

## Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- Coloured covers / Couverture de couleur
- Covers damaged / Couverture endommagée
- Covers restored and/or laminated / Couverture restaurée et/ou pelliculée
- Cover title missing / Le titre de couverture manque
- Coloured maps / Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) / Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations / Planches et/ou illustrations en couleur
- Bound with other material / Relié avec d'autres documents
- Only edition available / Seule édition disponible
- Tight binding may cause shadows or distortion along interior margin / La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure.
  
- Additional comments / Commentaires supplémentaires: Continuous pagination.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated / Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed / Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies / Qualité inégale de l'impression
- Includes supplementary materials / Comprend du matériel supplémentaire
- Blank leaves added during restorations may appear within the text. Whenever possible, these have been omitted from scanning / Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été numérisées.

VOL. IV, NO. 41

1888

JAN. 2, 1889

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER

THE CANADIAN



JOURNAL

THE FIRST \$ WEEKLY IN THE WORLD

ONE DOLLAR PER YEAR

THE GREATEST POSSIBLE GOOD TO THE GREATEST POSSIBLE NUMBER

PUBLISHED BY  
THE D.A. JONES CO. LTD.  
BEETON ONT.

ADVERTISEMENTS

WE CLUB

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

Books for Bee-Keepers.

We have prepared a series of pamphlets on special subjects relating to bee-culture, containing the best thoughts of our most practical bee-keepers, which we offer at very low rates, as follows:

1. QUEENS, And How to Introduce Them .10
  2. BEE-HOUSES, and how to build them, .15
  3. WINTERING, and preparations therefor .15
  4. BEE-KEEPERS' DICTIONARY, containing the proper definition of the special terms used in Bee-Keeping... .25
  5. FOUL BROOD, its cause and cure..... .10
- Or the whole five books, post paid, for..... .50

THE D. A. JONES Co., Ltd., Beeton, Ont.

BEE-KEEPERS' LIBRARY.

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

- "A YEAR AMONG THE BEES," by Dr. C. C. Miller Price, 75c.
- 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.
- BEE-KEEPERS' HANDY BOOK, by Henry Alley, Price in cloth, \$1.50.
- PRODUCTION OF COMB HONEY, by W Z Hutchinson. Paper, price, 25c.
- THE HIVE AND HONEY BEE, by Rev. L. L. Langstroth. Price, in cloth, \$2.00.
- A BIRD'S-EYE VIEW OF BEE-KEEPING, by Rev. W. F. Clarke. Price 25c
- SUCCESS IN BEE CULTURE as practised and advised by James Heddon—price in paper cover, 50 cents.
- BEEKEEPERS' GUIDE OR MANUAL OF THE APIARY, by Prof. A. J. Cook. Price, in cloth, \$1.25.
- FOUL BROOD, ITS MANAGEMENT AND CURE by D. A. Jones. Price, 11c. by mail; 10c. otherwise.
- A. B. C. IN CARP CULTURE, by A. I. Root, in paper 50c.
- 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.

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

Earles' Foot Power Machinery

See advertisement on another page. We have just arranged for the sale of these machines, and we can quote the F.C.B. cars at Toronto (duty and freight paid thereto). On application we will forward catalogue and pricelist free.

THE D. A. JONES Co., LTD.  
Beeton, Ont.

PUBLISHERS' NOTES.

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.

Subscriptions are always acknowledged on the wrapper label as soon as possible after receipt

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

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

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

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

The number on each wrapper or address-label will show the expiring number of your subscription, and by comparing this with the Whole No. on the JOURNAL you can ascertain your exact standing.

ADVERTISING RATES.

All advertisements will be inserted at the following rates

TRANSIENT ADVERTISEMENTS.

10 cents per line for the first insertion, and 5 cents per line for each subsequent insertion.

Space measured by a scale of solid nonpareil of which there are twelve lines to the inch, and about nine words to each line.

STANDING ADVERTISEMENTS.

	3 MOS.	6 MOS.	12 MOS.
6 lines and under.....	2.50	4.00	6.00
One inch.....	\$1.0	\$6.00	\$10.00
Two inches.....	5.50	9.00	15.00
Three inches.....	7.00	12.00	19.00
Four inches.....	9.00	15.00	25.00
Six inches.....	12.00	19.00	30.00
Eight inches.....	15.00	25.00	40.00

STRICTLY CASH IN ADVANCE

Contract advertisements may be changed to suit the seasons. Transient advertisements inserted till forbid and charged accordingly.

CLUBBING RATES

THE CANADIAN BEE JOURNAL

AND "Gleanings," semi-monthly.....	\$1.75
"American Bee Journal," weekly.....	1.75
"American Apiculturist," monthly.....	1.75
"Bee-Keepers' Magazine," monthly.....	1.40
"Bee-Keeper's Guide," monthly.....	1.40
"Rays of Light".....	1.20
"The Bee-tive".....	1.25
"Beekeepers' Review".....	1.40
"Beekeepers' Advance".....	1.20

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.

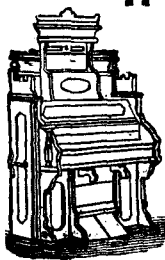
# TABLE OF CONTENTS.

	PAGE
A look at matters interesting .....	805
Bees dangerous near highway .....	810
Bees, Ordinance against .....	813
Bee-keeping, Practical .....	807
Wax, comb and foundation .....	807
Fdn sagging .....	807
Fastening fdn in frames.....	807
Wiring frames.....	808
Using strips of fdn.....	808
Fastening fdn. in sections.....	810
Propolis.....	805
Editorial .....	813
Honey, Californian crop, 1888.....	811
O.E.K.A. Convention .....	811
Sections and section supers.....	811

## LOOK HERE !

Nickel plated pen and pencil stamp with name 30c; Nickel plated stamp with name, 30c. Black wax nut handle with name on, 15c. Your name in rubber or any of the above sent post paid on receipt of price or Clubs amounting to \$1.20 sent for \$1. Boys and girls can make money canvassing for these stamps. Every school boy and girl should have a pen and pencil stamp. It contains a pen, lead pencil and stamp for printing your name on your books, etc. Write your name plainly. Remember you have no duty to pay on these stamps when you deal with us.

**Gem Rubber Stamp Co.**  
MALAKOFF, ONT



# "BELL" ORGANS

Unapproached for  
Tone and Quality.

CATALOGUES FREE.

**BELL & CO., Guelph, Ont.**

# THE 'REVIEW'

THE BEE KEEPERS' REVIEW for December has four extra pages — twenty in all. Upon the first page is a brief history of the REVIEW; also an excellent

## PORTRAIT OF ITS EDITOR,

One of these beautiful Ives reproductions. The special topic of this issue is: "Sections and their adjustment on the Hives," and it is handled by such men as Jas. Heddon, Dr. C. C. Miller, R. L. Taylor, Onver Foster and Dr. G. S. Tinker. A copy of this issue will be cheerfully sent free to all who apply.

Price of the Review 50 cts. a year.

## The Production Of Comb Honey!

Although this neat little book contains only 45 pages, it furnishes as much practical, valuable information as is often found in a book of twice its size. It is 'boiled down.'

It begins with taking the bees from the cellar and goes over the ground briefly, clearly and concisely, until the honey is off the hives; touching upon the most important points, and especially does it teach when, where and how foundation can be used to the best advantage; when combs are preferable and when it is more profitable to allow the bees to build their own combs.

Price of the book 25 cents.

## SPECIAL OFFERS.

For 65 cts. we will send the REVIEW one year and "The Production of Comb Honey." For \$1 we will send all the numbers of the REVIEW for the past year (1888), the REVIEW for this year (1889) and the "Production of Comb Honey;" or, for the same amount (\$1), we will send the REVIEW for two years from Jan. 1st, 1889, and "The Production of Comb Honey." Stamps taken, either U.S. or Canadian.

Address

W. Z. HUTCHINSON

613 Wood Street, Flint, Mich.

## SALESMEN WANTED.

SALARY AND EXPENSES PAID, OR LIBERAL commissions as representative chooses. Outfit free. Permanent positions guaranteed. Experience unnecessary. Special advantages to local men who devote part time.

**L. P. THURSTON & CO**  
Empire Nurseries, Rochester, N. Y.

## 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

CHAS. F. MUTH & SON.

Cor. Freeman & Central Avenues, Cincinnati

## 9 Cords in 10 HOURS



Runs Easy  
NO BACKACHE.  
BY ONE MAN. Greatly improved. Also TOOL for filing saws whereby those least experienced cannot make a mistake. Sent free with machine. Teachers, for common cross-cut saws, by mail \$5.00. Hundreds have saved 5 to 9 CORDS daily. We want all who burn wood and all interested in the timber business to write for our Illustrated Free Catalogue. We have exactly what you want, the greatest labor-saver and best-selling tool now on earth. First order from your vicinity secures agency. No duty to pay. We manufacture in Canada. FOLDING SAWING MACHINE CO., 803 to 811 So. Canal Street, Chicago, U. S. A.

