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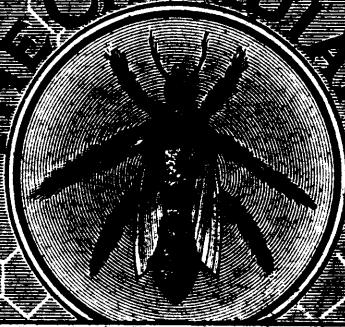
VOL. II, NO. 30.

1886

OCTOBER 20

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER.

THE CANADIAN



JOURNAL

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THE FIRST

WEEKLY

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ONE DOLLAR PER YEAR

THE GREATEST POSSIBLE GOOD TO THE GREATEST POSSIBLE NUMBER

PUBLISHED BY

JONES, MACPHERSON & CO.

BELTON 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. 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 when receipt

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

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AND "Gleanings," semi-monthly.....	\$1.75
" " "American Bee Journal," weekly.....	1.75
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" " "Bee-Keepers' Magazine," monthly.....	1.75
" " "Bee-Keeper's Guide," monthly.....	1.75
" " "Texas Bee Journal,".....	1.80
" " "Rays of Light".....	1.35

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 Mandy Book (cloth).....	2.50	2.25
Langstroth on the Honey Bee (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, 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 IT—
EXCELS ALL OTHERS.

Manufactured solely by

MCCOLL BROS.,
Toronto.

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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 15cts. Then in steel hammers we have three sizes 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 3/4th 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 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-acks, 500 board 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 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 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 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.

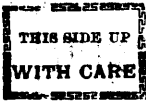
Labels for the Carton 1 lb., \$1.00 per M.; 2 lb., \$1.25 per M 14 oz. Glass Honey jars \$5.00 per gross, also tin packages of all kinds.

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

Wholesale prices to dealers.
 A. O. CRAWFORD,
 S. Weymouth, Mass

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..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
2 1/2 " "	5 00	2 75	65
1 " "	3 50	2 00	50
1 1/2 " "	1 75	1 15	30
1 1/4 " "	1 75	1 15	30
1 1/8 " "	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



These are 7 1/2 x 5 1/2 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.

Gen Jar

	Gross.	Half-gross
" Crown " brand 1 Pint	\$14 75	\$7 50
" " 1 Quart	15 75	8 90
" " 1/2 Gallon	19 00	9

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 4 1/2 x 4 1/2 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
4 1/2 x 4 1/2.....	\$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:
1/2 pound..... 9c. By mail 6c. extra
1/4 " 15 " " 12 "
1 " 25 " " 24 "

SUITABLE FOR THE SEASON.



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

VOL. II. No. 30. BEETON, ONT., OCTOBER 20, 1886 WHOLE No 82

NORTH AMERICAN BEE-KEEPERS.

THE North American Bee-keepers' Society began its seventeenth annual convention at Pfafflin's Hall, Indianapolis, on Tuesday morning, Oct. 12th. The Northwestern Bee-keepers' Society and the Indiana State and Eastern Indiana Associations meet with it this year. Among those at the opening session were Dr. C. C. Miller, Marengo, Ill.; C. F. Muth, Cincinnati; C. P. Dadant, Hamilton, Ill.; Professor N. W. McLain, Aurora, Ill.; T. S. Bull, Valparaiso, Ind.; A. M. Gander, Adrian, Mich.; T. F. Bingham, Abronia, Mich.; T. H. Keder, Terre Haute, Ind.; Mrs. A. Cox, White Lick, Ind. Captain H. Chapman, Versailles, Ill.; G. W. York, Chicago, representing the *American Bee Journal*; T. G. Newman, also of Chicago, manager of the Bee-keepers' Union and editor of the *American Bee Journal*; T. Van Dorn, Omaha, Neb.; Dr. A. B. Mason, Wagon Works, O.; Mrs. Libbie Michael, Mrs. Cooper, Thorntown, and Mrs. M. A. Jones, Indianapolis. Displays of apian products are made by Mrs. Cox, F. S. Bull, H. D. Cutting and Ora Norton, New Brunswick, Mo.

H. D. Cutting, Clinton, Mich, is President of the organization; Frank L. Dougherty, Indianapolis, Recording Secretary; Mrs. Irwin Robbins, Indianapolis, Corresponding Secretary, and C. F. Muth, Cincinnati, Treasurer.

Governor Gray was expected to deliver a welcoming address, but could not be present, and Mayor Denny did that duty in his stead, a brief response being made by President Cutting. Mr. T. G. Newman made a short address, stating the object and work of the society, which concluded the exercises of the morning.

The President's address was the first thing on the program for the afternoon. Mr. Cutting said the thanks of the society were due to Mrs. Robbins, the Corresponding Secretary, for her thoughtfulness in preparing for the meeting, and then said:

"During the past year I have often thought: 'What could be done that would be of material benefit to this society?' I should like to have this society publish each year a volume of at least 300 pages, containing the best writings of our many contributors. If we, as a society, could do this, our membership of 125 would be soon increased."

"The State and county fairs held by the different societies are a great help. I sometimes think many of us do not fully understand or realize the importance of a bee-keepers' union. I look for some action on the part of its managers at the meeting that will properly place the union before the society that they may fully understand its objects and requirements."

A. I. Root, Medina, O.; C. F. Muth, Cincinnati, O.; and C. C. Miller, Marengo, Ill.; were appointed a committee on President's address.

A contribution from John Aspinwall, of Barrytown-on-Hudson, N. Y., one of the proprietors of the *Bee-keepers' Magazine*, was read. It stated that America is ahead of all other countries in bee-keeping, and that we have more papers devoted to the subject in this country than all others combined.

Mr. Newman then read an interesting and instructive paper on "Bee Literature." He said that the writers of the Bible tell us of the early races of bees, and describe the "land flowing with milk and honey." The records of the Egyptians and Chinese, cut in stone, show that

bees were known to them as faithful servants that gathered the sweets of the earth for their use. Three hundred years before the Christian era, Aristotle affirmed that the bee was a magazine of all the virtues, and Virgil, Shakespeare and Milton devoted to it their thoughts and words of praise. He briefly enumerated some of the books on bees and bee culture, beginning with the "Historie of Bees," published at Oxford, England, 1609, and coming down to the present day.

