SEPTEMBER 29.

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER



JOURNAL

THE FIRST \$ WEEKLY IN THE WORLD

ONE DOLLAR PER YEAR

THE GREATEST POSSIBLE GOOD TO THE GREATEST POSSIBLE NUMBER

PUBLISHED BY
JONES, MACHESON & CO.
BETTON ONT.

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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. J. 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.

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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. 50 cents per year extra; and to a countries not in the postal Union, \$1.00.

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TO CONTRIBUTORS

Communications on any subject of interest to the Bee-keeping 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 (clth).....	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 CARP CULTURE, by A. I. Root, in paper 50c.

SUCCESS IN BEE CULTURE as practised and advised by James Heddon—price in 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 IN—

EXCELS ALL OTHERS.

Manufactured solely by

McCOLL BROS.,
Toronto.

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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 thus far, and business is just booming. I would 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.

We want to place the MONTHLY in the hands of every one interested in poultry and pet stock, and will send the paper for a full year for \$1 to all who subscribe this month. The regular price is \$1.25 per annum.

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 the improved for this season.

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

	Per 500	Per 1000
Price for 1 lb.....	\$3 50	\$6 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

FOR SALE.

A few colonies of Italian bees. Some Jones' stock in single or double walled hives.

21-41 S. G. RUSSELL, Thornbury.

Queen City Oil Works!

The Highest Honors and Gold Medal For Our
PEERLESS OIL,
Manufactured only by
SAMUEL ROGERS & CO.
Toronto, Ont

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 frame 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 3/8 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 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.,

BEETON, ONT.

BARNES' 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.

➤ 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

THIS SIDE UP
WITH CARE

Show Cards.



Size 12x18 in. each..05
" " " 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
1 " " ".....	1 75	1 15	30
1 " " ".....	1 75	1 15	30
1 " " ".....	90	55	15
Labels for tops of tins.	90	55	15
Printing name and address, first 100.....			30
Each subsequent 100 up to 500.....			12
Printing name and address, per 500.....			75
" " " " " 1000.....			1 25

Shipping Labels for Comb Honey

CAUTION.

COMB HONEY.

Handle with Extra Care.
Do not Move it on Hand Trucks.
Do not Drop it. Load with the finger pointing to the
Do not Dump it. 1.5"
Set it Down Easy.
Haul only on Vehicles with Springs Bow, Locomotive or Horses

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 an hour'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..... 90

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 Manilla 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.
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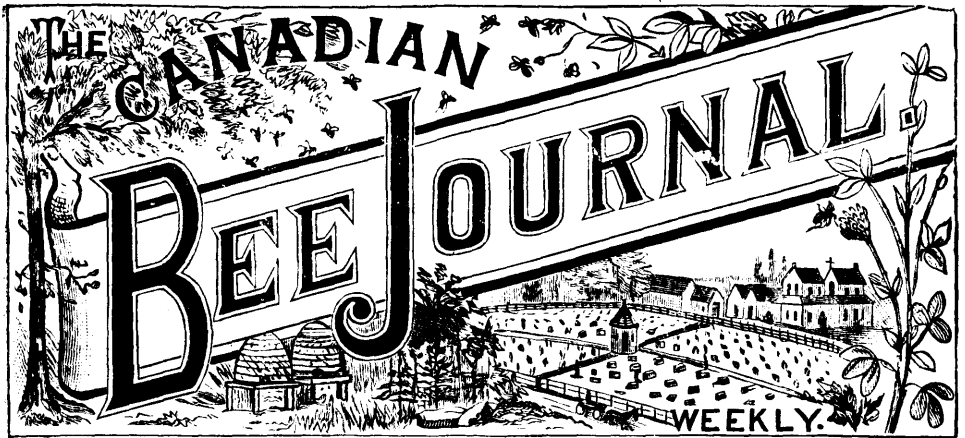
Send 3 cent stamp for sample.

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:

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

SUITABLE FOR THE SEASON.



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

VOL. II. No. 27. BEETON, ONT., SEPTEMBER 29, 1886 WHOLE No 79

CANADA AT THE COLONIAL.

THE Canadian Commissioners to the Indian and Colonial Exhibition arrived safely in England and according to an item from the advance proof of the *Canadian Gazette*, which we insert herewith we expect, ere this, the show is complete.

"The steamship *Vancouver*, which reached Liverpool on Saturday last, had on board the exhibit of honey shipped by the Ontario Bee-Keepers' Association. Excellent arrangements were made for the careful and prompt despatch of the honey from Liverpool to London. The honey reached the Exhibition on Monday and is now being placed in the building erected in the South Promenade for the purpose, under the personal supervision of the delegation appointed by the Association, and consisting of Messrs. R. McKnight, S. Corneil, D. A. Jones and S. T. Pettit."

On our return from Toronto we found awaiting us a letter from Mr. Jones, in which he says that the trip was very pleasant, and they find that the prospects for disposing of all the honey taken with them are good. The "coffin" mystery about which so much fun was poked at Canadians through the *British Bee Journal* has been explained as follows: The cases had been sent to the exhibition filled with other goods and when emptied were stored in the building set apart for the honey exhibit. A little investigation on the part of the correspondents of the *British Bee Journal* would have given them this information, and would have saved Canadians from not a little ridicule. Speaking on this subject the

British Bee Journal in its last issue says:

"The CANADIAN BEE JOURNAL for July 21 alludes to the coffin-cases in which some honey was sent from Canada. It states that the honey was not sent by the Ontario Bee-keepers' Association. We are pleased to give this information: as we certainly have no wish to prejudice the Canadian bee-keepers in any-way; if they can supply us with honey at a lower price than we can produce it, they may be able to get rid of their surplus stock. But we do not think they will be able to drive English honey out of the market, as British bee-keepers can now put up honey in as nice and attractive a manner as any other country."

