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VOL. III. NO. 49

1887

FEBRUARY 29, '88.

PUBLISHED EXCLUSIVELY IN THE INTERESTS OF THE HONEY PRODUCER

THE CANADIAN



JOURNAL

THE FIRST \$

WEEKLY

IN THE WORLD

ONE DOLLAR PER YEAR

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BEETON ONT.

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Size 12 x 18 inches.
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We can supply Binders for the JOURNAL 55 cents each, post paid, with name printed on the back in Gold letters.

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"American Apiculturist," monthly.....	1.75
"Bee-Keepers' Magazine," monthly.....	1.40
"Bee-Keeper's Guide," monthly.....	1.40
"Rays of Light".....	1.20
"The Bee-Hive".....	1.25
"Beekeepers' Review".....	1.40
"Beekeepers' Advance".....	1.20

TO CONTRIBUTORS

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

Beginners will find our Query Department of much value. All questions will be answered by thorough practical men. Questions solicited.

When sending in anything intended for the JOURNAL do not mix it up with a business communication. Use different sheets of paper. Both may, however be enclosed in the same envelope.

Reports from subscribers are always welcome. They assist greatly in making the JOURNAL interesting. If any particular system of management has contributed to your success, and you are willing that your neighbors should know it, tell them through the medium of the JOURNAL

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ADVERTISEMENTS.

BEES ITALIAN BEES and Queens, 3 frames nuclei, full colonies at the very lowest rates and safe delivery guaranteed. Send for catalogue to E. T. Flanagan, Belleville, Ill.

BEESWAX WANTED

Will pay 30 cents in cash or 33 cents in trade for any quantity of pure Beeswax.
 Comb Foundation for sale, to suit any size frame or section. Wax worked on shares or for cash. All freight to Campbellville station C.P.R. If by mail to
ABNER PICKET,
 Nassagawaya P.O., Ont.
 Agent for D. A. Jones Co.'s supplies.

THE BEE-KEEPERS'

REVIEW.

For January is now out, and contains the following original articles: Disturbance not Necessarily Injurious, R. L. Taylor; Bees are "Summer Birds," E. M. Hayhurst; Disturbing Bees in Winter, James Heddon; A Niche that needs Filling, M. M. Baldrige; Daily Visits no Disturbance, J. H. Robertson; Bees Winter well in a Swinging Tree-top, F. Boomhower; Keep the Bees quiet in Early Winter, H. R. Bowdman; Continued Disturbance Injurious, J. H. Martin; Light not a Disturbance, Dr. A. B. Mason; Disturbance not Injurious if Other Conditions are Right, Eugene Secor; Bees Undisturbed by Light, H. D. Cutting.

Following the above come editorials upon: Price of the REVIEW; Wood or Tin for Separators; is the latter "colder" than the former? "Not according to Nature," Mr. Heddon and the REVIEW, Disturbing Bees in Winter Seldom Injurious, Temperature to be the Special Topic of the next issue. Unfinished Sections vs. Foundation, A Modern Bee Farm.

After the editorials, rooms is given for the following extracts: Modern Bee Journalism, M.; Brise for Dipping Boards, M. M. Baldrige; Bees afraid of Disturbance, Dr. C. C. Miller; Injured by Passing Trains, G. M. Doolittle; Stamping on the Floor above a Bee-Cellar, Dr. A. B. Mason; Disturbing Bees Out of Doors G. M. Doolittle; Handling Bees in Winter, F. Boomhower.

Price of the REVIEW 50c. a year in advance. Samples free.

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A neat little book of 45 pages, price 25 cents. The REVIEW and this book for 65 cents. Stamps taken either U.S. or Canadian. Address

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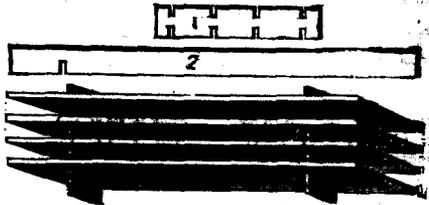
FEEDERS.



We have quite a number of the ordinary Feeders yet in stock which we will sell at 40c each per 25, \$8.75. These cannot go by mail, so must be sent by express or freight.

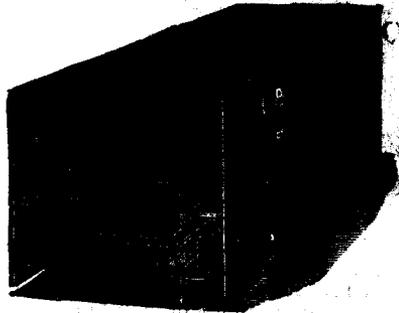
IMPROVED CANADIAN FEEDER.

This is the Feeder spoken of on page 610 of the current volume of the JOURNAL. It is arranged with the float as shown in the engraving below. Holds 12 to 15 pounds of feed, and



may be divided making two feeders if needed. The price is 50c. each, made up; per 25, \$10.00. In flat each 40c.; per \$8.75. All orders can be filled by return freight or express.

WINTER FEEDERS.



For feeding in winter, or at any time when the weather is too cold to admit of feeding liquids.

Price each, made up.....\$0 30
 Per 10, "..... 2 75
 Price each, in flat..... 20
 Per 10, "..... 1 75

These are placed above the cluster, filled with candy which is made by taking pulverized or granulated sugar, and stirring it into honey nicely warmed up, until the latter will not hold any more in solution. Allow the mass to stand till both are thoroughly mixed. Then place in Feeders and set over frames, packing around nicely to keep in the heat.

THE D. A. JONES CO., LD.,
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Supply Men, Foundation Dealers,
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SEND FOR ESTIMATES FOR WHATEVER
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BEETON, ONT

up, and of the various parts made up, so that should there be any portions of the hive you do not wish you can easily ascertain what deductions to make.

Sample hive, made up.....\$2 90
Add ten per cent if you wish the hive painted.

PRICES OF PARTS.

	made up flat.
Bottom stand.....	12 09
Bottom-boards.....	15 11
Entrance blocks (two).....	03 08
Brood case, invertible, including set screws and frames wired when made up or punched for wiring in flat.....	60 45
Honey Board (wooden) slotted, invertible.....	10 07
Honey board, metal and wood, invertible	30 25
Surplus case, invertible, including wide frames and separators.....	60 50
Cover, half bee-space.....	15 12
Sections, full set of 28 in flat.....	15 15
Tin Separators, seven to each.....	10 10

The cost of one hive such as you would receive, in the flat, would therefore be (without honey boards of either description) \$2.15. Add the cost of whichever style of honey-board you prefer, and you get it exactly. If you do not designate either we shall always include the wooden-slotted one.

DISCOUNTS IN QUANTITIES.

For 5 hives or more, 5 per cent. ; 10 or more, 7½ per cent. ; 25 or more, 10 per cent. ; 50 or more, 15 per cent. These discounts are off the prices quoted above, either nailed or in flat.

INDIVIDUAL RIGHTS.

We will sell individual rights to make for one's own use, and to use the new hive or any of the special features of Mr. Heddon's invention at \$5. We do not press the sale of these rights, believing that the hives cannot be made to good advantage by anyone not having the proper appliances. We will sell however to those who wish to buy, and for the convenience of such we append a list of prices of what we would likely be called upon to furnish in any event:—

Woodscrews per 100, boiled in tallow.....	\$1 25
Tap bits for cutting threads.....	1 50
Tin Separators, per 100 proper width.....	1 50
Brood Frames per 100.....	1 25
Wide " " ".....	1 50

'Practical Hints to Bee Keepers'

Sent free. Address

American Apiculturist,
Wenham, Mass, U.S.

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BEE-KEEPERS' ADVANCE

—AND—
POULTRYMEN'S JOURNAL.

Only 25 cents per year, sample copy free. Address
J. B. MASON.

Mcfalls, Maine.

HEDDON HIVES!



We are the owners of the patent on this hive in Canada, and we are in a position to make and sell the hive gotten up in any shape to suit the purchaser—either in flat or nailed up.

