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THE CANADIAN BEE JOURNAL

WEEKLY.

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

VOL. I. BEETON ONTARIO, FEBRUARY 3, 1886 No. 45

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All advertisements will be inserted at the following rates:

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TO CONTRIBUTORS

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

Beginners will find our Query Department of much value. All questions will be answered by thoroughly 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.

PUBLISHER'S 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.

JOURNALS will occasionally be lost in transmission through the mails. We are always ready to re-mail such when notified of the loss.

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

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

ERRORS.—We make them: so does 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.

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Its Management and Cure.

BY D. A. JONES. NOW READY.

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

Price, 10 Cents. By Mail, 11 cents.

D. A. JONES & CO., PUBLISHERS,
Beeton, Ont.

FEEDERS

Those who require to do feeding will find it to their advantage to have some of our

CANADIAN BEE FEEDERS

You can feed 15 to 20 pounds of syrup in one night, and there is no danger of robbing. The price is low, and the sale is very active. Our factory is running on them at the present time.

Made up, each.....	5	60
" " per 100	45	60
In flat, each.....	40	
" " per 100.....	30	00

We can guarantee that they will give satisfaction.

D. A. JONES, Beeton, Ont.

1886. ITALIAN QUEENS. 1886.

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

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FARMERS BUY THE CELEBRATED LARDINE MACHINE OIL,

AS IT EXCELS ALL OTHERS.

Manufactured solely by
McCOLL BROS.,
Toronto

DADANTS FOUNDATION

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

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

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

150 COMPLIMENTARY

and UNSOLICITED TESTIMONIALS from as many bee-keepers in 1885 We Guarantee every inch of our Foundation equal to sample in every respect.

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

MUTH'S HONEY EXTRACTOR

Is second to none in the market. Square Gear, Honey Jars, Tin Buckets, Langstroth Bee Hives, one-piece Sections, etc., etc.

Circulars mailed on application. Send ten cents for 'Practical Hints to Bee-keepers.' Address

CHAS. F. MUTH & SON,
976 and 978 Central Avenue, Cincinnati, O.

EVERY

Farmer, Fancier, and Poultry-Keeper

SHOULD SUBSCRIBE FOR

"The Poultry Monthly,"

The Best Magazine of its Kind.

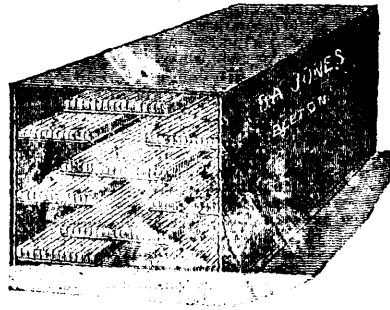
Subscription, \$1.25 per annum. Sample copies, 12c

SPECIAL OFFER.—We will send the "Monthly" for a full year for \$1 to all who mention the "Canadian Bee Journal." Send for price lists of Poultry Supplies.

BONNICK & HERRICKS,

P. O. Box 215,
Toronto, Ont

WINTER FEEDERS.



These are for feeding in winter, or at any other time when the weather is too cold to admit of feeding liquids

DIRECTIONS FOR MAKING THE CANDY.

Take pure pulverized, or granulated sugar—the former preferred—and stir it into honey, nicely warmed up, until the honey will not contain further additions. Allow it to stand in the dish until both are thoroughly mixed through each other, then place in feeders and set them on top of the frames, packing all around nicely to allow no heat to escape.

Each, made up	30
Per 10, "	75
Each, in flat	30
Per 10, "	1 75

We have a full stock on hand ready to go by return express or freight.

D. A. JONES, Beeton

Five Per Cent. Discount.

Off all goods which may be ordered now for use next season we will give the above discount. This is to induce early orders and in case you need anything for this season, you could save freight charges and the discount by ordering ALL TOGETHER. Will be given till further notice.

D. A. JONES, Beeton, Ont.

THE CANADIAN BEE JOURNAL.

PUBLISHED BY

JONES, MACPHERSON & CO.,

WEEKLY - - \$1.00 PER YEAR

D. A. JONES, - - - - - EDITOR.

F. H. MACPHERSON. AS'T ED'R, & BUS. M'GR.

FOR THE CANADIAN BEE JOURNAL.

THE INDIAN AND COLONIAL EXHIBIT.

I AM in receipt of a number of letters asking if those who intend to exhibit honey at the Indian and Colonial Exhibition of the crop of 1886 should fill out blank forms sent them by the Ontario agents. I always answer "yes! you had better do so" stating at the same time that the honey will be of the take of 1886.

Now I confess that things look a little mixed. If the 4,000 feet of space really belongs to our Association, and doubtless it does for Mr. Jones handed said space over to our Association and so stated the case to the Ontario Agents in the presence of quite a number of said Association, the said agents fully understanding and agreeing to the transfer. Now this being the case why should we still apply for space for we were distinctly informed by the said agents that we could have no more.

If I understand the matter the said space now belongs to the O. B. K. A. to be occupied by Mr. D. A. Jones and others who may wish to exhibit of the crop of 1885, until the crop of 1886 arrives at Kensington; then the management of the space will be in the hands of the five commissioners elected for that and other duties.

But as the Ontario agents wish each exhibitor to fill up and return blanks asking for space, so far as I see we had all better do so at once.

If there are any that expect to exhibit and have not received blanks please send me your address and I will have blanks sent you.

S. T. PETTIT.

President O. B. K. A.

Belmont, Ont., Jan'y. 28th '86.

We have been waiting to hear what the president and Chairman of the Commission had to say regarding the blanks which the Ontario Agents were sending out, as we to have had several communications from intending exhibitors on the same subject; and we would not offer our ideas on the subject until first hearing from friend Pettit. Do you not think that if the chairman of the Board of Commissioners will, in the name of the Association, fill out one blank for

the 4000 feet, and forward it to the Ontario Agents, the whole difficulty will be overcome; explaining at the same time that the individual exhibitors will deal with the O. B. K. Association Commissioners in the matter of the quantity of honey, etc., which they are to show. We consider, and have considered from the time we handed the space over to the O. B. K. Association, that we had nothing further to do with it than was allowed us by the commissioners. We were not under the impression that the space was to be under our control until the crop of 1886 was ready. We offered to furnish supplies, honey plants, etc., to assist in filling the space until the said crop was ready, but supposed that this would be *in conjunction* with other supply dealers, and with those who had exhibits to make which could be sent on *at once*, such as granulated honey, etc. We are willing to do all we can to make a creditable display, but the Commissioners must consider the matter entirely in their own hands, and the responsibility of the whole exhibit must rest with them. Friend Pettit, is Chairman of the Board of Commissioners, and *all communications* should be sent to him. With regard to the filling out of the blanks, we wish it to be understood that it is only *our* opinion which we have given, and that quite possibly we are wrong.