Canadians do not expect, or wish, to drive English honey out of the market, but they certainly do expect to find in England a market for their surplus crop, and yet in no way interfere with the English producers. The fact that there is monthly from £3,000 to £6,000 sterling worth of honey exported from other countries to England should be sufficient proof that there is room for outsiders. If Canadian honey has the effect of driving honey out of the market, it will not be the production of English bee-keepers, but of foreigners.

At the date of Mr. Jones' writing, they had not been visited by many English bee-keepers of note, but as the exhibit was not in shape other than this could not be expected.

The Baroness Burdette-Coutts, President of the British Bee-Keepers' Association, has been invited to inspect the exhibit. We have for this issue, a full report, from the pen of Mr. Cor-

neil, of the trip of the commissioners, which will give us more particulars than we have yet to hand.

For the Canadian Bee Journal.

SUBSOIL VS. JONES.

A CASE against a bee-keeper tried at sea and successfully defended without aid from the manager of the Bee-Keepers' Union.

ON BOARD S. S. SARDINIAN,
NORTH ATLANTIC, Aug. 26, 1886.

Bee men are noted for being ready to talk about their specialty on every possible occasion; the delegates in charge of the Ontario honey exhibit at the Colonial and Indian Exhibition are no exception to the rule in this respect. Conversations with their fellow passengers on board were often turned so as to bear a reference to bees and honey. Should a passenger tell a story about the methods by which travellers are often blackmailed, Mr. Jones would match it by telling how he got even when the custom house officers and boatmen at Beyrout attempted to levy "backsheesh" on him when bringing bees from the Holy Land to Cyprus. One of his cylinders was so full that he feared the bees would be suffocated. Pretending to abandon the bees rather than submit to their demands, which amounted to about \$25 for two hives, he opened this hive and allowed about a gallon of bees to escape. This caused a general stampede, the bees driving both boatmen and officers under cover. He then deliberately placed his bees in a boat and rowed to the steamer, which had been waiting for him half an hour, the owner of the boat lying in the bow with his head covered most of the time. Before long the Canadian bee men on board were the best known among the passengers. Their statements regarding the benefit of bees in fertilizing the crops of the agriculturist, and the virtues of honey as a food and medicine, were not always allowed to pass unchallenged. The outcome of the opposition was that Captain Hamilton, manager for a shipping firm in Scotland, over the assumed name of "Subsoil" made a demand in writing upon Mr. Jones for \$1,000 for damages done to his pastures by Jones' bees in extracting the honey from the clover, and for annoyance to his family from the stings of the bees, and loss of property caused by the bees stinging his sheep and cattle. Mr. Jones refused to accede to any such demand, stating that the bees were not only not injurious but were a positive benefit to his neighbors' pasture. Here was a direct issue. Arrangements were soon on foot for the organization of a court to try the case.

Capt. Smith of the "Sardinian" was consulted, and he fell in with the idea at once, expressing his willingness to go into the witness box himself and testify against Jones. Soon the arrangements were all complete. Mr. Dennistoun, of Edinburgh, Scotland, arrayed in a fur cloak and ample wig, made by the boatswain for the occasion, filled the position of judge with dignity and ability. Mr. S. Carsley, a leading merchant of Montreal, acted as counsel for the prosecution, and Mr. R. McKnight, registrar for North Grey, Ont., acted as counsel for the defence. Mr. Andrew Allan, of Allan Bros. & Co., Montreal, was chosen as foreman of the jury. Amongst the jurors were a gentleman recently from Hong Kong, China, an editor from London, a banker from Ontario, a stock raiser from British Columbia and another from Manitoba, and a gentleman from Stratford, England.

Mr. Carsley, in opening the case for the prosecution, stated in a clear and succinct manner that his client's land produced the clover blossoms which supplied the defendant's bees with honey, that the secretion of honey in the cloverheads increased the food value of his client's pasture, or it would not be there; that since the defendant established his beehive in the neighborhood his client's stock had been failing; that his cows gave less milk and of poorer quality than formerly; that his sheep were poor and therefore less valuable; and that his client's family required medical assistance more frequently than they did previous to the establishment of the defendant's beehive. Since these losses were directly traceable to the defendant's bees he claimed that it was only just that defendant should remunerate his client to some extent for the damages he sustained. Evidence was produced to sustain this contention. Great merriment was caused by Capt. Smith, who as Hodge, a servant of the plaintiff testified that his master's stock were failing of late; that this was caused by Mr. Jones' bees, and not by carelessness, especially since he took charge; that on one occasion he took Miss Buttercup, the dairymaid, out for a drive with his master's horses and carriage, that one of Jones' bees attacked the "hosses" causing them to run away and break the carriage; that he captured that bee to show to his master, and that it was about 2½ inches long and was one of those eastern bees Jones brought from somewhere. This evidence was confirmed by that of Miss Buttercup. The counsel for the defence, in cross-examination, labored unsuccessfully to induce her to admit that at the time the accident occurred Hodge

was not minding his horses, but had his attention otherwise engaged.

The ship's surgeon was called and testified that the family of Mr. Subsoil had required his assistance more frequently than formerly; that he was often called upon to prescribe for hives and erysipelas, resulting from bee-stings. He admitted on cross-examination that Subsoil's family had increased rapidly of late, which would to some extent account for his being more frequently called in. The counsel for the defence proceeded to question him as to facts not brought out in his examination in chief. This was objected to by the opposing counsel. His lordship held that the objection was well taken, but in view of the fact that this was the first case of the kind which had come before the courts, and of its importance to the public, he would allow counsel some latitude in order to get all the facts before the jury. The witness then stated that as in animals the lacteal fluid is only secreted so long as there is a demand for it, so in the vegetable kingdom the blossoms secrete nectar as long as it is needed to attract insects, and that it is replenished as fast as it is gathered. The witness stated further that honey ranks high among the sugars as an article of food because it is already partially digested by the bees, and is in a condition to be at once taken up by the absorbent vessels of the stomach and assimilated, while cane sugar and the starches of potatoes and bread require to be first changed by the saliva and pancreatic juice into glucose before they can be assimilated and passed into the circulation. He also stated that honey has important medicinal properties.

