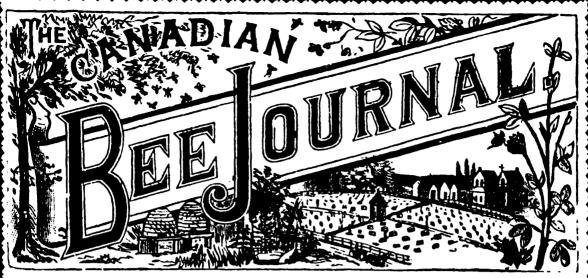
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"THE GREATEST POSSIBLE GOOD TO THE GREATEST POSSIBLE NUMBER."

Vol. VII, No. 19.

BEETON, ONT., JAN. I, 1892

Whole No. 303

THE CANADIAN BEE

Devoted exclusively to the interests of the Honey Producer.

Seventy-five Cents per annim in Advance.

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PUBLISHERS NOTES.

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

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the same envelope
Reports from subscribers are always welcome. They
assist greatly in making the JOURHAL interesting. If any
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may do.

want ansarry opportunity to make right any injustice we may do,

We do not accept any advertisements of a suspicious or swindling nature, but our readers must not expect us to be responsible ahould our advertisers not do as they agree. They will find it a good-rule to be careful about extraordinary bargains, and in doubtful cases not to pay for goods before delivery.

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Who reads the BEE-KEEPERS'S REVIEW OF year, or | even a few months, is almost certain to become a regular subscriber. As an inducement to non-subscribers to thus become acquainted with the REVIEW. I will send it during the three succeeding menths for 20 cents in stamps, and I will also send three back numbers, se-lecting those of which I happen to have the most, but

A list of all the special topics the have been discussed, the numbers in which they be found, and the price of such will also be such be found, and the price of each will also be sent member the Review has been enlarged, a beautiful cover added and the price raised to \$100. member the Review has been enlarged, a cover added, and the trice raised to \$1.60. Eutchison, Flint, Michigan.

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Read what J. J. Parnet, of Charlton, N. Y.. says—"we cut with one of your Combined Machines, last winter 50 chaff hives with 7 in. cap. 100 honey racks, 500 broad franes, 5000 broney boxes, and a great deal 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, 54 Ruby St. Rockford, 111.



BEES AND HONEY

The Dovestide Strongrest, Rest au.

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Cheapers BEE.HIVE for all purposes. Proventies and deserved the Largest Hee-Hive Factory in the World for sample copy of Gleanings in Bee Oulture (as illustrated catalogue of Ree-Koepers Supplies. Our A B O of Rec Cul.

200 cuts. Price in cloth, \$1.25. Cy Mention this paper.

A. I. ROOT, Medina, O

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On Michigan Cen and, Detroit & Alpena and Loon Lake Railroads, at prices from \$2 to \$5 per acre. These lands are close to onterprising new towns, churches, schools, etc., and will be sold on mostfavorable terms. Apply to R. M. PIERCE, West Bay City, or to J. W. CURTIS, Whittemore Michigan.



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CASH—small but sure profits, Send your addressors, which will be issued about March—free to intending purchasers. ing purchasers.

F. W. WILSON.

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Chatham, Opt.

MENTION THIS JOURNAL,

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J. F. DUNN.

RIDGEWAY, ONT.

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GGS for sale from a grand pen of my strain of Brown Leghorns at \$1.50 per 13, \$2 per 26. Satisfaction guaranteed. This pen is headed by a fine cook, winning lat as a cockerel, by Bicknell, at Owen Sound, 1890, score 941, and 1st as a cock at Owen Sound, 1891, sore 93, by J. K. Felch, a fine large bird. One hen has won three first and two special prizes three years in succession, and looks like a pullet, scored by Felch as pullet, 65; as a hen by Felch, 95; one pullet scored by Bicknell last year 951; also 2nd prize hen at Owen Sound last year, score 941, and other hens and pullets but will score from 93 to 95. that will score from 93 to 95.

Will sell Exhibition Cockerels and Pullets in the fall

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MERTION THIS JOURNAL

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BREEDER AND IMPORTER OF

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I wish to inform the bee-keepers of Canada that I have purchased \$2000 worth of new machinery for cutting one and four-piece section, and we are running one for the section and we have continued to the section and the sect Suting one and four-piece section, and we are running our factory every day and cutting as fine a section as I ever saw. No. 1 section, finished on both sides, when I have them, \$2.00 per thousand. No. 2 section, when I have them, \$2.00 per thousand. All kinds of bee-keepers' supplies always on hand. Don't fail to set a sample of one section before you buy for 1892. New Price list will be out by December, 1891. All orders with cash before January 1892 discount of 5 per cent.

