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

VOL. I.

BEETON ONTARIO, MARCH 24, 1886

Nc. 52

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PUBLISHERS' NOTES.

We will always be glad to forward sample copies to those desiring such.

Send us the names of three subscribers with \$3 in cash and receive as a premium one C. B. J. Binder.

Send postal card for sample of leaflet, "Honey, some reasons why it should be eaten."

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

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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 more useful. 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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PEERLESS OIL,

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IN THE SOUTH FOR EARLY NUCLEI & QUEENS.

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

Italian Queens—untested in April, each, \$1.25, per doz., \$13.
From 5th May to 1st June, each \$1.10, per doz., \$12.
After 1st June, each \$1.00, per doz., \$10. Tested, \$2.50 ea.
Selected Tested, 3.00 each, 50 cents less after June 1st.
Bees by the pound, in lots of five pounds and over, \$1.00 per pound, no queens; if queens a wanted add price of queens.
Safe arrival and satisfaction guaranteed. Discounts, 3 per cent on orders of \$50 or over; 5 per cent on orders of over \$100. Illustrated catalogues now ready. Address

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4-Frame Nucleus, very strong prior to June 15th, \$5.00 each, later \$4.00 each. With untested queen \$1.00 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.

I. R. GOOD, Nappanee, Ind

NORTHSHADE APIARY AND COMB FOUNDATION WORKS.

Prices greatly reduced. 50 to 100 colonies of choice Italian bees for spring delivery. Nuclei, queens, and bees by the pound, for the season. Foundation for sale. Wax worked by the pound, or for a share. Samples of foundation free. Send for price list.

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ESTABLISHED MAY 1ST, 1883.

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A JOURNAL OF 32 PAGES DEVOTED TO

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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 5 per cent charges and the discount by ordering ALL TOGETHER. Will be given till further notice.

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THE CANADIAN BEE JOURNAL.

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WEEKLY - - \$1.00 PER YEAR

D. A. JONES,

EDITOR.

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

APOLOGY.

WE really must apologise for the scant amount of reading matter in this issue. Pressure of advertisements and the index for the year occupy nearly all the space. Next week we shall not be so crowded and will make amends.

FOR THE CANADIAN BEE JOURNAL.

SCIENCE AND APICULTURE.

HERE has been considerable discussion of late in the C. B. J. on the above subject and I would not take a hand in were it not that I am called upon to do so by Mr. Cushman in the last issue of JOURNAL.

The physiological question in dispute, viz:—How is animal heat produced in the living system, though not directly connected with apiculture science is nevertheless a very important one, inasmuch as upon its true solution depends to a great extent not only the regulation of the winter stores for our bees but the regulation of our own diet which is of much more importance. "Apicultural science," did I say? Brother Pond, of Foxboro, gravely tells us in a late issue of the JOURNAL that we have no science of apiculture. He endeavors to prove this in part by averring that "we to-day are little if any in advance of the bee-keepers of the days of Virgil," and that "as a matter of fact we are all at sea in regard to wintering, and no one has any advantage over the others," that in truth, "all are alike groping in the dark." Surely our Massachusetts friend was either "nodding" (and "even Homer nods") or else slightly bilious when he was led to take such a gloomy and pessimistic view of modern bee culture! Well, we are all more or less subject to these mentally gloomy spells, when the whole universe looks dark. I don't know, of course, how it is with Mr. Pond and the rest of our bee cousins across the lake, but we "Canucks" back here in this "frozen region of howling wilderness" are certainly not "all at sea in regard to wintering," as the sea is already so well frozen over that we can glide along over it with considerable safety. Nor are we "all alike groping in the dark" over this sea of ice (slippery I admit) and liable to run at any moment into the air

holes. I have the presumption to think that a pretty considerable number of us have lanterns very well trimmed—lanterns giving out the light of apicultural knowledge, accumulated through long years of experience, patient observation, and persistent study.

That we have no science of bee culture I cannot for one moment admit. The science, it is true, is not yet, by any means, mature and what science is? Outside of mathematics all the sciences are growing towards maturity—and rapidly too under the nourishing heat and swelling light of this marvelous age. If we are to call every imperfect science no science at all, all outside of the exact sciences may be ruled out. Physiology, for instance, must go, and we have an illustration of this in the very matter we are now approaching, for this brings us to the subject in hand as between Prof. Cook, Mr. Cushman and others. The problem in dispute is a physiological one, and as yet an unsettled one—an open question. And here is where Prof. Cook and Mr. Cushman are both, I respectfully submit, in error. Each assumes the solution he urges to be the true one, and this presupposes on the part of each that the question in issue is definitely settled, which it is not. This method would simply issue in a balancing of authorities, and this is certainly not the scientific method. Instead of setting up a theory and then hunting up facts to fit it and authorities to sanction it the true investigator hunts up all the facts and then casts about for a generalization or theory that will fit them all. The one is *a priori*, the other *a posteriori* in its methods.