For the defence Mr. S. T. Pettit was the first witness called. He stated that he owns and manages a farm of 150 acres, on which he keeps over 100 hives of bees, about 15 milch cows, and from 20 to 30 sheep. The records at the cheese factory show that his cows gave at least as much milk as do those of the other patrons whether there are bees in their vicinity or not, and that for richness his milk stands amongst the very highest. His Southdown sheep have for years taken most of the leading prizes at the local shows, and he has always shown them off the grass and has not fed grain. He has frequently observed that his crops of clover seed and buckwheat are far in excess of those of his neighbors who are three miles or more from bees, although the other circumstances were at least as much in their favor.

Mr. S. Corneil gave evidence to the effect that in the vegetable kingdom there is a constant struggle for the survival of the fittest, that the weak specimens are crowded out by the stronger,

and that the strongest and most perfect plants can only be secured by cross fertilization; that the methods resorted to by plants to secure cross fertilization are often curious and interesting, amongst which are bright colors in the blossoms, strong odors, and the secretion of nectar to attract insects, which carry the pollen from flower to flower; and that the constituents of the nectar are not drawn from the soil, as is often supposed, but are absorbed by the plant from the air. In reply to counsel he stated that a certain number of clover heads were covered with gauze to protect them from insects, that the seeds of these and the seeds of an equal number of heads unprotected were counted, and that the seeds of the latter were as three to one of the former. Witness continuing said that Chas. Darwin had made the apparently bold statement that the crop of clover seed depended, in a measure, upon the number of old maids in the country, because old maids were proverbially fond of cats; the more cats the fewer field mice. The queen humble bee hibernates through the winter in the nest of a mouse better than anywhere else, and as a rule they are the only bees whose tongue is long enough to work on red clover, so the fewer mice the fewer deserted nests, and therefore the fewer humble bees to fertilize the crop of the next season. The witness had learnt from his lordship the bishop of Rupert's Land, who was a passenger on board, that in the city of Winnipeg, where there are few bees, he had to fertilize the blossoms of his melon vines by hand or he would have little or no fruit.

In cross-examination the witness stated that Darwin was a very close observer, that while it was true that farmers dealt with facts, men like Darwin often discovered the facts which the farmers applied, and although the plaintiff only raised clover and not clover seed, if it were not for insects it would be a question of only a very short time till there would not be a pound of clover seed to be obtained.

The defendant was called and testified that 100 stocks of bees would exhaust all the bee pasturage in 25,000 acres in a poor season, that as Mr. Subsoil only owned 200 acres and wanted \$1,000 there would be 125 farmers claiming damages amounting to the sum of \$125,000. Consequently if Mr. Subsoil's claim were valid, bee-keeping would become an extinct industry.

So much interest was taken in the case that the court held three sessions before the trial was brought to a close. His Lordship the bishop of Rupert's Land was present during the whole trial, and manifested a lively interest in the issue.

The counsel for the plaintiff reviewed the evidence and appealed to the jury to do justice to his client. Throughout the trial Mr. Carsley showed marked ability as an amateur counsel.

Mr. McKnight addressed the jury in an eloquent speech of over half an hour's duration. He reviewed the evidence for the defence dwelling especially upon the point that where there were no bees, melon vines had to be fertilized by hand to secure a crop, "and," said he, "for the privilege of saving Mr. Subsoil this labor my client is asked to pay \$1,000." Instead of bees and stock being antagonistic, he alluded to the fact that while the land of Canaan was pre-eminently a grazing country its caves were also full of bees, which yielded an abundance of honey, and the country was referred to in the sacred writings as "a land flowing with milk and honey."

The judge summed up the evidence and charged the jury in dignified and appropriate terms. After a short consultation the jury brought in a verdict for defendant. Counsel for plaintiff gave notice of an appeal. All admitted that many interesting and valuable facts were elicited, and that the trial contributed to the enjoyment of the passengers during a pleasant voyage.

S. CORNELL.

For the Canadian Bee Journal.

FOUL BROOD, AND ITS MANAGEMENT.

DIRECTIONS FROM PROF. MCLAIN, OF THE U. S. APICULTURAL STATION.

MAKE of soft water, 3 pints; of dairy salt, one pint. Use an earthen vessel. Raise the temperature to 80° F. Do not exceed 90°. Stir till the salt is thoroughly dissolved. Now add one pint of warm soft water in which has been thoroughly dissolved four tablespoonfuls of bicarbonate of soda (use the crystal). Stir thoroughly. Add to this mixture sufficient sugar or honey to sweeten it, but not enough to perceptibly thicken it. Now add $\frac{1}{4}$ oz. salicylic acid. Merritt & Co., of Cincinnati, make a pure salicylic acid from the oil of wintergreen (Konk's solution of salicylic acid No. 1). Mix thoroughly. Let this mixture stand for two hours, when it becomes settled and clear.

Treatment.—Shake the bees from the combs, and extract as clean as possible. Now thoroughly atomize the combs, using the mixture and a large atomizer. The tinsmith can make a good one for 25 cents. Return the frames to the colony.

If there is no honey to be obtained from the fields, feed honey or syrup to which has been added 3 tablespoonfuls of the mixture to each

quart of honey or syrup. Stir well. The honey just extracted may be used without injury to the bees, if the mixture is added; but no more should be furnished than is consumed. Atomize the colony two or three times more, simply setting the frames apart so as to direct the spray well over the combs and bees—not brushing off the bees; three or four days should intervene between the times of treatment. The last may be given on top without removing a frame.

As a preventive, apply on top of the frames, or in any way by which the bees may get it. Also burn old, dry bones to an ash, and pulverize. Mix up a gallon to each 50 colonies in the apiary, of the above mixture, adding enough sugar or honey to make it very sweet (say two or three times as much honey or sugar as would be a proper quantity for use in the atomizer). Stir in a full half-pint of the powdered bone ash. Place this gallon of mixture in, say, four shallow vessels—perhaps bread-pan feeders with floats on top—and stand these four in different parts of the apiary. You will be surprised at the rapidity with which the depleted colonies will recuperate and grow strong again.