A complete working hive consists of bottom-board, bottom-board, entrance-blocks, two brood-cases, one honey-board, two surplus cases (in good seasons we often use three surplus cases on the hive at one time) and cover. So that if you order these hives in the flat this is just what will be sent you.

Sample hives we make with the brood-frames wired and the surplus cases supplied with fifty-six 4½ x 4½ 7 to the foot sections. These are designed for testing the complete working hive.

In quoting prices of brood-cases and surplus cases, the set-screws, brood-frames and wide frames with their tin separators are always included, both in flat and made up. We quote the prices of sample hives made

THE CANADIAN BEE JOURNAL

WEEKLY.

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

VOL. III. No. 49 BEETON, ONT FEB. 29, 1888. WHOLE No. 153

EDITORIAL

THE value of honey imported into the United Kingdom during the month of January, 1888, amounted to £465.

The Rev. C. F. G. Jenyns, Rector of Kentworth, Stevenage, Herts, has lately passed to the "great majority." He has been a member of the B.B.K.A. since 1879, and a member of the committee since 1884. Two years ago, at the instance of the Bee-keepers' Association, Mr. Jenyns wrote *A Book on Bees, their History, Habits and Instincts*. The *British Bee Journal* in concluding a lengthy reference to the late gentleman says:—

"In losing Mr. Jenyns we have to deplore the loss of not only one of the best and most successful of bee-keepers, but also] of one of the most true-hearted and kindest of men."

In a private letter to Mr. Jones, Mr. Thomas W. Cowan, speaking of the pleasant time he and Mrs. Cowan spent in America, says :

"We may in truth say that we met with a very warm reception in America, for the thermometer stood at 99° when we landed in New York; and that the land wept at our departure for three days before we left, and the tears followed us for three days on the Atlantic. * * I hope to send your Association a few books for the library, and as you have members who speak all the languages, I will send some German ones too."

We observe with regret that Mr.

Arthur Todd, of Philadelphia, died on the 11th inst., and was buried on the 14th. Nothing has as yet been heard of the cause.

Mr. W. Z. Hutchinson is seriously ill having had a relapse. We hope that ere another week rolls around he may be better.

OUR OWN APIARY.

THUS far bees appear to be wintering splendidly. Many went into winter quarters scarce of stores but there has been considerable vigilance exercised on the part of the owners, as we have received many enquiries respecting the way to feed and best plan of managing them until they can be set out in spring. The colonies that have sufficient stores seem to be very quiet, and are wintering much better than usual. There have been very little stores consumed since they were put in winter quarters, but the trying time, when bees are scarce of stores, is yet to come, and all should watch and see that none die from want. Some are trying to feed the colonies that are in want a little every day. This has a tendency to disturb them, and keep them agitated. We do not approve of it. Food should be given in such a way that they can take it as they desire, without being disturbed. We have reports from many who are in high hopes of wintering every colony this season.

and there is no doubt, with favorable summer, that the bee-keepers will reap a rich harvest if they only attend to business properly. A general failure in the honey flow is almost sure to be followed (at least we believe it always has been) by a season of great abundance, and we think none need be afraid to make preparations for a large crop the coming season. Many are sending in their orders now for hives, sections, and general supplies. It is a good time to order goods as it gives ample opportunity to make up hives, paint and put them in readiness before the season opens.

BEEES IN MANITOBA.

WRITING to the *Nor'-West Farmer*, respecting the season of 1887 in Manitoba, Mr. C. F. Bridgeman says:—

"The season just passed, according to reports received, has been an average one in the yield of honey. While some have had an extra yield, others, although in the minority, report but little surplus.

In some cases which have come under my notice, the aspirant has been too anxious to increase the number of colonies at the expense of his yield of surplus honey. The mania for increasing is a weakness which all beginners have to pass through, and although forewarned nothing will bring one to time so vividly as experience, when it is not quite agreeable. If the bees devote all their energies to the rearing of brood in small colonies it is quite evident that there will be little surplus honey at the end of the season. There will be larger profits out of fewer colonies kept strong and a good season is not so apt to be made a poor one.

The honey crop south and east of us has been a general failure, and had they only natural pasturage to depend on, as we have, matters would have been much worse.

There is certainly a good showing for our province in comparison with other places, and the time cannot be far distant when the bees will be able to get more honey from our cultivated farms. Then our big honey yield will compare favorably with our grand wheat yields.

The business of bee-keeping is steadily on the increase in Manitoba and the North-west. Scarcely a week passes but what we have letters from those sections asking our opinions as to what success could be attained with bees. Descriptions of the flora and country

generally are given, and taking this as our data, we have no hesitation in believing that almost any place in the great North-west is suitable for keeping bees successfully, if in the hands of a fairly intelligent apiarist. Only yesterday we had an application for a colony from Battleford,—this place is well known in connection with the late Riel rebellion. It is 200 miles from any railroad point—the nearest being Swift Current—connection being made by stage, five days being consumed in making the journey. It would be rather hazardous shipping bees to that point from Ontario; we therefore directed him to a bee-keeper in the N. W. who would be able to spare a colony. The trade of the country is growing steadily in bee appliances, as well as in other things, and if those who embark in the business are only able to keep their bees safely through the winter, great things may be expected from that section. Their productions will never clash with ours in the market inasmuch as the population of the N. W. is steadily increasing, and the consumption of honey may reasonably be expected to increase in a like or greater proportion.

For the Canadian Bee Journal

"CRITIC ON THE PATH."

OF "A NEW ENEMY."

WHAT is, an imaginary enemy, existing only in that part of "Critic's" brain which is the seat of imagination.

In the *JOURNAL* of 1st inst., "Critic on the Path" gives chase to the over-production phantom and is evidently much troubled to think that some of us are willing to "live and let live" in the business as well as other things. This correspondent (who has not the courage to openly father his selfishness) would fain have bee-culture monopolised by a few specialists. He would have a "combine" like the sugar refiners. I do not agree with him either in feeling or philosophy, and I am inclined to think from the half-apologetic tone of your comments, Mr. Editor, that you do not agree with him either. And as I am evidently one of the offenders who have been preaching "clap-trap" on this subject I now feel like preaching a little more of it to the end that the clap-trap may be only vindicated.

"Critic" says, "every man to his trade" and that is the whole of his argument. Admitting

for the sake of the argument that this is true, and ought to be carried out in its narrowest sense in every department of life, my position still remains unaffected, for bee-keeping is a perfectly legitimate part of the farmer's "trade." I have never either publicly or privately advised every Tom, Dick, and Harry to go into bee-keeping. I have not even advised every farmer to keep bees. But every farmer has the right to do so so far as "Critic's" principle is concerned, and anybody else has the same right so far as any principle of equity or ethics is concerned. True, the principles of economy might say no to anybody or everybody going into bee-keeping but nobody has any moral right to say no to his neighbor except on the one ground of priority or pre-occupation of territory. And even then his case would not always be sound for he might happen to be a "bloated monopolist" or selfish egotist, fattening at the expense of his fellows.

I re-iterate and re-affirm that the farmer has not only the moral right but the economic, social, legal and every other right to keep bees; and I have the right to say so and will say so over my own name. The horticultural specialist, or the market gardener, might just as well go to the farmer who has a few apple and plum trees for his own use, and grows a little lettuce and asparagus for his table, and protest that he had no right to be raising these things, as for a specialist bee-keeper like "Critic" to go to him and protest that he had no right to keep a few colonies of bees. As well might the dairyman with his thousand acre *ranch*, who turns not a sod, go to the small farmer and say, "here, you have no business to be raising butter and beef, you ought to stick to the grain raising and buy your butter and beef of me. Every man to his trade."

The fact is agriculture legitimately includes all of these—apiculture, horticulture, stock-raising, etc.; and if there is really any right of interference or protest on either side it rests with the farmer who might with some show of reason say to such a man as "Critic," "get out of the bee business; you are trenching on my ground; if you wish to keep bees go and get land and work it and then you will have the right to keep bees."

