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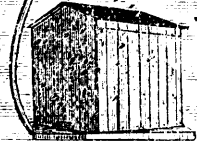
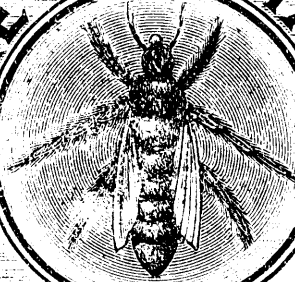
VOL. IV, NO. 47

1889

FEBRUARY 13

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.

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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
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"A Year among the Bees," by Dr		
C. C. Miller.....	1 75	1 50
A Bird's-eye view of Bee-keeping		
by Rev. W. F. Clarke.....	1 25	1 15

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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:

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 2. BEE-HOUSES, and how to build them, .15
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 5. FOUL BROOD, its cause and cure..... .10
- Or the whole five books, post paid, for..... .50
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We keep in stock constant and can send by mail post-paid the following:—

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 - QUINBY'S NEW BEEKEEPING, by L. C. Root, Price in cloth, \$1.50.
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 - 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.
 - QUEEN REARING, by G. M. Doolittle, price 10c.
- 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., LD., Beeton.

Barnes' Foot Power Machinery

See advertisement on another page. We have us arranged for the sale of these machines, and we can quote a price F.O.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 every one, 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.

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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.

	3 MOS.	6 MOS.	12 MOS.
6 lines and under.....	2.50	4.00	6.00
One inch.....	\$4.0	\$6.00	\$10.00
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Four inches.....	9.00	15.00	25 00
Six inches.....	12.00	19.00	30 00
Eight inches.....	15.00	25.00	40 00

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

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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-Keepers' Guide," monthly.....	1.40
"The Bee-Hive".....	1.25
"Beekeepers' Review".....	1.40
"Beekeepers' Advance".....	1.20
"Queen-Breeders' Journal".....	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

BEE-KEEPERS'

PRINTING.

We make a specialty of Apiarian 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—add 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 **specially** 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.

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.

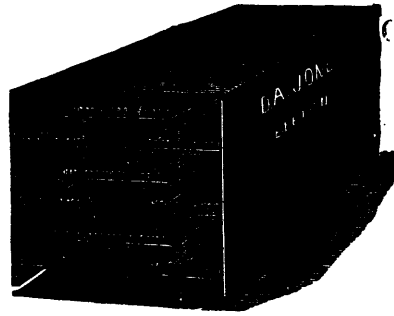
9 Cords in 1st HOUR.

BY ONE MAN. Greatly improved. Also **TOOL** for filing saws whereby those least experienced cannot make a mistake. Sent free with machine. To others, for common cross-cut saws, by mail \$3.00. This machine has 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 secure agency. No duty to pay. We manufacture in Canada. **FOLDING SAWING MACHINE CO., 303 to 311 So. Canal Street, Chicago, U. S. A.**

WHO WANTS BEES.

100 COLONIES for sale or exchange for anything I can use. All kinds of bee supplies for sale also queens for sale in season.

JAMES ARMSTRONG,
CHEAPSIDE, ONT.



FEEDERS.

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

THE D. A. JONES CO., LD.

BEETON, ONT.

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.

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. HERTEL, 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. VIALLO, Bayou Goula, La.
B. J. MILLER & CO., Nappanee, Ind.
J. MATTOON and W. J. STRATTON, Arwater,
Goodell and Woodworth Mfg. Co., Rock Falls, Ills.
J. A. ROBERTS, Edgar, Neb.
OLIVER FORSTER, Mt. Vernon, Iowa.
GEORGE E. HILTON, Fremont, Mich.
J. M. CLARK & CO., 1409 15th St., Denver, Col.
E. L. GOULD & 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. 47 BEETON, ONT., FEB. 13, 1889. WHOLE No. 203

EDITORIAL

HOW hard it is to convince some men. Just look at Heddon and Tinker for instance, the one cannot convince the other that he is the original sole and only originator of the perforated metal honey board. We think that—well possibly we had better not say what we think for fear we again stir up the slumbering fires.

* *

SHIPPING FOUNDATION IN JANUARY.

A couple of weeks ago we shipped 50 lbs. of foundation to a customer, during the very cold snap, and we received from him a day or two ago a card to the effect that he "received the foundation in first-class condition, not one sheet being broken." We often ship small lots, but not usually as large a package as the above, with success, and right in a cold snap too.

* *

Secretary Couse is now mailing Langstroth Revised to the members of 1887.

* *

A few weeks ago we remarked the absence of papers on bee-keeping at the Farmers' Institute meetings; since then we have received notification of several. Mr. W. D. Black read a very able paper before the Cumberland County Institute, Nova Scotia, which we would reproduce were it not so lengthy. We notice that Professor Saunders, of the Ottawa Ex-

perimental Farm, Hon. Hiram Black, of Amherst, N. S., and other prominent men were present and took part in the discussion. Professor Saunders enquired about the value of thistles for honey, and Mr. Black replied that there were not enough of them in Nova Scotia to admit of a test being made. Ontario farmers no doubt wish it was the same in their neighborhood. The Amherst *Gazette* publishes the paper in full.

OBSERVATIONS.

THE cut of T. G. Newman, so exquisitely printed by *Gleanings*, is horribly reproduced in the *C. H. P.*, and if Newman doesn't sue Holterman for pictorial libel he must be of a very forgiving nature. Poor Newman is made to look as though he had his "pictur' took" with dust blowing in his eyes.

Now that Rev. W. F. Clarke is president of the Provincial bee-keepers he will surely use his pen more freely than of late. I miss his always readable and interesting articles.