WINTER MANAGEMENT.

To the Mount Forest Bee-Keepers' Convention Greeting.
DEAR MR. DAVISON AND FRIENDS:

IN response to your invitation to contribute an essay to your meeting on any apian subject I might choose, I beg to send first my cordial greetings and along with them a few thoughts on the above subject.

As the articles which appear in our bee journals from week to week and month to month are, many of them, behind time, or rather out of season, I have determined to place "Winter Management" at the head of my paper so that any practical suggestions I may make here will be at least on time and in season. Our bees are now in winter quarters, or fixed up outside as the case may be, and any mistakes we may have made in that important part of our work as bee-keepers will likely remain uncorrected so far at least as this winter is concerned. But the management of winter quarters and spring is now immediately before us, and we all wish to meet this work with as much light and as little liability to further mistakes as possible. And even mistakes made on fixing the bees for this winter may possibly

yet be in part remedied or mitigated provide they are distinctly seen and irradiated by the remedial light. You all know how much more apt we are to act upon present light or recent freshly-impressed knowledge, than upon that, which has become stale. In reading your journal, for instance, you have noticed some particular point in a valuable article, and made a memorandum of it for future reference, and which you deemed especially useful and worthy of remembrance, but which was greatly out of time as perhaps six or nine months had to pass before you would require to utilize the fact; but amidst the succeeding rush of reading, thought and work, you lost sight altogether of the important point and perhaps never again referred to it or used it at all unless, indeed, it had been indelibly stored away in a good memory. These facts ought, in my opinion, to decide the character not only of the subjects discussed at bee-keepers' conventions, but also the chronological order of articles in our bee-journals. What I mean is this: Conventions at this season of the year should discuss topics relating to immediately approaching work; Conventions in the spring should discuss spring and summer management; Conventions in the summer should discuss fall management; and fall Conventions winter management. The Journals should do the same both editorially and by their contributors. The CANADIAN BEE JOURNAL is setting a good example to the older journals in this respect. The timely knowledge thus given, either by the listener or reader, would be immediately available and would be much more likely to be reduced to practice.

Now about this winter management which is no doubt a somewhat novel idea. Some of you will probably say there ought to be no winter management, that "letaloneativeness" is the proper winter management. Well, so far as disturbing the bees more than is really necessary is concerned, "letaloneativeness" is the best winter management; but at the same time I beg to remind the letaloneative objector that he might better disturb the bees a little and save them, than to let them die undisturbed. Of course needlessly disturbing and pestering bees in winter quarters out of mere curiosity or impatience is quite another thing, and ought always to be discouraged. I knew a bee-keeper who used constantly to be bothering his bees in winter. He would go into their apartment every day or two with light in hand just to see you know "how they were doing and getting along." He gave this up in due time; not, however, till he had paid the penalty for this meddling curiosity.

This question of wintering and winter management, especially the wintering, is a vexed one and a hackneyed one, and there is indeed a

multitude of counsel." I do not much wonder that novices (and indeed older heads) are utterly bewildered at their lessons in this department of bee-culture, and stand dumbfounded in the presence of "confusion worse confounded" which confronts them and paralyzes them. When the doctors seem to differ so widely and pull asunder so vigorously how can the poor, inexperienced neophyte decide? Or how can he tell whom to follow? So he cogitates, and then slowly puts forth his hand in fear and trembling, for no matter what he does or how he does it, he thinks he is running counter to some authority, or doing violence, if not to the sapient theorist himself at least, to his *dictum* or hypothesis. If he has put his bees away with pollen in the hives he does not know whether he has done right or wrong. If he has put them away without pollen he will be equally in the dark as to the wisdom of his course. Whether he has them in a cool place or a hot place, a dry place or a damp place, it is all the same, so far as to his feeling any certainty that he has done the right and proper thing. And whether it was the right thing or not to give them sugar syrup for winter food with or without pollen, or honey for winter food with or without pollen, he knows not. Whether he has given them "upward ventilation" or not given it them; whether he has given them a "shaft" of cold air from below so that they can "hibernate," or whether he has not done so; whatever he has done and however he has done it, his poor heart is ill at ease all winter lest he has done the wrong thing. However, nevertheless, this mass of theory, dogma, experience, and fact is not so chaotic after all as at first sight appears. Whoever is well grounded in a few first principles of the science and art of bee-keeping will see order through the disorder, and be able to reduce to coherence the apparently incongruous elements. When the dogmas are utterly cast out, the experiences properly interpreted, the facts generalized, and the theories duly tested and verified then "order will reign in Warsaw," and we will indeed have a splendid science of apiculture handsomely and profitably reduced to practice. The great trouble with us at present is too much "oneideism," and too many "hobby horses." Bee-keepers are almost all enthusiasts—proverbially so—and enthusiasm on almost any subject as naturally tends to ultraism of thought and speculation as a duck gravitates toward a pond. And accordingly we find the bee-keepers going off in mental tangents towards all points of the compass. Brother Heddon mounts his "pollen" horse; brother Clarke mounts his "hibernation" horse; brother Barber mounts his "high temperature" horse prancing off at 90°; brother

Jones mounts his "young bees for winter" horse, and off they all go on a canter. But we, slower coaches, on *terra firma*, can only cry out "hold on gentlemen, not so fast!" We catch the horses by the tails and call out "whoa!" We are quite willing, men and brethren, that your steeds should have considerable motion and just a little locomotion, but we object to their running away with the cart and spilling the honey and dumping the rider off. Take your time, gentlemen, and let all the other horses also get into line, and then by careful driving with every horse in his place the cargo will be safe and nobody hurt.

There is truth in the pollen theory; there is truth in the hibernation theory; there is truth in the high temperature theory; there is truth in the young bees for winter theory, and every wise apiarist in wintering his bees will only consider each and every one of them and give to each and every one of them its proper weight and place. But to build any one of them up into a big hobby horse and place any one of them as the "be all and end all" of wintering conditions, is like the Hydropathist making water the Alpha and Omega of all medication—the panacea for all human ailments. In both cases we have "one-ideaism," pure and simple. In Therapeutics the "Water Cure" bears the same relation to Hygieo-Therapy that the pollen theory or hibernation bears to the wintering department of bee-culture. Water is an excellent remedial agent no doubt, but is only one of several agents equally important, such as air, diet, exercise, etc. Pollen, hibernation, temperature, young bees, are all of them important factors as entering into the wintering problem; but no one of them is of such importance as to overshadow other agents equally essential. Neither the presence nor absence of pollen is indispensable to successful wintering if the other conditions are favorable. Neither the presence nor absence of hibernation is indispensable to successful wintering, the other conditions being all right. (I hear Mr. Clarke replying "if the other conditions are all right the hibernation will naturally follow. But hold! *Quod erat demonstrandum.*") Furthermore bees can be wintered successfully at 40° of temperature or 80° of temperature outside the hive if the conditions within the hive are right. So also can old bees as well as young bees be wintered successfully, though I confess I prefer the young bees. Perhaps it is not quite fair to place brother Jones on this hobby-horse, but we all know what a great stickler he is for "plenty of young bees" to go into winter quarters.