Name next time, Mr. Critic. Stand by your colors.

ALLEN PRINGLE.

Selby, Ont.

No! friend Pringle, we do not agree with "Critic" at all, as regards "who should keep bees." Our writings have always been in favor of farmers as bee-keepers, and we wrote only a week or

two before "Critic's" article appeared, an editorial suggesting the idea that a lecturer should be appointed by the Ontario Bee-Keepers' Association, who should hold himself in readiness to attend Farmers' Institutes throughout the country, giving instructions on bees and bee-keeping generally. We have even been charged with enticing everybody into the business by painting its profits in roseate hues. We were quite willing, however, to give "Critic" an opportunity of putting his opinions on record, so that those "on the other side" could pull down the wall of opposition which he ("Critic") had raised against the farmer. We do not think that "Critic" is afraid of his own identity, so his reply will, we expect, be over his own name.

For the Canadian Bee Journal,

Dr. Miller's Criticisms.

MY engagements this winter have been very unfavorable to my keeping the run of the journals. I have had a divided mail, my family being in Guelph, while my own head-quarters have been here at St. Thomas. My time has been fully occupied, and I have not kept myself as thoroughly posted as usual. On trying to catch up and "catch on" the other day, I found the C.B.J. for Feb. 1st a-missing. On sending for it, lo! and behold, Dr. Miller had been giving me three sharp prods and I was all unconscious of it! Now, I should be sorry to have the worthy Dr. think I would slight him, or had found him unanswerable, or had taken a fit of the sulks. So I seize the first bit of leisure to reply to his criticisms.

I am not surprised that the good doctor seems a little pleased to think he has got some chance for a poke at me. He owes me one or more, and I can see the smile of sweet, quiet satisfaction that overspread his amiable countenance while he was writing the article that appears on page 912, C.B.J. I have no doubt he had a little giggle all to himself as he reviewed his criticisms and realised how completely he had pricked my illusions about hibernation and the sting-trowel, and let the wind out of them. But even illusions die hard, as we see in the case of his own in regard to legislation about bee-territory. If illusions evince great tenacity of life, realities are invulnerable. There is no spear deadly enough to slay them. "Truth, crushed to earth, still lives."

Martin Luther was wont to say, "He who would preach well, must discriminate well." The same is true of the critic. Now, the doctor

does not discriminate well. When he quotes these words for example "the quietude desirable for safety," he does not distinguish between the "quietude" and the result of it, viz., the state of dormancy or torpor which secures the "safety." I admit, and have repeatedly stated, that intelligent bee-keepers have long been aware of the fact that "bees winter best in a quiet condition," but it is only of late, and since I promulgated my theory, that they have recognised the true reason why they do so. It is because the "quietude" is the main condition of their settling down into the slumber of hibernation. It is the same with human sleep. Quiet induces repose. The quiet is a condition and repose is the result. It would seem that absolute quiet is not essential to sleep. People who reside near Niagara Falls get accustomed to the roar of the cataract and sleep in spite of it. In fact, they get so that they cannot sleep without it, like the woman whose husband was a great snorer, and when he was away nights she had to get the hired girl to turn the coffee mill so that she could go to sleep. In like manner, bees kept near a railroad become used to the jar caused by passing trains, and hibernate in spite of it. Whatever disturbs bees in such a way that they do not cluster and cannot hibernate, is unfavorable to their wintering well.

I have already confessed my disappointment at the position taken by the *Bee-Keepers' Review* as vague and indefinite. It is clear that slight disturbance caused by an occasional peep at a colony does not break up the hibernating slumber. It is also evident that a sufficient disturbance to interfere while it lasts with their hibernating does not prevent their settling down again into their normal state of repose. But nobody pretends to say that a continual disturbance of bees such as will prevent their hibernating all winter long, may be practised with impunity. I concur in the statement that whatever is new in the hibernation theory is not true, and whatever is true is not new. The hibernation of bees in cold latitudes is old as the bee race—old as winter. The same may be said of steam, electricity and other facts of natural philosophy. Steam power, as a practical thing, is old as fire and water, but its discovery and utilization are modern. Electricity existed for ages before Franklin caught the lightning on a kite string. Mankind knew there was such a thing as lightning, but its many uses were unknown. So the hibernation of bees is no new thing. Man's knowledge of it, and use of that knowledge are new, so new that many wise men are yet in the dark about it.

I may be mistaken as to the progress this idea

is making. But if it be an illusion, the Dr. has not dispelled it from my mind any more than I have dispelled his theory about legislating in regard to bee territory. The fact that a great bee-keeper like Dr. Miller, and a great professor of natural science like Prof. Cook have not accepted the theory of hibernation only proves that "great men are not always wise," and that "it takes great men to put forth great nonsense." Many theological professors and eminent clergymen have not yet embraced advanced ideas in theology that are true as gospel and old as the everlasting hills. The common sense of common people often gets ahead of distinguished teachers. "Art thou a master in Israel, and knowest not these things?" When Galileo propounded the true theory of the universe, the scientists of the day were against him, and forced him to recant, but even while he did it, convictions of truth found utterance in the memorable words: "It moves yet!" I shall recant when the disproof is forthcoming. That a great professor affirms, now and then, "bees do not hibernate," proves nothing, and whether the "idea" progresses or not, I shall uphold it so long as I believe it to be true.

The Dr. takes me severely to task for saying that hibernation is Prof. Cook's "discarded bantling." Well, such is the fact. I know that the Professor now says, "bees do not hibernate," but he once said they did, and he has never given any reasons for his change of opinion. The Dr. says he "never did think so." Has he forgotten my quotation of a paper by Prof. Cook in which years ago he distinctly stated the hibernation theory? I am away from my library and cannot now quote either date or express words, but the paper is extant in a back number of the *A.B.J.*, and can be referred to as evidence that I am right. I have never sought to make his words mean what "Prof. Cook never meant," and if he declares he never meant hibernation in my sense, why, all right; then I am the father of the hibernation theory, and I am not ashamed of the bantling. I do not wish to be unfair to Prof. Cook, and have none but the kindest feeling toward him, but why does he maintain such a profound silence about the matter? Why does he treat the subject with such persistent contempt? Is it unworthy of discussion? The Dr. should not have to be Prof. Cook's apologist and defender. "He is of age let him speak for himself." He is always heard and read with respect, and by no one more than myself. But his total ignoring of the subject, except to say "bees do not hibernate," and then apologise for dogmatism when gently twitted with it, is all he has vouchsafed to do in refer-

ence to the matter, since this controversy began. Let Prof. Cook "rise and explain."

"The sting-trowel theory:" no, Dr., it is not a "scientific pleasantry," and whether true or not I don't believe it will do the juveniles half as much harm as some other things that are taught in Sunday school papers and library books, particularly the pernicious doctrine that very good children are apt to die young. A child of mine once got so possessed with this idea that he did not want to be good, for fear early piety might be the death of him! Don't be alarmed, the "sting trowel theory" won't hurt the boys and girls one bit. The Dr. cannot remember that any proof of this theory has ever been brought forward, and I am sure I cannot remember any proof having been adduced against it. But there has been considerable fun made of it. I do not expect to convince the Dr. by any proof that I am able to furnish. I can only say that in watching the bees when capping honey, I have been led to the conclusion that the sting and its accessories, especially the little brushes, one on each side of the dart, are used in the finishing-off process. We know that, somewhere toward the close of the operation, they inject an infinitesimal quantity of poison into the honey, which gives it its keeping qualities. Possibly this small modicum of poison is incorporated with the capping wax. It has been demonstrated that extracted honey does not attain full ripeness until it is capped, and that it does not keep well unless the bees are permitted to finish their job. I shall be very glad if the Dr. or anybody else will show that my theory is illusory. Meantime it is a very harmless one, and will do no harm either to young or old.

WM. F. CLARKE.