A farmer on whom I called a week or two ago told me how he wintered his bees last winter and it seems somewhat original to me. He had four colonies of blacks in Jones hives (beg pawdon, Mr. Hallamshire, I should have said "stocks") and shortly before putting them in cellar three were found to be queenless. Knocking the bottom boards from two spare hives, he placed them over the "stock" (ha! ha! Mr. H. B.-K.) that had a queen, and transferred the

bees and the best stored combs into this chimney-shaped hive. Four colonies in one and the propolised quilt and flat hive cover were left on, for this man is no advocate of upward ventilation, and the bees came through grandly. In the spring he divided them into three, introduced Italian queens, and had a fair increase if but little honey. He states his firm belief that the larger the colony the better, will it winter, and states that could he have devised means of wintering the queens he would have doubled up in similar manner last fall.

I must say I like the articles of that man from Hallamshire except when he gets so positively positive of the complete infallibility of his "law" of queen introduction. It may be alright nine times in ten, but the ultra-positive assurance he gave reminded me too much of a patent medicine advertisement, and I have not tried the "law" in consequence. But he is a good writer.

The English are troubled over various kinds of glass sections. Well, glass may not be very expensive in that free trade country, but on this continent we can take no stock in them, the cost being against them for one thing, and then again the snow-white basswood section gives universal satisfaction.

Reading my bee journals yesterday I was struck by the variety of premiums offered by the different publishers. The C. B. J. gives an untested virgin queen, the A. B. J. a quarter's worth of supplies, *Gleanings* offers 25 new bush lima beans, the *Advance* gives a machine for perforating a hen's foot. These are all the journals I get that are giving anything away, and surely there is sufficient diversity to meet every taste.

In the discussion now going on anent bees and colors, instinct seems to be lost sight of. I don't think that one color is more attractive to the bees than another, but the sense of smell seems particularly acute in the direction of nectar, and all the lower animals possess this in a greater degree as regards their own food than other objects. And no matter what the color of the flower provided it is secreting nectar the bees will find it, neglecting the gorgeous blossoms which yield none.

A personal friend who has been a student of the bee journals for years sends me the subjoined. He says: I have no wish to rival Canada's bee laureate, Rev. W. F. Clarke, and my

rhymes (?) may be rheumatic, but if they are not true don't use them. If a bee paper editor will send these lines to his correspondents they will have subject matter for a whole year:

In the bee paper's annual round
The same old topics can be found,
And regular as the seasons every year
These "dusty" stagers reappear.
Can bees hear? or can bees smell?
Do they store different honeys in one cell?
Do bees select with foresight charming
A home in summer before swarming?
Can the apiarist have more nectar stored
With or without the honey board?
In spring is stimulative feeding
Advisable to start the colony breeding?
Are races pure superior to crosses?
And how can we avoid our winter losses?
With variations these you are aware
Constitute our yearly bill of fare.
But tired out, sad, worn and weary
Are hibernation and the pollen theory,
And the hardest question now is how to settle
Who first made honey boards with perforated
metal.

OBSERVER.

THE BEE'S TONGUE.

A CORRESPONDENT of the *Fruit Growers' Journal* says: Dr. James McBride and I have just turned away from the study of the bee's tongue through the microscope, perfectly satisfied that the bee cannot penetrate the outer skin, or even the second skin of the grape. This is also the decision of the leading entomologists, and the scientists of the government have so decided. It would be precisely as if a painter should try to bore a hole through an inch plank with an ordinary paint brush, for the point of a bee's tongue is a microscopic brush, which, if pressed on the outer skin, would spread out like the brush of a painter, and refuse the desired entrance. But when the grapes here and there are pierced by other insects or birds, and most of the juice is left to rot in juxtaposition to the sound and unbroken grapes, the contagious rot would go on from grape to grape until the whole bunch would be ruined, were it not for the useful bee, which immediately plunges its brushy tongue into each orifice and extracts the yeasty must from the broken hull, and dries up in a short part of a day all the offending matter, and as a scavenger, saves the fruit from inevitable destruction. The bee is too smart to plunge its sting into a grape, and it is only to save or prolong life that it stings a mortal.

This should settle, once for all, the vexed question of the ability of the bee to injure fruits, as claimed by some prejudicial individuals.

PRACTICAL BEE-KEEPING.

BY D. A. JONES.

PAPER V.—CONTINUED.

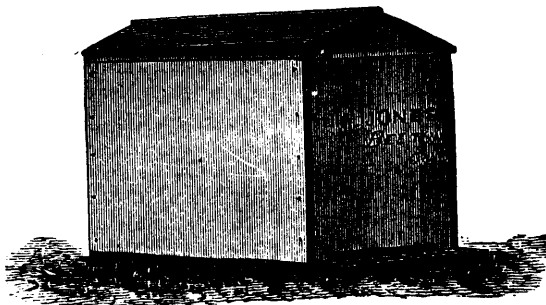
JONES DEEP FRAME HIVE.

THE next hive to which I will refer to is the one commonly known as the "Jones." It is probably the deepest frame hive in use, or ever put on the market, obtaining general popularity and large sale. It has perhaps as many good qualities as any of the other hives offered to the hive-purchasing public for ordinary purposes.

It is fully 25 years or more since I first saw and used the Langstroth hive, at that time we did not understand the art of wintering as well as we do now, and after thoroughly testing I decided that a deeper frame would be better,

BROOD CHAMBER.

There are nine pieces used in the construction of the brood-chamber of the hive, viz.:—two sides, seven-eighths of an inch thick, fifteen inches wide and nineteen and seven-eighths inches long; two ends seven-eighths of an inch thick, fourteen and three-quarter inches wide and thirteen and one-quarter inches long; one bottom board seven-eighths of an inch thick, thirteen and three-quarter inches wide and twenty-two inches long; one cleat for front of bottom board, seven-eighths of an inch square by thirteen and three-quarter inches long; one cover board flat three-quarter inches thick, fifteen inches wide



THE JONES SINGLE-WALLED HIVE.

and the outcome of my experiments was the "Jones" hive of the present day.