Now, we come to the winter management, and please bear in mind I do not intend to include much manipulation in the word management as

used here. Of course winter manipulation sometimes becomes absolutely necessary, as to dislodge vermin, ascertain condition of dubious stores, treat disease, etc. But by far the most important part of winter management (provided the bees have plenty of stores) is management of the repository or rather the temperature of the repository. Are your bees in the cellar? No doubt most of you winter in the cellar. If so, they ought to be in an apartment by themselves, partitioned off, *under the kitchen stove*. So that they will not be disturbed every time you take a light into the cellar. The partition serves other useful purposes besides excluding the light. Of course if the partition is not there you cannot now put up a permanent one without disturbing the bees too much, but you can put up a temporary one of blankets or something of that sort to serve this season. Assuming that your bees have plenty of stores, the next thing now to do is to ascertain if they are quiet, for up to the present and for five or six weeks ahead they ought to be very quiet. If they are not quiet, proceed at once to make them quiet. This, in nineteen cases out of twenty, can be done by regulating the temperature. If they are uneasy they are almost sure to be too hot or too cold. If you have not a thermometer in with your bees put one in at once. Or what is better, put two in of different manufacture and then you can come near enough to the true temperature by taking the mean difference between the two. If you find the temperature to be below 40°, cold is the cause of the trouble, and proceed at once and quietly to make the apartment warmer. If you find the temperature to be above 45° that is probably the cause of the uneasiness and the temperature of the apartment ought to be reduced. How best to increase or diminish the temperature will of course depend on the particular circumstances of each case. In my own cellar I have a stove in the main department outside the bee department, which is partitioned off under the kitchen part of the house. By means of a large button-hole in the door of the bee department I can reach through and get hold of one of the glasses and ascertain the temperature without going in at all. The temperature of the bee department is of course ordinarily higher than that of the main department of the cellar, which can be regulated at any time, as to lowering, by communication with the outside colder atmosphere. If I find the temperature in the bee department too high I can easily reduce it by communication with the cellar department, the air of which is of course supposed to be kept quite pure; if I find it too low I fire up in the cellar department and can thus raise the temperature

of the bee department to the requisite point without disturbing the bees in the least. Of course a bee repository ought to be perfectly frost-proof and then there is little trouble, by the means just detailed, in keeping the temperature of the department about 40° up to about March 1st, and say 50° after that. I have become quite convinced that as a rule bees in winter quarters ought to be kept five to ten degrees cooler the fore part of the winter than the after part. Up to about the middle of February or first of March, the temperature ought to be about 40° , so that the bees will consume but little food and keep quiet. After that when they begin to brood the temperature ought to be increased to 50° or upwards for two or three reasons: One is the work of brood-rearing must necessitate the consumption of nitrogenous food (pollen), and such consumption is almost sure to result in bee-diarrhoea in a low temperature; while in a high temperature there is little danger, as the *feces* is then voided in a dry and healthy state. It is no use for any theorist or any one else to tell me that in brooding the worker bee itself need not necessarily consume pollen, but simply prepare it and feed it to the larvæ. Such a proposition may serve the purposes of a theory, but it seems directly counter to the laws of physiology. The waste of tissue in the worker, consequent on the work of brood-rearing, inevitably requires replenishment, and this requires nitrogenous food, and the small percentage of such food in honey is entirely insufficient for the purpose. Therefore the worker must consume more or less pollen in brood-rearing. And to have this accomplished safely in winter quarters the temperature of the repository *must* be kept up to 50° at least or diarrhoea will be the result. And if the hives have much upward ventilation the temperature of the repository must be kept even above this to ensure safety.

Put briefly, my advice about winter management (of course this applies to this climate, Canada and the northern States) is this: From the time the bees go into winter quarters up to about March 1st keep the temperature about 40 degrees or whatever degree over or under this you find conduces best to *quiescence* of the bees. After that, if the bees have pollen and plenty of good stores, give them a temperature of 50° or upwards as already explained.

Hoping your bees may all come through the winter and spring in good order, and with best wishes for the success of your convention.

I am yours Fraternaly,

ALLEN PRINGLE.

Selby, Lennox Co., Ont., Jan. 11th, 1886.

FOR THE CANADIAN BEE JOURNAL.

PREVENTION OF SWARMS.

SEE by your comments on my inquiry for light, on best method of preventing increase—or rather excessive increase—you altogether misunderstand me. I meant removing the queen of the prime swarm, and compelling it to raise a queen from a cell, so as to enable them, for want of care of brood, to fill up faster, and not increase in number of bees so fast, whether it would not have a tendency to hinder their swarming in a fall flow of honey? Of course, under such management, it would be well to shake the old combs in front of the hive as recommended by Allen Pringle, and by thus depleting the old colony, would not the old queen if put back destroy the remaining cells, and thus, starting with a weak colony of all young bees be more likely not to swarm in fall? I suppose under such management full sheets of foundation must be used to keep the bees from building drone comb, and I should judge reversible frames would be well to reverse the combs when the young queen begins to lay so the bees would readily make room for the queen to lay in. My idea was to double two old swarms, or rather the combs of brood after the bees were shook off, say by giving each prime swarm two or three combs with little brood in, and containing at least one good cell to rear from when one hive would contain all the remaining brood combs, and with one of the old queens it would be in pretty good shape in the course of two weeks. The plan of adding supers on top, and at the sides has been thoroughly tried and they swarm whether there is any honey in supers or not. I rather suspect the queen may have filled the combs in a contracted hive and that the bees decide to swarm instead of entering sections to raise more brood. I shall at least experiment some in that direction. I use the Gallup frame in a hive eighteen inches long, which would admit of using twelve frames, but as I said in my former article I used but seven with four wide frames, two at each end and I fear the laying room for the queen was too small.

I have been experimenting some with Syrian bees and am well impressed with them as gatherers of honey. They are very cross and "touchy" in their pure state, but when crossed with Italian drones they are fully as gentle as the Italians, and still retain their honey producing qualities. I have no trouble in their producing fertile workers as they seldom lose a queen, at least no more likely than any other race of bees I know of.

ABEL GRESH.

Weedville, Pa., Nov. 30th, 1885.