An address by Mr. C. F. Muth followed, his subject being "Success in Bee Culture." Mr. Muth has an apiary on a flat roof in the city of Cincinnati. He said he had kept bees for the last thirty years or more, and the average number of the colonies with which he had begun each season was between forty-five and fifty; that it was his habit to dispose of all the bees he had on hand each fall and told of the different methods he had employed and the success of each.

A discussion on Mr. Muth's paper and the reading of other contributions followed, after which the convention adjourned.

At the evening session unimportant miscellaneous business was transacted and questions suggested by the papers read during the day were considered.

SECOND DAY.

The Association met at 9 a.m., President Cutting in the chair. After some routine business, a paper on "Rendering comb into beeswax" by C. P. Dadant was read. It gave practical directions how to render comb into beeswax by ordinary methods, and closed by stating that the Solar Wax Extractor was no doubt the style of machine for the purpose which would come into common use. Mr. Dadant called on O. O. Poppleton to give an account of the Solar extractor which he had invented and used for some time. Mr. Poppleton responded, and after making an interesting statement, answered a number of questions.

N. N. Betsinger was then called on to read a paper on "Separators." He stated that he had prepared no paper, and proceeded to give a description of a separator of his own invention, and which he had recently adopted to the exclusion of all others. With some apologetic remarks for violating the rules of the Association in so doing, he exhibited his invention, and disclosed the fact that he had a patent on it. Mr. Betsinger's device consists of galvanized iron wire with meshes four to the inch.

A paper on "Foul Brood" by A. J. King, New York, was read by T. G. Newman. It detailed a successful experiment on a large scale made

to ascertain the value of Mr. Cheshire's recipe for the cure of foul brood. The experiment was made with an apiary of a hundred colonies, most of which were more or less affected with the disease. All but three or four were treated with Phenol as directed by Mr. Cheshire. All those treated in this manner recovered, while the few not thus treated got worse. At length they too, were treated, and the same success followed. Mr. Bingham thought the paper a valuable one as furnishing important evidence of the efficacy of Mr. Cheshire's remedy. Mr. R. L. Taylor described foul brood as it had appeared in his apiary. Rev. W. F. Clarke doubted if Mr. Taylor's was the genuine foul brood, and pointed out some features in which it did not correspond with the disease in its unmistakable character. Mr. Muth gave his experience as also did Mr. A. I. Root. Mr. Clarke thought from Messrs. Muth's and Root's descriptions that they had the "Simon pure" form of the disease, but he had met with several bee-keepers who had mistaken chilled brood for foul brood. The true foul brood was a terrible disease. It was the small pox of bee-dom. It was worse than many seemed to think and should be got rid of without delay at any cost. On motion the subject of foul brood was laid on the table until a later stage of the meeting.

The election of officers and appointment of next place of meeting were on the program as the next order of business, but, on motion, the election of officers was postponed until afternoon. After some little discussion of the respective claims of St. Louis and Chicago, it was decided by a large majority that Chicago be the next place of meeting. Rev. W. F. Clarke then read a paper on "The past, present and future of the North American Bee-keepers' Association." It glanced at the mission of the society, showed its usefulness and value, argued that it should be representative rather than local, and pointed out its possibilities in the future. On motion the paper was received and ordered to be put on file. The Association then adjourned.

In the afternoon, the election of officers was made the first order of business, with the following result:

President, Dr. C. C. Miller.
Secretary, W. Z. Hutchinson.
Treasurer, C. F. Muth.

A Committee of three was, on motion, appointed to report a list of Vice-Presidents, the constitutional rule for electing them by ballot having been suspended. W. F. Clarke, Dr. A. B. Mason, and R. L. Taylor were made said committee.

Mr. A. I. Root reported on behalf of the Committee appointed at last meeting to investigate

the Chapman honey plant. The report was in substance the same as that which has appeared from the pens of T. F. Bingham, N. W. McLain and Wm. F. Clarke, in the various bee journals. It was highly favorable, and gave reason to believe that the plant will prove a valuable addition to our honey-producing flora.

N. W. McLain, of the U. S. Apicultural Station, then read a paper on "Bee-keeping and Apiculture." Rev. W. F. Clarke thought the paper did not do justice to the great progress which had been made in apicultural improvement. There was much that was interesting and valuable in the paper, but it was open to criticism in regard to the point named. Comparisons unfavorable to bee-keepers had been made between them and dairymen. He (Mr. Clarke) believed there had been as much progress made in average honey production, as in average milk-yield. Mr. McLain had found fault with the title of Mr. Langstroth's book, "The hive and the honey-bee," as attaching too much importance to the hive. He did not agree with the essayist in this. Mr. Langstroth had given us a hive which enabled us to get at the queen and improve the bee. The hive was an important factor in the improvement of the bee, and we have seen the present season how a hive can lessen one-half the labors of the apiary. He had spoken too eulogistically of the hive at first, not that he had exaggerated its merits, but he really did not care to have every body know them. Its value would become generally known all too soon for the interest of those who were the first to adopt it. He was selfish enough to wish he might enjoy the secret for a time. Mr. McLain thought he had been somewhat misunderstood and was proceeding to make explanations, when it was moved and resolved that further discussion be postponed until after the reading of a paper by R. L. Taylor on "The coming Bee" which was the next thing on the docket. Mr. Taylor did not think the coming bee had yet arrived, but it was on the way, and we had every encouragement to work for its advent. He described the lines along which we should work for improvement. We should disregard purity of race, and endeavor to obtain what had been called a business bee. He thought bee-keepers should unite in establishing a breeding apiary on some island, or in the midst of a prairie where there were no other bees. Colonies that had shown the greatest energy in gathering honey and building comb should be sent to the breeding apiary, the inferior strains remorsefully exterminated, and only the best perpetuated.

After the reading of Mr. Taylor's paper, the

meeting was adjourned until the evening session.