I believe I am safe in saying that no other hive has been in use as long, and been subjected to as few changes in construction, the only changes bring in the style of top-bar of the frame, and in the cover—and these are at the option of the purchaser.

I shall at once proceed to a description of the hive and make-up. It is of much the same length and width as the Langstroth, differing only in depth. The inside dimensions are:—Length 18 inches, width $12\frac{1}{2}$ inches and depth 15 inches. The measurement of the frames, as now made, is $10\frac{1}{2}$ wide and $12\frac{1}{2}$ inches deep.

and twenty-one inches long; two cleats one inch thick, one and three-quarter inches wide and fifteen inches long.

The sides are rabbeted out seven-eighths of an inch wide by one-half an inch deep at both ends, while the top of each side has a rabbet seven-eighths of an inch deep by one-half an inch wide, in which is a similar saw-cut to those mentioned as being in the ends of the Langstroth hive, into which the piece of metal, five-eighths of an inch wide is placed, and upon which the frames are supported. The ends are plain pieces, out of one of which (called the front end) the entrance, three-eighths of an inch wide by eight inches long is cut. The rest of the brood chamber is con-

structed after the same manner as the Langstroth.

We practice the same method of tonguing the cover as with the Langstroth.

In the engraving which we here present the hive is shown with the sloping or gable cover, which is made of seven pieces,—two roof boards, one ridge board; two gable ends, two sides. Either this style of lid or the flat one may be used, and both with good results. Both too have their advantages.

There are 3230 cubic inches of space in this hive. Bee-spaces are left at both sides and below the frames as is the case with the Langstroth.

JONES BROOD FRAMES.

There are twelve frames to each hive, each of which is fourteen and three-quarter inches deep and eleven and one-half inches wide, outside measure. Formerly we made what we called a V shaped top bar, but of late years none of these have been sent out. The time saved in fixing the foundation in the top-bar we now use is very considerable. I will therefore describe the late top-bar, passing the V style with what has been said. By referring to the drawing on page 807 a cross-section of the bar will be seen. Its full length is thirteen inches and before having the quarter taken out is seven-eighths of an inch square. Rabbits are made at each end of the top bar, one and one-eighth inches wide by one-half inch deep, thus leaving the width between the shoulders ten and three-quarter inches. In sawing the piece out of the top bars the table is so set that a thin strip is left by which the piece adheres to the top-bar, thus saving a great deal of labor when counting them out in filling orders. It will break out very easily. The side-bars are seven-eighths of an inch wide, fourteen inches long and one-quarter of an inch thick. Saw-cuts an inch deep are made in the bottom of the side bar, with a quarter-inch saw, into which the bottom bar, which is one-half an inch wide, by one-quarter of an inch thick and twelve inches long, is fastened. The bottom bar is, you will observe, just one-eighth shorter than the hive is wide, thus allowing nice play in slipping the frames down. There is, too, very little, if any, danger of

mashing bees or killing the queen when manipulating, as the projections on the bottom-bar always keep a bee-space between the edge of the hive. The ends of the side-bar, and bottom bar are all cut to point, so that when putting the frame into the hive the liability of killing or crushing the inmates is reduced to a minimum.

The exact inside measurement of the frame, as with the new top-bar, is ten and seven-eighths inches wide by twelve and five-eighths inches deep. Foundation will need to be cut thirteen inches scant if it is desired to have the frames full, right down to the bottom-bar.

Second storeys* and supers† are used on these hives just as on the Langstroth.

The second storeys are constructed exactly after the pattern of the brood-chambers, but are minus the bottom board, cover and entrance blocks.

The supers have the same outside dimensions as the body of the hive, varying in depth according to the system of taking comb honey which may be practised, and of which I will treat under that head.

DOUBLE-WALLED HIVES.

In Canada but very few double-walled hives are in use, as compared with the others, yet there are those who keep only a limited number of colonies, and who, owing to other duties, are not able to give their bees the same care and attention that do those who can devote their time and attention to them, and to such the double-walled hive answers a good purpose.

These hives are seldom used for other than wintering right on the summer stands. There are very many colonies wintered out of doors in clamps, which are simply double-walled hives requiring attention both spring and fall.

The double-walled hives which I have used, and which we now make for the trade, are the same dimension inside as the Jones deep frame hive. They have double walls, one inch apart, the space between which is filled with any

* By a second storey we understand a body equal in depth, size, etc., to the brood chamber, and containing the same number of frames.

† Supers are the shallow cases used to hold the sections. Half-depth frames are seldom if ever used in Canada.

fine saw-dust, chaff, or cork-dust packing. They are thus a safe hive for wintering, are cool in summer and warm in spring and fall. The temperature is always even and dry, the ventilation being perfect.

The cross section of the hive here shown will give a good idea of the mode of construction. It shows the frame hanging in the hive, the space occupied

the opposite direction, exclude rain, snow and sleet.

The corner-post is rather an ingenious constructed affair, cut out of solid wood.

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.

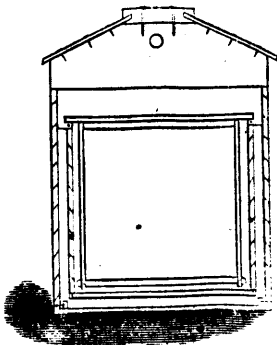


DOUBLE-WALLED POROUS HIVE, SHOWING PERFORATED METAL DIVISION BOARD.—WOODEN DIVISION BOARD OR DUMMY, BROOD FRAME, AND WIDE FRAME FILLED WITH SECTIONS.