St. Thomas, Feb. 23, 1888.

For the Canadian Bee Journal

The Temperature of Bees for Outdoor Wintering.

IN my neighborhood we have had some very cold weather this winter, and thinking on account of the extreme cold that colonies of bees wintered out-doors on their summer stands, must be in a very chilly state, I tested the matter with a thermometer. I was agreeably surprised to find the temperature of a colony of bees in a hive registered away up to the fifties. I procured the temperature from different hives on different occasions. I put the thermometer under the chaff cushions over the cluster of bees. There was one thickness of 8c. per yard cotton between the bees and thermometer. The following is the result of the test:

On the morning of Jan. 21, 16° below zero in the open air, in the hive 51° above.

Jan. 25, 20° above zero, 56° in the hive.

Jan. 27, 8° below zero, 55° in the hive.

Feb. 10, 13° below zero; tested two hives this morning, one registered 52° and the other 46°.

Now what I want to know is, what do those colonies register over the cluster or in the cluster, that are wintering in the cellar?

R. T. WOOD.

Thistle town, Ont., Feb. 13, 1888.

Why did you not put a thermometer right down among the bees, and get the temperature of the cluster? We have taken it frequently in this way, but just now we forget the exact degree, but think it ranged from 75° to 90°, according to the size, strength and compactness of cluster. There are very cheap thermometers to be had for this purpose. Probably your doctor would loan you his—the kind used for taking the temperature of his patients. This little glass tube, about the size of a pencil, can be slid down carefully between the combs in the center of the cluster and in a few minutes the ordinary temperature of the cluster can be ascertained. The experiment will not endanger your colony to any appreciable extent and it is worth trying.

FOR THE CANADIAN BEE JOURNAL.

Bees Flying a Long Distance for Stores.

IN *Gleanings*, Nov. 15, '87, page 853, D. M. Edwards says, "I see in a late number of *Gleanings* that some of the fraternity do not think bees will fly very far for stores. I have had some experience in that line and will give it for what it is worth. In the first place, my apiary and the Pafford & Edwards apiary are about eight miles apart, and the bees always work as strong half way between the two apiaries as they do near home. These two apiaries were started in 1883 with black bees, and have been Italianised since, and when we knew there were no other Italians in the country, we have found them working five miles from home."

The point he seems to be trying to make is, that Italian bees will do well, even when obliged to fly from two to five miles for stores. This may be so in Texas, but they would starve here in Michigan if obliged to go that distance. I have hunted bees successfully for a number of years and have never yet found them more than three miles from their home, and seldom more than half that distance; and I have several times hunted within two or three miles of large apiaries, without getting bees from the apiary,

though I always use scent. In 1886, when bees three miles distant did nothing but rob, bees here were storing surplus honey. The past season my neighbor, W. E. Gould, received an average of 90 lbs. per colony, mostly comb honey. Mr. G. E. Milton, who is located $3\frac{1}{2}$ miles from Mr. Gould, received only $31\frac{1}{2}$ lbs. per colony, a difference of $58\frac{1}{2}$ lbs. per colony. What would Mr. Milton's yield have been, had his bees been obliged to fly five miles?

R. E. ASHCRAFT.

Freemont, Mich., Jan II, '88.

We have known bees to fly as far again as you mention in favorable localities, where there is an unlimited stretch, especially up the side of a mountain. After the yield is over in the valley, they will go far up the side of the slope. Where patches of timber intervene their flying distance seems to be interfered with. If everything is favorable, however, they will, in instances, fly five miles after stores.

For the Canadian Bee Journal.

The Care of Honey Cans When Once Used.

WHEN putting away empty 60 lb. honey cans is it quite necessary to rinse out with hot paraffine. Will this not taint the honey?

J. FOOT.

Halifax, N.S., 16/2/88.

We wash out the tins and place them on the stove, with the screw tops off, until they become thoroughly dried. They should never be turned upside down, as is sometimes done, to let the water run out. One day we gave instructions to have a large number of 60 lb. tins washed and rinsed well with hot water, and put in the dry kiln on the hot steam pipes to dry; fancy our astonishment on going in later, to find they had taken off the screw tops, and placed the tins upside down. Although they had been in the kiln long enough to dry a dozen times over, they were still about as moist and damp as when first put in, as all the steam arose to the top of the can and could not escape. We had them, at once, turned over, and in less than an hour they were dry; the tops were then put on and the tins set away. Months afterwards when we took them out to refill, we found them as clean and sweet as new tins. As soon as the honey is taken from a tin, it should be thoroughly washed and heated until dry, if

it is to be used again. Paraffining them would not be necessary.

From Gleanings.

Removing the Queen During Harvest.

ALSO SOMETHING ABOUT BEES AND BERRIES.

IN page 810, 1887, friend Perkins thinks I would change my opinion if I could visit his place where are three acres of raspberries. I had nearly the same amount on my place at one time, friend P., and bees and berries go nicely together so far as the bees are concerned; but the trouble is, the busy time of each comes at the same time. Mr. Perkins says, "I can tend all three, bees, berries and poultry, and yet have time to play." Yes, and so you could add blacksmithing and tailoring and cobbling, making six lines of business, "and yet have time to play," providing you do *little enough* of each. During the busy season a man can take care of only so many colonies of bees; but there are other times when he has some "time to play." What is wanted is not something that will come just when his time is already full, but something to fill up his play time. In this view I think Mr. Perkins is making a success with poultry but not with berries.

CAN THE QUEEN BE REMOVED TOWARD THE CLOSE OF THE HARVEST SO AS TO GET THE SAME AMOUNT OF SURPLUS HONEY?

Referring, friend Root, to your remarks on page 55, I have had considerable experience in this matter, but am not sure that I know much about it for sure and certain. I have taken away as many as a hundred queens in one season from colonies when they were busily storing, and I never saw a case where I knew that they immediately slacked up in their work. For all that there might have been a difference, for it is not an easy thing to look at a colony and say whether it is doing more or less than it did the previous day.

Although I am not sure that any immediate slacking up occurred, I think there are cases where the bees stored less some time after the queen was taken away than they would have done if she had remained. The fact that such men as Ellwood and Hetherington practised taking away queens during basswood bloom is an argument in its favor. I do not know whether they still follow the practice. Those who favor the plan argue something like this: A bee does not go to work in the field till it is sixteen days old, which, added to twenty-one days from laying the egg to hatching, makes thirty-seven days from the laying of the egg to the time of working in the field. Now, in localities where basswood

closes the harvest, or even where the harvest continues three or four weeks later, no egg laid during basswood harvest can produce a bee that will gather any honey to put in the surplus apartment. But if the queen continues to lay during this thirty-seven days before the close of harvest, and lays 1,500 eggs per day, she will fill about eight feet of comb. If, instead of eight feet of brood, we had, by the absence of the queen, eight feet of comb honey or its equivalent in sections, it will be seen what an addition we should have to our surplus crop—at least thirty to forty pounds. But it is generally rather unsafe to rely on plans figured out on paper, without asking the bees what they will do about it. Actually put to the test no such surprising gain is achieved. I think I can see some reasons against taking away the queen, and there may be reasons I do not see, as well as some reasons favoring the plan. From the minute a young worker gnaws its way out of the cell, it becomes an active factor in the workings of the hive. It helps to keep up the heat of the hive, and before many hours commences its duties as nurse and chambermaid. This sets free older bees that would otherwise be kept busy at house-keeping, and allows them to engage in field labor, and thus every young bee hatched out is practically an addition to the field force, although itself may never gather a drop of nectar.

But this holds good only for such bees as hatch during the honey flow; for what profit is there in adding to the population at a time when all are consumers instead of producers? So, instead of taking away the queen thirty-seven days before the honey-flow ceases, we make the time twenty-one days. Whether we gain or lose by having the queen absent during the last twenty-one days of the honey-flow is a question worthy of discussion and experiment. Is the mere presence of the queen a stimulus to labor under all circumstances, or under some and not others? Ditto brood? Some of my observations point in one direction and some in the other. With my present light I think I would not remove a queen unless to prevent or control the swarming fever, and I do not know that removal for such a cause is a profitable operation.