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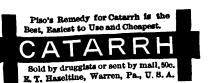
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A GRAND LOT of Silver Laced Wyandotte Chicks for sale. They are good and will be sold cheap as I want to make room. T. COCKBURN, Canada Street, Hamilton, Ont.

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Ollver Laced Wyandotte Cockerels for sale, hatched in lune; weight 7, 75 and 8 pounds; price, \$2 and \$2.50; best one to exchange for one as good, if better, difference given. LHSTER STOCKTAN, Kings Co., Anagance N. B.

MEYER'S S. L. WYANDOTTES are acknowledged the best grand chicks for sale all bred from the following \$ to 4 year-old hens scored last winter by Mr. Smelt: 94; five 93½ each; 93 (first hen, Toronto, '90, 91½ and pullet 92, mated with cock, 94, cockerel 93; If "ilike begets like," they must please you. J. B. MEYER, Kossuth. Mention this Journal.

FOR SALE.3 grand Light Brahma Chicks, a lot of cockerels, hens and pullets, the best I ever raised—certain winners the coming winter. Brown Leghons old and young. Cock and five hens, Silver Grey Dorking and a quantity of young Pekin Ducks, the best in Canada. JNO. COLE, Hamilton.

T HAVE about so Cooks for disposal in Partridge, Black and White Cochins, Light and Dark Brahmas, Langshans, Minorcas and Hamburgs; Silver Wyandette, Brakma. Occhin, Lengshan, Minorca and Hamburg Chicks for sale cheap, as I want the room. I will be pleased to answer all enquiries when stamp is enclosed. T. COCKBURN, Canada Street, Hamilton.

A PIARY FOR SALE.—54 Colonies of Bees, 31 upper stories for extracted honey and combs, supers, honey boards, extractor, 2 store cans holding 400 pounds each, packing boxes for outside wintering. Everything for the working of it except Foundation Mill. Foundation and beeswax enough for another season \$250 for everything researched with it. Bees in good condition. SAMUEL STAFFORD, Shedden, Out.

Don't you want to improve your stock Don't you want large, beautiful yellow Ithlian Queens, producing bees that will please you fully; the best honey gather-ers on earth. Bight years carefully breeding. 1048 Queens sold and have heard of only two mismated. Warranted each \$1, six

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NOW OR NEVER Having had placed in our hands several Incubators to sell for parties who have gone out of the business. They are now put unto the market at a great reduction. We have thoroughly tested them and put in all our latest improvements which makes them equal to our new ones. Remember all these machines have great records. Two 200 egg espacity, \$26 each; one 275 egg capacity, \$20; two roo egg capreity, \$30 each. For further particulars address THE GERRED INCUBATOR CO. SET. S.—See large ad., 90 De Grassi Street Toronto. Send 3 cent stamp for reply.

FOR SALE at The Canadian Poultry Yards—Dark and Light Srahma Cockarels, only \$1 each and upwards, bred from pair winning 1st and 2nd at Toronto, 1800. \$2 per pair, etc.; t White China Gander bred from pair winning 1st and 2n t at Toronto, 1890, only \$3, a dandy; 1 Yellow Iacobine Pigeon, only \$1 Tou. Geese, b. P. Rocks, Berkshire Pigs, etc. Have pair of Tou. Geese which won 2nd and 3rd at Toronto, 1890. If you want-the best of birds at the lowest possible price write to S. R. B. SMITH, Brighton, Ontario. write to S. R. B, SMITH, Brighton, Ontario.

HAVE two specially reserved S. C. B. leghorn cock-erls which I will sell for \$2 each.—J. W. BRITTON Lindsay, Ont.

FOR SALE—Indian Games, Wyandottes, and Leg-horns. A few good birds to spare. Send a stamp JOHN GRAY, Todmorden.

FOR SALE—1 Partridge Cochin Cock and 3 Cockerels; 6 Light Brahma Cockerels; also a few Pullets each variety which are all first-class; no culls shipped. R. H. Marshall, See'y Perfection Fanciers Club, Dunnville.