CORNER POST (AND CROSS-SECTION) FOR DOUBLE-WALLED HIVE.

by the packing, and the method of ship lapping practised in the manufacture of



CROSS-SECTION OF D. W. HIVE.

the walls. The inner sides are beveled so that the moisture may escape with the packing; the outer walls, beveled

From the Bee-Keepers' Guide.
Winnowing the Chaff From the Wheat.

MUCH of the matter which appears in our literature to-day is put in to fill up the paper in which it is printed, and is tolerated by the editor from the fact that it is not always so that he can get the choicest news to literally fill all the columns of his paper. Then again, people do not read a paper alike, for what one man would not think was worth reading, another will read with keen relish, and call it good. However, notwithstanding this difference of opinion, and the chaff which must needs be put into our papers to fill up space, no one will probably deny that the literature of the day has much to do with our success as a people along the different lines of business, for the one who is the closest reader along the pursuit which he has adopted, is, as a rule, the most successful person in that business. In order that we may profit by what we read we must remember it at the time we wish to put it in

practice, and as much which is valuable in reading matter is published out of season, I find that it is more of a task to remember all of the valuable points which I read than my mind is capable of, so must have some means to help me remember what I wish to and that at the time I wish to put it in practice.

That I am not unlike others I am assured, by parties writing me often, asking where such and such a thing which I have written can be found, for they want to use it now, and trying to find it, cannot do so. While studying along this line a few years ago, and wondering how I could manage to keep track of the available points in what I read, and also how I could have them at "my fingers' ends" just when I wanted them, I decided on the following plan: I went to the store and procured a small blank book bound in leather with clean white ruled paper. This book I arranged similar to an assessor's book, which has the letters from A to Z on the outside margin of the leaves. Cut the leaves just as you would to letter them, but instead of lettering them, write on the little square of the first "Jan. 1st," on the second "Jan. 15th," on the third "Feb. 1st," and so on, giving one leaf or two pages for each half month, to the end of the year. When the *Guide* first comes it is carefully laid away in a place set apart for it, and the other bee papers which I take are treated in the same way, so that at the end of the year they are in perfect order to be bound, if I wish to have them. If I do not care to be to that expense, I bind them myself by driving wire nails through and clinching them so as to hold them together; or they can be secured in any other way to make them handy for future reference when we wish to refer to them. In reading, the most important part is to preserve the life or best part of the literature, and make good use of it, after we have it all preserved and in good order. With all of my cares I cannot find time to re-read the volume a second time to get the valuable part from what appears to be chaff, although some other person may think this chaff is just what should be preserved. If I were obliged to read all a second time to get the points I considered valuable, I fear that I should never get them at all. I read it all once and then I want it so that I can get at what is of use to me, in a moment, when wanted at another time. To do this, whenever I sit down to read a fresh paper, I have a pencil with me, and when I find a new idea or an old I wish to further experiment with, I mark it. In some instances the marks will embrace a whole, while others call attention to only a few lines. In future years, or at any time I wish to find that which is really valuable in my volume,

all I have to do is to read the marked passages and thus get the cream of the whole year in a little time. So far I could get along without the little book spoken of above, but it oftener than any other way happens that some of the best ideas are suited only to certain seasons of the year and that season is more than six to nine months from the time that I read it. As my memory is not sufficient for set times and dates, I must have some means to remind me of the valuable points just when they are of use to me, and this was what led me to get up a book like the above. This book is kept near the chair which I usually occupy when I read, together with a pencil, so that when I come to any passages, part of an article, or an entire article that I think will be of service to me, I mark it with the pencil and then jot it down in my book, under the date to which it is applicable. Thus I get all of the matter which I consider valuable to me contained in the numerous papers which I read arranged with reference to the time it is to be used, in this book. When January 1st arrives I look over all there is on this page, and for instance, find how to fix a saw so as to have it cut smoothly, as given in some one of the papers, in telling how to saw sections, which I read during the year 1888, and as this is the time I am using my saws in getting out sections, crates, etc. I try the plan by way of experiment, if I chance to find such a note regarding fixing saws, in this little book. To explain more fully: In one of the bee papers I find how to introduce a queen to a colony having just cast a swarm. As the last half of June would be the time I would most likely wish to use it, I turn to June 15th (by putting my thumb on that date when opening the book) and write giving the name of the paper, the year and the page, after which I say "how to introduce queen to parent colony." When this date (June 15th) arrives I look over all that is written there, and as I come to this, I turn to the place in the paper, and there is just what I want, at the right time, for the bees are already swarming and the nuclei hives have plenty of laying queens to spare. So I go to work and try the new plan on the morrow, when the first swarm of the day issues, trying the rest by the old way till I see how this works. If the new proves to be more valuable, I mark the words in the little book with a star; or, if worthless, I draw my pencil across the whole line, thus crossing it off. If I have made it plain, and I think I have, it will be seen that I have all of the wheat or real worth to me of many volumes in this little book, while the matter which is worth only once reading, or the chaff, is left out.

Different persons would make different selections, but the plan is a good one, and one which will be of great service to any who will follow it out.

G. M. DOOLITTLE.

Boronino, N. Y., Jan. 24, 1889.

From the American Bee Journal.

PRICE OF HONEY.

EXTRACTED AND COMB HONEY AT THE SAME PRICE.

ON page 20 occur the following words: "If there be anything to complain of, it was the action of those who first used the honey-extractor, in placing the price of liquid honey at a less amount than was asked for honey in the comb, with wood, wax and glass weighed up to the buyer! It would be a very difficult matter now to raise the price of the clean, *net*, liquid article—but at the outset it would have been an easy matter to have obtained a larger price for it than for that in the comb."