C. C. MILLER.

Marengo, McHenry Co., Ill.

We are prepared to buy any quantity of No. 1 Section Honey. Those having such for sale will kindly write us saying the quantity they have on hand and how much per pound they will require for it.

From the American Apiculturist.

USE OR NON-USE OF FOUNDATION.

IN the June *Apiculturist*, 1884, page 97, I tried to explain why swarms should be hived on starters only, and I gave several different ways to make true swarms in an artificial way. Some years before that I hived swarms in the manner explained.

Since that time G. M. Doolittle and W. Z. Hutchinson have recommended hiving swarms on starters only, and G. M. Doolittle has discovered the fact that bees full of honey and united to a swarm with a queen do not, as a rule, go back to the old home, quite in the same way as recommended by me in the *Apiculturist*, 1884.

But little attention has been given as yet to one point which I think very important. W. Z. Hutchinson's plan of hiving swarms is to use in the brood-chamber starters only in a limited number of frames and at the same time to give a case with sections, if possible, full of empty combs or foundation. The queen-excluding honey-board in such a case is a necessity, but is not essential to the principle. The bees are compelled to store all the honey in the cases, and it is claimed by this plan that more honey can be taken in the sections, but W. Z. Hutchinson does not claim, as a rule, to get more honey in all. This latter is not correct for all localities.

By our new ways of bee-keeping we try to much to improve upon the instinct of the bees, and we manage many times against the proper instinct. One of their impulses is the building of comb, and if they are allowed to satisfy this impulse they will be stimulated to greater industry and energy, and this will continue for some time after the necessary combs are built. On the other hand, if we work against this impulse, the bees are dissatisfied and many times become discouraged and do not leave home at all. This has been my experience for many years, and generally the bee-keeper has paid too little attention to this point.

To make use of this fact in the management of bees much depends on the location. In my locality swarms will issue or can be made by the middle of March and April, and while we have a moderate honey flow. The main season commences in the middle of May and lasts till end of June. I give a swarm, according to its size, five to ten frames with starters only and the foundation is not only built out long before the season commences, but the swarm too has gathered at least the same weight of honey as a swarm would if hived on empty combs; so the five or ten combs built from starters are clear profit, and there may be some honey too. If the five or ten frames are nearly built out, I give more frames

with foundation or empty combs. Should a swarm issue just before or in the main season this method would be wrong (but with me at beginning of the main season all swarming is done and the bees never think of casting a swarm while the honey is pouring in *en masse*). Here I find Mr. Hutchinson's plan for comb honey in the right place. Now, the main thing is to give the bees plenty of empty cells to store the honey being gathered from the field, but of course the bees can build combs too, at this time with advantage.

It is important that you give a swarm no more frames than it can quickly fill to the bottom-bar. In this way only can you get good combs free of drone-cells. If once comb-building has stopped the bees will build more or less drone combs when they begin comb-building again. Later, if you want to enlarge the brood-nest, it would be a mistake to give starters, as foundation or empty combs should be given now. One or more frames with starters between brood or empty frames will give bad combs every time. Swarms of young bees having a young fertile queen build the nicest combs I ever saw, and I prefer them to combs of built-out foundation in every respect.

W. Z. Hutchinson says: "When bees are gathering honey in the fields, there are times when they may build combs to advantage, but when they get their honey from a feeder, paradoxical as it may appear, they must have combs in which to store it, if the work is done at a profit."

This is exactly my experience, but I do not see any paradox in it. The bees need every time a certain number of pounds of honey to build a pound of comb (may be they get some as a side produce by feeding young larvae, but I cannot prove this yet). But if they bring honey from the field and are allowed to build combs at the same time, the stimulated energy overbalances the loss of honey for comb-building. By feeding the bees the stimulated energy needed for building combs will cause a feeder to get empty sooner, but they cannot fill it again, and so the amount of honey used by the bees for comb-building appears at a loss.

In one of the bee periodicals a writer says, that "natural swarms only should be allowed to build combs; never made-up swarms." Why this? Have your made-up swarms under the same condition as in natural swarming, and it will build combs in the same way and to same advantage as natural swarms. Such has been my experience the past eight years. The so-called artificial swarming is unnatural, and, in fact, no swarms at all.

The impulse of building combs will arise in the spring, as soon as the weather is favorable and some honey is coming in. It is important to allow bees the satisfaction of this impulse. But now we meet with some difficulty, because at this time and in this condition the colony will build drone-combs mostly. In times of the old straw hive it was customary to cut away the combs under the brood in early spring, and Doctor Dzeirzon, too, recommended this, and thereby was the energy of the bees stimulated very much, resulting in more brood. The only trouble was, that the bees built drone-combs. But today we can give to the colony in springtime as soon as the weather is favorable, some foundation, and no drone combs can be built, but the bees can secrete wax because the foundation does not contain wax enough for building out the combs to their proper depths. For this I take out empty frames or those having honey in them in the spring and give foundation on the side of the brood (in our climate).

Further, the comb foundation is of great value in order to get as much honey as possible in a good honey flow. In sections we get more honey by full-size foundation than by starters, and still more, if it is possible to give empty combs in the sections. If the honey flow is not very good, the difference will be a very small one; the better the honey flow, the greater the difference. This is clear enough: the young bees cannot build the combs fast enough for storage room for the honey which the older bees are bringing from the field daily. So the foundation is of value, if we work for extracted honey and have not empty combs enough.

The question is not against the use of foundation at all, but to use it where it is to advantage and not to use it where it brings no profit but rather damage.

L. STACHELHAUSEN.

Selma, Texas.

Perseverance an Important Factor.

IN any line of business, the man who uses reasonable economy and has the ability to give fair management and the perseverance to hold on, will in a great majority of cases, make a success; while, on the other hand, the one who rushes into whatever he has undertaken with a spasmodic endeavor to win all at once, as a general rule wastes his energies and often fails for sheer want of perseverance. The editor of the *Industrial Gazette* has observed that the man who starts in to do a day's work, and attempts to do as much in one hour as ought to be done in two, will usually find it necessary in a short time to take a rest, and while he is resting will

lose valuable time, which he evidently feels that he ought to make up, judging from the spasmodic efforts he will make when he starts in to work again. But at night, the man who works steady but perseveringly, will be found to have accomplished the most, while usually he will be found in a much better condition to commence again the next day.

So it is in business. One will seem to hustle around and make a considerable to-do over what he is doing, and after wasting his energies in accomplishing what, by taking a little more time, could be done with very little effort, and then, because, as he thinks, he fails to meet the success he imagines he should, becomes discouraged and is ready to make a change to something else. This, in a majority of cases, proves a loss, and, in consequence, he does not succeed as the energy he displays would seem to warrant. Another man, while he may not make a great display of his energies at the start, will go to work more systematic, and will have better opportunities to economize, and in many cases to manage better than when he attempts to rush matters. If he will but observe, he will be ready to take advantage of any favorable circumstances that may arise. It always seems that the man who is constantly shifting about is always making a change at the wrong time, when a little perseverance would have brought him through all right. In all lines of business there are fluctuations, ups and downs, and in order to succeed we must persevere. It is when the odds seem against us that it seems the most important to persevere.

—*Ex.*

SUNDRY SELECTIONS.

A REPORT FROM WINTER QUARTERS.

H. G. ARNOLD, JR.—My bees are apparently wintering well. I have 31 colonies, packed in chaff, in clamps. Increased from 15 last spring, and sold four old colonies; took between 500 lbs. and 600 lbs. of honey.

Maidstone Cross, Jan. 31, 1888.

INSURING BEES.