FOR SALE.—A lot of Partridge Cochin Cocks at \$2 and \$3 each; also two pair of Light Brahmas, and a pair of Black Hamburgs. T. COCKBURN, 64 Canada Street. Hamilton. Ont. Street, Hamilton, Ont.

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HOUR fine W. Rock cockerels bred from pen average score 9: 1 Cock 92; 1 White Leghorn Cock imported; 2 White Cockerels and 4 Brown, extra fine—for Sale Cheap. D. L. SOMERVILLE, Esquesing.

MUST BE SOLD.—A good pair of White Indian Games, colored Indian Game Cockerel, Wyandotte Cockerels, Fancy Pigeons and other stockwanted—a tew good White Rock Hens. JOHN GRAY, Todmorden, Ont.

FOR SALE .- A Gerred Incubator, 100 egg capacity n good working order, nearly new. This machine has httohed 80 per cent,—cost \$80. Will sell at a reasonable p-ice, or exchange for best offer in fowls. Address the Editor of THIS JOURNAL.

FOR SALE.—Stock from imported Mammoth Bronze Turkeys, Mammoth Light and Dark Brahmas, and Partridg. Cochins. The finest to be had. Silver Grey, and White Dorkings. Come and judge for your selves.—JOSEPH KINSEY, Doon, Ont.

HONEY FOR SALE—I have a quantity of first elass extracted honey for sale at ten cents a lb. I will put it up to suit purchasers in 24,5 and 10 lb. pails. Pails will cost, 40. 6c. and 10c. each.—EDWARD LUNAN Buttonville, Ont.

Cockerels and rullets in the very pink of condition. Stock is a No. 1. Won the following prizes at Almonte and Ottawa this fall: 1st on Cock and Hen; and 1st & 2nd on Cockerels and Pullets. Will sell Cockerels very cheap. Address, F. DONALD, Carleton Place, Ont.

POR SALE,—White, Brown and Black Leghorn cockerels, also Black Minorca cockerels. Single birds, Pairs or Trios of the above breeds. I have some large scoring hens for sale, one year old, also one trio of Pekin Ducks good large size.—JOHN PLETSCH, Box 26, Shakespeare, Ont.

MUST GO—Seven Black Leghorns hens and pullets and one cockerel, from imported stock, #11 good ones, nine dollars. Score cards for hens also. One 51a k Minorcas cockerel, good one, two dollars. Ten W. P. R. pullets and seven cockerels, \$1.50 each. Four choice highly scoring S. L. Wyandotte cockerels \$10 each.—S M. CLEMO. Dunnville, Ont.

CHEAP.—A good economical lucubator and brooder combined (400 eggs). It costs less to tun than the average 300 egg machine. Record, 90 per cent eggs are turned in it instantly without handling. The brooder put is heated by surplus heat of incubator or may be used independently as an outside spring brooder. It has 3 compartments; 18 ft. fi or space; price, \$28.00. Also a neat and compact nursery brooder for dividing young chicks into young flooks, holds 150 to 200 and has nine compartments all heated by one small lamp. Only costs 1½ cents for coal oil every 24 hours in cold woather. \$12 or both for \$35.00 cash. GEO. VANDE VORDE, Weston.



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

Vol. VII, No. 19.

BEETON, ONT., JAN. I, 1892.

WHOLE No. 303

THE CANADIAN BEE JOURNAL

ISSUED 1ST AND 15TH OF EACH MONTH.

D. A. Jones

EDITCE.

EDITORIAL.

Bacillus Alvei.

On page 744 Mr. Corneil replies to Mr. Doolittle and myself on the foul brood controversy, right here let me say that you will notice ere Mr. Cornell closes he makes use of the quotation "whether scientists have discovered the germs of foul brood or not, is a ques-Although these words appeared In our article, and we as editor of the Bee Journal, should be responsible for them, they are not my words but the assistant Who has read considerable on foul brood, thought that we might have improved the article by putting in those words Which he added, and as we have been in the habit of just dictating to one of our stenographers, then frequently not seeing the article until after they appear in the Jounnal, those who are acquainted with such work will not be surprised that errors creep in. In fact, in years gone by, my former assistant editor frequently attempted to improve what we had said as he supposed, when it not unfrequently conveyed a different mean-This is sure to be the case with

in practical bee-keeping,—he who does not and dare not look inside of a bee hive, cannot be expected to understand it thoroughly. Nothing short of a practical training in the bee yard will enable any one to edit or be a good assistant editor of a Bee Journal.