Liebig was a distinguished chemist, and in his great work, "Organic Chemistry," he propounded the theory that the animal heat of the living system is produced by the combustion in the lungs of the oxygen derived from the inspired air and the carbon derived from the food. The hypothesis soon became popular in scientific circles. It has however from time to time been challenged and controverted, especially by the Hygienic philosophers and the Hygieo-therapeutic school of physicians. Prof. Trall, the founder of, and most eminent authority in, that school very ably controverts Liebig's theory in his encyclopædia and elsewhere. That Trall was a profound thinker and original investigator is certain; but he unfortunately died before his great work "Principles of Hygienic Medication" was completed. In Medical Science he made new and valuable discoveries, solving problems which had baffled the profession for ages. His explanation of animal heat is that it results naturally from the motions of life—from the vital processes, without the necessity of a chemical stove in the lungs. In

the domain of physics proper we know that motion results in heat and why not in the domain of life—which is motion. According to Trall *good health*, or a normal play of all the functions, is the secret and explanation of the production and maintenance of a proper animal temperature. He had no patience with the chemico-physiologist who sought to turn the human system into a chemical laboratory and explain vital processes by chemical data. As bearing upon a proper estimation of Trall as an authority in physiology as against Liebig, it is only fair to state that Trall has apparently successfully refuted one or two of Liebig's other chemico-physiological positions.

Now, Prof. Cook, if I rightly understand him, holds the view taught by Trall as to the production of animal heat in the system; while Mr. Cushman holds the theory taught by Liebig. The Prof. claims "the leading physiologists of to-day" on his side, and here, I venture to submit, he is mistaken. Prof. Huxley is unquestionably the greatest biologist and physiologist and he is on the other side. Prof. Carpenter who died a few months ago, and second only to Huxley as an eminent physiologist, was also, I think, on the other side. I have not Carpenter by me at present but I think Prof. Cook will find that he was distinctly on the other side of the house. I know of no really eminent physiologist who can be quoted on Prof. Cook's side except Trall. Trall's school of medicine, the *Hygienic Therapeutic*, doubtless nearly all agree with their great teacher; while the regular Allopathic profession—that is their authorities—are almost all on the other side with Liebig, Carpenter and Huxley. The Homeopathic and Eclectic Schools of Medicine are divided on the question with a majority, perhaps, on Liebig's side. Thus it is that this problem of the production of animal heat in the living system is still if not an unsolved at least an unsettled one; and hence we must gently oppose Prof. Cook's attitude in the premises as savoring just a little of dogmatism.

When the Prof. wrote in the JOURNAL (page 722) about "a little learning being a dangerous thing," and proceeded *ex cathedra* to set aside Liebig's hypothesis and belabor Mr. Cushman I myself felt just a little in the Professor's road remembering that in my leaflet on "Honey—Some reasons why it should be eaten," I had written the following sentence, viz: "If the animal heat of the system is produced and maintained by the combustion in the blood of the oxygen of the air taken in by the lungs and certain elements of the food, as the most eminent authorities maintain, then it is absolutely certain that for six or eight months of the year in this climate there is no more wholesome or necessary food than pure honey."

Now, the use of the word "if" in the sentence above quoted really leaves the question as to the production of animal heat an open one, as it undoubtedly is, with the preponderance of authority, as there intimated, on the chemical side. I must confess, however, that twenty-five years ago when I looked into Trall's position on this question I thought him right so far as my poor judgment was capable of deciding between great authorities, and ever since, the principle has had its weight more or less in daily life in the regulation of diet, etc. Whether Trall is right or wrong on this point one thing is certain—he teaches more wholesome physiological and hygienic truth in his writings than any other with whom I am acquainted living or dead. One other thing is certain, if Liebig's theory is false it has done a great deal of harm in a quarter of a century in the influence it has had in regulating human diet, and will continue to do a great deal more until it is thoroughly refuted and abandoned. My confidence in what I would call the physiological explanation of animal heat as against the chemical remained firm until Prof. Huxley appeared in the arena. I could easily understand how the allopathic medical profession, even including the great Dr. Carpenter, would readily and naturally accept Liebig's chemical theory of animal heat for it is in close keeping with the fundamental doctrines of their school, which, however, I believe to be erroneous. And it was equally natural that Trall and his school should go to the other extreme in utterly casting out all chemistry from the *living system*, being so dead set against all "drug medication." But when Prof. Huxley comes forward, having no axes to grind either for the chemists or physiologists—without any hobby-horses to ride, but as a scientist and disinterested investigator—and endorses Liebig's theory I begin to think it may possibly be true. Time will no doubt tell. This vexed question, with many others, seeking the light, will be cleared up in due time. Meanwhile, let no one be dogmatic—not even professors—especially when they get out of their special lines. A few months ago when the "hibernation" theory was fairly on the "rampage" in the bee journals and Prof. Cook uttered his laconic dictum, "Bees do not hibernate," which had the effect of making the author of that theory quite petulant and impatient, I thought the Prof. was quite right both in manner and matter. That was in his line as an entomologist and he had a right to speak authoritatively, especially as the point was a settled one. Prof. Cook, of course, means that bees do not hibernate in the scientific sense. He admits with others of us that they frequently get into a very quiescent or semi-

torpid condition in winter quarters, but this is not hibernation in a scientific sense, and the author of that theory may as well accept the fact with complacency. In popular phraseology we may be permitted the license to say that bees "hibernate," but when we come down to the precision of language required by science the word must be dropped as applied to bees. On this question of hibernation I have not a doubt that Prof. Cook is right—in fact he has proved his position—but on the physiological problem I am equally certain he is wrong at any rate as to the authorities.