I produce comb honey nearly altogether, the higher price being obtained for it being my reason, perhaps coupled with the fact that for years I have made a special study of producing comb honey. But when you come right down to the intrinsic value of honey as an article of food, I think that I must always admit that the same honey is to me better out of the comb than in it. In fact I always prefer for my own eating extracted honey, if it is equal in quality to that in the comb, and I generally produce enough extracted honey so that I can have it on the table three times a day.

If I remember rightly, I have seen the ground taken that chewing the comb gives a piquancy of flavor, or a something that is wanting in the extracted. Take a nice section of honey, cut away half of it and get the free honey from it, either by running it through the extractor, or by pressing it out with a knife. Now you have a half section of honey in the comb, and the clear honey from the other half. If I eat a piece of the comb honey of the size of a hickory-nut, and then with a spoon eat the same quantity of the clear honey, I must say that there is something more satisfactory about the comb honey. What is it? It can hardly be a difference in the honey, for taking the honey out of the comb could not change its quality.

It is claimed that the wax gives the extra flavor. But the wax can give no flavor that it does not possess, and if the wax is chewed alone it has scarcely any flavor, certainly nothing remarkably fine. I cannot think any improved flavor is given by the wax. I think that the difference arises from the fact that in the one

case the honey is chewed, and in the other it is not; or, if you please, the comb honey is eaten, and the clear honey is drank. The act of chewing excites the flow of the secretions of the mouth, and this increases the pleasure of the taste.

When I have been extracting honey, I have found that nearly every one who happened to be present, liked to chew the cappings, and a good many of them thought the flavor better than that of honey in any other form. I think it was simply because there was more chewing.

I think, therefore, we must admit that it is pleasanter to eat the comb honey than to take the same amount of clear honey without chewing. But do we usually use the clear honey without chewing? Of course not, and the question is, not which tastes better eaten alone, but which tastes better eaten with bread or some other article of food. In that case one kind gets as much chewing as the other, and I doubt whether the advocates of the wax flavor can tell whether they are eating comb honey or extracted honey on their bread, except as they can *feel* the wax in the mouth. The wax is indigestible, and as ordinarily eaten I know of no advantage in having it present.

So I come back to where I started, that if the quality be the same in each case, I prefer extracted honey to comb honey. But that if comes in the case, and "there's the rub." In the majority of cases, the quality of extracted honey is *not* equal to that of comb, and indeed you cannot expect it to be, so long as raw nectar is extracted with the honey, and then no pains taken to ripen or improve it. I suspect that if the quality of extracted honey were always what it should be, that comb honey would be, to a large extent driven out of the market.

Then why should extracted honey command any lower price than comb? Some succeed in getting the same price for it, and it is the thought of a good many that it never should have been sold for any less price than comb honey. If a wrong has been done, is it too late to right it? Suppose we place the same price on each by raising the price of extracted and lowering the price of comb. My friends, the thing wouldn't work. The great law of supply and demand controls the honey market just as it does every other market. You will never again buy a buffalo-robe for as low price as formerly, because the supply has almost ceased. Some kinds of fur that formerly sold at a high price, although in no greater supply than formerly, bring a low price because fashion has forbidden their use, and demand has ceased.

But you say extracted honey as an article of food is of equal value with comb, therefore the price should be equal. I grant your premise, but not your conclusion. If you are correct, then I might say that cotton goods make better overalls than silk, therefore the cotton goods should be higher in price. The fact is, the two kinds of honey are to some extent independent of each other. If people find, in general, that extracted honey is not equal in quality to comb honey, the demand will be less. Then the appearance of comb honey on the table gives it a greater value in the eyes of many.

Now, please do not throw so much blame on those who have sold extracted honey at low prices. It costs more to produce comb honey than the extracted, and so long as that is the case, I think we will always find the price for comb honey higher.

C. C. MILLER.

From the British Bee Journal.

PLANTING FOR BEES.

THE question has often been asked, "Does it pay?" Well, it will and it will not, as the saying is. Before the apiarist spends any money in this direction, he should very seriously consider his own peculiar situation. The possibility is that if his district really will not support his apiary, it will pay him better to move his apiary to where it will have a chance of giving satisfactory results.

But, on the other hand, a district can often be greatly improved over a term of years by the expenditure of a little time at a slight yearly cost, especially if there happen to be much waste land in the vicinity. Meadows can be improved by scattering a little white clover seed as opportunity offers. Neighboring farmers may be induced to grow alsike in the place of, or mixed with, red clover, especially if the bee-keeper is prepared to pay the cost of a portion of the same. Odd corners or rough land can generally be utilised by sowing mellilot clover, particularly if it happen to be along lanes, by the roadside, or where deep cart ruts are made over ground not actually in use. Clover is very partial to road-grit, and we have known a very heavy growth of white clover come where the grass-land had been dressed with this material, and at no cost whatever for seed.

According to present experience, we should say it does not pay to cultivate land for bees year by year, but where it can be had at a very cheap rate, and a crop is put in (carefully in the first instance), that will afterwards take care of itself, such as mellilot; then, without doubt it will pay well.

Small garden crops of course are simply valueless to the large apiarian for honey, but it is a pleasure to many to make a collection of such plants as bees appear to like, giving a small space to each variety, and we have no other wish than to encourage this commendable hobby.

It must not for a moment be supposed, however, that these patches will offer any real test for arriving at the most desirable plants to be cultivated for the production of honey on a large scale. The very plants the bees appear most fond of are too often such as it would be utterly impossible to cultivate on a large scale, while the patch that now is neglected as a miniature crop, if grown by the acre, would be visited by tens of thousands, while the winged workers would simply 'roar' as they pass to and fro from the apiary in one continual stream.