If you fear that the exposure of sweets in the apiary will induce robbing, the mixture can safely be fed the customary way on top of the frames in the hive.

I would recommend that you give the entire apiary one application of the mixture prescribed for cure, as this treatment frequently prevents the presence of the disease where it was not before possible to detect it.

The quantity prescribed for use by means of the large atomizer is sufficient to treat 150 colonies. Not reckoning the sugar or honey used, the cost will not be more than 15 cents. I have prescribed this treatment with entire satisfaction and uniform success for the past two years.

I will mention the facts in two or three of the apiaries for which I have prescribed this treatment.

1. Number of colonies in the apiary, 46; number apparently diseased, 13; number actually diseased, 28; disease so far progressed that the stench was very offensive in the yard; bees crawling out of hives to die, by tens of thousands; effect of treatment apparent in one day; a permanent cure in each case.

2. Number of colonies, 60; serious cases, 38; combs black and putrid; a few had already been burned; effect of treatment apparent at once; a permanent cure in each case.

3. Number of colonies, over 150; number of colonies diseased, 60; bees swarming out; stench from hives nauseating; combs black and

with the position of the circular board, support the sides of the metal pan. When all is ready the wax pan is shoved down into the box or frame work until its open end rests in the circular board and the sides of the pan on the beveled strips. Secure in position by nailing through the wooden head of the pan, and into the end piece of the frame work. The sides of the pan are nailed closely to the beveled strips at the sides of the frame work. The sash is made of $\frac{3}{8}$ stuff like a shallow box 2 inches deep and is rabbeted at the top to receive three panes of glass 12x20 inches. The glasses have nothing between them to cast a shadow, but simply fit up close together at their edges. The sash is made to slide backward and forward between strips of wood nailed to the outside of the framework. Some tin pans a little wider at the top than at the bottom answer as wax moulds. The frame is kept in position so that the sun's rays fall directly on the glass, and the pitch of the pan is regulated by blocking up or letting down the back end of the box or frame.

My wax extractor sits in the apiary the year round, and is protected by a board cover when not in use.

I have given the above as a cheap way of making the device, and because I know it answers perfectly. Of course the pan can be made entirely of metal, and the size of the apparatus can be varied to suit anyone's notions. In giving the above description I have availed myself liberally of an article written by me and published in the *American Bee Journal* not long since.

G. W. DEMARSE

Christianburg, Ky.

FOR THE CANADIAN BEE JOURNAL.

REPLY TO MR. CHALMERS ON OWNERSHIP.

IF Mr. Donaldson, the party referred to as "another neighbor" in my communication entitled "Ownership," in C. B. J., July 21st, page 328, had had the manliness to allow the sweeping charges contained in a second article, bearing the same title, in the C. B. J., Sept. 1st, page 448, over his own signature, I certainly would have claimed the right of a lengthy reply to the same, but as the cudgel of self-defence is wielded by Mr. Chalmers, who resides a dozen miles or more from me, a gentleman with whom I have not now, nor ever had, any dispute whatever, and said charges, therefore, come second handed. I deem it only necessary to state, they are as incorrect in point of fact, as they are numerous, coming with very bad grace under the circumstances, to say the least of it. There are, however, a few which need correction, and,

had he not attempted to be either funny, sarcastic, or both, before adding his "little ditto," and read my first letter carefully, no difficulty would have been experienced in perceiving the "good lady" mentioned by me, was not Mrs. G., instead of supposing so, merely because he knows some people who call their wives by such an epitaph. I might say, at the same time, for the benefit of Mr. C., or any of the many readers of your JOURNAL who may be interested, that my apicultural knowledge is not quite so limited as he would wish it understood, in fact, I date my first bee-keeping back nearly a quarter of a century, having been among the first to introduce Italian blood into Canada. It is just twenty-two years ago this fall, (1864) since I purchased my first purely fertilized Italian queen, from the Rev. L. L. Langstroth & Son, Oxford, Butler Co., Ohio, paying the modest sum of \$10 for her, although they were sold the previous spring and summer for \$15 and \$20 each, and I have to-day, in my (it is true small) apiary of only twenty-five colonies, some of the best blood money can produce, also that I have either directly or indirectly, to a greater or less extent, been associated with the pursuit ever since.

I have always paid, and still expect to pay, for any information gleaned through the various bee periodicals, but as Mr. C. has given me advice *gratis*, I trust he will neither be displeased, nor yet too much flattered, if I thank him kindly for it, as I confess I am not by any means, as "bee wise" as some in the county of Perth, nor as "bee foolish," as others even in the city of Stratford, or its immediate vicinity.

With regard to the subject of queen rearing, I will add, that of my success in a limited way, in the past, is an indication of what I may expect in the future. I see no reason why I should not continue at it, if only for the pleasure of having people so foolish as to purchase the same kind of queens I desire so much myself. I have not sufficient ambition to combat the parties about a matter of so little moment to any one but Mr. Donaldson and myself, and penned my first article more especially for our own information, mentioning no names however, so that if the coat did not fit any one in particular, they need not don it. I am fully aware, Mr. Editor, people do not care to have valuable information excluded from any bee journal, which, by the way, none can contain too much of, for personal quibbles, therefore this affair will rest as it is in the future, so far as I am concerned, only I hope Mr. D., while imparting information to others, will do so *in toto*. Yes, as the C. B. J. in commenting on Mr. Chalmers' letter, remarks: "Give both sides of the question," in all cases, and not have the charge of robbery laid at my

door, by a disinterested party, thereby avoiding any responsibility himself, and, at the same time, to put it mildly, conveying an impression calculated to do me a serious injustice.