BEE-KEEPERS'

**PRINTING.**

We make a speciality of Apian Printing, and have unequalled facilities for Illustrated

**Catalogue and Label Work.**

Note these figures, which include printing.

	500	1000
Note Heads, good quality.....	\$1 15	\$1 90
"    linen.....	1 25	2 00
Letter Heads, Superfine.....	1 75	2 50
"    Linen.....	2 00	3 25
Envelopes, business size, No. 7,		
white.....	1 15	2 00
"    Extra quality.....	1 35	2 25
Business Cards.....	1 50	2 50
Shipping Tags, 40c., 45c. and 50c. per 100.		

Our new book of labels contains nearly 100 specimens of elegant honey labels. Write for prices for any printing required.

THE CANADIAN BEE JOURNAL,

7

BEETON.

**EXCHANGE AND MART.**

Advertisements for this Department will be inserted at the uniform rate of **25 CENTS** each insertion--not to exceed five lines--and 5 cents each additional line each insertion. If you desire your advt. in this column, be particular to mention the fact, else they will be inserted in our regular advertising columns. This column is **especially** intended for those who have bees or other goods for exchange for something else, and for the purpose of advertising bees, honey, etc. for sale. Cash must accompany advt.

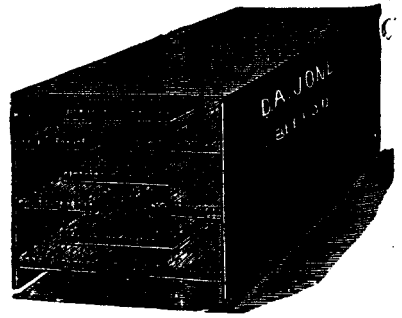
**FOR Sale**--1 Barnes foot power circular saw, as good as new; price \$40. Also 4 honey tanks, hold 550 lbs each \$2.50 each. Edward Lunau, Burtonville, Ont.

**HONEY.**--We can take all that offers in exchange for supplies, at prices found in another advertisement in this issue. **THE D. A. JONES CO.,** Beeton, Ont.

**SPLENDID OPPORTUNITY.**

**FOR SALE** in Chuloden, County of Oxford, a comfortable Dwelling, Outbuildings and four-fifths of an acre of splendid land, planted with the choicest fruit. In connection there are 60 Hives of Italian Bees with plenty of stores to winter, and everything else for carrying on Bee-keeping. All for Six Hundred Dollars (\$600). Owner leaving, and must sell. One of the finest districts for Bee-keeping in Ontario, situate two miles from Brownsville station, Michigan Central Railroad. Come and see, or apply to

**JOHN A. GARDNER,**  
Chuloden, Ont.

**FEEDERS.**

FOR PRICES SEE OUR CATALOGUE,  
WHICH WILL BE SENT FREE  
TO ANY ADDRESS.

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

BEETON, ONT.

**THE AMERICAN APICULTURIST**

Will be mailed from Oct. 1 1888 to Jan 1 1890 for \$75 cts. The editor has had 30 years experience in rearing Queens and practical Bee-keeping, and now proposes to give the result of that long experience in a series of articles in the APICULTURIST. The first Article will appear in the Nov. 1888 issue. The details of a new method of rearing Queens in full colonies, without making the colony queenless, will be given to each subscriber. Send for sample copy. Address  
**AMERICAN APICULTURIST, Wenham, Mass.**

NEARLY 30 TONS OF

**DADANT'S FOUNDATION**

SOLD IN 1887.

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. HERTZEL, Jr., Freeburg, Ill.  
E. L. ARMSTRONG, Jerseyville, Ill.  
E. KRETCHMER, Coburg, Iowa.  
M. J. DICKASON, Hiawatha, Kans.  
ED. R. NEWCOMB, Pleasant Valley, N.Y.  
J. W. PORTER, Charlottesville, Va.  
J. B. MASON & SONS, Mechanic Falls, Me.  
Dr. G. L. TINKER, New Philadelphia, O.  
D. A. FULLER, Cherry Valley, Ills.  
JOS. NYSEWANDEK, Des Moines, Iowa.  
G. B. LEWIS & CO., Watertown, Wis.  
PAUL L. VIALON, Bayou Goula, La.  
B. J. MILLER & CO., Nappanee Ind.  
J. MATTOON and W. J. STRATTON, Atwater Goodell and Woodworth Mfg. Co., Rock Falls, Ills.  
J. A. ROBERTS, Edgar, Neb.  
OLIVER FORSTER, Mt. Vernon, Iowa.  
GEORGE E. HILTON, Freemont, Mich.  
J. M. CLARK & CO., 1409 15th St., Denver, Col.  
E. L. GOOLD & Co., Brantford, Ont.  
and numbers of other dealers. Write for SAMPLES FREE and Price List of Bee Supplies. We guarantee every inch of our Foundation equal to sample in every respect. Everyone who buys it is pleased with it.

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



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

VOL. IV. No. 41

BEETON, ONT., JAN. 2, 1889.

WHOLE No. 197

## EDITORIAL.

MANAGER T. G. Newman is out with the fourth report of the National Bee-Keepers' Union which has successfully defended the Arkadelphia case and has the "Rich" suit in hand. The defense of these lawsuits costs considerable, and as they are for the united benefit of the profession in general it behooves all bee-keepers who have the welfare of the pursuit at heart to join hands with the Union. All dues are now payable at the beginning of the year.

\* \*

Would it not be well for the O.B.K.A. to discuss and devise some plan of drawing Canadian bee-men *en masse* to Brantford for the coming National?

\* \*

Our contemporary the American Bee Journal has completed its twentieth volume. It is a paper in which there is always something of value, and it has done more for the advancement of apiculture and exposure of lies and humbugs concerning the industry, than any other bee periodical. It occupies a field peculiarly its own and "the old reliable" has our sincerest wishes for increased prosperity.

\* \*

The bee-keeper's time of leisure should permit of his attending the Convention at Owen Sound next week. Apart from

the convention there is much to see and admire in Owen Sound, Canada's next coming city. Here are the only steel ship-building yards in the Province, and numerous other points of interest, and no town offers as many attractions and comforts. We would like to see a grand turn out.

◆◆◆◆◆

For the CANADIAN BEE JOURNAL.

A LOOK AT MATTERS INTERESTING.

THE CANADIAN BEE JOURNAL, as live as ever, issue of November 28, is before me, and I feel inclined to review [some of the interesting things contained therein.

MR. IVAR S. YOUNG'S OFFENSE.

On the first page ye editors join in the call on Mr. Young to "take back over his own signature his statements regarding the bee-keepers of this continent, etc." No doubt Mr. Young will be surprised to learn that he has offended "the bee-keepers of this continent." If I understand the matter, Mr. Young, when in a controversy about bee-hives, asserted that certain persons living on this continent, not exceeding a half-dozen names, had formed a "ring" to popularize a certain patent bee-hive. Now it occurs to me that while these gentlemen are an honorable part, they are by no means "the bee-keepers of this continent." But if the gentlemen are aggrieved at Mr. Young for his plainness of speech, and demand retraction on his part, that is their business, not ours. We think, however, that no impartial reader can review our bee literature from 1884 to 1887 inclusive without feeling that Mr. Young, who is no doubt acquainted with what has been written, drew his own deductions

as naturally as "rolling off a log." In politics, and in other relations among men, when we see a half-dozen persons, more or less, all saying the same thing and all pulling in the same direction with a view of controlling public sentiment, we call that a "ring," and justly too. No doubt since the aforesaid bee-hive has failed to "revolutionize bee culture," and has ingloriously gone down beneath the patent bee gum rubbish of the past, a little soreness is left behind, but it will not help matters to kick, never so vigorously. "What is written is written."

#### WHO IS DANIEL M'FADDEN?

Who can vouch for him? Don't all speak at once! It has been a clear case to me from the beginning that some wag of a fellow has been amusing himself at the expense of the public over the name of Daniel McFadden. The undisguised extravagance indulged in by the author of this trick ought to send his articles to the "waste basket." We may admit that it is lawful to write fiction, but no man is justifiable in writing lies and palming them off as facts.

#### DR. MASON'S OBJECTIONS.

Ye editors want to lick Dr. Mason because he objects to fictitious writers, when writing on bee culture. In this the Doctor has my sympathy. When we read the *news* we are satisfied with the *news*, we don't care for the name of the writer. But when it comes to discussing scientific and practical subjects, we want to know who the writer is, and we have a right to know.