ALLEN PRINGLE.

Selby, Lennox Co., Ont., March 17, '86.

After all that has been said both pro and con about this matter, surely we will arrive at the correct conclusion sooner or later. By each one advancing his views clearly, and solely with a view of arriving at the facts of the case, irrespective of defeat or victory, many valuable scientific points may be brought out and we, novices, will be enlightened in regard to the various theories in question.

FOR THE CANADIAN BEE JOURNAL.

HEDDON'S NEW HIVE.

MR. Heddon's new hive—so called—is getting quite a boom, and perhaps deservedly so, but how as yet it can be said to be as a matter of fact, so far superior as claimed to all others, I fail to perceive, as it has yet to pass the ordeal of practical tests before its many claims can be fully substantiated. As yet I have not tested the hive (although Mr. Heddon has kindly presented me with the legal right so to do), so I cannot say a word for or against. What I propose to do in this article is to say a few words in regard to its claims to patentability. As a lawyer somewhat conversant with patent rights, and as a bee-keeper tolerably well read up in the history of improvements in hives and appliances apicultural, I have examined the claims made to the patent office, and there allowed, but viewing said claims in the light of the "state of the art" as revealed by history, I fail to find anything new or patentable. "Closed end frames" were originated years ago by the late nestor of the art, Mr. M. Quinby; fastening such frames in the hive by compression is an old device. Shallow hives have been praised and condemned for years, and tiering up of hives and section cases is certainly as old in principle as Root's simplicity hive. Invertible hives have been in use for years, and the patent on such granted to Mr. J. M. Shuck long antedates the Heddon hive. Shuck's hive is formed, too, on precisely the same plan as Heddon's, the differ-

ence being that Heddon used two sets of shallow frames, while Shuck used but one suspended from the middle of its end bars. Reversible frames have been used for years, and the idea of reversing sections in order that they might be more completely filled out was made use of as long ago to my own knowledge as the year 1867. Slatted honey boards with slats breaking joints with the top bars of frames, have been in use for years, and wide frames for sections, both with and without separators, have been both praised and condemned for many years. What is there in this hive then so new and original that a valid patent can be justly granted on its claims? Mr. H. himself admits that he claims nothing new in the various parts which form the hive, not even the wood and paint used in its construction. He does claim in some way for a combination of something in connection with what he calls an improved method of management. I do not say a word against the hive or Mr. H's methods; far from it. I am simply testing his claims by the fire of admitted facts, and in the crucible of past history. If these claims will stand the test, I am giving Mr. H. a fine advertisement gratuitously; if they will not, I am simply showing that fact, and Mr. H. himself can find no fault therewith, for he most certainly does not wish to stand on untenable ground, or succeed in putting his hive on the market by false pretenses. I trust that no one will be mean enough to make use of Mr. H's combinations to Mr. H's detriment whether a valid patent has been granted or not, for whatever there is in the hive that is Mr. H's original idea should be held to belong as sacredly to him, as should his pocket book, or any other property. I am simply criticising, or rather inquiring into the facts connected with a public matter, and only with a desire of eliciting the truth. As a patent solicitor I am always ready to admit the just claims of any to originality, and aid in securing the same by invoking the aid of the patent office; but I have yet to learn that a *valid* patent can be granted for a combination of old ideas in an old form for the purpose of producing an old result.

J. E. POND, JR.

Foxboro, Mass., Feb. 6, 1886.

Since receiving friend Pond's letter relative to the patentability of the Heddon hive, we have given the Canadian patent laws a most careful study, and we are thoroughly satisfied that in Canada the patent is unquestionably secure, and our opinion has been verified by a leading firm of patent solicitors in Toronto, and probably the best firm in Canada. There may be something in the U. S. patents received heretofore by

others that anticipate friend Heddon's ideas, but we understand that he has given the matter very close attention, and so he will be able to "stand up for his rights" in the U. S. Having bought the right of sale for Canada we are in duty bound to protect the Canadian patent. We fully agree with you, friend P., that we have a right to respect the inventions of others be they patented or unpatented, and we like the remarks of friend Root in *Gleanings* a short time since, where he says that those who steal the ideas of others without giving proper remuneration will lose more than they gain by it. Friend Heddon will please explain his position with regard to the "patent" question, as we feel sure he can. By the way, we like the remarks of Dr. C. C. Miller in *A. B. J.*

QUEEN LAYING DRONE EGGS.