J. D. GOODRICH.—I notice the inquiry in your paper in regard to insurance on bees. As an insurance agent I will say that we take insurance on them here at the same rates as other property insured in the same buildings, and locate them either in house, cellar or elsewhere in winter, and on summer stands. The honey crop for last season was very light here. From 55 colonies last spring I increased to 86, and got a surplus of 2,250 lbs. comb honey, but it was necessary to feed some sugar for safe wintering.

East Hardwick, Vt., Jan. 24, 1888.

BEES NOT WORKING ON ALSIKE.

MISS M. JORDAN.—I commenced last season with four colonies, increased by dividing to seven; had no natural swarms. On Dec. 1 I put six colonies in the cellar, one of which was very weak. I expected it would die, and I have not been disappointed. The remaining five are apparently in good condition. I commenced ex-

tracting on June 18, and from that date to July 7 the honey flow was good. The dry weather then set in, and we got no more honey. I took about 200 lbs. of extracted and about 12 lbs. of comb honey, all from clover. We had half an acre of beautiful alsike clover, but I never could see a bee on it.

Burnamthorpe, Feb. 13, 1888.

Your experience with alsike clover is an exception to the general rule. It has been found by experiment and actual experience, that in the majority of instances alsike clover will yield, when white clover is barren of nectar.

WINTERING IN CHAFF HIVES—A GOOD REPORT.

D. JEFFREY.—I send you herewith my report for last season. I commenced with seventeen colonies from fair to good condition. The first part of the season was very good, but dry weather set in after the linden flow was about over. I scarcely got enough to keep up brood rearing until the buckwheat bloom. Then there were three or four weeks of a medium flow which started the queens laying as vigorously as in the spring, which put them in fine condition for the winter. I took 2,000 lbs. of honey, mostly extracted. The average price received was 10c. I am wintering in chaff hives on summer stands; weighed bees up Oct. 1, keeping the record of each hive; will weigh them again April 1, and average the pounds of stores consumed.

Townsend, Jarvis P.O., Ont.

We shall be glad to know just the average quantity of stores consumed by your bees during the winter; also the largest and smallest weight consumed.

MOULD AT THE ENTRANCE.

GALVIN ALLAN—I receive the C.B.J. from a neighbor and like it very much. I must say that if I did not get them from him I should subscribe at once. When I returned home Saturday night I went down cellar to see my bees. I was quite surprised to see some white mouldy stuff at the entrance of the hive. It seemed to come from inside and run out at the entrance. Would you please tell me what this is.

Churchill, Ont.

We are pleased to note that our friends take enough interest in their neighbors to lend their bee journals. Of course, we would rather everybody would subscribe, but when two neighbors are close together, and first starting in business, by passing the JOURNAL around it will give all a taste for bee literature after they once become sufficiently interested. The "stuff" that you see at the entrance is mould. It is caused by a few old bees dying at the entrance, and the moisture condensing and running down. A short time ago we gave you the cause of and cure for this difficulty. Perhaps your cellar is too damp.

and cold; by putting a cushion of dry saw-dust or chaff on top, leaving the entrance open full width; by setting another hive or super on top, and placing a few warm bricks in it, it will cause a draft and absorb the moisture. The bricks should first be put in a stove oven and heated until perfectly dry, and the warmth and dryness will cause them to take up the moisture very rapidly.

STARTERS FOR SECTION HONEY.

S. MIREAULT—I have read somewhere in the CANADIAN BEE JOURNAL that starters ought not to be too narrow. Will you tell me what width I must have them to insure success in working for comb honey?

The width of your starters may vary with the season, and system of management. If you do not wish to use much foundation perhaps two inches would be wide enough.

SUPERSEDING AND REARING QUEENS.

I wish to know the best method of superseding old queens and when? I prefer to do so at the beginning of the season if I can just as advantageously.

About swarming time, or when they swarm is a very good time. Queens raised at this season of the year are usually better than those raised very late or very early. After the first swarm issues and they have commenced working and the queen begins to hatch in the parent colony, you can remove the old queen from the swarm and give them a queen cell just ready to hatch, or a queen just hatched.

Can we raise good queens from queen cells after the issue of the first swarm. I tried to do so but I obtained poor queens. Tell me the wherefore? There are many methods explained in the C.B.J. how to raise good queens, but please refer me to the best and safest.

Before the queen-breeding season commences we will try to give you further instructions in queen raising which will enable you to produce the best.

A CELLAR EPISODE.

CORNELIUS SMITH.—Last spring I commenced with seven colonies, some very good others weak. I averaged fifty pounds surplus per colony, spring count, and increased to nineteen. To some of the late swarms I fed sugar syrup for winter and am afraid some of them are running short of stores. Ten are in chaff hives on summer stands, nine in an outside cellar built on purpose. This cellar is 12x15 with store and extracting rooms above. Last week I had what might be called an accident in this cellar. The temperature got so low that I proceeded to raise it by means of a combination lamp having three burners. It worked very well for I could light

one or more burners as desired. To shade the light from the bees I set the lamp inside a tin can. It exploded and melted the inside of the can and though the heat was so great as to burst the thermometer suspended from the ceiling, yet it did not set fire to anything else. There are some of the bees living yet and I don't know but that they are all right. There is a ventilation pipe out of cellar. Last summer bees did not do well around here.

Iphellen, Feb. 13, 1888.

Thanks for your report. We are sorry to learn of your mishap in the cellar. Think the cause of your lamp exploding was the accumulation of heat inside of tin sitting over lamp. It is fortunate it did not set the place on fire. If you had the outside wall of cellar well banked up, built on top of ground, you might put a terrace, say six feet wide, allowing it to run up to top of wall. This would make it as warm as if built entirely underground. Then you should have between the joists over the cellar and under the floor of your store room above, about one foot of dry sawdust. It would prevent the cold air from getting down. We presume you have double and treble doors, making one or two dead air spaces to prevent cold from entering by way of door. The above precaution would have made the lamp unnecessary, but this has been an unusually cold winter. One of our cellars is 30 feet wide and 90 feet long, and frost never entered it until this winter.

THE CANADIAN BEE JOURNAL.

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

— PUBLISHERS, —

WEEKLY, \$1.00 per Year, Postpaid.

BRETON, ONTARIO, FEBRUARY 29, 1888

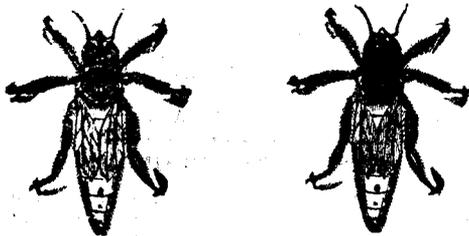
BUSINESS DEPARTMENT.

Observe our special offer of sections, in large lots, as given in our advt. columns.

If you want anything in the line of notions, such as we have given in our list at the end of JOURNAL, we shall be glad to supply you. The prices, in most instances, are away below the cost retail.

Our plan of sending out notices to those whose subscriptions expire from time to time, a week, in advance, is a splendid thing and we find meets with general favor. Most all of them renew,

QUEENS.



Our trade in queens grows greater each succeeding year, and we seem to be giving better satisfaction as well. We endeavor to raise queens which will produce good honey-gatherers irrespective of breed or race.

We pay more attention to the class of drones with which our queens come in contact.

The annexed table shows the prices at different seasons, of different varieties. These are, of course, subject to change depending upon the supply and demand. All changes will be noted in the CANADIAN BEE JOURNAL :

MONTH.	Untested	Tested	Selected	Virgin
May	1 50	2 50	3 00	
June	1 00	2 00	3 00	0 60
July	1 00	2 00	2 50	50
August	1 00	2 00	2 50	50
September	1 50	2 00	2 75	
October		2 50	3 00	

Three at one time, deduct 10 per cent ; six at one time, deduct 20 per cent.

EXPLANATIONS.

We are not, owing to our high latitude, able to sell queens before May, nor later than October.

Untested queens will be ready for sale as soon as mated, and before they have had a chance to prove themselves.

Tested queens are those which have been proven as to race and honey-gathering qualities.

Selected queens are chosen because of color, size and honey-gathering qualities.