The evening session opened with a paper on "Feeding bees for winter" by James McNeill, of Hudson, N. Y., which advocated sugar feeding. Then came a paper by Dr. A. B. Mason on the general subject of "Wintering Bees," which was a review of various methods of wintering. The question, "What are the qualities of the best honey-gatherers?" was then proposed for discussion, but there seemed no disposition to enter into it largely. One or two members made a few general remarks in regard to the subject when it was dropped. A question in regard to perforated honey boards was then asked, when Mr. R. L. Taylor described them and advocated their use. An intermission was then taken for music, social speeches and refreshments—a program for which had been provided by the ladies.

THIRD DAY.

The National Bee-keepers' Union, an organization for the defence of bee-keeping against attack by law suits or otherwise held a session at 8.30, which continued until 9.30. A long discussion was had as to the best means of getting a larger membership. Some were in favor of reducing the membership fee to 50 cents, while others strongly urged the continuance of present rates, and even raising them. A vote was taken on 50 cents, \$1 and \$5, as the annual membership fee, \$1 was upheld by a large majority. After the adjournment of the Union, the manager, T. G. Newman, gave an address on the work of the Union, after which it was on motion resolved, that the work of the National Bee-keepers' Union is entitled to and should receive the support of bee-keepers.

The following gentleman were, on motion, made Honorary members:—

Prof. Millets, of the Michigan Agricultural College, in appreciation of his efforts on behalf of bee-keepers' postal rights.

Hon. Mr. Ross, Ontario Commissioner of Agriculture, in appreciation of his official and personal interest in the advancement of bee-keeping in Canada.

Prof. C. V. Riley, in appreciation of the apicultural station established as a branch of the Entomological department of the U. S. Government.

Dr. C. C. Miller moved, that a committee be appointed to enquire into the desirability and feasibility of securing legislation to protect bee-keepers. After some discussion, the resolution was passed, amended to a committee of three to be appointed by the chair, and to report at next annual meeting. Dr. C. C. Miller, J. N. Cotton,

and Frank L. Dougherty were appointed as the Committee.

The Finance Committee reported a balance of \$1.06 in the treasury after paying all the expenses of the meeting. The report was received and adopted.

A vote of thanks was passed to T. G. Newman for the presentation of fifty copies of his convention history, to be distributed among public institutions and libraries.

A collection was taken up to supplement the small balance in the treasury and raise the sum of \$30 necessary to supply every member of this Association with copies of the report. About \$17 were raised, whereupon Mr. Newman generously contributed the remainder.

The Committee on Vice-Presidents reported as follows:—

The Committee would recommend that only those States, Provinces and Territories have Vice-Presidents appointed who are represented by the attendance of delegates or the transmission of reports. On this principle the following names are submitted.

VICE-PRESIDENTS.

Florida, W. S. Hart, New Smyrna.
 Georgia, Dr. J. P. H. Brown, Augusta.
 Illinois, Mrs. L. Harrison, Peoria.
 Indiana, Jonas Scholl, Lyon Station.
 Iowa, Eugene Secor, Forest City.
 Michigan, R. L. Taylor, La Pear.
 Missouri, John Nebel, High Hill.
 Nebraska, Wm. Stolley, Grand Island.
 New York, L. C. Root, Mohawk.
 Ohio, A. B. Mason Wagon Works.
 Oregon, Frank S. Harding.
 Ontario, R. F. Holtermann, Brantford.
 Pennsylvania, Arthur Todd, Germantown.
 Quebec, H. F. Hunt, Villa Mastai.

The Committee on resolutions reported resolutions of thanks to the officers of the Association for the untiring and successful efforts made by them in getting up this meeting. Thanks to Thos. G. Newman for having obtained as manager of the Bee-Keepers' Union reduced rates of fare between Chicago and Indianapolis. Thanks to Indianapolis friends for their endeavors to make the meeting a pleasant and successful one; and finally of sympathy with Rev. L. L. Langstroth in his present illness. It was moved that a contribution be made in aid of Father Langstroth, and that the chairman appoint a committee of two to attend to this matter. This was carried and O. O. Poppleton and A. B. Mason were appointed said committee.

On motion by Dr. C. C. Miller, Rev. W. F. Clarke was added to the list of honorary members in view of his early, persevering and long-continued efforts to promote the interests of the association.

The committee on the Chapman honey plant was called on to present its report. N. W. McLain gave an extempore report, which he promised to put in writing so that it could be filed. In his report he embodied a letter from A. E. Manum, who was not able to be present when the other members of the committee visited Mr. Chapman's grounds. The entire tenor of the report was highly favorable, and Mr. Manum stated in his letter that were he present at the meeting of the Association, he would move a vote of thanks to Mr. Chapman for the services he had rendered to bee-keeping in the propagation and diffusion of this plant. The report of the committee was received with thanks, and ordered to be put on file. A vote of thanks was also passed to Mr. Chapman in terms of Mr. Manum's letter.

A paper from J. E. Pond, Jr., on "Reversible Hives and Frames," was read by the Secretary. It went against the practice of reversing, and advocated Mr. Pond's well-known views in regard to setting frames near together in the spring of the year. The hour of adjournment had been reached by the time Mr. Pond's paper had been read.

The Association resumed at 2 p.m. W. Z. Hutchinson read a paper on "Drones and Drone Comb." It was really a plea for hiving swarms in small brood-chambers without comb foundation, and aimed to meet the objection to this plan to the effect that bees thus treated were apt to build drone-comb. He had not been troubled in that direction.

On motion, a further report from the committee on Vice-Presidents recommending that E. O. Tuttle be appointed Vice-President for Vermont was adopted.

A long discussion sprung up on the policy of having essays prepared for the meetings of the association. Some wished all to be free discussions in the total absence of papers, others wished the Executive Committee to select from papers forwarded those they considered most suitable, and others were opposed to papers being read that had been sent by absentees. It was finally resolved: That the Executive Committee be instructed to select essayists, and assign topics; to have fewer and shorter essays; and to exclude, except in rare cases, papers written and forwarded by absentees.

The subject of the coming bee was taken up from the table to allow Mr. McLain to explain. He said, if he had seemed to belittle the labors of those who had preceded him he had been misunderstood.

On motion, the Association then adjourned until next annual meeting.