We have then to look to what will produce honey on a large scale at the least cost in rent and labor when the desirable plant has no other use; and the land so occupied has no higher value; while those who have the means of growing crops for hay can certainly make it to their own advantage to accommodate the bees at the same time, and thus secure the best results in a double harvest. In the case of crops left for seed, there can be no question as to the great benefit and more certain profit to be secured from the flowers being freely visited by the hive bee, and so ensuring the fullest possible fertilization of the bloom, and consequently heavy crops of fully developed seed. On the other hand, when wanted for hay of the highest quality, it must be a consideration whether it will pay better to let the crop stand a few days longer for the benefit of the honey crop or be cut immediately the earlier bloom begins to fade. This is a rather a delicate question, but one we should not hesitate to decide upon in favor of the bees on the one condition that the best of weather prevailed, and they were making such good use of the time as is well known they can do as occasion offers.

We have considered the question of "planting" in so far as it relates to honey, but while a large crop only is of use for that purpose, the quantity of pollen that is obtained from a small bed of certain plants is something considerable. Nevertheless we question if many bee-keepers really have any need to grow for this purpose, seeing how freely this article is generally brought in. Wallflowers yield pollen early in considerable quantity. Crocuses we cannot recommend after an extensive experience, and we mention the fact as so many have thought highly of them. They come early, and that is nearly all we can say for them, as we have watched bee after bee

and have been surprised and really disgusted to note the very long time it took to get a load, contrasting very unfavorably with the work done on wallflowers and mustard, which latter we can recommend as a plant that can be brought in to suit almost any district at a time of scarcity. Rape sown during the previous autumn will give an unlimited supply of pollen from the end of April, earlier or later, according to the season, for three or four weeks just at the right time; but for the most part bee-keepers can use their own judgment, bringing into bloom what is likely to prove more serviceable at a time of scarcity, according to their respective needs, while plants grown especially for honey may, in many cases, be made to bloom several weeks longer than is naturally the case, by a judicious pruning of the fading flowers, or partial cutting of the crop, as the case may be.

Read before the Maine Bee Keepers' Association at Brunswick, Jan. 8-10, 1889.

COMB HONEY.

SOME PRACTICAL POINTS IN ITS PRODUCTION.

THERE was a time—way back so far that we don't care much about it now—that honey formed the great sweet of the world, and it held its place in the affections of our old-time esteemed relations up to a little matter of time of about 200 years ago—more or less, a few years either way don't make much difference. The production of cane sugar and syrup by the labor of the slaves in the seventeenth century—our remote relatives hadn't begun to imbibe the great moral lessons taught by the bees—had, in a great measure displaced honey as an article of food, and while our several times great grandfathers quite readily caught on to the idea of manufacturing sweets themselves from the products of the fields in the sugar cane, they had the most ridiculously absurd notions concerning the wonderful little bee, that hasn't changed a whit in its instincts, habits or want of respect for its friends.

Hence, while the bee was just as wise then as to-day, and laughed out of both corners of her mouth at the old-time obtuseness of our relatives in missing the real business end of the bee,—for which, as now, they often gave emphatic pointers, for this reason slow progress was made in improvements in bee culture, and instead of increasing the number of colonies, there were annually thousands of them destroyed with the brimstone match, in order to secure their honey. So, on account of this wholesale destruction of bees and a lack of a proper knowledge of their instincts and their successful management, honey

fell into comparative disuse for many years. And this state of things continued, with only slight improvements up to within a quarter of a century ago. Since that period the most wonderful strides have been made, both in the science of bee-keeping and the appliances used in their successful management.

These wonderful improvements, and the close study and painstaking experiments, Yankee bee-keepers have adopted, have been the means of increasing the amount of honey production immensely, and if this production continues to increase as rapidly during the next ten years, as it has in the last decade, may we not reasonably expect that honey will take its place among the leading products of this country.

STRENGTH OF COLONIES.

A fundamental principle to be observed in the production of honey in either form,—comb or extracted,—is strength of colonies. And I would, if possible, make provision for the contingency of weak swarms in spring by having all stocks go into winter quarters strong in numbers. There are extremes to be avoided in both ways—too large colonies and too weak ones.

I mean by that that the abnormally large swarms we often find in the apiary where a part or all, has been run for extracted honey, are not the best to winter, unless special provision is made in order to get them through and then, my experience has been that it is better to divide such swarms immediately after the summer harvest is over, giving a laying queen to the queenless portion, and build up two swarms for winter in lieu of one. There is a strong liability that the large mass of bees in such a colony, left undivided, will die before spring, while on the other hand, the two medium ones, if properly taken care of, are pretty sure to survive the winter months.

These medium populous colonies in the fall—which may be called strong ones—as a rule, are the ones which will come through the winter when wintering in a good cellar, nearly as strong as when they are put into winter quarters in November. This may be accounted for on the supposition that early breeding commences and their numbers are kept up by production of young bees. Now I know there is a point for discussion here; some of our best apiarists believing that it is injurious to the future prospects of the colony to have the queen commence laying before March or April. But it is needless to remark that it is the strong swarms which store the surplus honey in June and July, and take advantage of the white clover harvest. Then the question arises: How shall we attain to this maximum strength of colony unless we

can start with strong stocks when set upon the summer stands from the cellar.

Now, on the other hand, a weak swarm put into winter quarters in November or December, will be weakened in April or May. A little patch of brood will probably be found in such the last of March. Such swarms cannot be expected to begin work in surplus cases at least, until seven frames of the Langstroth size are pretty well crowded with bees. Ordinarily this cannot be accomplished till the summer honey harvest is well advanced, unless such colonies are helped by stronger ones; and this is hardly a paying method.

All of our considerable apiaries contain more or less colonies of bees, which do not come up to the standard of honey production that others do. I know there are causes, other than the one I have set forth, to which the difficulty may be attributed in part. These are—some of them—want of prolificness in queens, disease in winter depopulating the colony; loss occasioned by age of bees, etc.