GEO. SPITLER.—I think the CANADIAN BEE JOURNAL is up to the best of them. The following is my report: Fall of 1884, packed five colonies out doors, four in chaff, and one in leaves, (lost the latter), and but one came through strong, but had all stores used up, so it had to be fed. Two of the others were weak, with plenty of stores, and one (the third one) was very weak, not bees enough to cover one space between two combs. I put this last one between division boards, left in three frames, and though my highest expectations were to make a fair colony by fall I took 47½ pounds surplus from it, besides a good swarm, and 15 pounds of surplus from it, all comb honey. The other colonies were left without division boards, and though much stronger did not do as well in surplus as the weakest one. I have now ten colonies packed in chaff, and had in all 277 surplus comb honey. I had much trouble with one colony, which cast a swarm, and the queen failed to hatch. I gave it a frame of young brood and eggs. They succeeded in raising a queen, which I noticed out in due time, two days in succession. It was not able to fly, and yet I supposed perhaps it had mated, but I was doomed to disappointment. I did not molest the colony, as it appeared to be doing all right in honey-gathering until removing surplus, when to my surprise I found, what many, in reply to query in *C. B. J.*, said, they had never had a queen laying drone eggs. The worker cells were full of drones, though not solid like the worker bees. The queen was destroyed, another introduced, but the colony did not revive so it could be depended on, and it was united with a weak one. I am but a beginner in the business, and never had any thoughts of going into the bee business until my wife fell heir to a very weak colony from her father two years ago. For the last year I have spent a considerable time in informing myself by reading and experience, and from this on I hope for better success.

THE CANADIAN BEE JOURNAL.

JONES, MACPHERSON & CO.,

EDITORS AND PUBLISHERS,

BEETON, ONTARIO.

WEEKLY, \$1.00 per Year, Postpaid

BEETON, ONTARIO, MARCH 24TH, 1886

We have an able article from friend Pringle on "Spring Management" which will be inserted in next issue—when we hope to have more space at our command.

We hope our friends have not forgotten friend Viallon's premium for the greatest number of subscribers sent in before April 1st—we expect to see a large increase in our list within the next month.

Next week we will issue 6,000 extra copies of the CANADIAN BEE JOURNAL—which will be forwarded to those whom we should like to have on our list of subscribers—should present subscribers receive them they will confer a favor by handing them to some friend who is not at present on our list.

We are pained to hear that friend A. I. Root has been a heavy loser in a fire which burned down a warehouse on his premises destroying \$12,000 worth of property—the fire, it is thought, was the work of an incendiary, though how any one could have spite sufficient to make them commit such a deed to harm friend Root is almost past our comprehension—we have always found him the most honorable and upright man conscientious and christian-like in all his dealings, and we feel satisfied that the poor deluded creature who would endeavor to thus injure him, has been laboring under mistaken and fancied ideas of wrong. Friend Root announces that they will be able to fill orders almost as promptly as ever.

There seems to be some misapprehension as to how to address the different firms which are engaged in the publishing of the BEE JOURNAL and in the supply and bee business. For the better understanding of all concerned we give the following explanations:—All matters relating to the bee-business and the purchase of supplies should be addressed "The D. A. Jones Co.," and all remittances, articles for publication and all matters relating to the BEE JOURNAL and to the publishing business should be addressed "Jones, Macpherson & Co." The two concerns are entirely separate and distinct. To save postage those having business with both firms may enclose all in one letter, but have the communications on different sheets of paper, that each may go to the proper department.

CONVENTION NOTICES.

The next meeting of the Patsulgie Bee-Keepers' Association will be held at Arcadia, March 20th, 1886. M. J. Rushton, Sec., Raif Brand, Ala.

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.

FOUL BROOD, ITS MANAGEMENT AND CURE by D. A. Jones. Price, 11c. by mail; 10c. otherwise.

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SUCCESS IN BEE CULTURE as practised and advised by James Heddon—price in paper cover, 50 cents.

HONEY MARKET.

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.

CINCINNATI, O.

Demand is extremely slow for extracted honey. Manufacturers seem to have taken a rest. There is only a fair demand for honey in glass jars and for comb honey. Prices are unchanged and nominal with occasional arrivals and a large stock on the market. We quote extracted honey at 4c. to 8c. on arrival and choice comb honey at 12c to 14c. in a jobbing way. There is a good home demand for bees wax. We pay 25c. a lbs for choice yellow.

CHAS. F. MUTH & SON.

Cincinnati,

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,

DETROIT.

No change in the honey and beeswax market since I last wrote you.

M. H. HUNT.

Bell Branch, March 15th, 1886.

ADVERTISEMENTS.

THE NEW HEDDON HIVE.

We have bought out the interest of the inventor in his Canadian patent, and we are in a position to make and sell the Heddon Reversible Hive, got up in any shape to suit the purchaser—either in the flat or nailed.