#### PURE HONEY OR HONEY IN THE COMB.

Mr. Pringle's remarks on this subject, found on page 709, ought to be heeded by all beginners in the bee business. Only a very few bee-keepers can succeed by producing their honey all in fancy shape. It has paid me to produce both articles in nearly equal proportions. It gives me a wider and freer sale for my honey, and adds to the number of my customers, to say nothing of the chances it gives to increase the yield of surplus, in unfavorable seasons.

#### BEEES AS WEATHER INDICATORS.

What a power over the minds of the professors is the things romantic connected with bees. Perhaps Prof. Emmerig has not lived as constantly and as long in the apiary as some of the rest of us. I have seen my bees miss it woefully as "weather indicators." I have seen them driven to the ground by sudden showers and gusts of wind, and have seen them hurry to the hives with wonderful energy when the alarm was a false one. I really enjoy the sight when my bees make a sharp race, like harvest hands,

with a summer shower. I have seen the air darkened about my apiary with a cloud of bees as they rushed pell mell through the falling drops of rain to the entrances of their homes. I once noticed that my bees were working in mass in a certain direction from my apiary, and a sudden rain and wind storm took its rise near by and moved rapidly in the direction that the bees were foraging, and the bees had to face the storm in their flight for home, and the struggle was exciting indeed. Clouds of heavily loaded bees when they had nearly reached the apiary were driven back and swept to the earth. They arose with desperate resolution time and again, to be dashed about by the wind. I was quite sure that I lost *swarms* of workers by that sudden storm.

#### MOISTURE IN BEE CELLARS.

This question as it has been discussed is a curious one. No living thing, I believe, can exist without moisture. It seems to me that the knowledge sought for is what excess of moisture above that of normality becomes injurious to bees in winter confinement. By my experiments of last winter I found that a healthy colony of bees would become loaded with a watery fluid in their intestinal canals in about ten days when subjected to a low temperature in a very damp vegetable cellar, and that I could drive the surplus fluid from their bodies and reduce them to natural size in about six hours by subjecting the bees to a temperature of 85° or 90° with the hive stripped to the wire cloth cover over the frames. The rapidity with which bees dispose of surplus moisture under favorable conditions by the process of exhalation is a sufficient explanation why one colony will survive while another apparently in the same condition will perish by reason of forced retention, called diarrhoea. The so-called diarrhoea in bees is not a disease. *Retention of the faeces* in confinement is natural with bees, and they possess the power of retention to a very high degree, and if this was not so the life of the bee would be restricted to a very limited portion of the earth's surface.

#### QUEENS MATED LATE IN THE SEASON.

I was of the impression that it was well understood by all experienced apiarists that queens may be mated so late in the season that no brood is reared from their eggs till the latter part of winter or till spring, depending somewhat on the climate. But since Prof. Cook seems to be in doubt about the matter, perhaps many others may have failed as I have in these matters. Scarcely a fall passes that I do not have one or more young queens mated too late in the fall to rear brood. By close observation it will be found that such queens lay a few eggs which are neglected by the worker bees. The "chyle feeding" has nothing to do with it. "There is a time and a season to all things," etc.

G. W. DEMAREE.

Christiansburg, Ky.

# PRACTICAL BEE-KEEPING.

BY D. A. JONES.

## PAPER IV.—CONTINUED.

### WAX, COMB AND FOUNDATION.

#### FOUNDATION SAGGING.

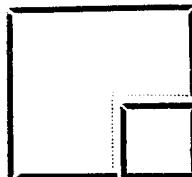
Unless foundation is made heavier than is profitable it will usually sag and the causes of this sagging are heat and the weight of the bees. This is especially the case with deep frames. Naturally the higher the temperature the less weight will be required to stretch it, and when the bees cluster on it before it is drawn out stretch it must. To avoid this sagging some apiarists use fine wire to support the sheet, but I know of no simpler way than that given by Mr. G. W. Demaree on p. 307, vol. IV, CANADIAN BEE JOURNAL: "I have discovered a new plan to so strengthen sheets of fdn. that they will hold up swarms without the assistance of the wire nuisance. If you will cut a sheet of fdn. in two and then lap the edge about one quarter of an inch and weld the edges together with a stiff putty knife in the same way that the sheets are secured to the top bars by the mashing process, the thick rib in the centre will prevent the sheet from stretching or sagging and the bees will work right on over the rib and make the combs as perfect as if no thick rib was in the way."

#### FASTENING FDN. IN FRAMES

Hot wax dropped on cold wood may be easily peeled off, cold wax dropped on warm wood will melt slightly and incorporate with the wood, adhering tenaciously. This is one thing to keep in view in placing foundation in frames. Have the frames warm, either from the heat of the sun or otherwise, lay the wax on the top bar, press it first in the centre and then at the ends, when two long strokes with a thick, rounded wooden knife will cause it to adhere. Mr. G. M. Doolittle uses melted wax as a cement, applying it to the top bar and edge of fdn. with a small brush. Mr. R. McKnight follows a somewhat similar plan. On the underside of the top bars of most frames a groove is made

with the saw. After fixing the foundation in this groove he runs melted wax on each side until the cut is filled, keeping the frames warm during the work by contact with a hot brick.

A simpler way of fastening brood foundation in the frame is by the use of a properly constructed top bar. This latter is usually seven-eighths inch square between the shoulders. Cut out one quarter as shown in the cross-



section herewith, preserving the cutting. Then prepare a board one-half of an inch thick and of the proper inside dimensions of frame, which tack on the table or work bench. Place the frames to be filled over this board, when the bottom inner edge of the top bar will be just even with the surface of the board. On this lay the sheet of fdn. with the top flush against the edge of the top bar. Tack the cutting back into its original position with three three-quarter inch wire nails and the fdn. is firmly and truly fastened.

#### WIRING FRAMES.

A majority of the foremost American apiarists wire all their brood frames. Unless sent out by the manufacturer already punched small holes are made with a bradawl in the top and bottom bars from two to three inches apart. Through these holes is threaded a small tinned wire (No. 30). The fdn. is laid on a board made to fit the inside of the frame, the wired frame placed over it and the wires embedded in the wax by means of a tin device made for the purpose. This should be done in a well warmed room. The wire is sold in spools from 1 oz. to one pound. There is nothing in this operation apparently difficult and yet it is one thing which



occasionally vexes the spirit of the amateur. Mr. R. Knechtel, of Walton, Ont., has mastered the troubles in this connection and he thus gives his mode of dealing with them:—Perhaps the wire unrolls too quickly, and the loose part slips over the ends of the spool; or the frame holes may be poorly punched; or the wire kinks and breaks; and then the young (and sometimes old) bee-keeper may realize that “things are not what they seem. To remedy these evils, see to it that the frame’s holes are smooth.

#### SMOOTH HOLES

can be procured by awls, (a) chisel pointed; (b) set to cut across the grain of the wood; (c) made of steel wire filed to suit and fitted in metals from shoemakers’ awls; (d) should descend vertically and rise in the same plane; (e) five awls may be worked at once, thereby punching a top bar at at one drop of the foot. Slipping of frames should be prevented by tacking short short strips of wood upon the table. Spools should be on a wire and prevented revolving too rapidly by means of a thin strip of wood, tacked at one end to the table; the other end resting lightly upon the spool. The strip also prevents the wire slipping over the ends of the spool.

#### KINKING OF WIRE

can now be prevented by screwing empty thread-spools to the table at each end of the frame. Place the thread-spools a little from the frame between the holes as needed. For five strands three are sufficient. To tighten your wire tack the threading end; with one hand hold the wire between the wire-spool and frame and draw, as draw, as you remove with the other hand, the wire from the thread-spools, commencing at the attached end first. Complete by the usual way.

#### FASTENING FOUNDATION ON WIRES.

Several methods have been advocated, some, no doubt, serving the purpose very well. The following will be found efficient, simple and speedy: See that your frames have a neatly-fitting, solid and level wiring-board, and your fdn. is of proper temperature.

#### WIRING-BOX.

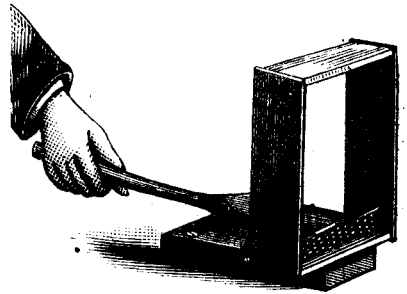
Around a piece of hard wood (oak) well seasoned, 2 x  $\frac{1}{2}$  in. and as long as your wire between the bars, wind a soft wire tightly (one-eighth inch is a good size), having the laps one-half inch apart; keep this damp when using. Place the edge of the wiring-bar on each wire and by a gentle tap from the hammer the work is completed—if the other joints were not neglected.”