NOTES ON THE ANNUAL MEETING OF THE
NORTH AMERICAN BEE-KEEPERS' ASSO-
CIATION.

After the large and enthusiastic annual meeting at Detroit last December, it was hoped and believed by the best friends of the association that a meeting within hail of the "Sunny South" would bring out a large representation, and that our southern friends would catch the enthusiasm which had been generated at the north, and turn out with a will. Those who cherished this pleasant dream awoke to the reality of a big disappointment. The south did not rally worth a cent, and the remoteness of the place of meeting kept many prominent bee-keepers away who usually attend meetings held farther northward. Only one Canadian bee-keeper was present. Of course the absence in England of Messrs. Jones, Corneil, Pettit, and McKnight, accounted for their absence, and the inconvenient date selected had much to do, along with the distance, in accounting for the absence of many both in Canada and the U. S. A more unsuitable time for the annual meeting than the middle of October, it would be difficult to find. It is just the date at which bee-keepers are apt to be more than usually busy in preparing for winter both among their bees and in any other line of work which engages their attention. One reason why the meeting at Detroit last winter was more than usually successful, was that the time was one of comparative leisure. Whoever was responsible for fixing the date earlier this year, committed a great and grave mistake, and one, which it is to be hoped, will not be repeated.

The association was bored to death with papers, for the most part sent in by absentees. It was asserted in the meeting by such men as Messrs. Poppleton and Bingham, that some of the papers were mere advertisements, if not of certain hobbies, of the writers. A greatly-needed resolution was adopted on this subject, which will be found in the report of proceedings which appears elsewhere in the C. B. J.

Few exciting topics came before the meeting, and it was to a large extent tame and dull. Mr. McLain roused some criticism by his paper on bee-

keeping and apiculture, and not without reason, for he certainly reflected pretty severely on the fraternity for not having made more progress in improving the honey-bee. This public officer, who is in charge of the U. S. experimental station, and whose business it is to labor for the development of bee-keeping, is hardly taking the best course to secure distinguished success. He should put himself under the direction and tutelage of the leading practical bee-keepers of the U. S.; ascertain from them what he can do under government auspices to promote bee-keeping, and work along those lines. He should feel that he is not so much the chief of the bee-keeping fraternity, as its willing and faithful servant.

It was expected that the controversies about the new Heddon hive, patent law, reversible frames, and other questions of the day that have been going on in the bee journals for some time past would come up at this meeting and be thoroughly gone into. It is a great pity that Mr. Heddon was not there to give "A Talk on Hives" as advertised in the program. If he had been, he would certainly have talked very freely about a hive exhibited by Elvin S. Armstrong, of Jerseyville, Ill., which so far as using a horizontally divisible brood-nest interchangeable and reversible is concerned, has infringed the Heddon patent "as plain, as plain can be." Yet his hive has inscribed upon it, "Patented Sept. 14th, 1886."

The badges which had been heralded as *extra nice*, bore the untruthful inscription, "National Bee-Keepers' Society, Indianapolis, 1886." When will our American friends learn that the association is not *national* but *international*? "North American" is its constitutional name.

An attempt was made to give a social character to the meetings, by interspersing the proceedings on the second evening with music, recitations and refreshments. If this feature had been publicly announced beforehand, several members, amply qualified, would have come prepared to assist in making the entertainment a much greater success than it was. The aim and intention in this particular were better than the execution.

CANADA AT THE COLONIAL.

SPEAKING of the international convention held on the 6th, Oct., the *British Bee Journal* says in its issue of Sept., 30:

The great outstanding feature in the bee-world of the year 1886 will undoubtedly be the two large displays of honey which have been exhibited in the Indian and Colonial Exhibition by British and Canadian bee-keepers. The chief purpose of the former was to prove to the British public the capabilities of their country to produce honey, excellent in quality and exquisite in flavour, in such quantities as to supply all their demands without the necessity of having resort to foreign countries. They were induced to make this display from having been informed that their Canadian brethren were making strenuous efforts to send over to the Exhibition a large quantity of honey with the view to create a market for the honey-produce of their country. The British bee-keepers have had their opportunity of showing the quality of their honey, and right well have they taken advantage thereof; and now the Canadians hold the field, and we sincerely trust that they may be successful in their remarkable enterprise, and they will be enabled to have in Great Britain an outlet for their surplus produce of honey. We believe that this honourable rivalry between the two countries will be productive of good results, and that in future honey will be sought for as one of the great necessities of daily life of the British public.

These two shows would not have been complete had there not been an opportunity afforded to British bee-keepers of giving a right hearty welcome to those who by habits and pursuits have so much in common with them, and of both comparing their modes of management of their 'mutual friend'—the honey bee.

We are pleased, therefore, to reprint the following circular showing the arrangements that have been made by the British Bee-keepers' Association:—

By the kind permission of the Royal commission of the Indian and Colonial Exhibition the British Bee-keepers' Association purpose holding, on Wednesday, October, 6th, a special meeting of welcome to the Colonial bee-keepers now staying in England. It is desired to make this meeting as representative as possible, and all County Secretaries, County Representatives, members, and friends, are earnestly requested to join with the British Bee-keepers' Association in giving the most hearty reception to their brother bee-keepers from the more distant parts of the Empire. The following is the programme of

arrangements:—

12 noon. Quarterly Conference of the Representatives of County Associations, to be held in the Lindley Library Room, adjoining the office of the Royal Horticultural Society in the main entrance.

2 p. m. Luncheon will be provided in the Quadrant adjoining the Albert Hall; tickets, 3s. 6d. each, can be obtained of the Secretary of the British Bee-keepers' Association, for which application should be made at once. At the close of the Luncheon a special visit will be made to the Canadian Exhibition of honey, situate in the Colonial Provisions Market.

5 p. m.—Conversazione will take place in the Conference Room, situate near the main entrance to the exhibition, when the subject of bee-keeping at home and in the Colonies will be introduced, and by the interchange of ideas as to the various systems of management, hives used, the comparison of results, &c., mutual benefit may be gained by all.