The engraving gives a good idea of the hive. The brood-chamber is in two sections; also the surplus arrangement, which may be interchanged or inverted at will. The cover, bottom-board, and top and bottom of each sectional case has one-half of a regular bee-space, so that the surplus cases with the sections may be placed between the two brood chambers, or the latter may be transposed or inverted—in fact, all parts of the hive are perfectly interchangeable. The brood-frames will all be bored for wires.

A SAMPLE HIVE

includes the bottom board and stand; a slatted honey board; a cover; two 6-inch brood chambers, each containing 8 frames, wired; two surplus arrangements, each containing 28 one-pound sections, both with wide frames and separators, both of which can be interchanged or reversed at will. Price, nailed \$2.90; nailed and painted \$3.25. It is absolutely essential to order one nailed hive as a pattern for putting those in the flat together correctly.

HIVES READY TO NAIL.

We have arranged several different combinations in these hives, so that our customers may make a selection from the sample hive nailed without waiting for us to quote prices; in ordering ask for the number which you desire, and no mistakes will be made.

No. 1 consists of the stand, bottom-board, cover, two 6-inch brood-chambers, 16 frames with holes punched for wiring, and the slatted honey-board, price \$1.25 each.

No. 2 is the same as No. 1, with the addition of one surplus arrangement, containing 28 sections, with separator—interchangeable and reversible. Price \$1.75 each; without sections, \$1.60.

No. 3 is the same as No. 2 with the addition of another surplus arrangement, and sections, and is the same in all particulars as sample hive. Price \$2.30 each; without sections, \$2.00.

Those who wish the hives *without* the stand, or honey-boards, may make the following deductions from above prices: Stands 10 cents; honey-boards 7 cents. For extra brood chambers, with frames in flat, adds 45 cents each; and for extra supers adds 40 cents each. Separators of tin are included in these prices throughout. If separators are not desired, deduct for each super 4 cents.

DISCOUNTS IN QUANTITIES.

For 5 or more hives, 5%; 10 or more, 7½%; 25 or more, 10%; 50 or more, 15% off these prices.

THE D. A. JONES CO., (Ld).

BEETON ONT.

Bee-Hives, Honey-Boxes, Sections.

Largest Bee-Hive Factory in the World.

Write for our prices for one price sections, delivered freight and duty prepaid.

G. B. LEWIS & CO.

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THE MITCHELL FRAME NAILER.

Saves the cost of the machine in nailing the frames, to say nothing of the extra quality of the work obtained by it.

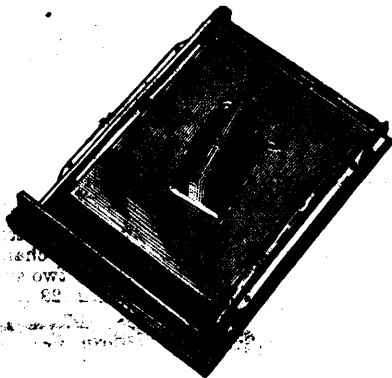


FIG. 3.

For Jones' Frame \$1.25
For Langstroth Frame \$1.50

Ready to go by express or freight
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BEEES AND HONEY Y

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

M. RICHARDSON & SON,

Port Colborne, Ont

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MANUFACTURED BY

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

Are unsurpassed for *Quantity and fine Workmanship*. A specialty made of all styles of the *Minutely Five'* including the *Van Dusen-Vells*. The *"FALCON"* Chaff 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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The Given Press is the only perfect machine in the Market for making wired frames of Foundations, while our customers claim its superiority for Sections, James Heddon, George Grim, Oatman Bros. and others affirm its superiority. For Circulars and Samples. Address

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Send for my Circular. It tells you about my **NOTED** strain of **Red Clover Bees**, also other valuable information. I challenge the world on fine bees and queens. Also have on hand, and breed fine English Rabbits.

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Beeton Printing & Publishing Co.,

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Send for our FREE "Honey Label" circular. Printing furnished promptly, and neatly done. Estimates of "circular" and other work on application.

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3-1-1. Manager, Beeton, Ont

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 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

FARNES' FOOT-POWER MACHINERY.



Read what J. I. PARENT, of CHARLTON, N. Y. says—We cut with one of your Combined Machines, last winter, 50 chaff hives with 7-inch cap, 130 honey-racks, 500 broad frames, 2000 honey boxes, and a great deal of other work. This winter we have double the amount of bee-hives etc., to make and we expect to do it with this Saw. It will do all you say it will. Catalogue and Price-list Free. Address, W. F. & JOHN

BARNES, No 472 Ruby St., Rockford, Ill.



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M. B. HOLMES, Delta, Ont.

IMPORTER OF AND DEALER IN

ITALIAN BEES AND QUEENS.

The best of Italy's choicest queens their mothers. Not one disappointed customer in 1883, 1884, and 1885. Price, untested, \$1.50; Tested, \$2.00; Selected tested, \$3.00. Colony in Jones' Hive, \$9.00.