#### USING STRIPS OF FDN.

In cutting up foundation to suit the size of customers’ frames the manufacturers usually have a number of pieces left over, and the apiarist will occasionally also have these on hand. They can be used as “starters” or placed in strips in a frame. The bees will attach them the same as if it was one full sheet and there need not be the slightest waste in this respect.

#### FASTENING FDN. IN SECTIONS.

Foundation for sections is cut into strips the width of the section, and is generally fastened to top of section only. Several handy implements have been devised for doing this work rapidly and well. The “Parker” the construction and mode of operation as shown in the

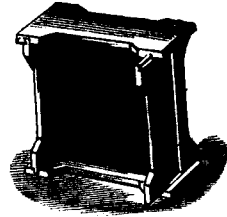


illustration, is worked by hand; the “Gray” is operated by foot power. The latter is claimed to be the more speedy, but Ernest Root tells of a girl in their employ who can average 3,000 a day with the Parker, and on occasion can put foundation in 1,200 sections in an hour. Though bee-keepers who produce comb honey on a large scale, will require something more speedy perhaps, I think that for all ordinary uses, the “Parker” will be found as handy and complete as any machine method, besides being but a trifling cost as com-

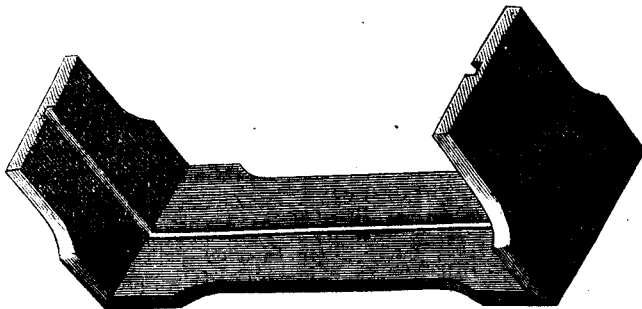
pared with others which I shall illustrate and describe briefly. Supply men have exercised their ingenuity to save the bee man trouble and at the same time make the fixing of the foundation sure.

Sections grooved on all four sides were brought out by the D. A. Jones Co. on the suggestion of the foreman of the apiaries, simultaneously with their appearance in England from the factory of T. B. Blow, and I believe this method will be practiced very largely by beekeepers in the future, as full sheets of foundation are used, and pop-holes are absolutely prevented. But English bee-

split top is not a new idea, but the angling cut decidedly is, and the inventors claim that twelve sections can be filled with fdn. in one minute.



Mr. Lee, another Englishman, uses split side bars dovetailed top and bottom,

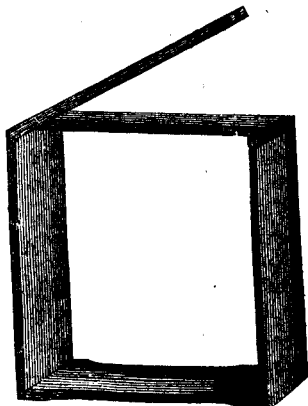


THE JONES GROOVED ALL ROUND SECTION.

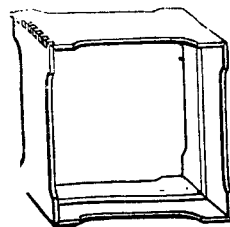
keepers and supply dealers have tried other ingenious plans. Messrs. Abbott and Southall make a section the top of which is cut at an angle, with a cutter which leaves the top of cut longer than the bottom thus forming a dovetail for

the foundation being securely held when these dovetailed pieces are pushed into place. The accompanying cut shows distinctly what is meant.

Blow's grooved all around sections are also illustrated. The groove is three thirty-seconds of an inch deep and an eighth wide. As with ours the



wax when inserted. The right hand half is left unfolded, and when the foundation is inserted it is forced into place

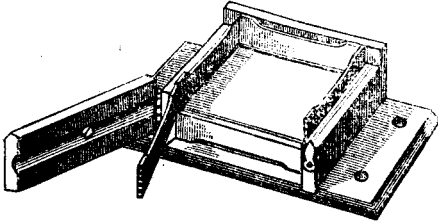


foundation is cut the exact size and inserted as the section is being folded.

A combination of the Blow and Abbott inventions was devised by Mr. J. H. Howard, of Holme. The device shown in the illustration is secured to a bench or table receiving a section cut as shown; on the centre bar the foundation is guided into the three grooved sides of the section, and the upper half

by simply closing the top half. This

of top bar, which is cut an angle of  $45^\circ$ , is brought into place by the hinged door block.



Still another plan is put forward by Mr. W. B. Webster, of Binfield. Three sides of his section are in halves, the third sufficiently pliable to form a hinge. These halves form jaws when pressed apart after folding and in these the foundation is placed.

None of these are in common use but the grooved all around is steadily gaining in popularity, the slight extra cost in the first instance being more than recouped in the saving of time.

#### PROPOLIS.

Propolis or bee glue is a by-product of the hive of no commercial value. It is gathered by the bees from resinous trees, the balm of gilead furnishing nearly all in this locality, but paint, old hives and quilts, or pieces of wax will be laid under contribution if left about the yard. By placing a broken branch of balm of gilead in the apiary you can observe the bees harvesting the oozing resin. Nothing that I know of has so much "sricktoitiveness" as propolis; when warm it is soft and pliable, but when cold it is very hard to remove. The bees use it as means of protection, sealing every crevice and crack against the wind, and will thus close a hole an inch in diameter. They strengthen the combs with it and use it as a varnish for the cells.

For the Canadian Bee Journal.

#### Bees Dangerous Near a Highway.

**B**EES have ways of their own of doing business and some of their ways seem past finding out. They have but little respect precedents, and when they take a notion they do some queer things, and we don't always know just when they are liable to take a notion unless we have studied their habits very closely and then we can't always tell. For this reason

I think it unwise to teach people to court danger, especially with regard to placing bees too near the public highway. We should not try to see how near a precipice we can stand and not fall over. Friend Jones says on page 668 that bees may be placed within five feet of the public highway without interfering with travel or troubling anybody, etc., provided there is a fence or trees between the bees and the road. This may be true in his experience, but there are others whose experience differs greatly from his in this respect. Brother Pringle thinks, too, that the editor is admirably straight on this point, but I can't help saying I don't believe either of them have made as straight a line on this point as my bees have often made for people going along the highway, and my apiary is 112 feet from the centre of the highway with four rows of large apple trees between the bees and the road, yet some of my neighbors have complained that my bees' feet were rather too hot for both them and their horses, especially those two middle feet and those two middle legs on which friend Jones says the pollen baskets are for carrying pollen. Two horses have been stung to death within a short distance of here, one of them quite recently, and in this neighborhood, the past season, a whole family, while driving along the road, barely escaped having a swarm of bees alight on them. My bees, though shaded as I have described, stung a man four times who was mowing on the further side of the road from them, some 300 feet down the road and drove him from the field. I was away from home at the time and my bees seemed very quiet, in fact I do as little to irritate them as possible. I could fill many pages with such stinging incidents, but these are enough. Many a ship has run a blockade and not been sunk, but some *have* been sunk. I have passed a certain apiary, about six miles from here, scores of times without ever being stung, but there was a horse stung to death shortly after I passed and it just happened to not be mine. The public highway should be guarded zealously by every fair-minded man whether he keeps bees or not, and no person has a moral or lawful right to compel the public to run a gauntlet. I don't want a vicious looking dog to bark close to my heels, no matter if his master says, as he usually does, that the dog won't bite. I know better, for I have been bitten by them. I have tried as much as any person, perhaps, to convince my neighbors of the innocence of my honey *pets*, but when a bee, without any apparent cause, gets on his ear, walks out on his dignity and drives a man from the hay field simply to satisfy that pet nature which the sweet insect possesses, or

because the man or horse is sweaty, then it is time to look on the other side of the question. People only want what is right, and the question is, do bee-keepers want the same. If we do we will not menace the public with a real danger, and then, because they kick, try to make them submit by force of law. There are many unwritten laws that are just, and as long as people obey them there is no need to have them written. But when we overstep our bounds, then public opinion, which is the author of all law, will cause them to be written, though we may combine and carry our point by law; still we are by this very course creating a sentiment in the public mind that will in time culminate in the passage of laws that it will do no good for bee-keepers to kick against. There is land enough to keep bees on, and I can't see a shadow of reason for teaching people to crowd their bees close to the public highway.