Then, if my premises are sound, the first point to be considered in the production of comb honey is the oft repeated injunction to have strong colonies in the spring, and to accomplish this we must adopt a plan at the close of the preceding honey harvest, to insure strong colonies of young bees to place in winter quarters.

GETTING OVER A DIFFICULTY.

Spring now comes with its vicissitudes. The fact is generally admitted—disbelievers can learn by experience—that bees wintered indoors are more subject to loss by spring dwindling than those wintered out of doors. To obviate this as far as possible, it is best to keep the bees in the cellar till the first of May, if they can be kept quiet. There are exceptions to such a rule, for sometimes our seasons give us warm weather, and that continuously from the 15th of April. The two past seasons, early May brought cold weather, which the bees could have passed to better advantage in the cellar rather than nosing around the willows with overcoats and mittens on.

The question of stimulative feeding in spring is one of importance. There is no question but such feeding has an effect upon the colony in quickening their energies and giving them the impulse of breeding. This impulse is not confined to the queen alone, as some people seem to believe, but the energising influence pervades the whole colony. The question of feeding in early spring to induce breeding is one which needs to be carefully considered, because it is easier to do more harm than good by adopting

the practice. I believe it better to feed in September for spring strength than in the following May, unless it be the very last of the month, as the seasons latterly have come to us.

TUCKED UP WARM.

But there is one thing that is always in order in early spring; and that is, to take every precaution possible to retain the internal heat of the hive and prevent ingress of cold from without. The bees have this provident care inherent in their nature, as is shown by their care in sealing up all cracks and crevices in every part of the hive before the advent of cold weather. The moving of hives in spring, and manipulating them from the top, as each hive should be when placed upon the summer stands, so far as is necessary to clean out all dead bees and remove mouldy combs, and to contract the brood next to proper size for the colony. These manipulations necessarily sunder the carefully glued joints and crevices, leaving numerous ways for cold to creep in and warmth to escape from the hive.

This may be quite effectually prevented by the use of cushions, dry chaff and leaves; the latter is always preferable to chaff. Extra pains to tuck the cushion and quilts down and not be sparing of the amount put on through May, will pay for the trouble.

For the reasons just stated, I would as far as possible winter bees in chaff hives, or change to such as soon as practicable in May. The chaff hive as now made is superior to the single walled hive. To our friend E. P. Churchill, of Hollowell, I believe, belongs the credit of making improvements in the chaff hive which places it ahead of any single walled hive I have used for the production of comb honey.

A QUESTION OF JUDGMENT.

Given a certain number of strong swarms of bees in spring, how shall they be worked to produce the largest amount of comb honey? This question is not so easily answered as it might at first seem to be. But ordinarily I believe it profitable—the honey flow of course being good—to let one swarm issue, allowing the parent swarm to raise a queen, destroying all but one of the queen cells about the fifth day after the swarm issues. Previous to swarming, however, when seven or eight frames are well filled with brood and the bees seem disposed to build bits of comb in all available spaces the time has come to put on surplus cases.

Now we will say that five swarms are each in seven frames and ready to receive sections for the storing of surplus honey. The season is now advanced and weather warm so the brood

we have to take from the hives to reduce the brood nest will not suffer from exposure.

Each hive is opened and reduced to six frames, leaving those best filled with brood and eggs. Those frames taken out may be placed in a hive with a portion of young bees adhering to the combs, and form a new colony. At the expiration of a couple of days a laying queen may be given this hive—ordinarily she might be introduced at once—which will be ready in three or four weeks, or so, for a section case, and will send off probably a young swarm, which would be made to stay at home, or equivalent to that, of which I will have more to say about subsequently.

A CLEAN SHAVE.

The old hives now have six frames which should be carefully shaved, over the portion containing honey, to seven-eighths of an inch, and spaced in the hives to bee-space—three-eighths of an inch. If the frames are fixed with reversible attachments—as I would have them—reverse the frames and use a dummy on each side so the surplus case will fit without leaving any open space. 24 or 28 pound sections supplied with thin foundation sheets are enough, and perhaps if half the number could be so arranged to place on at first it would be better than the larger number. After these sections are all filled with comb, and two-thirds of the upper portion capped over, this case may be raised and another case of the same size placed upon the brood frames. A wide frame containing eight sections may be placed each side of the brood frames—removing the dummies—but I should expect they would be immediately filled with eggs by the queen.

If the honey flow is copious, our five stocks will each send out a new swarm by the 10th of June. Hive them upon empty combs or sheets of foundation, and, if preferred, the new colony formed by frames of brood taken in reducing the old stocks to six frames when putting on the section cases, may be drawn upon to the extent of a frame for each new swarm, replacing the frame so taken by empty comb or foundation, which the laying queen will quickly occupy.

Restrict each stock to sending off one new swarm, and these new ones not to be allowed to swarm at all. Such first swarms will probably swarm in about four weeks. Let the swarm issue, hive in the ordinary way, place on a new stand a little distance from the former stand, and run the frames from parent colony, bees and all, into the new hive, in the new location; place on the surplus case, and things will be likely to go on through the season without mere trouble by swarming. If they do swarm out again, after a couple of weeks, run them over again, and keep to work in surplus room.

The old stock, having all queen cells but one removed, five to eight days after sending off, the swarm will very likely swarm again, in three or four weeks, when they, too, should be changed over as described for the others.

SOME ADVANTAGES.

Objections may be raised to this plan on the ground that if one has a large number of colonies, it is undesirable to increase as fast as this method contemplates.

In rebuttal it may be urged that, as a rule, the old stock and one new swarm issuing from it,—all things being favorable,—will store more honey than the old stock alone, prevented from swarming. Again, the method I have given somewhat in detail, contemplates putting only strong stocks into winter quarters. Reduce the number of colonies by doubling up at the end of the honey harvest; make sales of stocks according to value, reserving the best for yourself as you would select your sheep and lambs, keeping the best yourself and turning the inferior ones to the butcher at what they will bring.