Agent for all kinds of Apian Supplies.



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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 as will send every inch of our Foundation equal to sample in every respect.

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

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BEESWAX WANTED.

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OR MANUAL OF THE APIARY.

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" 10,000.....	50 00

Sample sections sent on application.
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VANDERVORT

Comb Foundation Mills.

Send for samples and reduced price list.
DNO. VANDERVORT, Laceyville, Pa.

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These Knives are made of the Finest Razor Steel

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If by mail, add 18c extra for, each knife.
THE D. A. JONES CO., LD., Beeton, Ont.

THE INVERTIBLE HIVE.

INVERTIBLE FRAMES,

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

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Queens From The South.

In April, \$1.25 each; \$13.00 per dozen.
 In May, \$1.15 each; \$12.00 per dozen.
 In June, \$1.00 each; \$10.00 per dozen.
 Tested, \$2.50.

Safe arrival and satisfaction guaranteed. Special rates to dealers.

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

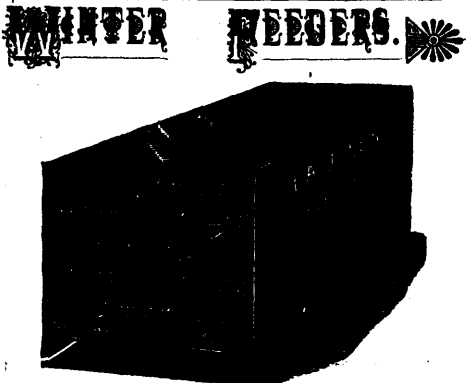
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Queen Bees and Nuclei

Italian and Albino Queens bred from Northern mothers, equal to any in the United States, being hardy and superior honey gatherers, as my surplus is stored largely from red clover. Three frame Nuclei a specialty. Vandusen and Given Foundation. Extra nice dovetailed white poplar sections. Also one Apiary of 75 colonies of bees. Prices reasonable. Satisfaction and safe arrival guaranteed. Cash with order. Reference, Schenectady Bank.

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 GROOMS CORNERS, SARATOGA Co., NEW YORK.



Great Reduction in Prices.

Our beautiful all-in-one-piece sections, smooth inside and out, at \$4.00 per 1,000. For larger lots, write for price. Send for price list of other supplies.

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 BELL BRANCH, WAYNE Co., MICH., near Detroit.

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

DICTIONS FOR MAKING THE CANDY.

QUEENS, 1886. QUEENS.

Rearred from Imported Mothers. Two, three and four frame Nuclei. Send for price list. Address

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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, "	2 75
Each, in flat	20
Per 10 "	1 75

EARLY ITALIAN QUEENS

Nuclei and Full Colonies.

Fine stocks of Imported Queens on hand. Send for Illustrated Catalogue of Bees and Supplies. Address,

J. P. H. BROWN,
 Augusta, Georgia, U.S.

We have a full stock on hand ready to go by return express or freight. THE D. A. JONES CO., LD., Beeton

WANTED!

A position as Manager or Assistant by an experienced Apiarist. Best of references.

Direct, APIARIST, care of D. A. Jones, Beeton.

KENWARD HALL APIARY.

We have 100 queens ready for mailing March and April and hope to meet all demands—later—by return mail. All queens are from imported mothers, imported by us, and selected for gentleness, prolific and honey gathering qualities. Price \$1.00; dozen, \$10.00; tested, \$2.00. Dealers, have special rates.

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SAVE MONEY

By Making Your Own Foundation.

FOUNDATION MILLS.

FOUR REASONS WHY YOU SHOULD PATRONIZE C. M. Goodspeed.

CIRCULARS FREE.

Through arrangements made with Manufacturers I am enabled to offer Canadian customers the following makes of mills at prices much lower than they can be ordered singly and but little above makers list prices.

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Duty free and freight or c. charges to be paid from my station. Don't fail to write me before purchasing, stating kind and size of mill wanted. ORDER EARLY. Circulars and samples free.

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Low PRICES.—Everything is guaranteed first quality—PROMPTNESS—and last but not least RELIABILITY.

If you want Bees, Queens, Nuclei in flat, Sections (1 lb.) Bee Books or Papers (any two American Bee Papers to one address for \$1.70), B. Leghorn fowls, (eggs for hatching, 50 cts. for 13), Alsike Clover, seed clean \$7.00 per bushel, raspberry and strawberry plants, basswood sprouts, etc. Drop me postal stating what you want.

Remember I am agent for all the Leading Newspapers of the country; price list of 350 on application. You can save money by ordering of us. Ample reference given.