We think they would be less likely to swarm under that management. A little Syrian or Cyprian blood (especially Syrian) mixed with Italian, if properly done will add to their usefulness. We have been experimenting for years and now find some of our crosses between Italian and Syrian, Cyprian and Carniolan to produce some very valuable gatherers; one colony that we had last season with about one third Syrian impressed us so favorably that we would not have taken \$100 for it, had that sum been offered. We shall be glad to hear from you, after you test the plans you mention, giving the results of your experiments. Suppose you try some of them with only three or four combs and see the result. In referring to your previous letter we find you are quite correct—that you did mention prime or first swarms—which fact we did not observe at the time. We cheerfully accept your correction.

FOR THE CANADIAN BEE JOURNAL.

NOTES FROM WILL'S APIARY.

WIRING FRAMES.

WIRE all frames and would not use a frame without; every frame in the yard is wired. When I began bee-keeping a neighbor near by began also, but only keeps a few colonies. I wired, he made fun of me. I kept on wiring. I frequently handled his for him and often I would set the first frame at one side of the hive, sometimes leaning too much (for the comb), the first words I would hear would be, "Hello, there, that comb is tumbling out," "yes," says I, "you must watch me, I am not accustomed to handling your frames." He got tired of handling his own without wire, and he wires all now. In wiring my frames (Langstroth) I prefer six verticals, but many only have four. I pierce my top and bottom bars with a sharp-pointed common bradawl; this job I usually do evenings sitting beside the stove. Two of the wires should be near the end bars, say one inch from it; after the frames are wired and ready for the foundation I cut a board just the size of the inside of the frame, lay the sheet of foundation on the board then lay the frame on, take a button hook (this is not original with me) grooved by a small file and run over the wire; afterwards I take a tin with melted wax in it and with a very small paint brush I draw wax over the wire, and by this method every comb is "thar." Some may say this is a good deal of work. Admitted, but the wiring can be

done when we are not pushed, and a person can rush things in the height of the honey season. I almost forgot to say that No. 24 wire suits me best. I have tried Nos. 30 and 36. I shall continue to wire every frame in the future.

WILL ELLIS.

St. Davids, Ont., Dec. 11th, 1885.

We have been wiring some frames and we like them very much, although we seldom have combs break down without the wire, yet it strengthens them for rough handling, and for shipping long distances. We would not care to use heavier than No. 30 wire; many prefer No. 36, but the majority have now settled down to No. 30, as brood is hatched in the cells over wire that size without difficulty. Larger wire running through the septum would, we think, have a tendency to make them abandon the cells for brood rearing. We have a quality of wire (No. 30) quite strong enough, in fact stronger than is necessary.

FOR THE CANADIAN BEE JOURNAL.

THE HONEY MARKET.

PLEASE allow me one word to bee-keepers of Canada. I beg to say do not be deceived or persuaded from your good intentions to help make our exhibit at Kensington what it ought to be and what we can make it by united action by those happy fellows who do nearly all their honey producing and marketing on paper. Blessed fellows! they never get a sting, lose but few bees in winter and have no trouble to sell honey. Here is a P. C. expressing the condition of many others, "I have 1500 lbs. best clover honey. If you know of any wanting it at 9 cts. per lb. and barrels free, I will be much obliged." A few days ago a bee-keeper told me that he could in a half a day pick up 12 or 13 tons of honey that was waiting for a market. Some have two years honey still on hand and from personal knowledge I know the most of our markets are full of honey.

Here is a chance for Friend Holterman to exercise his "patent medicine man" push and energy. "Example is better than precept."

S. T. PETTIT.

Belmont, Ont., Jan. 28, '86.

BEEES AT WORK ALREADY.

J. W. K. SHAW & Co.—Our bees commenced to-day to bring in pollen, color deep yellow. The lively hum continued all day. We have brood in many colonies and to-day commence cleaning their hives. Temperature sixty-seven to seventy degrees.

Loreauville, Iberia Parish, La.
January 21st., 1886.

FOR THE CANADIAN BEE JOURNAL.

NEW SWARM SMOTHERING IN THE HIVE

WITHIN 36 HOURS AFTER BEING HIVED.

WE received a card on which was written the following from Friend I. Langstroth, of Seaforth.

"A friend of mine had two different swarms of bees come off sometime in July and he hived them all right, and they went to work carrying in pollen and comb-building. The second day after swarming, he found them all smothered in a sticky mass on the bottom of their hives. They were hived on empty frames. What was cause of smothering? No one here has heard of anything of the like before."

Before answering this question we wrote to friend L. for some further particulars as to time of swarming and state they were in when found. He replied by enclosing statement from his friend as below:

Your card received about the bees. The swarm came off about 11 o'clock and I got them into the hive all right and took them to their stand about one o'clock and they began to work and had made 3 or 4 pieces of comb as big as my hand. Next morning they were working all right and about 11 they began to cluster out and I put a branch of a tree over them to keep the sun off them; they went inside and when I looked at them again there were none to be seen. I thought they had gone away, but when I took the top off they were all at the bottom sweltering in the honey. There was no old comb in the hive when they were put in it, nor was the entrance blocked up.

The other one swarmed on the same day and on the same tree. After I took the first in and they went in under the hive and was smothered between the hive and the packing box that the hive was sitting on. I thought they were all inside till I went to take them to the stand in the evening. I cannot account for them as they were used to same as all my other swarms.

Yours respectfully,

ALEX. MURCHIE.

Winthrop, Ont., Dec. 4th, 1885.

And now, here is our reply: From what you say it is very difficult to tell exactly what the cause was, but it is evident they must have built a little comb in the hive, filled it with honey, and then the weight of the bees broke it down. When bees swarm they usually fill themselves with honey, and in their ex-

citement they may have emptied their honey sacks, besmearing each other, and if the comb or besmeared bees closed the entrance, that would assist in the smothering. If anybody has had a similar experience to the above we wish they would report, as it seems to be rather mysterious.

QUERIES AND REPLIES.

UNDER THIS HEAD will appear each week, Queries and Replies; the former may be propounded by any subscriber, and will be replied to by prominent bee-keepers, throughout Canada and the United States who can answer from experience, as well as by the Editor. This Department will be reserved for the more important questions, others will be answered in another place.

WHEN DO BEES REQUIRE MOST AIR IN WINTER.

QUERY No. 57—It seems to be a certain fact that under some conditions in winter quarters bees require more ventilation—more air—than under other conditions. Under what conditions do they require more air and under what conditions less? and why?

H. COUSE, THE GRANGE, ONT.—I don't understand the "conditions" in this question.

G. M. DOOLITTLE, BORODINO, N. Y.—I do not endorse the "It seems to be a certain fact &c.," hence shall not attempt to answer.