I will now conclude by throwing some light on this, to me, very important part of the Messrs. C. & D's. accusation. It is quite true I did have a swarm of bees into one of my own hives, and why? Well, because a late friend of Mr. D's., but who now feels his position keenly, at unwittingly having been the cause of all this onus cast on me, called in great haste with a request that I should at once bring a hive, as Mr. D's. bees were swarming, with nothing at hand to put them in, and accordingly I did so, taking the only spare hive I had, (one of the new Heddon style) into which the swarm was placed, and left until I could no longer do without it, I of course returning the bees to the old colony from whence they issued. An examination of the present colony, which was in a chaff hive, there and then revealed queen cells, showing it did not swarm out on account of heat, but from purely natural causes, as also did two (2) others during Mr. D's. absence, notwithstanding his great care in preparing them so as to need no attention till his return. Moreover, I have proof that I offered the drawn out foundation to Mr. D. for the purpose of extracting the honey, but he positively refused to accept them, assigning as his reason, that we had trouble enough with this, as also the other colonies alluded to, and he was more than obliged to us for all that had been done. Does this look like downright robbery? Yes, we will leave it too, for the kind friends generally to judge.

To some this epistle may seem as *multum in parvo*, to others as "tother end which." Be this as it may, I have done with it. Thanks.

F. A. GEMMELL.

Harmony Apiary, Stratford.

FOR THE CANADIAN BEE JOURNAL.

THE HIBERNATION OF THE HONEY BEE.

WHAT is hibernation? Marshall Hall says "sleep and hibernation are similar periodical phenomena leading to similar results and differing only in degree."

As Dr. Hall is probably the highest authority we have on the subject, and as his definition has been accepted by all investigators, it would seem to be well for smatterers in science to look up the standard definition and accept it rather than to coin another which shall be accurate only in measuring the want of knowledge of its author. The Germans recognize hibernation as a peculiarly deep sleep and their name for it is *winter-sleep*, (See Barlow's *Winter Schlaf*, Berlin.) Do

honey bees hibernate, or is the quiet of winter only a sleep, or has it passed beyond sleep into hibernation? Dr. Edward Smith says, a man in deep sleep expired 4.5 grains of carbonic acid per minute; on the treadmill 43.36 grains per minute. A waking hedgehog yielded 20.5 times more carbonic acid than one in state of hibernation. Thus, we have a ratio between sleep and waking of 1 to 10 nearly; between hibernation (not profound) and waking 1 to 20.5. If instead of the treadmill we take walking at three miles per hour (26 grains carbonic acid per minute) which exertion would correspond more nearly with that of the hedgehog, we have a ratio less than 1 to 6. Carpenter says of the bee, when breeding the evolution of heat and consumption of oxygen takes place at least twenty times as rapidly as when in a state of repose. This is the same ratio as exists between the hedgehog's hibernation and waking. But dropping these comparisons as illogical, we may note the number of inspirations and the amount of food taken during the winter, which proves, conclusively, that in its winter repose, the honey bee has passed far beyond the physiological limits of sleep into hibernation. You will notice by the definition that where sleep ends, hibernation begins—there is no "quiescence" between. The daily summer sleep of the bat and dormouse is a true hibernation. Dr. Hall says "the quantity of respiration is inversely as the degree of irritability of the muscular fibre, the former being marked by the quantity of oxygen consumed in a given time ascertained by the pneumatometer, the latter by the force of galvanism necessary to demonstrate its existence. The capability of passing into a state of hibernation depends upon the capability of taking on an increased muscular irritability. Were the respiration diminished without the increased muscular irritability, death would take place, from the torpor of slow asphyxia, and were the respiration increased without the diminution of the irritability, the animal would die from over stimulation, as in those suddenly aroused from the state of hibernation." As such trifling causes as walking over the floor, touching the operating table, etc., are sufficient to excite respiration, hibernating animals adopt various means of securing themselves from disturbance and when the temperature approaches 50° they seek out their out hibernacles in trees, caves and burrows in the earth. It was found that hibernating bats died when subjected to the motion of a stage coach for a couple of days. The same treatment would undoubtedly seriously injure a hibernating swarm of bees. It was that close

observer, Mr. L. C. Root, who first called my attention to the injurious consequences of the needless disturbance of bees during their winter sleep. And every farmer boy knows how unwholesome it is to be suddenly aroused from a deep sleep to immediately participate in the active duties of the day. How comforting to the rising generation that the doctors now say, the process of awakening should be a gradual one !!! Hibernation differs widely in different animals. While possessing the same general characteristics, yet in no two is it exactly alike and we must not expect the honey bee, which differs so much from everything else of the animal kind, to conform in every particular to the already observed conditions of hibernation. In some animals, hibernation is very profound, in others not. I have already given an illustration of the latter. A hibernating bat, in a pneumatometer, consumed but one seventy-second part as much oxygen as one awake. The bat, may be said to belong to the former class. In some animals, before the period of hibernation, a large amount of fat is stored in the body; this hydro-carbonaceous deposit serves as a store of heat and force during that period. In this class of profound hibernators, the total loss of weight is sometimes 40 per cent or fully as much as usually sustained in starvation. Another class of hibernating animals store their chief supply of food outside of the body and awake at intervals to partake of it. The marmot, hedgehog, squirrels, dormice, etc., belong to this class. To this class, we must assign the honey bee, the honey being the stored supply of heat and force. Some of this class have a partial dependence upon the fat of the body, but it is not asserted that this is the case with the honey bee. Some bee philosophers, however, maintain that bees kept on a short allowance through the fall and supplied later for winter, do not usually come through so well. There is also a small school of physiologists who assert that all carbonaceous food, must first be converted into a dipose tissue before it can be useful for the production of heat and force. This applies *equally as well* to the honey of the bee as to the quarts of oil consumed by the Esquimaux. According to Dr. Hall, the hedgehog in a temperature varying from 45° to 50°, awakes to eat at intervals of two or three days, depending upon this slight difference in temperature. The dormouse which sometimes hibernates in bee-hives, awakes daily in moderate temperatures. Dr. Reeves says, lower temperature begins at the surface of the body and gradually approaches the center. This central part as Dr. Hall, Spallanzi and others have proven, remains permanently at a higher temperature. In hibernation, as at other times, a

swarm or cluster of bees must be taken as a unit. Bearing this in mind, it is, as we should expect, that the center of a hibernating cluster is formed of a higher temperature than the outside, as Doolittle, Tinker and others have noted. Most bee-keepers have noticed on suddenly dividing a cluster of bees in cold weather that the outside bees are somewhat lethargic, while those inside are lively and apt to fly out and sting, while if any of these half awake outside bees fly they appear not to have control of their movements and fall to the ground.