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	Price Both. Club.	
THE CANADIAN BEE JOURNAL and.....		
Cook's Manual (cloth).....	\$2 25	\$2 00
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180 ACRES SELECTED,

High, gray hummock and pine lands, not subject to overflow, situated on the

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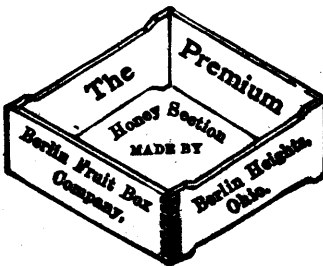
In Tropical Florida, 81° 50 m longitude west of Gr., and 26° 35 north latitude. 16 miles south of Fort Meyers, 24 miles distant from Ostego Bay, crossed in its whole length by the lovely Estero Creek, for the culture of Oranges, lemons, limes, pineapple datepalm, coconuts and winter vegetables, etc. Climate grand and delightful, water good and healthy, health unsurpassed. In 5 acre lots, \$12.50 per acre. The whole, a 140 acre tract, at \$10.00 per acre. 100 to 270 colonies of Italian bees can be had if wanted. Apply to

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Containing Queens raised from choice mothers. They are on straight selected frames, most of which are wired. The queen can occupy them nearly to the top bar. Prices as follows: One colony of bees on eight Jones' frames for delivery in May, \$9.00. Hives or boxes for shipping extra as follows: Box, suitable for shipping, 50c. [can be returned if desired]; a hive to hold 10 or 12 frames, \$1, or \$3 for my special storey and a half hive, 28 inches long inside, with one inch chaff space at the sides, contains 2 division boards, and has a special feeder whereby you can feed without removing cover or disturbing cushion. It is made of first-class material and well painted. With this hive the honey can remain until well ripened, as you can extract 50 lbs at one time.

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If you want to use the best one-piece sections made, try ours. They have taken 1st premium wherever exhibited, and all who use them once want no other. H. R. Boardman, of



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Berry Packages. Address as above.

NORWAY SPRUCE.

Something for every Bee-Keeper. Shelter your Apiary. Large quantities at low prices. Send for price list.

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GUELPH P. O., ONT.

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Having a large stock of sections on hand we will fill orders in March at the following prices:

4 1/2 x 4 1/2, in lots of 500 to 4,000, per 1,000,	\$5.00
" " " " " " " "	4.75
" " " " " " " "	4.50
" " " " " " " "	4.50
4 1/2 x 4 1/2, at same prices. All V-grooved.	

Our Section-Cases and Shipping-Crates are as good as any in the market, and at correspondingly low prices. For description and prices of the SUCCESS HIVE, send for Price-List. Estimates given on all other hives.

QUEENS AND BEES FOR 1886.

We make a specialty of rearing the ALBINO QUEENS AND BEES. Price-List free. S. VALENTINE & SON Hagerstown, Md.

SECTIONS!

SECTIONS!

Lake's All-in-One-Piece!!

4 1/2 x 4 1/2 x 2—to 1 3/8.....\$3.00 PER 1,000.
5 1/2 x 5 1/2 x 2—to 1 3/8.....\$4.00 PER 1,000.

SPECIAL FREIGHT RATES GUARANTEED.

New Firm.

New Factory

New Machinery.

Samples and Price List, with unsolicited Testimonials, sent on receipt of five cent stamp to pay postage.

"Sections received. As far as material and workmanship is concerned they cannot be excelled. Send me 10,000.

"R. STEELE,
Marietta, Ohio.

"We would like the exclusive agency of the whole Northwest Territory. Send us 10,000 at once.

"HAVE & SON,
Council Bluffs, Iowa.

Address,

LAKE BROS. & CO.,
CATONSVILLE, MD.

Lock Box, 17.

Italian Bees and Queens.

Full Colonies, Nuclei and Queens, sent on short notice.

A. NEEDHAM
Sorrento, Orange Co., Fla.

ASSISTANT WANTED.

Capable young man in apiary for season. Give experience, wages, etc.

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Bee - Breeding Establishment of

F. J. DOKOUPIL,

Vigaun, Upper Carniola, Austria, Europe.

Queens sent free of charge. Safe arrival and purity of separate races guaranteed.

Price of each in Marks, German Money.

	April	May	June	July	Aug.	Sep	Autumn
Carniolan Original Queen	8	7	6	5	5	4	4
Italian Original Queen.....	9	9	8	7	7	6	6
Cyprian or Syrian Original Queen.....	20	20	20	20	18	18	18
Cyprian - Syrian Queens, bred in Carniola.....	12	12	11	11	10	10	10

WHAT EVERYBODY WANTS.

—THE—

CHAMPION EGG TESTER.

PRICE, 50 CENTS.



Use it at home, everywhere. Take it with you in your pocket when buying eggs. Save money and trade. Bad ones are seen at a glance. For incubating purposes they are far superior to anything out—durable, nice form, and will last a long time.

THE CHICK'S HEART can be seen beating through the shell in three days, and dead ones are plainly noticeable. After eggs have been under a hen or incubator for five days, the unfertile ones should be removed. This can be done by using an Egg Tester.