JOHN F. GATES,

Ouid, Erie Co., Pa.

#### O. B. K. A. CONVENTION.

The Owen Sound Convention meets next Tuesday and Wednesday, and we trust there will be a grand turn out.

##### PROGRAM.

- Jan. 8th, 2 p.m.—Appointment of Com. Management.  
Minutes of last meeting read.  
Secretary's Report.  
Treasurer's " "  
Auditors' " "  
Affil. Soc. " "
- Jan. 8th, 7 p.m.—President's Address.  
Paper by Mr. S. Corneil, on Ventilation of Hives for Winter, and discussion on.  
Business Recom. by Com.
- Jan. 9th, 9 a.m.—Election of Officers.  
Paper by S. T. Pettit, on Priority of Location and discussion on.  
Other business as recom. by Com.
- Jan. 9th, 1 p.m.—Deciding on next place of Annual meeting.  
Paper by A. Pringle on Bees for Pleasure and Bees for Profit, and discussion on.  
Other papers and necessary business.

From the Bee-Keepers' Review:

#### SECTIONS AND SECTION SUPERS.

**B**EE-KEEPERS are steadily approaching a standard section honey box—the one-pound. The tendency is also to a uniform size, the  $4\frac{1}{2} \times 4\frac{1}{2}$ , and also to have a uniform width, the  $1\frac{1}{2}$ . Such a section, having

open sides, and used with separators, will average one pound in weight.

It appears to be well settled that as much comb honey can be secured in the one-pound package as in any larger size, and since the one-pound is the most popular in the markets, it is likely to become a standard, as all other sizes of sections are gradually but surely going out of use. This fact is shown by the steady and increasing demand of supply dealers for the one-pound packages.

It is well known that the linn or basswood is the only white timber from which one-piece sections can be made. It is also largely in use for this purpose, which is the more unfortunate, as the basswood is one of the best sources of honey for our bees. It is not an exaggeration to say that when this tree as it now stands in the large forests is destroyed that the production of honey will become unprofitable, unless artificial pasturage can take its place, which is doubtful. The rapid and increasing destruction of the basswood is already causing serious apprehension in the minds of many of our best bee-keepers. Mr. H. R. Boardman, whose foresight and ability none will question, stated to the writer not long since that the basswood in his locality was rapidly being cut down and used for sections. It was a question of only a few years when this source of nectar for his bees would be destroyed, when he doubted if bee-keeping would not cease to be profitable. And I find that this same estimate of the value of the basswood to bee-keepers is held by many others.

At the present time bee-keepers are the largest consumers of the basswood, and every man who uses the one-piece section is encouraging its further destruction. It seems to me that such bee-keepers are standing in the way of their own future success, when self-interest should discourage, as far as possible, the cutting down of basswood timber. Bee-keepers should guard with jealous care the trees yet standing in their localities, and in many instances valuable trees may be spared with proper effort.

If the one-piece section had any great advantage over the four-piece dovetailed section, in the way of obtaining a larger surplus, there might be some justification for its use, but no such advantage exists. The only advantage claimed is that the one-piece section can be put together a little quicker than the four-piece. But it often happens that, owing to many breakages, the four-piece section can be put together the most rapidly. Certain it is, that the saving of time in putting together the one-piece section is not a serious item, when a few boys at 25 cents a day can put together, for a small outlay and

in short order, more four-piece sections than any of our largest bee-keepers can use. I always employ small boys to put my sections together, and they like no better fun.

But the one-piece section is always a frail affair, and it is next to impossible to make them true. On the contrary, the four-piece, if properly made, is much the stronger, and it is easily made perfectly true, both in size and width. Again, unless the former are securely clamped in the super, they will speedily assume a diamond shape and become both unsightly and difficult to crate.

Lastly, the white poplar makes the most beautiful section. It is a whiter wood and not so easily soiled as the basswood. Owing to its being a very brittle wood it cannot be made into the one-piece sections. It must be made either dovetailed or to nail. As the white poplar is worth almost nothing for any other purpose, and makes the best section by far that is made, it is a marvel to me why any bee-keepers should use the one-piece section.

There is another timber, the *white gum*, growing extensively in this country, that makes a nicer section than the white poplar, but it is more difficult to work. The wood is heavy and very fine grained, taking a high polish from a properly fitted circular saw. Some of it is almost as hard as white hickory, but for that matter I can make beautiful sections from the hardest white hickory. Some of the gum trees are brash and soft, and I am sure can be worked as easily as the white poplar. The white gum makes the best and nicest shipping crate that is made. It holds a nail securely and is less inclined to split than the white poplar.

For years I have sought a section or surplus arrangement by which as much comb honey could be secured as by the use of brood frames in the supers. At last I can say to bee-keepers, I have found it. It is the use of the open side sections. At last it can truly be said that no loss in comb honey is occasioned by the use of a small package, if so constructed as to favor the work of the bees. And only by providing the freest communications to all parts of a section super can this be done. Numerous closed partitions in a super are so many barriers to the work of the bees, and will evidently result in a diminished product. An item of the highest importance in the construction of a super is to provide free ventilation from end to end and side to side. The nectar brought in by the bees usually comes with a rush, and it is fully one-half water, which must be evaporated. It is carried at once to the rapidly growing combs of the sections, and if a draft cannot be easily made through all parts of the super, the ripening of the honey must go on slowly and by increased and protracted labor of the bees. No wonder they often get discouraged in working in the old style of closed side sections, and often hesitate to make a start in them. This one advantage

will many times offset any alleged advantage in handling closed side sections. But the open side section has numerous other advantages over the closed sided. The edges of the combs are built out even all around and the section is perfectly filled. The closed side section is rarely built out square to the uprights of the section, even in a good honey flow, but the bees are apt to leave a bee-space between the uprights and the edge of the combs, except a thin attachment in the center. With the open side section the bees always build the edges of the combs straight out to the uprights, and as a result put more honey in them than in the same sized closed side section. Hence it is than an open side section,  $4\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{4}$ , will weigh on an average as much as a closed side section  $4\frac{1}{2} \times 4\frac{1}{2} \times 2$ . Again, with closed side sections, it is seldom that the sections at the ends and sides of the super are filled out as perfectly as the central ones. But the open side sections fully and completely overcome this objection. The end sections will be filled out as perfectly as any others, and no one-sided combs are built.

In a moderate honey flow the bees take the central rows of sections first and follow the separators, the central end sections being completed about the same time that the center sections are; the sections at the side of the case being the last to be completed, the tendency being to complete all sections in which work is begun.

After years of experience in the endeavor to succeed in obtaining well built combs in sections without separators, I gave it up, and I have resorted to every known expedient. I prefer wood separators, sawed  $1/16$  thick, and if made as wide as the section is high, they give most excellent results. In the use of a section  $1\frac{1}{2}$  wide this requires that the top and bottom bars should be only  $1\frac{1}{8}$  of an inch wide, thus securing a passage way  $\frac{1}{8}$  inch wide each side of the separators. I also wish the separators perforated opposite the openings in the side of the sections. For this purpose a  $\frac{1}{8}$  inch augur hole answers every need, and is never filled up with brace combs. With sections and separators so constructed every section has twelve openings into it for the passage of the bees and for allowing free ventilation.

However the super may be constructed otherwise, the above points are first essentials, as they are requisite to the successful working of the bees. In all other respects, a super should suit the convenience of the bee-keeper for ease and rapidity of operation. For this purpose I have found nothing better than wide frames, one tier high, properly supported in a case. This requires also that the side of the super be removable, and retained in place by an adjustable hook at each end of the case. The most practicable device of this kind that I have used is the invention of Mr. H. D. Cutting.

That the wide frames may be made light and yet not sag with the weight of honey in the sections, I place a bar or post in the centre of each frame, so that both the top and bottom bars of the frames aid in supporting the sections. So constructed, the top and bottom bars require to be only  $3/16$  thick and  $1\frac{1}{8}$  wide. Such frames are cheap and afford every desirable facility in handling four sections at once and the removal of sections as fast as completed. The separators

are not made fast to these frames, so that it is an easy matter to shake the bees off from a frame of sections, and the centre bar prevents any liability of the sections being thrown out of the frames from shaking them. I leave the sections in the frames until ready to crate them for the market. They are then easily forced out of the frames by placing a block the size of two sections beneath and pressing the frames down.

The principal objection I have to the T super is that the whole case must be left on the hive till all the sections are completed, for only one section can be handled at a time, and that with great liability of injuring the combs, even by the most careful. But it is not practical to take off one section at a time in a large apiary, so that all the sections must be left on till all are completed, and when, as is often the case, the honey comes in slowly, the centre sections are liable to be soiled by being travel stained when left on too long. Besides if the tops and bottom bars of the sections are exposed, they will be more or less soiled.