JUDGE ANDREWS, MCKENNY, TEX.—I know nothing about the "conditions," and less about the facts, either certain or uncertain.

S. T. PETTIT, BELMONT, ONT.—A regular and copious supply of air is *always* in order and *never amiss*. If that be attended to we need not trouble ourselves about the "conditions" or the "whys" either. With due respect to the enquirer, nevertheless.

J. E. POND, JR., FOXBORO, MASS.—I give it up. Who knows the exact conditions in which a given hive is placed—or who knows that of a dozen or more colonies all are in exactly the same condition. A correct answer to the above will like a correct answer to No. 55 give us a solution of the winter problem.

P. H. ELWOOD, STARKVILLE, N. Y.—Bees require air to carry off the moisture exhaled from their food. Therefore when there is much water more air will be required. The oxygen of the air also unites with the carbon of the honey. It is plain then that the more honey consumed the more air is required. This usually happens when the bees are restless *i. e.* do not hibernate.

PROF. A. J. COOK, LANSING, MICH.—As indicated in the preceding answer, when the activity is great the air required is great. This need not be actively in the sense of motion. Thinking is activity, any vital act increases the amount of air necessary to health.

DR. DUNCAN, EMBRO.—A very strong colony requires more air or ventilation because there is more heat and moisture thrown off. A larger doorway will answer every purpose. The principal condition is when your hives are exposed to a burning sun all day.

DR. J. C. THOM, STREETSVILLE, ONT.—A rise in temperature in the repository of over 46° degrees I have found to be followed pretty constantly by uneasiness which is generally settled by a fall of a few degrees brought about the admission of a fresh current of air. There may be other theoretical conditions, which I fancy are of little consequence in practical application.

G. W. DEMAREE, CHRISTIANBURG, KY.—When it is a question of protection from cold the minimum quality of air is best, but when dampness is likely to be in excess, the greater amount of air is necessary. The practical "why" is when your sitting room is cold, you close the doors and windows, and when it is damp, you ventilate it by letting in the air. I could give you the philosophy of your actions in this matter, but facts are sufficient for all practical purposes.

DR. C. C. MILLER, MARENGO, ILL.—Whenever the exigencies of the case are such that a greater than the normal quantity of oxygen is evidently seen to be required by the conditions of the inmates of the hive, then, in such existing circumstances, the above mentioned inmates will require more air, because the facilities of the bees for obtaining it from the air are greater than those for obtaining it from other substances easily within their acquisition. Seriously, aren't these queries of late getting rather conundrumy than practical? If, however, they are not asked by some old head trying to chaff us, but honestly asked by some one seeking light, I humbly ask pardon, and reply that I don't think I know all the conditions. Anything that awakens the bees to greater activity makes an increase of air imperative. Among such causes temperature stands prominent. There seems to be a point at which bees remain nearly dormant. If warmer or colder they become more active and need more air. I suppose anything that tends to their discomfort, even to the quality of their food, might make them require more air.

ALLEN PRINGLE, SELBY, ONT.—It is a law of animal life, including humans as well as bees, that the air must correspond with the food, or in other words, the breathing must, or ought to be, proportionate to the amount of nutrition. This physiological principle affords the data necessary to answer the above query. Briefly stated it means just this: The more a man eats the more he ought to breathe—the more a bee eats the more it must breathe. The more food the more oxygen, and this applies to all animals. The blood loaded with nutrient materials derived from the food, must be oxygenated and this is accomplished by breathing in the oxygen of the air. It therefore follows that bees require more air in the conditions which necessitate the consumption of more food, and less air in the conditions which necessitate the consumption of less food. What are the conditions then requiring a *minimum* of food and a *minimum* of air? A comfortable and quiescent condition—an hibernating condition, if you please. Whatever tends to increase the eating, such as cold, brooding, etc., brings with it the necessity for more ventilation—more air, and *vice versa*.

S. CORNEIL, LINDSAY, ONT.—The more quiet bees remain the less air they require. It is held by some that certain strains of bees, owing to something like temperament, are more disposed to become drowsy in winter than others. Such stocks will require less air. Foul air has the effect of making bees uneasy. A smaller quantity will suffice when the air is pure than when it is foul. There is a degree of heat below which the temperature of the cluster cannot go without rousing the bees to activity, and similarly there is a degree of heat above which the temperature of the cluster cannot rise without causing the bees to become uneasy. "In all cases the amount of oxygen consumed bears an exact proportion to that of the heat evolved." Therefore if bees are kept either too warm or too cold they require more air. The quantity of air required is to some extent affected by the number of bees in the colony. In an ordinary colony containing say 15,000 bees, having a temperature of say 70° inside the cluster and 50° in the air immediately surrounding it, these temperatures may be maintained, perhaps, with ordinary protection. In a nucleus containing 5,000 bees, the loss of heat by radiation is greater in proportion to number, but the surface exposed is proportionately greater and on account of the smaller number of bees to radiate their heat into each other, they will require to consume more oxygen, in proportion to their number to maintain the above temperatures. But these differences m

be counterbalanced by giving the nucleus extra protection with non-conducting material to prevent the escape of heat. In that case the amount of air required would be in proportion to the number of bees.

SETTING BEES INTO WINTER QUARTERS.

QUERY No. 58.—Why should bees be put into winter quarters in November before being exposed to severe freezing weather?

JUDGE ANDREWS, MCKENNY, TEXAS.—It is not my time to guess, yet; never having seen bees in "winter quarters."

S. T. PETTJT. BELMONT, ONT.—To keep them dry and comfortable. Nothing like comfort for health: a condition we should never lose sight of.

DR. C. C. MILLER, MARENGO, ILL.—The hives are drier than after freezing, moreover the bees themselves are better not to be subjected to freezing.

M. EMIGH, HOLBROOK, ONT.—It saves straggling bees from chilling, it prevents moisture from collecting on the comb, and less honey will be consumed.

P. H. ELWOOD, STARKVILLE, N. Y.—Some good bee-keepers do not house their bees so soon. I think they ought to go in before much condensation takes place in the hive.

PROF. A. J. COOK, LANSING, MICH.—Bees are natives of warm climes and cold weather effects them illy. It is not absolutely necessary but I think it is better.

DR. DUNCAN, EMBRO, ONT.—To prevent the cold from getting in to the comb and causing dampness and also a sudden change chills bees outside the main cluster.

G. M. DOOLITTLE, BORODINO, N. Y.—Will answer it by asking another question. Why should bees be left out later than November to battle with the cold when they are much better off in the cellar.

S. CORNELL, LINDSAY, ONT.—For the same reason that they are put into winter quarters at any time. The less cold they have to withstand the less food they consume, and the less they wear out. Consequently they are more vigorous for the work of the following spring.