We will send one of these Egg Testers free to every person sending us \$1.25, the price of one year's subscription to the "POULTRY MONTHLY," the best magazine of its kind. If you have already paid your subscription, induce one of your neighbors to subscribe, mail us the amount (\$1.25) and we will send you the Egg Tester free of charge for your trouble. Send for Price List of Poultry Supplies. Address:

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P. O. Box 215, Toronto, Canada.

1884 - TAR-HEEL APIARIES - 1886. - 1 - ABBOTT L. SWINSON, 71-86.

No. Co. Queens, PROPRIETOR, No. Co. Queens
All warranted Goldsboro Wayne American Albino
Purely mated. Co., N. C. Italians, Syrians and Carniolans.

Price list of warranted American Albino Italian, Syrian and Carniolan Queens:

	For the Year 1886	April	May	June	July & on
Untested laying, each...	\$1 50	1 00	1 00	1 00	1 00
Untested laying, 1/2 doz...	8 00	6 00	5 25	5 00	5 00
Fine Tested Q's each...	3 00	2 50	2 25	2 00	2 00
Fine Tested Q's 1/2 doz...	15 00	13 50	12 50	11 00	11 00

My AMERICAN ALBINO ITALIANS, all show 3 yellow bands and many the 4th and 5th, with an equal No. of white silvery bands of the same, these are my specialty for 1886. Syrians and Carniolans are bred from imported mothers of Mr. F. Benton. The Syrian was specially selected to order, for producing the gentlest and whitest banded bees to be found in Syria. Nuclei—Add 75 cents for each L. frame of Bees and brood to price of queen. Bees by pound, same price each month as untested queens. Pelham foundation 45c. and 55c. a pound. Untested queens by April 15th. Circular free.

NOW THEN ORDER.

Having determined to devote my time exclusively to the production of

PURE ITALIAN BEES & QUEENS

the coming season, I am enabled to offer the following prices:

- Tested Italian Queens.....\$1 00
- Bees per lb. 1 00
- One Frame Nuclei with Tested Queen, 1/2 lb. Bees and 1 Frame Brood..... 2 00
- 2 Frame Nuclei, 1 lb. Bees & Tested Queen 3 00
- 3 " " 1 1/2 " " " " 4 00
- 4 " " 2 " " " " 5 00
- 1 Tested Queen and 1 lb. Bees..... 2 00
- 50 choice Colonies for Queen rearing for \$10 each.

See what last season's customers say:

PENETANGUISHENE, CANADA.

Queen received all right. She is a noble looking queen and pleases me better than any I have yet received.

HARVEY L. LEACH.

The queens are both giving satisfaction.

R. M. TAYLOR,

Port Dover, Can.

Those two queens I got from you are giving excellent satisfaction.

JNO. G. KNIDENGER,

Kilmanagh, Mich.

I am very much pleased with the tested queen I got from you last summer.

J. S. SHELLEY,

Sodus Point, N. Y.

and hundreds of others.

I will commence mailing soon after May 1st, and of course first orders are first filled, so order now. Terms cash with order. Safe arrival, and satisfaction guaranteed in every case. Sample of live workers free by mail.

THOS. HORN.

Box 1691, Sherburne, N. Y.

ESTABLISHED 1855.

BEE SWAX HEADQUARTERS.

We have constantly on hand a large stock of Domestic and Imported Bees-wax in original shape, which we offer to manufacturers of Comb Foundation at lowest prices. We guarantee all our beeswax absolutely pure. Write to us for prices. Address,

E. BOKERMANN & WILL,
Beeswax Bleachers and Refiners. **Syracuse, N. Y.**

THE YUCCA BRUSH!!

BY MAIL SIX CENTS EACH.

I also manufacture a first-class article of Comb Foundation, and keep in Stock Sections, Honey Knives, Cans, Smokers, etc. Write for particulars.

W. W. BLISS,
Duarte, Cal.

J. P. Connell,**HILLSBORO, HILL CO., TEXAS.,**

Makes a specialty of rearing Pure Italian Queens and of Shipping Bees in two, three, and four frame nuclei. My queens will be bred from the best imported mothers. Tested Queens, in March and April, \$2.50; after, \$2.00. Untested Queens, in April, \$1.25; after, \$1. Safe arrival and satisfaction guaranteed. **Send for circulars.**

ITALIAN BEES IN IOWA.

60 cents to \$1 per lb. Queens 30 cents to \$2.50. Nuclei and full colonies. Order from my new circular.

OLIVER FOSTER,
Mt. Vernon, Linn Co., Iowa.

EASTERN BEE HIVE FACTORY,

Especially adapted for manufacturing all kinds of

APIARIAN SUPPLIES.

Having fitted up with new machinery, designed and built expressly for this work, my facilities are unsurpassed for doing fine and accurate workmanship. For full particulars and low prices, send for my Illustrated Catalogue of

SUPPLIES, BEES, QUEENS,

And a sample of the Celebrated Poplar Sections free on application. Mention this Journal.

E. L. WESTCOTT,
Fair Haven, Rutland Co., Vermont.

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