Again, the T super cannot be made to work right with the open side section and wood separators as above described. It is admitted that it works fairly well and is very cheap for holding the closed side sections.

As more T supers would be required to run an apiary than of the wide frame supers, the claim is made that although a little cheaper than the latter, the cost of the number required for an apiary is about the same, with all the advantage of facility of operation on the side of the wide frame super. I may add that after a trial of a great many kinds of section supers, I have found none that give the perfect satisfaction of the wide frame super.

The advantage of storifying supers is fully recognized and no super is perfect that does not admit of being raised up and an empty one placed beneath it thus permitting the use of as many sections on a hive as may be desired.

DR. G. L. TINKER.

New Phila., Ohio, Nov. 2, 1888.

Rural Californian.

**CALIFORNIA'S HONEY CROP OF 1888.**

**S**OUTHERN Californian makes a good showing as to honey yield for this year, though the product is not estimated at more than one-third of a crop. The Southern Pacific Railroad for the six months ending September 30, 1888, shipped to points east outside of California 1,236,496 pounds of honey, while for the same period the Southern California Railway shipped for the same points 819,790 pounds and the California Central Railway shipped 776,840 pounds to the same points. Large shipments of honey have gone by sea from the port of San Diego, and other seaports have contributed considerable quantities to be shipped from Los Angeles, Ventura and Santa Barba counties. The price is reasonably good, with purchasers looking for the honey,

and less of the commodity on hand than for many years past. A good article commands six cents per pound, wholesale.

Rural Californian.

**ORDINANCE AGAINST BEES.**

**I**N Los Angeles City, Cal., and presumably in other cities, ordinances have been passed imposing a fine of five hundred dollars upon the person keeping bees within the corporate limits. Thus far no one has been fined for violating the ordinance in Los Angeles, though many persons keep bees within the city limits, though without much profit to themselves. The numerous pepper trees used as shade and ornamental trees in Los Angeles give the bees a honey that is so fiery that one taste of it is enough for a lifetime. The bees ought to get out of the city, where the pastures are sweeter and better.

**SPECIAL BOOK NOTICE.**

We have a number of books which have been superceded by more recent editions, which we will sell at very low prices. In some instances they may be a trifle worn or abraded. We have:

	REGULAR PRICE.	OUR PRICE.
1 British Bee-keepers' Guide Book, T. W. Cowan, edition 1886—good as new.....	50	35
1 Bee-keepers' Guide, Prof. A. J. Cook, edition 1882.....	1 25	50
6 Bee-keepers' Guide, Prof. A. J. Cook, edition 1884.....	1 25	85
1 A.B.C., A. I. Root, edition 1883—a good deal worn....	1 25	50
1 A.B.C., A. I. Root, edition 1883—good as new.....	1 25	75
1 A.B.C., A. I. Root, edition 1886.....	1 25	75

First come, first served. Now, don't all speak at once.

**ONTARIO BEE-KEEPERS' ASSOCIATION.**

The annual meeting of the Ontario Bee-keepers' Association will be held at Owen Sound, January 8 and 9, 1889. Sessions at 2 and 7 p.m. first day, and 9 and 1 p.m. second day.

W. COUSE, Secretary.

**DETROIT HONEY MARKET.**

Best white comb in one pound sections 16 and 18 cts. Supply not large but equal to the demand. Beeswax 22 and 23 cents.

M. H. HUNT.

Bell Branch, near Detroit.

Read the grand array of premiums offered on page 756 of this issue.

**T**WO THE DEAF—A person cured of deafness and noises in the head of twenty-three years standing, by a simple remedy; will send a description of it FREE to any person who applies to Nicholson, 30 St. John St. Montreal.

## BUSINESS DEPARTMENT.

In return for the names of ten bee-keepers sent us on a postal, we will send the "Bee-Keepers' Dictionary" value 25 cents.

Attention is called to the list of books in this number. In this connection we might say that we can supply you with any standard book on the market and at lower rates than the stores. Write for prices on the works required.

### HONEY WANTED.

We will pay 12 cents per pound for good extracted honey, delivered in Beeton, in exchange for supplies at catalogue prices, and we will take all that offers, allowing 30 cents each for the tins when they are the "Jones sixty-pound."

### COOK'S MANUAL—NEW EDITION.

We have now in stock ready to go by return mail the latest edition of Prof. Cook's Manual. The price this time is \$1.50, postpaid, but the increase in price is most fully compensated for in the increased quantity of matter and the better quality of the work.

## GOOD BOOKS

—FOR THE—

## Farm, Garden AND Household.

THE FOLLOWING VALUABLE BOOKS WILL BE SUPPLIED FROM THE OFFICE OF THE **CANADIAN BEE JOURNAL**. ANY ONE OR MORE OF THESE BOOKS WILL BE SENT **POST-PAID** DIRECT TO ANY OF OUR READERS ON RECEIPT OF THE REGULAR PRICE, WHICH IS NAMED AGAINST EACH BOOK.

### FARM AND GARDEN.

Allen's (R.L.&L.F.) New Am. Farm Book	\$2 50
Barry's Fruit Garden. New and revised	2 00
Beal's Grasses of North America.....	2 50
Brackett's Farm Talk, Paper, 50c. Cloth	75
Brill's Farm Gardening and Seed-Growing .....	1 00
Farm Appliances.....	1 00
Farm Conveniences.....	1 50
Farming for Profit.....	3 75
Fences, Gates and Bridges .....	1 00
Fuller's Practical Forestry.....	1 50
Gregory on Cabbages.....	30
Gregory on Onion Raising.....	30
Harris' Gardening for Young and Old	1 25
Henderson's Gardening for Pleasure...	2 00
Henderson's Gardening for Profit.....	2 00
Johnson's How Crops Feed.....	2 00
Johnson's How Crops Grow.....	2 00

Johnson's How to Plant.....Paper...	50
Long's Ornamental Gardening.....	2 00
Onions—How to raise them Profitably	20
Our Farm of Four Acres.....Paper...	30
Quinn's Money in the Garden.....	1 50
Silos and Ensilage.....	50
Starr's Farm Echoes.....	1 00
Stewart's irrigation for the Farm,	
Garden and Orchard .....	1 50
Ten Acres Enough .....	1 00
The Soil of the Farm .....	1 00
Thomas's Farm Implements and Machinery .....	1 50
Treat's Injurious Insects of the Farm and Garden .....	2 00
Waring's draining for Profit and Health	1 50
Waring's Elements of Agriculture.....	1 00
Wedd's and Others' A.B.C. of Agriculture .....	50

### FRUITS AND FLOWERS.

Bailey's Field notes on Apple culture	75
Elliott's Hand Book for Fruit Growers	
Paper, 60c .....	1 00
Fuller's Grape Culturist .....	1 50
Fuller's Illus. Strawberry Culturist ...	25
Fuller's The Propagation of Plants....	1 50
Fuller's Small Fruit Culturist. new ed.	1 50
Fultor's Peach Culture New ed.....	1 50
Henderson's Practical Floriculture....	1 50
Husmann's American Grape Growing & Wine Making.....	1 50
Parsons on the Rose.....	1 00
Saunders' Insects Injurious to Fruits.	3 00
Vick's Flower and Vegetable Garden.	1 25

### HORSES, RIDING, ETC.

Anderson's The Galop.....	1 00
Armatage's Horse Owner and Stableman's Companion .....	1 50
Battersby's The Bridle Bits. Valuable	1 00
Chawnet's Diseases of the Horse.....	1 25
Dadd's American Reformed Horse Book. 8vo .....	2 50
Dadd's Modern Horse Doctor. 12mo.	1 50
Day's The Race Horse in Training...	6 25
Du Hays' Percheron Horse. Revised and Enlarged.....	1 00
Heatley's Every man his own Veterinarian .....	2 50
Herbert's Hints to Horse Keepers.....	1 75
Howden's How to buy and sell a Horse	1 00
Jenning's Horse Training Made Easy.	1 00
Jennings on the horse and his diseases	1 25
Law's Farmers' Veterinary Adviser...	3 00
Manning's The Illus. Stock Doctor...	5 00
Rarey and Knowlson's Complete Horse Tamer .....	50
Riding and Driving.....	20
Saddle Horse, The; Complete Guide to Riding and Training.....	1 00

### CATTLE, SHEEP AND SWINE.

Armsby's Manual of Cattle Feeding...	2 50
Cattle, The Varieties, Breeding and Management .....	75