G. W. DEMAREE, CHRISTIANBURG, KY.—I don't put my bees in the cellar at all. But it is clear to me that my Jersey cows need shelter in early winter as well as later. And I can see no

good in leaving the bees that are to go into the cellar, out in the yard after the time has arrived when they can fly no more.

H. COUSE, THE GRANGE.—We remove bee there from summer stands to protect them from severe cold and after they have had their last flight which does not often occur later than the middle of November in this climate. It is then wise to place them as soon as possible into comfortable quarters, thus preventing the various ills inevitable from exposure.

ALLEN PRINGLE, SELBY, ONT.—Bees should be housed in the fall before being exposed to severe freezing weather for more than one reason, but the following one is sufficient. The exposure will necessitate a greater consumption of food, and as this is attended by increased activity and a consequent waste of energy, the life of the bee is that much shortened in the spring—to say nothing of the unnecessary shortening of the stores.

DR. J. C. THOM, STREETSVILLE, ONT.—(1) Numbers are apt to be caught between ranges of comb at a distance from the cluster and frozen there. (2) The honey is apt to absorb the moisture deposited by exhalation of the bees on the cappings of the cells and it therefore becomes more watery. (3) I believe the vitality of the whole cluster is permanently injured by a severe freeze before setting into winter quarters and they are more uneasy the whole winter in consequence.

J. E. POND, JR. FOXBORO, MASSACHUSETTS.—I have never wintered sure on summer stands. Were I to do so I should leave my bees out doors just as long as I thought they would be able to fly out safely. In this latitude, I think the rule is to allow bees to remain outside till December certainly; and this year any who have not done so will find they have made a great mistake, owing to the weather being so changeable. On Dec. 12th, 1885 my bees were flying out quite freely. The idea is to place them inside before absolutely settled cold weather comes to us.

SUNDRY SELECTIONS.

OLD OR YOUNG BEES BEST FOR WINTER.

J. F. DUNN.—My bees are now in winter quarters, have doubled and sold down to 25 colonies, 15 of which are in double-walled sawdust hives—6 in. single wall hives (but well protected from the winds) and 4 I have placed in the cellar—with but one exception all have sawdust cushions in the section cases on top of hive, the combs spread in the brood chamber to give

more room for clustering. This has been a remarkable year in many respects. Clover (usually a good crop here) was scarcely up to average; basswood, good; buckwheat and fall flowers, a failure. Many stocks examined after the frost had cut off fall bloom, had very little honey, having consumed an astonishing amount of stores since basswood was in bloom. Consequent upon such circumstances very little brood was found in the combs. This will be a good winter to test the theory lately advanced by several prominent bee-keepers that young bees are not necessary to the successful wintering of a colony. My own opinion is that while a colony composed largely of old bees *may winter* comparatively well and with a favorable spring give good results the following season, a backward spring will almost invariably cause such a colony to dwindle to a very small nucleus, if it does not "peg out" altogether. I say "young bees" every time. I shall carefully note the difference this spring between colonies stimulated by slow-feeding previous to feeding rapidly for winter stores and those not so treated. Bees in this locality were gathering pollen as late as November 12th; where they found it was a mystery to me, as I failed to find a single flower in bloom at that date. Possibly they obtained it in some sheltered spot where frost did not affect the flowers to the extent it did in this immediate vicinity. My yield this past season was 100 lbs. per colony spring count, two-thirds of which was stored in sections, the balance extracted and nearly all from basswood. Taken altogether I consider the season below the average and the above yield was only secured by the closest attention at the time honey was coming in.

Ridgeway, Ont.

You are quite right in watching and noting the difference between young and old bees. Give us your experience through the JOURNAL. Observing the finer points in connection with bee-keeping is what tends to make it a success. Your yield of honey was certainly very good considering the unfavorable season and denotes excellent management on your part.

HONEY AND SUGAR SYRUP MIXED FOR WINTER STORES.

MISS H. F. BULLER.—I must send you a report of my summer's work with the bees before we come to the end of 1885 or you will think that I have got tired of them which is very far from being the case. Well, to begin I told you in the spring that I had wintered 17 colonies out of 19. Although I tried to prevent swarming as

much as possible, my stock had increased by the fall to 39 colonies, and I sold 3 first and 1 second swarm, besides and had a couple at least escape to the woods. My honey crop was about 1400 lbs. principally extracted. The season was not very favorable, for though white clover was usually plentiful, it yielded little if any honey. Raspberry bloom was good and Alsike clover did very well, also basswood as long as it lasted, but it passed very quickly owing to the great heat just after it came in bloom. Thistles yielded moderately. I did not put my bees into their winter quarters till the 26th of November as the weather was not very cold and I was in hopes they might have a chance for a good flight before I put them in the house, but no, there was never enough sun. I have 17 in the house and 5 out of doors, packed in sawdust, 22 in all, which is as many as I care to keep for another year. I entirely agree with Mr. S. T. Pettit in his article in the C. B. J. for Dec. 16th, his opinions on every point coinciding with my own. What little feeding I had to do in the fall I mixed just enough syrup with honey to prevent it from granulating for I found last winter that those colonies fed with honey and a little syrup wintered quite as well as those fed with syrup alone. Campbellford, Dec. 23rd.

The fact of your wintering 17 colonies out of 19 last winter (one of the severest within our recollection) is proof positive that you at least have solved the wintering problem. What you say about basswood is quite correct; it yielded only a very short time. Perhaps this was owing to the hot weather, as the bloom seemed to dry up or cease to yield so soon. You say you increased to 39 and now go into winter quarters with 22; we suppose you either sold or doubled up the other colonies as doubling up and making colonies very strong for winter is practised by some who do not wish increase. If you doubled up some colonies and left others without, give us results in spring.

EXTRACTING, WHEN TO COMMENCE.

EMILE GARON.—What time do you set to commence extracting honey and to discontinue?

Extract as soon as the bees commence storing in the brood cells and crowding the queen for room. We discontinue extracting before the honey flow is over so that the bees may have a chance to store enough, if possible, to carry them through the winter, if we intend them to winter on honey, which is now probably the better way, taking into consideration the price of honey.

DISTANCE OF COMBS IN SUMMER.

What distance should combs be apart during the swarming season and the honey flow?

If you extract from the brood combs they may be left $1\frac{1}{2}$ or $1\frac{3}{4}$ inches apart; if from store combs they may be left two inches apart.

WEIGHT FOR WINTER.

How much should a frame hive weigh with seven frames to have enough honey for winter and when must we weigh the hives in order to see if they have enough honey for winter?

Weigh the hives after the first frost comes in the fall. They should weigh, when put into winter quarters, 60 to 65 pounds, hive and all.

SPRING DWINDLING.

What does "spring dwindling" mean?