But this course of allowing the old stocks to cast a swarm need not be followed, if one is satisfied with the product of that. By running over the combs and changing to new locations two or three times, the increase probably would be largely checked, if not entirely prevented.

INCREASE OF COLONIES.

If one has but a small number of colonies and wishes to increase as fast as possible and yet get as large amount of surplus comb honey as possible, I know of no better plan than the following:—

We will say the apiarian has four colonies. By the methods I have given, encourage breeding in the spring and when the times arrives for putting on surplus cases contract the brood apartment to five or six frames, shaking off nearly all the bees from the frames removed, and place them in a hive with a laying queen. Shave all brood combs to $\frac{7}{8}$ inch and space to $\frac{3}{8}$. When the old stocks send off new swarms capture the old queens and return them to their respective hives, supplying their places in the new season with young, laying queens, which can be introduced at this time without much danger. Remove all queen cells from the old stock to prevent after swarms and let brood rearings proceed. By this method in a good honey flow, colonies may be increased very fast and a good amount of surplus honey be obtained.

The plan of shaving the combs to $\frac{7}{8}$ inch thickness and spacing the frames to bee-space I believe to be of considerable importance. The idea was not original with me, but as far as I know to Mr. E. P. Churchill belongs the honor of first giving this method to the bee-keeping world through Maine's great newspaper the *Lewiston Weekly Journal*.

USING THE EXTRACTOR.

Can the extractor be used to advantage in running an apiary for comb honey, by extracting the brood frames when putting on the surplus cases? This is a question I am not fully prepared to answer either way, and certainly not in the negative. I have used the extractor in that way and thereby secured a good amount of honey, but it is generally a mixture of fruit-bloom and clover honey, neither one or the other. On the whole, I am not sure but as good results will be obtained by letting the honey remain in the combs when manipulating the

hives for the surplus cases. The theory is that in shaving and spacing the combs and reversing them, the bees will carry the honey from the brood frames and deposit it in the sections. I am inclined to think that this is generally true. Then if one cares for sameness in quality of his comb honey it is better to extract the mixed honey and secure the pure article from the clover bloom.

SUNDRY SELECTIONS.

THOMAS C. HINDSON.—In your last week's issue of C. B. J. my report of season's crop should have read "I took 400 lbs. of extracted honey from six hives," and not "from the new colony" as the report reads.

Brooklyn, Feb. 4th, 1889.

FED THEM ALL FOR WINTER.

ALLEN LOUGHREED.—My bees did not gather enough to winter on, and I had to feed them. They are all keeping very quiet. I have nine in cellar and three outside. My O. B. K. A. queen did very well.

Britannia, Feb. 7, 1889.

POLLEN GATHERING NO SIGN OF QUEENLESSNESS.

P. L. BLUHM.—If bees carry in pollen in the spring or summer, is that a sure sign that they have a queen? If not, by what means can a novice ascertain without opening the hive that they have or have not a queen?

Bees will carry in pollen whether they have or have or have not a queen, but with one will gather it in greater quantity.

THE JUDAS TREE.

JOHN YODER.—A friend from Colorado has sent me a pound of Alfafa seed, when is the time to sow and is it a good honey plant in the country? A minister last night when preaching was trying to illustrate deceptiveness and he said there was a tree called the Judas, very lovely in appearance and very aromatic, attracting bees and other insects to it, but when said bees partook of the poison nectar they died suddenly and the ground around the tree was covered with them (dead bees). I told him after the meeting that there was no such tree, and if there were the bees would not be fools enough to go to it: Do you know of such a tree.

Springfield, Jan. 27th, 1889.

Chambers' Encyclopedia says:—Judas Tree (*cercis*), a genus of trees of the natural order *Leguminosae*, suborder *Cesalpinae*. The common is a native of the south of Europe, and of the warmer temperate parts of Asia. It has orbicular, very obtuse leaves. The flowers, which are rose-colored, appear before the leaves. There is a legend that Judas

hanged himself on a tree of this kind. The American J. T. (*C. Canadensis*), is very similar, but has acuminate leaves. The flower-buds of both species are frequently pickled in vinegar." It is commonly known we believe as "Red-berry" in Canada, and is a species of laburnum and though we cannot speak of its nectar yielding properties the fact that its flower-buds are used for pickling gives emphatic denial to the statements made. Probably he had reference to the Upas tree, which is popularly supposed to be poisonous to all animal life, but in reality is not.

PETER BRENNAN.—I have twelve colonies of bees in a milk house. It freezes when the weather is cold in it, and we keep a stove in it and heat it up twice a week, and still they seem to mold a little around the entrance. Will it damage them any? If so, what will be my best step?

We would not attempt to winter colonies in such a place. Have never found anyone to succeed well in a repository where it froze every time the weather was cold. Then warming them up twice a week is not a good plan as it agitates them. Bees should always be kept in a repository which does not freeze, and the temperature kept as uniform as possible. I think you would succeed better if you would place them in a cellar, if you have one, if not I would prefer to raise the temperature to about 50 then pack them in chaff. If you had packed them in chaff outdoors, last fall, we think it would have been much better, but as you succeeded there last year we hope you may this, but now should keep the temperature as near 45 or 50 as possible, and by keeping them packed in chaff, the sudden changes of heat and cold will not effect them, their own heat would be retained.

Will it hurt the bees any to clean the dead bees out of each colony?

With a crooked wire you can remove the dead bees without destroying the others.

What honey plant would be best for me to use, and where can I get it?

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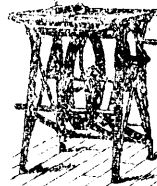
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