The heat of reptiles is from four to fifteen degrees F above the heat of their medium, while the heat of individual insects is from two to ten degrees more than that of the air. Therefore it cannot be said that reptiles or solitary insects hibernate as warm blooded mammalia do. The same may be said of the individual bee. It is only when aggregated in clusters that a high and independent temperature is maintained. Hibernation must not be confounded with torpidity. The *American Encyclopedia* says: "The torpor produced by extreme cold is very different from true hibernation." And again in another edition "Extreme cold will arouse a hibernating animal from its lethargy, and speedily kill it." We all know that cold arouses bees. These then appear to be some of the leading characteristics of hibernation: An activity similar to but less than in sleep, with diminished respiration, but increased muscular irritability. Lower temperature, lowest at the surface of the body, diminished need for food and when stored outside of the body partaken of only at intervals of awakening, loss of voluntary motion, but continuance of involuntary motion. As bees possess so many of the conditions of hibernation it seems reasonable to conclude that they hibernate. The material for this article was gathered ten years ago this winter and in consulting authorities Dr. Hall was found to be practically the beginning and the end. The other articles were largely a restatement of his work, and every succeeding writer must do the same until further investigations are made. The Rev. W. F. Clarke is entitled to great credit for the ability with which he has presented and defended his views of the hibernation of the honey bee. When he first applied the word hibernation to this insect he was greeted with a storm of ridicule, and his would-be critics, even up to the latest, have too often relied on their own conception of what hibernation is rather than the knowledge they have obtained by consulting the standard authorities on this subject. In his replies Mr. Clarke's inexhaustible fund of

wit and good humor, together with his ready command of language, have gained the admiration of all, while his keen logic has compelled the respect of his opponents and their general acceptance of the word "quiescence." A word used, as I understand it, to denote a quiet whose activities are somewhat less than exist in the state called sleep. My attention has been called to an article in *Gleanings*, p. 91, in which the Rev. Mr. Clarke objects to the part of an article penned for the *American Apiculturist*, in which I condemn the present generation of American entomologists for their unreliability, and he cites three entomologists—Huber, Reaumer, and Newport, neither belonging to the present generation—as furnishing reliable information on the winter temperature of bees. He then somewhat illogically sets up the last to prove that the first is unreliable. We will accept Mr. Clarke's conclusion that the first of his authorities is not correct, and with his consent we will add the other two. When Newport says the temperature sometimes—though rarely—falls below the freezing point—30 degrees he records—we know at once without being told by him that this must be outside the cluster. While with the average hive and ventilation the temperature may rarely fall below the freezing point in parts of the south, it is not so in Central New York or Canada. The same may be said of his average temperature, although 52 degrees may be accepted as very nearly the temperature that ought to be found outside of the cluster. After diligent search I have never been able to find recorded temperatures sufficiently reliable for guidance and many others I know have been misled with queen nurseries by the high temperature given for brood rearing. It would, I think, be useless to ask our entomologists for the temperature of different parts of the hive when there is no breeding, yet it is not difficult with a suitable thermometer to ascertain the temperature of different points in the cluster. This last winter I had a thermometer for nearly two weeks inside the cluster, and after the first day the recorded temperature varied less than one-half of one degree. After reading an article on page 87, *A. B. J.*, on hibernation, written by an American entomologist, in which not a single position taken can, I think, be successfully defended, I conclude that I have been fully justified in condemning the superficial study given that important servant of man, the honey bee.

P. H. ELWOOD.

Starkville, N. Y., April 7th, 1886.

CALIFORNIA'S CROP FOR 1886.

THE very hot weather and exceedingly drying winds that have prevailed in this locality for the last four weeks, has settled the question as to the yield of honey for the season of 1886. Very little more honey will be extracted even in the most favored localities this year, and whatever may be obtained will be off color. The season for comb honey is ended, and the quantity is very much short of what was looked for in the early part of the season. The quality of both the comb and extracted is A I, and ought to bring a good price in any market whether at home or abroad.

From the reports received so far the yield will not be much if any more than one-half the quantity of honey produced in 1884, in Southern California.—*Rural Californian*.

SUNDRY SELECTIONS.

DEFENDS THE ITALIANS.

HENRIETTA F. BULLER.—Mr. I. Weller, of Zephyr, seems to have been very unfortunate in the kind of Italian bees he bought. One would suppose, from the way he writes, that the most of the comb honey in the country was made by German bees, (does he mean by German bees, the common black bees?) which I very much doubt. What kind of bees do Messrs. Hall, Emigh, Corneil, Russel, and scores of others who produce comb honey largely, keep? I tried a couple of Mr. Heddon's leather colored Italians once, and I must say they were as cross as the crosslest hybrids I ever had. They were like hail stones pelting one when the hives were opened. I do not wonder, if all Mr. Heddon's bees are like them, that it poisons him to work with them in the fall. Perhaps what I got were an exception, like a queen I got from Mr. Jones last year, said to be a cross between Carniolan and Italian, and too irritable for anything, but they are good workers. I have not found Italian bees any more apt to abscond than black bees, and am not troubled with excessive swarming. One good point about the Italians, Mr. Weller might give them credit for, viz., their immunity from that pest of old, the moth. I wonder how often he has to fumigate his comb honey made by black bees to preserve it from the ravages of the moth. I have no axe to grind, as the saying is, but have had so much more satisfaction in working with yellow bees, than with black, that I feel tempted to take up the cudgels for them when I see them abused.

Campbellford, September 12th.

For the Canadian Bee Journal.

LAMBTON BEE-KEEPERS.