Members are requested to bring their microscopes, and bring or lend other interesting and useful appliances in connection with bee-keeping. Such objects should bear a legibly written descriptive label in order to make them interesting to visitors. Members should give immediate notice to the Secretary of their intention to contribute such objects.

Free tickets of admission to the Indian and Colonial Exhibition, enabling Members of the British Bee-keepers' Association and the Members of the County Affiliated Associations to be present throughout the day, may be obtained upon application to J. Huckle, Secretary British Bee-keepers' Association, Kings Langley.

Early application must be made for tickets to the Exhibition and for tickets for Luncheon, as the committee are called upon to guarantee a certain number to the Luncheon.

The attendance of ladies both at the Luncheon and the Conversazione is requested.

From much previous experience of what we may call the 'clannishness' of bee-keepers, we feel assured that the proposed meeting will be enthusiastically entertained, and that they will muster in large numbers on this most interesting occasion.

Notice of this meeting has been sent to every member of the British Bee-keepers' Association, and also to every Secretary of the County Associations. The Secretaries of the County Associations have been requested to give publicity to this event to their representatives.

IN MEMORIAM.

THE *British Bee Journal* chronicles the death on Thursday, Sept. 23rd, of Mr. James Anderson, of Dalry, Ayrshire, at the mature age of seventy. Speaking of his life as a bee-master the *Journal* says:

"The deceased was well known in England and America, as well as in his native country, as a bee-master and a trusted authority. He often said that he did not well know when he began to keep bees, but it must have been over fifty years ago. His father before him kept bees, so he would have the advantage of early training. He took the front rank as a successful bee-keeper on 'the Stewarton-hive' system, and along with Mr. Ferguson and Mr. Sward went to London in 1874 to the Crystal Palace Show, where they together exhibited over half a ton of honey, all in Stewarton boxes. In the second volume of the *British Bee Journal*, p. 90, we find it is recorded that 'the pride of the show came from Ayrshire in octagon Stewarton supers about four inches deep. Truly it was a pleasure to look at them, and a treat in itself to see how the art of the bee-master could induce the bees to build their combs so beautifully straight, so even on both sides, and so perfectly finished that they looked as if they were made in a mould to a pattern. No one could fail to admire the perfection in packing shown by the Ayrshire gentlemen who had brought their immense harvest over four hundred miles of railway almost without breaking a single cell.'

Mr. Anderson took an active part in 1875 in forming the Caledonian Apiarian Society, and almost ever since then has done yeoman service either as an exhibitor, a manipulator, or a judge. His aim ever was to make everything with which he had to do a success, and he gave his services ungrudgingly to any cause which he espoused.

About four years ago Mr. Anderson visited America, and spent nearly a year there visiting the various bee-masters and examining their various systems. He received a hearty welcome wherever he went, and was designated by some of our American friends, 'The Bee-King from Scotland.'

The deceased was of a quiet and amiable disposition, with a touch of dry humour which made his conversation delightful. He had a true Scotch independent spirit, was honourable in all his dealings, and was ever ready with open hand to assist a friend. He contracted a severe cold about three weeks ago while on a visit to Arran to see his bees, which brought on congestion of the lungs. He leaves one daughter (who

resided with him) and two sons, in America, to mourn his loss. He will be long remembered by a large circle of friends and acquaintances.

During Mr. Anderson's visit to America he was the guest for a few days of the editor of the CANADIAN BEE JOURNAL, and his conversation proved him an intelligent and enterprising bee-master. His death will be regretted by all who had the pleasure of his acquaintance on this side of the Atlantic.

For the Canadian Bee Journal.

THE PURITY OF DRONES.

I WAS glad to see query 109 in regard to the purity of drones from a pure Italian queen mated with a black drone. Some of the answers show that my experience differs but little from theirs. Dzierson's theory may be hard to disprove, but if you want your bees to keep up to the standard you must have something better than these drones to meet your queens. A prolific queen will lay from one to three thousand worker eggs a day, suppose we call it one thousand a day for 120 days. The life of a queen will average three years. At the end of that time she would have impregnated three hundred and sixty thousand eggs, and the impregnating sac is as full as when she commenced.

Those who have had great experience in breeding choice hens say that one mongrel impregnation destroys the purity of the hen for all time. That when you want to breed to a feather that such hens are not reliable. Then look at the first colt following a mule, they show the stamp of the jack very plainly in the length of the ear and the shape of the hoof.

The unsatisfactory results in queen-raising with such drones, lead me to believe that the impregnation stamps its characters on the whole vital forces and functions of the queen, and the impregnating sac is renewed and filled from day to day, as well as the egg-producing portion. Calculations have been made to show that a queen will lay eggs enough in a day to balance her ordinary weight. The ovaries and impregnating sac usually fail at about the same time. I have tried drones from a drone laying queen, and have some doubt of their capacity to impregnate, as I seldom, if ever, had success until the ordinary drones made their appearance.

L. C. WHITING.

East Saginaw, Mich., Oct. 9, 1886.

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.

FOR THE CANADIAN BEE JOURNAL.

THE PURITY OF DRONES.

MR. H. D. CUTTING, Clinton, Mich. does not attempt to answer my query No. 109 in C. B. J., but asked "Why not give your views and then call for discussion?" In answer I have, see *Gleanings* Aug. 1st, 1886, page 614. Five out of the twelve answers affirm my own opinion—that the drones from pure queens that are mismated are not as good as the mother stock and that they are ~~not~~ ^{not} ~~as~~ ^{as} good as queen stock before being mated. I would ask of them, have they answered this from practical experience, justifying an answer as practical on the drone question, or do they answer this from theory and every day observations?