Queens cannot be shipped unless the weather is warm enough, except at risk of purchaser—otherwise safe delivery is guaranteed.

NUCLEI.

A two-frame nucleus will consist of one-pound of bees, two frames partly filled with brood and honey, and an extra queen, price \$4. Two at one time, \$3.75 each—up to July 1st.

After that date the prices will be \$3 singly ; two at one time, \$2.75 each.

We can send frames that will suit either the Jones or Combination hive. Please specify which you wish. Should you prefer the nucleus in either Jones or Combination hive, add price of the hive, made up, to the cost of nucleus.

Bees by the pound and nuclei must always be sent by express. Orders for nuclei filled in rotation the same as bees by the pound.

BEEES.

Bees should always go by express, unless they are personally aered for en route.

We do not hold ourselves responsible for breakage or delay in transit of colonies of bees. They always leave our hands in good shape ; we will send out only such colonies as we are sure will give satisfaction. Our bees will be such as the queens we offer will produce.

	Italian	Italian Crosses	Garniolan Crosses
May	\$8.00	\$ 8.00	\$ 9.00
June	7.00	7.00	8.00
July	7.00	7.00	8.00
August	6.50	6.50	7.00
September	6.00	6.00	65.0
October	6.50	6.50	7.00

The above prices are for up to four colonies ; five colonies up to nine, take off 3 per cent. ; ten colonies up to twenty-four, 5 per cent. ; twenty-five colonies and over, 10 per cent—always cash. Bees at these prices will always be sent out in the Combination Hive, and each colony will contain a good queen, some honey, and brood according to the season.

Barnes' Foot Power Machinery !

See advertisement on another page. We have just 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.

49-ft THE D. A. JONES Co., LTD. Beeton, Ont.

SECTIONS FOR THE MILLION.

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

Our prices are as follows :—

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

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

THE D. A. JONES Co., LTD.

49-ft BEETON, ONT.

Headquarters in the West

for the manufacture and sale of **BEE-KEEPERS' SUPPLIES.**

CHAFF AND SIMPLICITY HIVES, SECTIONS, FDN., SMOKERS, ETC.

furnished at a great reduction in price. A full line of supplies always on hand. I also have on hand for sale at all times, Pure Italian Queens, Bees by the pound, Nuclei and Full colonies at very low prices.

Send for Catalogue.

A. P. STAUFFER,
Sterling, Ill.

USEFUL GOODS.

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

5 CENT ARTICLES.

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

8 CENT ARTICLES.

Butter stamps 3 or 4 inches....	\$ 75	\$1 75
File, 3 corner, 3 or 4 inches....	75	1 75
Ink-well, glass, safety, cannot spill.....	65	
Mucilage, good sized bottle....	70	
Oil cans, zinc.....	65	
1 Pencil, automatic indelible....	75	1 75
1 Time books for week or month.	75	

10 CENT GOODS.

Bill fyles, harphape.....	\$ 90	2 10
2 Book of 50 blank receipts with stub.....	85	2 00
2 Book of 50 blank notes.....	85	2 00
2 Brush, flat, for paint, paste or varnish.....	80	1 90
3 Butter spades 9c. each.....	80	1 90
2 Boxwood pocket 1 foot rule....	90	2 10
Chisel, firmer 1/2 inch.....	90	

Postage.

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

13 CENT ARTICLES.

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

15 CENT ARTICLES.

Chisel, firmer, 1/2 and 3/4 in.....	1 45	
12 Dextrine, 1/2 lb. pkg. for pasting		
Hammer, iron, adze eye.....	1 45	
3 Lead pencils, 1 doz., good quality, Faber's 971.....		
5 Note paper, 5 quires, 3 lbs., extra value.....	1 40	3 35
Paint brush, No. 5.....		
6 Rubber bands in gross boxes. For queen nursery.....	1 30	
4 Rule, 2 foot, a splendid line....	1 40	3 40
Screw driver, 5 inch, round bit, hardwood handle.....	1 40	
2 Statement heads in pads of 100	1 20	
Tack hammers, magnetic.....	1 40	3 30

18 CENT ARTICLES.

Bit, best make, 1/2, 1, 1 1/2.....	1 65	4 00
Glue, La Page's liquid, with brush.....	1 65	
Oilers, automatic.....	1 60	

20 CENT ARTICLES.

Postage.	Per 10 lots.	Per 25 lots.
Bit, best make, $\frac{3}{8}$, 7/16, $\frac{1}{2}$, 9/16..	1 90	4 50
Brass traps.....	1 80	4 50
Brushes, flat, 2nd quality, 1 $\frac{1}{2}$ in. paste or varnish.....	1 80	4 25
Chisel, firmer, inch.....	1 90	
Ebony ruler, bevelled for book-keeper.....	1 90	4 50
File, 8 inch, flat, round or 3 corner.....	1 90	
3 Lead pencils, 1 doz. 201 good value, rubber tipped.....	1 80	
Paint brush, No. 3.....		
12 Papeterie, "Jubilee" containing 24 sheets, ivory notes, 24 square envelopes.....	1 80	
6 Pens, gross box "292 school"....	1 80	
1 Pocket memo book, indexed....	1 90	
Screw-driver, steel, 6 inch rd bit	1 90	
Square, iron, grad. to $\frac{1}{2}$ one side	1 90	
Thermometer.....		

25 CENT ARTICLES.

6 Cards, 50, ladies' or gents' visiting. Piries' super ivory...	2 00	4 50
2 Duplicate order books, with black leaf.....	2 00	4 50
File, 10 inch, flat.....	2 25	
8 Lead pencils, 1 doz. Faber's H, H. B., B. or B. B.....	2 30	
Paint brush No 1.....		
Rule, 2 foot, boxwood.....	2 30	

30 CENT ARTICLES.

8 Bills payable and receivable....	2 85	6 90
Bits, best make, 10/16, $\frac{1}{4}$, $\frac{3}{8}$	2 85	6 90
5 Foolscap, 2 quires, extra quality	2 80	
4 " legal, in pads of 100 sheets.....	2 75	6 00
Inkwell, square, glass, bevelled edges.....	2 75	

35 CENT ARTICLES.

Bit, best make, inch.....	3 40	8 20
Hammer, steel face, for light work.....	3 30	
Square, grad. to 1/16 both sides	3 30	

40 CENT ARTICLES.

Postage.	Per 10 lots.	Per 25 lots.
Foolscap, 5 quires, good quality	3 75	
Hammer, No. 50, steel head, adze eye.....	3 60	
6 Pens, gross box, 'Bank of Eng.' 3 80		
" " " " " " " " " " " "	3 80	
Ruler, 2 foot, boxwood, brass bound.....	3 60	

50 CENT ARTICLES.

5 Binders, CANADIAN BEE JOURNAL	4 80	
Blank books.....		
Day book, 200 p. p. good paper, well bound.....	4 25	
Cash " " " " " " " " " " " "	4 25	
Ledger " " " " " " " " " " " "	4 25	
Minute " " " " " " " " " " " "	4 25	
Complete set, Cash, Day and Ledger, \$1.25.....		
Carpenter's brace, pat. grip, 8 in 4 85	12 00	
Envelopes, good, business size, 250 in box.....	4 00	
Hand saws, 18 and 20 in., best make.....	4 50	
Hammer, No. 51, steel head, adze eye.....	4 50	
Hammer, smaller, frame nail'g	4 50	

SUNDRIES.

	Each
Copying press, "The Simplex," the most rapid and the easiest handled. Folds like a book and weighs but 10 lbs. With lock, \$5, without....	\$4 50
Hammer, No. 47, steel head, adze eye a most substantial implement....	60
Hand saw, 26 inch, finest quality....	55
Hatchet, steel, with hammer and nail puller.....	65
Letter books, with index, bound in canvas, 500 pages.....	1 10
Letter books, with index, bound in canvass, 1000 prges.....	2 00
Plane, iron block.....	75
" " wood smoothing.....	80
Post cards printed to order, 50 \$1, 100	1 40
Square, steel, grad. both sides, usual price, \$1.75. Ours.....	1 35

EXCHANGE AND MART.