THE first meeting of the Lambton Bee-keepers' Association was held in the Council Chamber in the village of Alvinston, on Wednesday Sept. 1, R. Auld, of Warwick village, was appointed President and Dr. Harvey of Wyoming, Vice-President, with J. R. Kitchin, Secretary, and Jas. Newell, Treasurer, both of the village of Alvinston. It was then extended from the Alvinston Association to the county.

The President on being asked to give his ideas on wintering, said that experience taught him that cellar wintering was best with a high temperature, about 45° or 50° and not to set out too early in the spring; have your frames set wide apart, about 8 or 9 to the hive. He uses the Jones hive set a deep super on the hive. Then packs over the frames with clover chaff, has a dead air space above the chaff of about five or six inches. Thinks all hives do not want the same ventilation.

Dr. Harvey next said that he kept bees for pleasure more than profit. Though that bees were the only boys he ever had around his place that he did not have to call up in the morning. Thought that wintering on summer stands was as good a way as any. Agreed with Mr. Auld about packing, but thought it best to have holes bored in the ends of the cover so as to allow all dampness to escape, and have wire cloth over the holes to keep the snow from blowing in. Said he liked a sawdust hive and thought that it made no difference as to the amount of sawdust packed around one over three inches in thickness.

Mr Husband said that he preferred wintering in cellar, if you have a good cellar, and, if not, out doors far the best way. Likes to have a high temperature. Wintered last winter on 8 and 10 frames, left the propolised cloths on all winter and preferred to not have his bees commence brood-raising before the month of March.

Mr. Traver next said that he had wintered successfully on summer stands. He packed some of his hives in boxes on summer stands with chaff around the hive and over the frames in the super,

leaving the cover off the hive altogether so as to allow all dampness to escape but had the box well covered with a slanting roof to keep the snow and rain out. He wintered half of his bees last winter in a shed that he had built for the purpose, with one thickness of lumber then lined inside with felt paper and had a dead air space between each thickness, filling the super of those with chaff also, and leaving the cover off.

Dr. Harvey thought it would be a good idea to lay some poison on a paper on the top of the chaff so that the mice might get it and not allow them to make a nest in the chaff and disturb the bees.

Mr. Morrison, one of D. A. Jones's students said that he had not had much experience in wintering yet, but what he had had, wintered very successfully on summer stands.

Mr. Orchard said that he wintered in cellar with a high temperature, kept so, by having a small stove in the cellar and heating it when so required. Mr. Orchard then told about having foul brood in his yard. The remainder of the afternoon was then spent in talking about the disease and the best ways of curing it. Mr. O. had sent for one of D. A. Jones's pamphlets on foul brood and was treating his bees according as directed by it. This is the only case of foul brood known in the county of Lampton. The question of adulterated honey was next brought up, and a committee was appointed for the purpose of ferreting out any individual who sells adulterated honey and report them to the Government Inspector. The Convention then adjourned to meet in the village of Watford, on the 10th day of April 1887.

J. R. KITCHIN.

COMPLIMENTS

FROM FRIENDS WHO HAVE DONE BUSINESS WITH US.

AN EXCELLENT SINGER.

Please accept my thanks for the copy of Rev. Wm. F. Clarke's sprightly and instructive "Bird's-Eye View of Bee-Keeping" kindly sent me. The old bird who took this "view of bee-keeping" has a keen eye, and he sings excellently well. His tones are full, pure and sweet, and

the song is lively and refreshing and dwells gratefully in the memory. Personally I am grateful to the author who has given us this unique addition to the literature of our industry.

N. W. MCLAIN.

Aurora, Ill., Sept. 6th, 1886.

THE CANADIAN BEE JOURNAL

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BEETON, ONTARIO, SEPTEMBER 29, 1886

COMB HONEY WANTED.

We have a market for two or three thousand pounds of nice comb honey. Any one who has it to dispose of will please say the least they will take for it per lb., delivered in Hamilton or Toronto, also what quantity. We would prefer to get the whole lot in one place, or, at least, lots of not less than one thousand pounds in each. Be prompt please in advising us.

Over fifty new names were added to our list at Toronto, and we hope to do equally as well at London, full report of which show will appear in next or the following issue.

HONEY IN EXCHANGE FOR SUPPLIES.

We have received already nearly 10,000 lbs., and, as a rule, the quality has been such as to command our best price. We can still take all that comes, at same quotations. Other honey-dealers tell us we pay too big a figure, but our desire is not to make anything much out of the honey, but to establish a market in which producers can always make an exchange for supplies at a fair price. Another season we hope to buy all that comes along paying both cash and trade, but at present, we find we can secure sufficient to fill our wants in the way we have chosen.

CONVENTION NOTICES.

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.

THE EASTERN TOWNSHIPS BEE-KEEPERS' ASSOCIATION will hold its second annual meeting at the Queen's Hotel, Cowansville, Missisquoi Co., Oct. 19th, at 10 o'clock, a.m. It is to be hoped that all bee-keepers in the townships will unite in making this a large and representative meeting. Bee-keeping throughout the eastern town-

ships is rapidly increasing, and an association, embracing all bee-keepers, cannot help but result in great mutual advancement. Bear in mind that we have secured a grant of \$100 from the Provincial Government, and with a large and active membership the success of the association is secured. FRANK W. JONES, Chairman Ex-Com. E. T. B. A.

THE NORTH AMERICAN BEE-KEEPERS' SOCIETY will hold its seventeenth annual Convention at Indianapolis, Ind., Oct. 12, 13 and 14, 1886. The meeting will be held in Pfaffins Music Hall, over 82 and 84 North Pennsylvania Street, one of the most pleasantly situated halls in the city, with good ventilation and plenty of light. The society headquarters will be at the Occidental Hotel, corner of Washington and Ills. Sts., near the heart of the city and but a short distance from the hall. The regular rate of this hotel is \$3 per day, special rates to those in attendance at the convention will be \$1.50 per day. The North Western Bee-keepers' Society, the Indiana State, the Eastern Indiana, with various county and joint societies, will meet in union with the N. A., making it one of the most formidable meetings of bee-keepers ever held in the country. Everything possible will be done to make this meeting a pleasant and interesting one. An earnest cordial invitation is extended to all. FRANK L. DOUGHERTY, Secretary.