If you do not know from experience what "spring dwindling" means, we hope you never may. It is the dying off of bees in the spring in such numbers, from old age and other causes, as to depopulate the hive to such an extent that the colony cannot carry on brooding.

BALLING QUEENS.

What does "balling" a queen mean?

It means that bees becoming irritated cluster around the queen and try to sting or smother her. We would advise you to read any of the standard works on bee-keeping, all of which give information regarding these points.

FERTILIZING QUEENS.

I saw in the C. B. J. some lines on queen nursery, (No. 25, page 357.) you say you prefer to have them fertilized before ten days old. Let us suppose I remove a cell from the hive, I am raising from and cage her; if she hatches the next day, how long should I keep her in the said nursery before having her fertilized. I ask you that question because I saw in a bee book (Huber) if a queen is confined, she can fly as soon as she goes out of her cell and get fertilized, whilst those who have not been confined, born after 16 days, cannot fly, but two or three days after and get fertilized six or seven days after her birth in time.

Some of the ancient works on apiculture are not reliable on all points. We usually introduce the queens from three to six days after hatching or they may be liberated at once but do not become fertile until that period has elapsed.

FEEDING QUEENS WHEN CAGED.

How much food should I give to the queen when caged and what kind?

A few cells of honey is sufficient; if she has young bees with her, sugar and honey mixed will do.

RIPENING HONEY.

Is it necessary that the honey be ripened before putting it into tins like yours?

Honey should be ripened before it is canned up for market.

FEEDING IN FALL.

How do you manage to feed with Canadian feeder for fall feeding? The feeder is 12 inches long by 7 inches wide, whilst the hive is 18 inches by $12\frac{1}{2}$ inches, there are 11 inches left uncovered.

The dimensions you have given us are of the winter feeder. The Canadian feeder is larger. Either one sets on top of the frames and is packed around with a quilt or cloth to prevent the bees coming up.

TIME OF FALL FEEDING.

Towards what date do you feed your bees to complete their winter store when they want any? There must be about one month difference between your place and here.

We feed our bees as soon as the fall flow is over, or as soon as the first frost arrives which destroys the flowers.

ORDERING FOUNDATION.

It is too cold in March to order foundation?

You can order foundation at any time, but it is best not to ship until warm weather, in fact we ship in cold weather entirely at the risk of the purchaser, as it is very liable to be broken in transit.

MOVING BEES FROM CLAMP TO CELLAR IN WINTER.

R. H. STEPHENSON.—I have three hives that want feeding, they are in clamp. I have a good cellar and was thinking of taking those three out of the clamp and putting them in the cellar to feed them there. Please answer through the JOURNAL and oblige.

North Bruce, Jan. 16th., 1886.

If you carry the hives into the cellar you will need to exercise much care in order that they may not be disturbed, then feed them on the candy, as described in back numbers of the JOURNAL. The cellar should be kept at a temperature not below forty-five degrees; it might be allowed to run as high as fifty degrees without injury.

A FRAME FOR WINTERING PURPOSES.

J. A. MANNING.—Am very much pleased with the CANADIAN BEE JOURNAL. Enclosed I send you drawing of a rack which I have invented for

wintering. Would like your opinion of it. It is like the common rack divided into three sections lengthwise; the centre one comes out in the winter and is made of about $\frac{1}{2}$ inch stuff and to fit tightly; it can be replaced in the summer and you then have a common rack. If two such racks are placed together in the centre of the hive there will be about 3 square inches of a space for the bees to cluster in and their food will be all around them.

Sylvan, Jan. 20th, 1886.

It seems to us that a 3 inch space cut out of the centre of the combs from top to bottom would be too much. If it was $\frac{1}{2}$ inch at the top and 2 inches at the bottom it would be all that is necessary, even less would answer. Your idea of having a space in the centre of the hive so that the bees can move from one comb to another is a good one, and it is about to be carried out in a different and we think more simple and practicable way.

S. NEFF.—I commenced the season of 1885 with 14 colonies most in the Jones hive, increased to 45 partly by dividing and partly by natural swarming; obtained 500 lbs. extracted honey. Fed 250 lbs. granulated sugar to get them ready for winter quarters, and put 27 in cellar and 18 in sawdust clamp.

Arkona Apiary, Ont.

REPORT FOR 1885.

L. A. BURKHOLDER.—Began the spring with 60 colonies of bees, and my crop of honey amounted to 4,000 lbs., nearly all extracted; sold all at 10 cents per pound. Have 92 colonies in winter quarters; 66 in cellar and 26 packed with dry sawdust on summer stands.

Hamilton, Ont., January, 1886.

TEMPERATURE FOR BROOD REARING.

I. LANGSTROTH.—Which is easiest for a colony of bees to keep up the temperature high enough for rearing brood in a shallow "L" frame or in a deep frame like the "Jones?"

Seaforth, Dec. 21, 1885.

We have always been able to produce more brood in our style of frame, possibly the difference in management has something to do with it.

PRICE LISTS AND CIRCULARS RECEIVED.

C. Weckesser, Marshallville, O., bees and queens by the pound.

J. B. Mason & Sons, Mechanics Falls, Maine, bees, queens, supplies—49 pages.

THE CANADIAN BEE JOURNAL.

JONES, MACPHERSON & CO.,

EDITORS AND PUBLISHERS,

BEETON, ONTARIO.

WEEKLY, \$1.00 per Year, Postpaid

BEETON, ONTARIO, FEBRUARY 3RD 1886.

The *American Agriculturist* is to hand for February, and is as replete with beautifully illustrated and well written articles as usual.

The latest addition to the bee-periodicals of the country is *The Bee-Keeper's Index* published at Ovid, Mich. It is monthly and the price is 25c. per year. The number of pages is eight, $4\frac{1}{2} \times 7$ inches.

The annual seed catalogue of Jno. A. Bruce & Co., of Hamilton, is to hand, replete with well-engraved illustrations of all new varieties of flowers, etc. Thirty-five years of success in the business should attest the square-dealing which characterises this firm.

The "Chapman Honey Plant," of which specimens were shown at the Detroit Convention is to receive a thorough test next season. A committee consisting of President Root (L.C.) Prof. N. W. McLain, and A. E. Manum, were appointed to investigate its merits. Mr. Chapman will invite a number of gentlemen to visit his place during July, next to see the bees at work on the plant.

We have received at the hands of the author, [Thos. G. Newman, editor of *A.B.J.*], a neatly printed book of 64 pages, containing a history of the North American Bee-Keepers' Society, [together with a digest of its annual conventions] from 1870 to 1884, and a full report of the [last convention held at Detroit in December] of last year, a report of which was published in the *C. B. JOURNAL*. The price, we find on reference to the *A. B. J.* is 25 cents. It should find a ready sale at that price.