In 1884 I had, in all, about 30 colonies of bees. In April, same year, I got one selected tested golden Italian queen; my bees and everybody else's for more than twenty miles in any direction were all Blacks. I killed the queens from every hive, except the one Italian, sometime in May and reared in each hive an Italian queen from my tested one, which, by the way, was one of the purest and finest golden Italians I have ever had up to this day, I have never had any as good except from the same breeder, and one I have now, bred by A. Grey, of Ills., of Doolittle's, best stock and mated to Grey's own drones; these queens were all mated to Black drones. The last of May sent to Tenn., and got another Italian queen, and that gave me only two pure ones. In June I again killed out all the hybrid queens and reared queens for every colony from the tested ones and I continued to kill out queens and rear again as fast as tested up to October; during this rearing I only got one pure mated queen. The first cross produced workers about half Blacks (pure, no rings) and half Italians (3 banded.) I find always, when two different races are crossed, the first cross, with each in its purity, that the workers are about half and half; thus with blacks and Italians in the first cross, half the bees are apparently perfectly pure blacks, and the other half perfectly pure Italians, with a few of each showing crossed markings; each succeeding cross continued to improve. In the fall after all the Black drones were gone, the progeny of the last lot of queens reared, all showed from one to three and even some four yellow bands, but these bands were not bright, clear and distinct as with the pure Italians, they were a mingled color, that is the yellow rings appeared to be composed of a bright and a dark yellow all in one band, side by side, might be termed double bands; there was not a single black bee

among the progeny of the last lot of queens reared, thus showing conclusively, that they were mated to the drones reared by the mismated queens, for had they any of them mated to pure Black drones, there would have been pure Blacks among their workers; these bees were not pure Italians, as they should have been if the theory advanced had held good in practise. Queens reared from these pure queens that were mated to hybrid drones and mated to the same drones themselves, produced dark, two banded bees, with an occasional three banded one among them. After spending the year rearing queens, I had to send off and buy upwards of 20 queens to replace my own rearing to get pure stock. In reference to "in breeding." In among the last lot of queens bought in the fall of 1884, I got one that proved to be a fine Albino queen; producing different bees from anything I had ever seen, so I determined to breed them, and in the spring of 1885, I reared nearly every queen from my Albino that I sold, (I began queen rearing for sale then) and reared for myself from her and replaced all my golden Italians as soon as possible. By May 10th, I think, I had but few queens of golden variety. All that year I bred of the Albino mostly, drones and queens too as near as possible. May 1st, 1886, I had none but daughters of the Albino queen and their daughters in my apiary of sixty colonies. All this year I have bred nothing but of that Albino queen's progenities and they continue to improve in markings and qualities. The old queen, the mother of my race of "American Albino Italians" bred in 1884, is yet here and doing finely. I have had Albinos of various breeders in the U. S., but none I have had suited me and I would not cross them with my stock, which has been entirely "in bred," but there is none yet found to excel them in working qualities, beauty, size or gentleness and since spring, 1885, I have bred in separate apiaries, Cyprians, Syrians and Carniolans that I imported myself from Mr. F. Benton direct. None of these races equal my "in bred" stock, in any way—that make bees desirable to the human family. So I continue "in breeding" for present, selecting, of course, only the best to rear my drones as well as queens from.

ABBOTT L. SWINSON.

Goldsboro, Wayne Co., N. C., Oct. 9, '86.

From the Nor-West Farmer.

BEE-KEEPING.

WHAT WHY is it so few of the farmers of this great land have gone in for bee-keeping? It is in my opinion the pleasantest, and, as I will try to show, one of the most profitable of the auxiliaries to mixed

farming. What can be pleasanter than to hear "the bees a-humming" around the homestead, and to know that while you are busy with your farming and your wife with her household duties, you have a colony of industrious little fellows working might and main, without instructions from you, to lay up for your winter use quantities of one of the most delicious foods given by a kind Providence to please the palate of man? Apart from this view of the question, there is the practical side; and right there is where the bees show to the best advantage. We will suppose the cost of a colony of bees, laid down on your farm, to be \$20, which is a high estimate. It is a poor hive indeed that will not put up 75 pounds of honey in a summer, and many go double that. To sell, this honey is worth at the least 20 cents per pound, which would be \$15. This of itself is a wonderfully good yield on an investment of \$20, but in addition there are the swarms. A strong, healthy colony ought to throw off at least two swarms a year, and on the calculation we started out with each ought to be worth \$15, deducting cost of hive, etc.; but we will suppose one swarm escapes or dies, and the result will be honey valued at \$15. One swarm of bees valued at \$15, or a total of \$30 on a \$20 investment. Of course it is not all pleasure and profit. They occasionally get mad and sting, but this is rare if they are kindly treated; then occasionally a few colonies will die. But taking one year with another, bees pay as well, if not better, than anything kept on the farm. They require some care—not a great deal—certainly less than a cow costing twice as much and yielding very little more, or a flock of sheep of an equal value.

QUERIES AND REPLIES.

UNDER THIS HEAD will appear Questions which have been asked of, and replied to, by prominent and practical bee-keepers—also by the Editor. Only questions of importance should be asked in this Department, and such questions are requested from everyone. As these questions have to be put into type, sent out for answers, and the replies all awaited for, it will take some time in each case to have the answers appear.

NUMBER OF COMBS FOR WINTERING.

QUERY No. 113.—What is the least number of combs, in your opinion, that it is safe to winter on?

M. EMIGH, HOLBROOK, ONT.—Five.

H. COUSE, THE GRANGE, ONT.—Five is little enough.

—DR. C. C. MILLER, MARENGO, ILL.—One, if it has honey enough.

DR. J. C. THOM, STREETSVILLE, ONT.—The same number that the bees will cluster on.

G. M. DOOLITTLE, BORODINO, N.Y.—I use from three to nine; five to seven being the number most used.

PROF. A. J. COOK, LANSING, MICH.—With nuclei I have wintered repeatedly on three combs. Full stocks often on five.

DR. A. B. MASON, WAGON WORKS, O.—Just the number the bees will nicely cluster on, depending on the size of the colony.

ALLEN PRINGLE, SELBY, ONT.—The least number of combs, in my opinion, safe to winter on, would be just the number that would hold stores enough.

J. E. POND, FOXBORO, MASS.—Last winter I carried two nuclei safely through on three combs of L. simplicity size. I think four combs is the least number on which success could be fairly guaranteed.

H. D. CUTTING, CLINTON, MICH.—It all depends on the size of colony. I prefer eight to a good large colony, when I use nine in the honey season. I have used four with good success with a small colony.