One might infer from Mr. Corneil's article that he would rather disprove fixed facts than admit them by quoting what he imagines to be proof from scientists, and right here let me say that we feel very grateful to scientists for the valuable information received from them from time to time, but we, like Mr. Doolittle, must say that those scientific facts must not be run in direct opposition to facts learned from years of practical For instance, he says: experience. "As a matter of fact 'Schoenfeld has proved that the food which is given to the young larvae contains, in a foulbroody hive a large quantity of these microbes.' Thus we see that whether the honey taken into the honey sac contains the infection or not, the brood-food prepared from it, by diseased nurse-bees will almost certainly contain germs which will give the disease to the larvae. To the ordinary observer, the disease would seem to come from the honey. This shows how mistakes may be made, when 'we go by practical experience,' instead of being guided by experience gained by observation with the microscope.

ing. This is sure to be the case with novices who are not thoroughly trained or any other scientist stating for a fact

what thousands of our beekeepers know from experience is not a fact. If diseased bees, or bees from a foul broody colony, when feeding the larvae from clean honey and pollen give the disease. what would be the use of our Inspector or sub-Inspector fasting bees to cure the disease? If this statement were correct, why would not the disease return every time to a badly diseased colony as soon as they commenced raising brood again. The microscope which proves something to be a fact that has been proven thousands of times not a fact, is of no use to me. Does Mr. Corneil mean to say that the thousands of bee keepers in America who have cured their diseased apiaries by the fasting plan or any other similar plan, which gets rid of the honey in their sacs, and then getting them clean hives and clean combs, are mistaken, or do not know what they are talking about? Is it possible that they are so blinded to facts that the disease has returned to their apiaries without their knowledge? Is it possible that all these statements and proofs are falsehoods, falsifving facts to fight science and the microscope? Is it possible that the tens of thousands of queens taken from foulbroody colonies and started brood rearing in clean hives that never showed a sign of disease, have the disease again? Is it possible that the 50 or 100 thousand colonies that have been cured in America which never showed the sign of disease afterwards, are all a myth? Is it possible that because we do not carry microscopes in the bee yard that all we do and learn in reference to this matter simply deceives us, and that we are groping in the dark? We think science and practice go hand in hand, and that there is a possibility of scien-Mr. Corneil tists making mistakes. tries to get over the alleged error o Cheshire's in reference to the way bees build comb, by saying that when combs are soft from heat they may be stretched or compressed so as to put the calls We were not altogether out of shape. a little surprised at this statement. the year 1887, if our memory serves us right, when Mr. Cowan, the able and esteemed editor of the British Bee Journal, was visiting us, we also had the pleasure of Mr. Corneil's company, and while Mr. Cowen was here we showed repeatedly asked them to examine if

him nct one cell, but thousands of cells built in almost every conceivable shape, not stretched in a pecular shape from heat, as Mr. Corneill would have it, but simply built in that peculiar way —not one comb but hundreds of them. As we had thousands of empty combs on hand hanging in our bee houses, we just took them down indiscriminately from the comb racks and showed hundreds of combs with these peculiar cells, and after cutting out about 25 large combs and packing them up for Mr. Cowan, we looked over our combs afterwards and found a very large number of much better specimens than those we had hurridly given to Mr. Cowan. are free to admit that some years ago we believed we could start foul brood. We gave it a fair trial, however, and after testing it to our entire satisfaction we were convinced that we could not and was quite willing to admit it, and we hope we shall never be so blinded by prejudice that we will not readily admit facts as we see or find them.

Mr. Corneil says: "There are more unwarranted statements and assumptions in the science of foul-brood, as taught by Mr. Jones and those who agree with him, than are to be found in any department of bee literature. For instance, Mr. Jones says: 'We have no knowledge of the disease ever being spread by the bees after the honey in their sacs was consumed.' We reply that it is an unwarranted statement to say that he ever knew when the honey in their sacs was consumed without killing the bees.'