Advertisements for this Department will be inserted at the uniform rate of **25 CENTS** each insertion—not to exceed five lines—and 5 cents each additional line each insertion. If you desire your advt. in this column, be particular to mention the fact, else they will be inserted in our regular advertising columns. This column is **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.

SECTIONS.—We have a large lot of V groove sections put up in 500 boxes in the following sizes, viz., 3 $\frac{1}{2}$ x4 $\frac{1}{2}$ x1 $\frac{1}{2}$ 3 $\frac{1}{2}$ x4 $\frac{1}{2}$ x1 $\frac{1}{2}$, double sletted, which we will sell at \$2 per package, and will take as pay either honey or cash. THE D. A. JONES CO., Beeton, Ont.

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

\$1.00 Will secure you by mail, post paid, 250 Noteheads and 250 Envelopes with your name, business and address printed on the corner of each. Send in your order now. THE D. A. JONES CO., Beeton, Ont.

READ THIS.

25 PAPERS GARDEN SEEDS AND THE BEE-KEEPERS' ADVANCE.
One year for only \$1. These seeds are just such seeds as everyone having a garden wants and buys, paying 5c. to 10c. per package, the retail price of the seeds is \$1.75. We give away our paper and sell you the seeds at about half price to introduce both to Canadians. Seeds will be sent post paid and we guarantee satisfaction. Address, **J. B. MASON & SONS,** Mechanic Falls, Maine.

TOOLS For BEE-KEEPERS

HAMMERS.

We shall hereafter keep in stock a full line of tools suitable for bee-keepers. For ordinary use, where a person has only a few hives, etc., to nail, we have an iron hammer (with adze eye) which we can send you at 15 cents.

Then in steel hammers we have three styles all with adze eyes, which we sell at 40c., 50c., and 60c each.

Small hammers—steel face with adze eyes, just what are needed for frame nailing, etc., No. 55, 35c.; No. 52, 50c.

SCREW DRIVERS.

With good hardwood handles and of the best steel—nicely finished, round bits, in two kinds, No. 1, 5 inch bit, 18c.; No. 2, 6 inch bit, 20c.

TWO-FOOT SQUARES.

In iron squares we have two kinds—the first of these is marked down to one-eighth of an inch, and is marked on one side only, the price is, each, 20c.

The other style is marked on both sides down to one-sixteenth of an inch—price, each, 35c.

We have a splendid line in steel squares which we can furnish you at \$1.35. They are well finished and are usually sold in hardware stores at \$1.75.

TWO FOOT RULES.

A splendid line in rules we offer at, each, 18c. Then we have a nice box-wood rule at, each 25c.

HAND SAWS

Just at the present we have but one line in these—26 inch long—A. & S. Perry's make—usually sold at 75 cents we offer them for 55c.

PANEL SAWS.

These are what are often called small hand saws, and for the finer classes of the bee-keepers work are indispensable. We have started out with two lines in these. The 18 inch are of good steel (Shirley and Dietrich) and can be sold by us at 50c.

The 20-inch are finer steel—same make—that money.

PLANES.

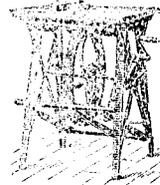
Iron block planes, just the thing for dressing off hives, each, 75c.

Wooden smoothing planes—the best of the kind, 85c.

All the above goods are sold at prices 20 to 25 per cent. below the ordinary retail price, so that when ordering other goods you may just as well have a try you want as the cost of transportation will not be any greater. These will be included in the next revision of our price list.

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

BARNES' FOOT-POWER MACHINERY



Read what J. J. PARENT, of Charlton, N. Y., says—"We cut with one of your Combined Machines last winter 50 chaff hives with 7 inch cap, 100 honey racks, 500 broad frames, 2,000 honey boxes and a great deal of other work. This winter we have double the number of bee-hives, etc. to make, and we expect to do it all with this saw. It will do all you say it will." Catalogue and Price List free. Address W. F. & JOHN BARNES, 574 Ruby St., Rockford, Ill. 21

- CANADIANS -

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at.

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The D. A. Jones Company, Ltd.

BEETON, ONT.,

MANUFACTURERS OF AND DEALERS IN

APIARIAN * SUPPLIES.

Our Circular sent free on application.

PUBLISHERS

THE CANADIAN BEE JOURNAL

FINE BOOK & JOB PRINTERS.

Sample copies free on receipt of name and address. at

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.

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M. J. DICKASON, Hiawatha, Kans.

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W. E. CLARK, Oriskany, N.Y.

PAUL L. VIALON, Bayou Goula, La.

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

APIARIAN SUPPLIES

MANUFACTURED BY

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

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

Send for Illustrated Catalogue for 1888. Free.

W. T. FALCONER.

BEE-KEEPERS' GUIDE,

—OR—

MANUAL OF THE APIARY

10,000 SOLD SINCE 1876.

The fourteenth thousand just out. 10th thousand sold in just four months. More than 50 pages and more than 40 costly illustrations were added to the 8th edition. It has been thoroughly revised and contains the very latest in respect to Bee Keeping.

Price by mail, \$1.25. Liberal discount made to dealers and to Clubs.

A. J. COOK, Author & Publisher,

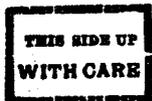
State Agricultural College, Lansing Mich

250 ENVELOPES }
—AND— } FOR \$1.
250 NOTE HEADS }

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

CANADIAN BEE JOURNAL OFFICE,
BEETON ONT.

SHIPPING LABELS.



These [are] for pasting on the tops of cases.
Price, per 10, 5c. by mail, 6c.
" 100, 25, by mail, 27
" 1000, 1.50 by mail, 1.60

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

NO BEE-KEEPER SHOULD BE WITHOUT

Clarke's Bird's Eye View of Bee-keeping

68 pages, bound in cloth; profusely illustrated; price 25 cents.

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

BEEES AND HONEY

TO ALL that are interested in Bees and Honey, send for our **Free** and Illustrated Catalogue of Apianian Supplies. Address

M. RICHARDSON & SON,

Port Colborne, Ont

THE CANADIAN *POULTRY* REVIEW

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

Poultry, Pigeon and Pet Stock Fraternity.

Circulation always on the increase. Subscription only \$1.00 a year. Address,

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

FRIENDS. IF YOU ARE IN ANY WAY INTERESTED IN

BEEES AND HONEY

We will with pleasure send you a sample copy of our **SEMI-MONTHLY GLEANINGS IN BEE-CULTURE**, with a descriptive Price-list of the latest improvements in Hives, Honey Extractors, Comb Foundation, Section Honey Boxes, all books and journals, and everything pertaining to bee-culture. Nothing patented. Simply send your address on a postal card, written plainly.
A. I. ROOT, Medina, Ohio.

Patent Flat-Bottomed Comb Foundation!

High Side Walls. 4 to 14 square feet to the pound. Wholesale and Retail Circular and samples free.

J. VAN DEUSEN & SONS,
(SOLE MANUFACTURERS),

41-3m SPROUT BROOK, Mont Co., N. Y.

10 Per Cent Discount

On sections until March 1st. Send for free price list of everything needed in the apiary. Foundation wholesale and retail. Alsike clover seed cheap. Sample section on application.

M. H. HUNT,
Near Detroit.
Bell Branch, Mich.

OUR 60 LB. TINS.

We have already sold enough of these to hold a crop of over 100,000 lbs of honey. They are better made than ever, and are encased in our new style of wooden case. Have a large screw top, as well as a small one, and are thus excellent for granulated as well as liquid honey. The prices are:

- Each.....\$ 0 50
- Per 10..... 4 50
- Per 25..... 11 25
- Per 100..... 43 00

"Charcoal" tin used in these. As a rule "coke" tin is used.

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