SPECIAL NOTICES.

We will send Vol. I. of the C. B. J. nice y bound in cloth to new subscribers for \$1.25 or clubbed with current Volume for \$2.00.

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 over 10,000 in odd sizes. Regular sizes are 3½x4½ and 4½x4½ and in widths of either

1½ or 1⅝ 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.

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. 09
Bright, clear honey in mixed flavor.. " 08½
Amber colored " " 08

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

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.

CINCINNATI.

The market for honey is very tame. Demand from manufacturers is very slow and there is only a fair trade in new comb honey and extracted in square glass jars. Extracted honey brings 3½c. to 7c. a lb. on arrival. Comb honey 12c. to 14c. for good to choice in the jobbing way. Prices are low for all produce and no speculative feeling is noticed anywhere. Unless better prices are realised, for other produce, prices of honey are not likely to advance. Beeswax is in good demand and arrivals are fair. We pay 20 cts. a pound for good yellow.

CHAS. F. MUTH & SON.

DETROIT HONEY MARKET.

Best white in one pound sections is bringing 14 cts. Beeswax 23 cts.

M. H. HUNT.

Bell Branch.

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

BEESWAX

Beeton September 20th, 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.

FOUNDATION

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 4½x4½, per lb. 60c
Brood Foundation, starters, being wide enough for Frames but only three to ten inches deep...43c

EXCHANGE AND MART.

A BARGAIN.—For sale at \$5.25 thirty colonies of bees, Jones hive, seven frame comb, originated in Beeton apiaries. M. HAMILTON, Williamsville, Ont. 24-27

A YEAR AMONG THE BEES.

A new bee-book of 114 pages, cloth bound. Price 75 cents. Sent postpaid by the aut. or.

C. C. MILLER Marengo, Ill.

120 ACRES SELECTED.

High, gray hammock 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, Date-palms, ect., 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 Svro-Italian bees for sale. Cause of sale: Failing eyesight. Apply to,

GUSTAVE DAMKOHLER,

Punta Rassa, Monroe Co., Florida.

HOW TO RAISE COMB HONEY.

An illustrated pamphlet, just out, by Oliver Foster, describing improvements in methods resulting from 10 year's practical work and extensive experiment. Price 5 cents. Send also for free circular of Italian bees and queens, bred for honey and for sale. The "Adjustable" Honey Case, and other standard supplies for the apiary. Address

OLIVER FOSTER,

MT. VERNON, LINA Co., IOWA.

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 Heddon'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 Heddon Hive, painted and complete, value..... 3 25
 1000 Leaflets, "Honey, Some Reasons Why It Should Be Eaten," value..... 3 25

TWENTY SUBSCRIBERS.

- 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, Ontario.

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.



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,

ROUT BROOK, MONT. CO N. Y

RAY'S 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. J. 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.....\$ 60
" " per 25..... 12 50
In flat, each..... 40
" " per 25..... 8 75
" " " 100..... 30 00

THE D. A. JONES CO.

A BIRD'S EYE VIEW 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, \$1.00.

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, add 45 cents each; and for extra supers add 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.f.

IF FRIENDS If you are in any way interested in

BEEES AND HONEY.

We will with pleasure send you a sample copy of our **SEMI-MONTHLY GLEANINGS 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. 10th thousand sold in just four months. More than 50 pages and more than 50 costly illustrations were added in the 8th. 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, O.

Sept. 1st, 1886.

Jan. 1st, 1887.

REDUCTION

For balance of 1886. From Sept. 1st, 1886, to Jan. 1st, 1887, will make prices on **SECTIONS \$4.00 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.

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

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

ESTABLISHED 1855.

BEE SWAX HEADQUARTERS

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

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

DADANT'S 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 HEDDEN, Dowagiac, Mich.,
- F. L. DOUGHERTY, Indianapolis, Ind.,
- CHAS. H. GREEN, Berlin, Wis.,
- CHAS. HERTEL, Jr., Freeburg, Ill.,
- E. L. ARMSTRONG, Jerseyville, Ill.,
- ARTHUR TODD, 1910 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.
- L. A. HUMASON, Vienna, O.
- C. J. GRAVES, Birmingham, O.

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

COMPLIMENTARY

and UN-SOLICITED TESTIMONIALS from as many bee-keepers in 1886. We guarantee every inch of our Foundation equal to sample in every respect.

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

1886. **ITALIAN QUEENS.** 1886.

See Warranted Queens for \$5. Send for circular free. No circular 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, \$5.99; 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,
Spencer ville, Mont. Co.

Do You

Want to Buy some First-Class Colonies of Bees

• * **INOW?** * •

Owing to our largely increasing supply-business and the difficulty in securing trained labor for our bee-farms, we will sell for the next month colonies (up to 200) at unprecedentedly low prices. We offer them at once, so that purchasers may have an opportunity of deriving some benefit from them yet. Prospects here are in favor of a first class flow from fall flowers. The bees will be shipped in the Jones' single-walled hive.

Prices will be :

Colonies, including hive and 5 or 6 frames of comb (balance of 12 empty) with good queen	\$5 50
Over four colonies	5 25
Ten and over	5 00
Colonies including hive and 7 or 8 frames of comb (balance of 12 empty) with good queen	6 50
Over four	6 25
Ten and over	6 00

The combs are nice and straight and each one measures about one square foot.—The queens are, in most instances suitable to breed from—all will produce good honey gathering progeny. Nearly all of them are last year's tested queens.

TERMS—Cash with order—Delivered F. O. B. cars to go by express—and safely packed.

THE D. A. JONES Co. Ld.,
Beeton

Aug. 30, 1886.

FRANK W. JONES,

BEDFORD, QUE. AGENT FOR

Pelham, Vandervort and Root Foundation Mills

and Manufacturer of Apiarian Supplies.