Clok's Diseases of Sheep.....Paper...	75
Coburn's Swine Husbandry. New ed.	1 75
Dadd's American Cattle Doctor. 12mo	1 50
Dadd's American Cattle Doctor. 8 vo.	2 50
Gaueon on Milch Cows. New ed.....	1 00
Jennings on Sheep, Swine & Poultry.	1 25
Jersey, Alderney and Guernsey Cow.	1 50
Keeping One Cow. New edition.....	1 00
Martin's Hog Raising and Pork Making .....	40
Miles' Stock Breeding.....	1 50
Powers' The American Merino for Wool and Mutton. A practical and valuable work.....	1 50
Stewart's The Dairyman's Manual....	2 00

**DOGS, ETC.**

Dog, The ; Its Varieties and Management. Boards.....	50
Dogs of Great Britain, America and other countries.....	2 00
Floyd's Hints on Dog breaking .....	50
Stables' Our Friend The Dog.....	3 00

**\*POULTRY AND BEES.**

Burnham's New Poultry Book.....	1 50
Cooper's Game Fowls.....	5 00
Felch's Poultry Culture.....	1 50
Johnson's Practical Poultry Keeper Poultry: Breeding, Rearing, Feeding, etc.....Boards....	50
Profits in Poultry and their Profitable Management.....	1 00
A Year Among the Bees, by Dr. C. C. Miller.....	75
A.B.C. in Bee Culture by A. I. Root. cloth, \$1.25; paper.....	00
Quinby's New Bee-Keeping, by L. C. Root, Price in cloth.....	1 50
Bee-keepers' Handy Book, by Henry Alley, Price in cloth.....	1 50
Production of Comb Honey, by W. Z. Hutchinson. Paper.....	25
The Hive and Honey Bee, by Rev. L. L. Langstroth. Price, in cloth...	2 00
A Bird's-Eye View of Bee-Keeping, by Rev. W.F. Clarke.....	25
Success in Bee Culture, paper cover...	50
Cook's Bee-Keepers' Guide in cloth...	1 25
Foul Brood, its Management and Cure by D. A. Jones. price by mail.....	11
A. B. C. in Carp Culture, by A. I. Root, in paper.....	50
Queens, And How to Introduce Them	10
Bee-Houses And How to Build Them	15
Wintering, And Preparations Therefor	15
Bee-Keepers' Dictionary, containing the proper definition of the special terms used in Bee-Keeping.....	25
Standard of Excellence in Poultry....	1 00
Stoddard's An Egg Farm. Revised....	50
Wright's Practical Pigeon Keeper.....	1 50
Wright's Practical Poultry Keeper.....	2 00

**ARCHITECTURE AND LANDSCAPE GARDENING.**

Atwood's Country and Suburban Houses.....	1 50
Barn Plans and Out-Buildings.....	1 50

Camp's How Can I Learn Architecture	50
Cummings' Architectural Details.....	6 00
Elliott's Hand-Book of Practical Landscape Gardening.....	1 50
Harney's Barns, Out-Buildings and Fences.....	4 00
Homes for Home Builders.....	1 50
Interiors and Interior Details.....	7 50
Painter, Gilder, and Varnisher's Companion .....	1 50
Reed's Cottage Houses.....	1 25
Reed's Dwellings for Village and Country.....	2 50
Reed's House Plans for Everybody.....	1 50
Scott's Beautiful Homes.....	2 50
Woodwards Suburban and Country Houses.....	1 00

**ANGLING, FISHING, ETC.**

Hamilton's Fly Fishing for Salmon and Trout.....	1 75
Harris' Scientific Angler—Foster.....	1 50
Orvis Fishing with the Fly.....	2 50
Roosevelt's Game Fish of the North...	2 00
Roosevelt's Superior Fishing.....	2 00
Roosevelt & Green's Fish Hatching and Fish Catching.....	1 50

**FIELD SPORTS AND NATURAL HISTORY.**

American Bird Fancier.....	50
Bailey's Our Own Birds.....	1 50
Canary Birds. New and Revised Ed. Paper, 50c.; cloth.....	75

**HUNTING, SHOOTING, ETC.**

Amateur Trapper and Trap Makers' Guide, pa., 50c.; boards.....	75
Batty's Practical Taxidermy and Home Decoration.....	1 50
Bumstead's Shooting on the Wing.....	1 50
Murphy's American Game Bird Shooting.....	2 00
Practical Hints on Rifle practice with Military Arms.....	25
Smith's Law of Field Sports.....	1 00
Thrasher's Hunter and Trapper.....	75

**MISCELLANEOUS.**

Clingman's Tobacco Remedy.....	25
Common Shells of the Sea Shore.....	50
Household Conveniences.....	1 50
How to Make Candy.....	50
Scribner's Lumber and Log Book.....	85

Any of the above clubbed with the CANADIAN BEE JOURNAL at 75 cents extra.

**Canadian Live-Stock and Farm Journal.**

THERE have been few more marked successes in journalism than have been achieved by the CANADIAN LIVE-STOCK AND FARM JOURNAL, of Hamilton, Ont. Though devoted especially to stock raising, it includes The Farm, The Dairy, The Apiary, Poultry, Horticulture and The Home, so that for the general farmer, or such farmers as make live-stock breeding in any of its departments a leading feature of their business, we do not know where to find its equal in Canada. We heartily recommend it to our patrons as the leading agricultural paper in the Dominion. Price \$1.00 per annum. A beautiful lithograph of the Ontario Agricultural College and Experiment al Farm, Guelph, is given to every subscriber for 1889. We can furnish it and our own paper together from now to December, 1889, for \$1.75. Call at our office and see sample copy, also lithograph.





# USEFUL GOODS.

The following is a partial list of small wares, tools and stationery, which we carry in stock. Additions are constantly being made. We buy in very large quantities, and are therefore able to quote rock bottom prices. There is always something in these lines you want and they can be enclosed with other goods or sent by mail. The amount of postage is marked opposite each article, except those excluded from the mail.

## 5 CENT ARTICLES.

Postage.		Per 10 lots.	Per 25 lots.
3	Awls, brad, three assorted without handles.....	\$ 75	\$1 00
1	Blotting paper, 10 sheets note size.....	40	88
3	Bag for school books.....	45	1 05
2	Brush, round, for paint, paste or varnish.....	40	95
1	Chisel handle.....	45	1 10
6	Crayons, colored drawing.....	45	1 00
1	Eraser combined ink and pencil	45	
1	Letter openers, nickle plated, very handy.....	40	
1	Memo books, 32 pages, stiff cover.....	40	90
1	Note paper, 1 quire, extra quality, ruled or plain.....	40	80
2	Pad 100 sheets scribbling paper	45	
1	Pass books 3 "Railroad" 16 p. paper cover.....	45	1 00
1	Pass books, 2 Steamboat 32 p.p.	45	1 00
1	Penholders 2, cherry, swell....	40	
1	Ruler, hardwood, flat, graduated to $\frac{1}{8}$ , bevelled.....	45	1 05
1	Ruler, for school children, three for 5c.....	40	90
2	Scribbling books, 200 pages....	40	
	Tacks, cut, 2 papers 1, 2 or 3 oz.	45	

## 8 CENT ARTICLES.

	Butter stamps 3 or 4 inches....	\$ 75	\$1 75
	File, 3 corner, 3 or 4 inches....	75	1 75
	Ink-well, glass, safety, cannot spill.....	65	
	Mucilage, good sized bottle....	70	
	Oil cans, zinc.....	65	
1	Pencil, automatic indelible....	75	1 75
3	1 doz. Lead Pencils, No. 852, very good.....	75	
1	Time books for week or month.	75	

## 10 CENT GOODS.

2	Bill fyles, harpshape.....	\$ 90	2 10
2	Book of 50 blank receipts with stub.....	85	2 00
2	Book of 50 blank notes.....	85	2 00
2	Brush, flat, for paint, paste or varnish.....	90	1 90
3	Butter spades 9c. each.....	90	1 90
2	Boxwood pocket 1 foot rule....	90	2 10
	Chisel, firmer $\frac{1}{4}$ inch.....	90	

## Postage.

	Per 10 lots.	Per 25 lots.
2	Clips for holding letters, etc....	90 2 00
	Due bills, 100 in book with stub	85 1 80
2	Envelopes, 3 packages, white, good, business.....	95
2	Files, 3 cornered, 5 inch.....	90 2 10
3	Lead pencils, 1 doz. plain cedar Fabers 581.....	90
2	Lead pencils 3 red and blue....	90
2	Note heads, pads of 100 sheets..	90
	Paint brush, No. 7.....	
2	Pocket note book, 3x5 in., 125 pages, stiff cover with band grand value.....	90
1	Rubber bands, five, large.....	80
1	Ruler, brass edged, flat, hardwood, bevelled, graduated to $\frac{1}{8}$ inch.....	95 2 25
4	School bag, medium size.....	90 2 10
	Tacks, cut, 3 packages, 4 oz.....	90