O. O. POPPLETON, WILLIAMSTOWN, IOWA.—The least number of combs that it is reasonably safe for bees to winter on depends on many things, such as location, manner of wintering, thickness of combs, etc. I am not attempting to winter any this coming winter on less than seven frames.

DR. DUNCAN, EMBRO, ONT.—That depends a good deal on the size and position given the combs. In a cellar that is frost proof they can be wintered safely on four combs of about the Langstroth or Jones size, if the chamber is contracted by division-boards and also enough honey and bees to keep up animal heat.

G. W. DEMAREE, CHRISTIANBURG, KY.—It depends on the size of the colony. I have wintered nuclei on two or three combs. I prefer to winter full sized colonies on a full suit of combs in the brood-chamber. I give it as my opinion that it is a mistaken idea that bees will do best by being crowded in a small place at any season of the year. They certainly are safer if they can draw themselves up into a central position, clear of the wood walls of the hive.

LIGHT OR HEAVY COLONIES FOR WINTERING.

QUERY No. 114.—Whether would you

prefer heavy or light colonies for wintering?

G. M. DOOLITTLE, BOROINO, N.Y.—Medium.

O. O. POPPLETON, WILLIAMSTOWN, IOWA.—I prefer heavy ones.

PROF. A. J. COOK, LANSING, MICH.—I keep good strong colonies at all seasons.

H. COUSE, THE GRANGE, ONT.—Strong colonies for outdoors and medium for indoor wintering.

H. D. CUTTING, CLINTON, MICH.—Just a good average colony; not too light.

DR. C. C. MILLER, MARENGO, ILL.—Strong in bees, with more than enough honey to last them.

DR. DUNCAN, EMBRO, ONT.—I would prefer heavy, if well stocked with bees. They will be ahead of others next spring in brood-rearing.

DR. A. B. MASON, WAGON WORKS, O.—I would prefer neither. A colony that clusters nicely on about five Langstroth frames suits me best.

M. EMIGH, HOLBROOK, ONT.—I find a good medium preferable. Would prefer heavy to light. The best colony I had this year was wintered on three frames, but this is an exception and not the general rule.

ALLEN PRINGLE, SELBY, ONT.—If they are to be wintered in a cool or cold place I would prefer the heavy colonies with plenty of stores—if in a proper repository with temperature just right the lighter colonies will be all right and they will require much less feed. It is mostly a question of conditions.

JAMES HEDDON, DOWAGIAC, MICH.—In all my experience I never could see that the strength of the colony had any effect on the disease, diarrhoea. Perhaps if we were going to winter outdoors, with scanty protection, but plenty of stores, strong colonies would be best. I prefer plenty of accessible stores in either case.

DR. J. C. THOM, STRETSVILLE, ONT.—Heavy stocks. Those that have surplus sealed honey left after warm weather comes in the spring are of the stocks that I can count on most certainly for least dwindling, most rapid breeding and general business in spring, and also least danger of queenlessness. Your queen may be found missing any day in stocks short of honey in spring.

J. E. POND, FOXBORO, MASS.—I prefer colonies for wintering to be as full as possible. The more

bees the better for my use. As I winter on summer stands I think my position is correct. For wintering in special repositories it is possible that medium colonies may be equally as desirable. I am aware that some beekeepers of experience differ with me, but I winter my bees safely always. Do those who differ do the same?

G. W. DEMAREE, CHRISTIANBURG, KY.—I some years ago tested this matter pretty thoroughly in this way. I took the figures 100 as an average colony, and after I had gone over my apiary, in preparing the bees for winter, I found that I had marked about fifty hives from seventy-five up to one hundred and fifty, 100 being the average in size as far as I could judge. When in the following spring I went through the apiary and again re-marked the hives, still retaining 100 as the average, it surprised me to see how often the result was reversed. The experiment convinced me that all things else being equal I prefer a colony rather under, than over the average.

BEES IN MANITOBA.

WE are asked very often, and particularly during the past week while at the exhibition at Toronto, have we been plied with questions, whether bees could be made to pay in the great northwest. We give below an extract from *The Emigrant*, published at Winnipeg, which we found on our desk upon arrival home:

"There are over a dozen bee men in Manitoba and the Territories who have been keeping bees for some time and whose reports are very favorable to this fascinating and profitable industry. Other apiarists of experience elsewhere state that the honey yield and favorable gathering season are of the best, and it is very probable that this, the great Northwest, will before very long become a prominent honey exporter. This will be news to many not familiar with the approved modern system of bee-keeping or with sources of honey supply but it is only another instance of the assertion that the capabilities of this land are but partially known, that they will yet astonish the present occupants, and that they cannot be all tapped by a few years' knowledge or work."

SUNDRY SELECTIONS.

A REPORT FROM D. W. METLER—HONEY DRW FROM HICKORY LEAVES.

D. W. METLER.—As I have never seen anything from this locality about bees in your valuable JOURNAL, I take the liberty to send a few lines on comb honey—I use the Monarch hive exclusively. In the early part of the season the bees

did well. We took from some 120 pounds section honey; the dry weather set in, then about July 1st, they did very little until the 12th of September. They have gathered honey very fast up to the present time but very dark in colour. For several days the bees worked on hickory leaves which were covered with a dark sticky substance which I never saw before.

North Pelham, Ont, Sept., 2., 1886.

CLEANING UP COMB.

A. BRIDGE.—What is the best plan of getting combs cleaned up by the bees after being extracted that are to be stored away for next season; last year I put them outside a short distance from the bees, I put the combs in empty hives and tiered the hives up crosswise; the bees had a grand jubilee cleaning them up, but they destroyed a lot of combs. There was only a few sheets of foundation left on some of the frames. I will not try that plan again of getting my combs cleaned up.

Put them behind a perforated metal division board or in a second story and the bees will likely clean them up. It is not, however, necessary after extracting to more than pack them away in a good dry place till next spring. Certainly your combs would be destroyed when placed outside subject to the attacks of robber-bees.

BEES STILL WORKING.