Speaking of the Detroit Convention, an exchange there says:—The bee-keepers seem to absorb something of the traditional virtues of the insect they cultivate. Those attending the convention now in session in this city stop at a temperance hotel; seldom indulge in the dissipation of a theatrical entertainment; retire early, and are strangers to the fascination of the weed. The boy who keeps the cigar stand at the Antisidal house, to a remark about trade

replied, "I've only sold one cigar to the whole bee-keeping gang, and that was a five center."

HONEY MARKET.

CHICAGO.

Without any material change. White comb honey in one pound frames brings 16 cents; very fancy 17 cents. Dark is slow sale. Extracted honey 6 to 8 cents per pound. Beeswax 25 to 26 for yellow, market steady.

R. A. BURNETT.

Chicago,

CINCINNATI.

There is a very slow demand from manufacturers for extracted honey, with a large supply in the market, while the demand is very good for clover honey in square glass jars. Prices for all qualities are low and range from 4 to 8 cents a pound on arrival. Supply and demand is fair for choice comb honey in small sections, which bring from 12 to 15 cents per pound on arrival. Good yellow beeswax is in good demand and arrivals are fair. It brings 20 to 22 cents on arrival.

CHAS. F. MUTH.

Cincinnati,

BOSTON.

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

BLAKE & RIPLEY.

THE BEEKEEPERS' LIBRARY.

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

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

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

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

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

HONEY, some reasons why it should be eaten, by Allen Pringle. This is in the shape of a leaflet (4 pages) for free distribution amongst prospective customers. Price, with name and address, per 1000, \$3.25; per 500, \$2.00; per 250, \$1.25; per 100, 80c. With place for name and address left blank, per 1000, \$2.75; per 500, \$1.70; per 250, \$1.00; per 100, 50c.

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ADVERTISEMENTS.

In purchasing articles advertised in the "Canadian Bee Journal" please mention in what paper you saw the advertisement. Advertisers always wish to know which advertisements are most effective.

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A position as Manager or Assistant by an experienced Apiarist. Best of references.
Direct, APIARIST, care of D. A. Jones, Beeton.

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Italian Bees and Queens For 1886.

HAVING again located at NAPPANEE, where I expect to devote my entire time to the breeding of PURE ITALIAN BEES and QUEENS, can also procure and furnish SYRIAN BEES and QUEENS bred in my Tennessee Apiary. All queens warranted pure to name and untested Queens warranted purely fertilized.

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Six for \$5.00. 12 or more 75c. each.

+Frame Nucleus, very strong, prior to June 15th, \$5.00 each, later \$4.00 each. With untested queen \$4.00 less each. Bees by the pound same price as untested queens. Will also furnish all kinds of sections and hives at A. I. Root's price.

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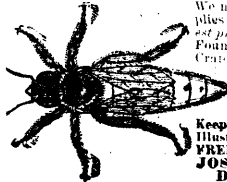
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We manufacture Bee-Keepers supplies of all kinds, *best quality at low prices.* Hives, Sections, Comb Foundation, Extractors, Smokers, Cranes, Honey Buckets, Vats, Feeders, Bee-Literature, etc., etc. Imported Italian Queens, Italian Queens, Eggs by the lb., Nucleus or Colony, "Bee-Keepers' Guide, Memoranda and Illustrated Catalogue" of 48 pages FREE to Bee-Keepers. Address JOSEPH NYSEWANDER, DES MOINES, IOWA.

DISSOLUTION OF PARTNERSHIP.

NOTICE is hereby given that the partnership heretofore existing between us as publishers of "The Canadian Bee Journal" and general job printers, under the firm name of "D. A. JONES & CO." has been this day dissolved by mutual consent.

Witness our hands this nineteenth day of January, A.D. 1886, at Beeton, County of Simcoe.

D. A. JONES,

F. H. MACPHERSON.

Witness—C. FIZETTE.

FORMATION OF PARTNERSHIP.

NOTICE is hereby given that we the undersigned have this day entered into partnership for the purpose of carrying on the business of "D. A. Jones & Co." publishers of "The Canadian Bee Journal," and general job printers in the Village of Beeton, County of Simcoe under the name and style of "Jones, Macpherson & Co." and that all debts due the said "D. A. Jones & Co." are to be paid to us.

D. A. JONES,

F. H. MACPHERSON.

Witness—C. FIZETTE.

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	Price Both. Club.	
THE CANADIAN BEE JOURNAL and.....		
Cook's Manual (cloth).....	\$2 25	\$2 00
A B C in Bee Culture (cloth).....	2 25	2 00
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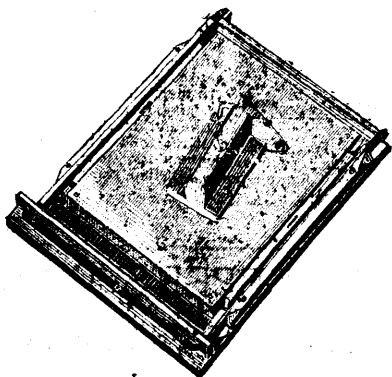
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Ready to go by express or freight.

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Four-frame nucleus, with pure Italian Queen, in April, \$4. Three-frame nucleus, with pure Italian Queen, in April, \$3.50. Two-frame nucleus, with pure Italian Queen in April, \$3.00. After 15th May, 25c. less. I would advise the four-frame nucleus as giving the best result.

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"Crown" brand"	1 Pint	\$14.75	\$7.50
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They are put up in half-gross cases—no charge for packing or cases.

D. A. JONES.

FRIENDS If you are in any way interested in BEES AND HONEY.

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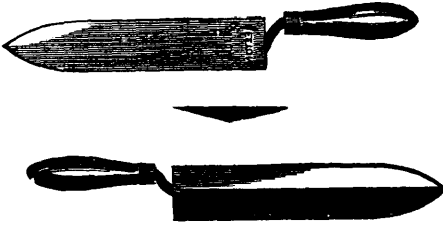


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 High side-walls, 4 to 14 square feet to the pound. Wholesale and retail. Circular and samples free.
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These Knives are made of the Finest Razor Steel.

- Ebony Polished Handle, mirror polish.....\$1 50
- Ebony Polished Handle, glazed polish..... 1 25
- Wood Polished Handle, glazed polish..... 1 00

If by mail, add 18c extra for, each knife.
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INVERTIBLE FRAMES,

Invertible Surplus Honey Cases, Entrance Feeders, Top & Bottom Feeders, Hive-Lifting Device, Honey Extractors, Wax Extractors, Comb Foundation, etc.

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Are unsurpassed for **Quality** and fine **Workmanship**. A specialty made of all styles of the **Simplicity Hive** including the **Van Deusen-Nellis**. 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.

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