## 13 CENT ARTICLES.

2	Belt punches, Nos. 2, 3, 4, and 5	1 25	\$3 00
	File, 6 inches long, flat.....	1 25	2 90
	" 5 " " round.....	1 25	2 90
	Shce knives, 4 inch blade.....	1 20	2 75

## 15 CENT ARTICLES.

	Chisel, firmer, $\frac{1}{4}$ and $\frac{3}{8}$ in.....	1 45	
12	Dextrine, $\frac{1}{2}$ lb. pkge. for pasting		
	Glue, 1 lb. ordinary.....	1 30	
	Hammer, iron, adze eye.....	1 45	
3	Lead pencils, 1 doz., good quality, Faber's 971.....		
5	Note paper, 5 quires, 3 lbs., extra value.....	1 40	\$3 85
	Paint brush, No. 5.....		
6	Rubber bands in gross boxes. For queen nursery.....	1 30	
4	Rule, 2 foot, a splendid line....	1 40	\$4 40
	Screw driver, 5 inch, round bit, hardwood handle.....	1 40	
2	Statement heads in pads of 100	1 20	
	Tack hammer, magnetic.....	1 40	\$3 90
12	Papeterie, 24 saecets fine note paper and 24 square envel-opes in neat box.....	1 40	\$3 85

## 18 CENT ARTICLES.

	Bit, best make, $\frac{1}{4}$ , $\frac{3}{8}$ , $\frac{1}{2}$ .....	1 65	4 00
	Glue, LePage's liquid, with brush	1 65	
	Oilers, automatic.....	1	



D. A. JONES, Pres.

F. H. MACPHERSON, Sec.-Treas.

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

BEEETON, ONT.

## Manufacturers of and Dealers in Apiarian Supplies

OUR CIRCULAR SENT FREE ON APPLICATION.

Publishers Canadian Bee Journal.

Fine Book and Job Printers.

### DISCOUNT NOTICE.

As is our usual custom we now offer discounts for fall and winter orders. We desire it to be understood that we do this principally to avoid the crowding in the rush at springtime. We can always fill the orders to better advantage and take more orders when we are not crowded. This of itself is a good thing for the customer, and when to this is added the discount which we allow off catalogue prices, it will be well worth trying. Up to January 1st, 1939, our discounts will be as follows:

#### 10 PER CENT.

Hives, Sections, Honey Extractors, Honey Boards, Section Frames, Section Cases, Frame Nailers, Wire for Frames & Rests, Smokers, Hive Clamps, Honey Knives, Wax Extractors, Bee Tents, Comb-carrying Buckets, Comb Baskets, Bee Guards, Ripening Cans, Uncapping arrangements, Bee Veils, Queen Nurseries, Labels, Anatomical Charts.

#### 5 PER CENT.

Nails, Perforated Metal, Comb Foundation, Force Pumps, Feeders, Rubber Gloves, Introducing Cages, Tins, Shipping Crates, Honey Glasses, Sealers, Dextrine, Wire Cloth, Mosquito Bar.

All other goods in our Catalogue are subject to the prices found therein. For January the Discounts will be 8 per cent and 4 per cent, respectively; for February 6 per cent, and 3 per cent; March 5 per cent, and 2 per cent. No discount after April 1st. These prices of course are for cash with order. We have a big stock of almost everything on hand, and can ship at short notice. Catalogue free on application.

### 1-LB. GLASS JARS. SCREW TOP.



We are just advised of shipment from the factory of the first instalment of 50 gross of the above. They are put up in barrels and hogsheads, (the latter for our own local use), and to save breaking bulk when shipping, we append below a table, of the qualities of which the shipment consists, together with the prices per

barrel. In estimating the price, we have calculated the same as for full gross lots, an allowance of 20 cents being made for each barrel and packing (they cost us 35 cents).

No. of Barrels.	No. of Doz.	Price..
1	8½	\$ 6 25
1	8½	6 45
4	9½	6 75
5	9½	6 95
4	9½	7 15
3	10	7 35
3	10½	7 55
2	10½	7 75
1	11½	8 45

### ADVANCE IN NAILS.

Owing to a rise in the prices of nails, we are forced to advance our prices somewhat, as will be seen by the following list. All orders will be filled only at these prices.

#### PRICES OF WIRE NAILS.

Length of Nails.	No. in Pound	Size Wire	Price of 1 Pound	Price of 10 lbs.
¾ & ½ inch	7200	21	22	2 00
¾ inch...	5000	20	17	1 60
¾ inch ...	3880	10	17	1 60
1 inch...	2069	18	12	1 05
1½ inch...	1247	17	11	1 00
1½ inch...	761	16	10	90
2 inch...	350	14	9	80
2½ inch...	214	13	9	75
3 inch...	137	12	8	70

#### PRICES OF BOX OR HIVE NAILS.

	Per lb.	Per 10 lbs.	Per 100 lbs.
1½ inch.....	7	65	6 00
2 inch.....	6½	60	5 50
2½ inch.....	6	55	5 25
3 inch.....	6	55	5 25

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

# APIARIAN SUPPLIES

MANUFACTURED BY

W. T. Falconer, - Jamestown, N.Y.

Are unsurpassed for **Quality** and fine **Workmanship**. A specialty made of all sizes of the **Simplicity Hive**. The **Falcon Chad Hive**, with movable upper story continues to receive the highest recommendations as regards its superior advantages for **wintering** and handling bees at all seasons. Also manufacturer of **FALCON BRAND FOUNDATION**. Dealer in a full line of **Bee-Keepers' Supplies**.

Send for Illustrated Catalogue for 1888. Free.

W. T. FALCONER.

## Bee-Keepers Guide

—OR—

### MANUAL OF THE APIARY.

This fifteenth thousand much enlarged and more richly illustrated than previous editions. It has been fully revised, and contains the very latest in respect to bee-keeping. Price by mail \$1.50. Liberal discount to dealers and for clubs.

A. J. COOK, Author & Publisher,  
STATE AGRICULTURAL COLLEGE,  
LANSING, MICH.

250 ENVELOPES

—AND—

250 NOTE HEADS

FOR \$1.

On good paper, printed with name and address, post paid.

CANADIAN BEE JOURNAL OFFICE,  
BEETON ONT.

THE CANADIAN

## POULTRY REVIEW

IS THE ONLY PAPER PUBLISHED IN CANADA IN THE INTERESTS OF THE

**Poultry, Pigeon and Pet Stock Fraternity.**  
Circulation always on the increase. Subscription only \$1.00 a year. Address,

H. B. DONOVAN,  
20 Front St. East, Toronto.

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, Com Foundation, Section Honey Boxes, all books and journals; and every thing pertaining to bee-culture. Nothing patented. Simply send your address on a postal card, written by me  
A. I. ROOT, Medina, Oh

## Money Boxes for Sections.



These are of manilla and made to hold the  $4\frac{1}{2} \times 4\frac{1}{2}$  sections. When the comb honey labels A or B are used (as in illustration) an attractive and highly saleable package results. Price without tape handles, each 1 cent; 100, \$1.00; 1000, \$9.00.

The D. A. Jones Co., Ltd.  
BEETON, ONT.

## SEND US \$2.50

And we will send you a good serviceable man or boy

## Nickle Keyless Watch,

And FOREST AND FARM for one year.

The liveliest and Best Weekly Paper published in the Dominion. Send your address for sample copy and full particulars. Special terms to bona fide canvassers.

FOREST AND FARM,  
CHAS. STARK, Publisher, 50 Church St., Toronto.

## BEES 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

## BARNES' FOOT-POWER MACHINERY



Read what J. J. 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, 2,000 honey boxes and a great deal of other work. This winter we have double the number of beehives, etc. to make, and we expect to do it all with this saw. It will do all you say it will." Catalogue and Price List free. Address W. F. &

JOHN BARNES, 544 Ruby St., Rockford, Ill. 21

## SECTIONS FOR THE MILLION.

We are turning out sections at the rate of 10,000 per day right along, in addition to our regular hive and supply trade, and we are prepared to furnish them in any regular size and style in large quantities at very low rates.

Our prices are as follows:—

1000 .....	\$ 4 50
3000 .....	13 00
5000 .....	20 00
10,000 .....	37 50

All orders entered as received, and shipped with promptness. Order early, to avoid the rush. These prices are spot cash

THE D. A. JONES Co., LD.,  
BEETON.

Library of Parliament

303