A. BRIDGE.—We are having fine warm weather here. I noticed several of my colonies carrying in pollen, I do not understand what they can be working on at this season of the year. I examined two colonies that were carrying pollen to see what was going on inside, and I found in both hives eggs, and brood in all stages. Is it not an unusual thing for bees to be breeding at this season of the year? My bees are in fine condition for wintering, plenty of young bees and plenty of stores of good sealed honey. My bees did well this year on clover and on buckwheat. I have several hundred sections filled and sealed with buckwheat honey, and I have several hundred partly filled and partly sealed those I extracted and have packed away for another season. After extracting the sections they were put out in the yard near the apiary and cleaned up by the bees, my surplus brood combs that were extracted were put in behind the division board and satisfactorily cleaned up, some of the combs were broken by the extractor, but when I took them out from behind the division board they were so nicely mended that no person could have noticed that they had been broken.

I think the cleaning up of the combs has been the principal cause of the late brooding.

West Brook, Oct., 12th, 1886.

In South Western Canada there is still active work going on in the field as well as the bee-hive, weeks of good flow have visited bee-keepers in that section, since our flow in Northern Ontario ceased.

ITALIANS CREATE A RIOT.

Wednesday morning a gang of Italians struck the confectionery works of J. H. Lamb & Co., Meaford, and took forcible possession of the building, chambering in at the windows, doors, and by every other conceivable mode of ingress until there were probably thousands in the building. By Italians we mean Italian bees. Kettles of syrup prepared for manufacture were taken possession of and their contents quickly annihilated, trays of manufactured sweets were disposed of in the same manner, the floors, tables and furniture were covered with the humming, buzzing gang, and work had to be suspended entirely. The loss to Mr. Lamb will be considerable, and the nuisance created by their presence and the work of cleaning up after them will be no small affair. It is not now a safe experiment to quote to Mr. Lamb the little couplet that says;

"How doth the busy little bee
Improve each shining hour?"

—Mirror.

THE CANADIAN BEE JOURNAL

JONES, MACPHERSON, & Co.,

—EDITORS AND PUBLISHERS, —

BEETON, ONTARIO.

WEEKLY, \$1.00 per Year, Postpaid.

BEETON, ONTARIO, OCTOBER 20, 1886.

We have printed a nice card about 8x14 inches, which we shall be glad to forward free on application to anyone who is getting up a club or who would like to do so. All our agents should have one or more of these cards—they tell outsiders that "subscriptions are taken here."

DARK BUCKWHEAT HONEY.

We have enquiries for a quantity of buckwheat honey. Any of the readers of the JOURNAL who have any for sale will please communicate with us stating quality and price delivered in Toronto or Beeton, and be good enough to let us hear from you at once.

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 $3\frac{1}{2} \times 4\frac{1}{2}$ and $4\frac{1}{2} \times 4\frac{1}{2}$ and in widths of either $1\frac{1}{2}$ or $1\frac{3}{8}$ 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.

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.

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 flavor.. " 09½
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 qualities 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.

Best white comb honey in one pound sections 12 to 13 cts. with a good supply in the commission houses. Beeswax 23 cts.

M. J. 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 $3\frac{1}{2}$ to $7\frac{1}{2}$ 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

BEESWAX

Beeton, October 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 $3\frac{1}{2} \times 4\frac{1}{2}$ and $4\frac{1}{2} \times 4\frac{1}{2}$ per lb. 60c
Brood Foundation, starters, being wide enough for Frames but only three to ten inches deep....43c

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
 JOURNAL, Thomaston, Me

WAYS 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.....\$ 50
 " " per 25..... 10 00
 In flat, each..... 35
 " " per 25..... 7 50
 " " " 100..... 25 00

THE D. A. JONES CO.



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

FOR SALE or I will exchange for bees some first-class White or Brown Leghorns, Black Javas or W. C. B. Polish, all bred from prize winning stock. Address, H. GODDARD, Box 128, Listowel, Ont. 28-29

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.

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, 2 1/2 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, Coconuts, Datepalms, 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 Syro-Italian bees for sale. Cause of sale: Failing eyesight. Apply to,
GUSTAVE DAMKOHLER,
 Punta Rassa, Monroe Co., Florida.

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.

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.

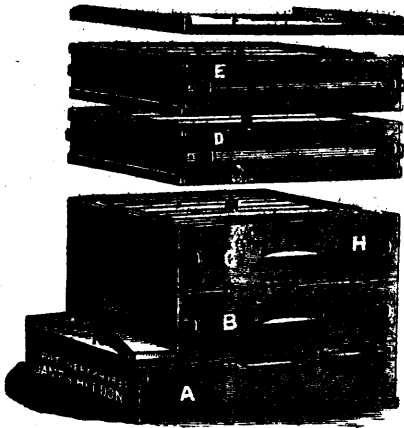
- Twenty-five new names with \$25 will give you *free*, One Honey Extractor (Jones Patent).... 8 00
 - Or one Set Honey Scales (240 lb) with tin scoop, stamped..... 7 10

Address all your communications to

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

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 another surplus arrangement, and sections

and is the same in all particulars as the standard 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, 7%; 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.

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 GLEANINGS IN BEE CULTURE**, with a descriptive price-list of the latest improvements in HIVES, HONEY EXTRACTORS, COMB FOUNDATIONS, 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.

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**, 15¢ Per lb. for brood and 45¢ 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. **Canada**. Comb Foundation 40¢ 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.

BEES, SIX HEADQUARTERS

We have constantly on hand a large stock of Domestic and Imported Bees-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,

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, 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. P. MASON & SONS, Mechanic Falls, Me.
A. HUMASON, Vienna, O.
C. A. GRAVES, Birmingham, Ala.

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 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.

Six Warranted Queens for \$5. Send for circular. 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 Italian or untested Carniolan Queens, in June, \$1.10; 6, \$5.99; July, \$1.60; \$5. State which you prefer, **BELLAZONA** or **GOLDEN ITALIANS**. For full particulars and prices of bees, send for circular. Safe arrival and satisfaction guaranteed.

CHAS. D. DUVALL,
Spencerville, Mont. Co.



Flat Bottom Comb Foundation.

High side-walls, 4 to 24 square feet to the pound. Wholesale and retail. Circular and samples free.

J. VANDEUSEN & SONS,

SOLE MANUFACTURERS,

1400T 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.