We are equally surprised at the above statement, does Mr. Corneil mean to say that nearly all the intelligent beekeepers in America are wrong and are deceiving themselves? It is unnecessary to kill the bees to find out when all the honey in their abdomens is consumed. Scientists have to do it, practice does not, as our intelligent beekeepers are able to judge, and as a proof that their judgment is correct we have only to point to the tens of thousands of colonies cured by their judgment without the aid of the microscope. Is it not strange that these scientists with their microscopes which tells them all that is to be known, are unable to find foul brood in the honey? We have

carefully and do not recollect that they have been able to find any. It does **not** require the scientist or a microscope to find out to our sorrow. We have taken the brown ropy matter, the worst oul brood that we could get, have mixed it in honey until the bright, clear honey became a brownish color. fact, we placed so much in the honey that both the odor and taste was very apparent. We have fed that to queens and bees and after their bodies were filled, and we supposed their bodies must have contained millions of the germs, we have taken these same bees after fasting them and crushed them, mixing them up with honey and fed it to a clean colony in order to give the disease, which it did not. We hav**e** taken these queens, after being fed on the worst foul-brood honey that could Possibly be, and every egg they laid The scientist Produced perfect bees. apparently cannot tell when the contamination has disappeared from the alimentary canal. Without microscopic examination we can, or at least as far as practice goes, we have proved that We can. It does not matter to us if there are billions of germs in the bees as long as they are harmless, and do not give the disease to the colony. say that bees are full of foul-brood if it never gives the disease to the colonies? Why say queens lay diseased eggs? Scientists cannot say unless they destroy the egg, atter which they cannot test it by hatching. Practice proves that no egg is sufficiently diseased when laid, to cause the larvae to become diseased. Mr. Corneil also quotes British authority unable to cure foul-brood by the fasting plan. Now, we are not to blame if they cannot cure by that system, and we do not believe that our British friends are now so far behind the times that they are unable to cure by this system if properly carried out. Root did not succeed until he scalded his hives, and some little thing left undone just causes the difference between success and failure. If what almost everybody can do in America cannot be done in Europe by anybody, it certainly seems strange, and if that is the casewhich we doubt—we think Mr. Ccreeil had better quit quoting them as auth-Opity.

other Bee Journal started in Canada, and that the parties going into it intend making it one of the most brilliant Journals published. We have been consulted privately in reference to the matter, and should not be surprised if the scheme should be carried out. seems to be the opinion of some that there is room for two Bee Journals in Canada. As editor of the Canadian Bee Journal perhaps we ought not to say what the results might be, but there is one thing certain that it would likely be the survival of the fittest. We know that the C. B. J. has not received all the attention that it should have during the last six months, since we have taken sole control of the editorship we were so much engaged in looking after the business and trying to keep things in shape, that it was impossible for us to devote as much time to it as we would otherwise like to have done. Several years ago the Bee Journal was absorbed by the company, and as it forms one of the assets of the company now in liquidation it will be sold. We do not know who will be the purchaser or who will control it, but this issue closes our editorship, and we have not decided what course we will take in future. We have been offered the editorship of the proposed new Journal, which we believe is to be called the Dominion Bee Journal, but as we are not anxious we refused. In future we may write for some of the other Journals. We trust, however, that the C. B. J. may tall into hands in whom all the friends have confidence, so as it will prosper as it deserves. Let us here thank our many friends for their forbearence, kindness, assistance and patronage, and trust in the future we may have many opportunities to meet with, converse and enjoy their company, and be much benefitted by it, as in the past.

We are asked by a subscriber if Cal. gary, N. W. T., is a good place for bees-Perhaps some subscriber can give us conclusive evidence. If they can be wintered properly we see no difficulty about the matter. There should be plenty of honey flowers in the vicinity.

We publish elsewhere the programme of the annual meeting of the Ontario It is rumored that there will be an Bee-Keepers' Association with the particulars touching the arrangements made for the accommodation of visitors.

It appears that at the Chicago Convention they undertook the task of grading honey, but did not complete it. seems to us, there is a difficulty in grading honey, except for localities. make a general grade, naming a certain kind of honey for America, we do not think would be best, as the same flowers produce different qualities of honey in different localities. Perhaps the finest honey that is produced in America, is produced in northern localities, and on the highest hills or heights of land. We have noticed, as previously mentioned, that were lime stone abounds, the honey but where quantity, is finest in the soil is entirely free from the influences, there limestone sufficient difference to make it distinctly discernable to the most ordinary ob-From the closest inspection and testing that we were able to give it, we found the same bulk slightly heavier in weight, darker, and of a dull gray color, instead of that bright sparkling color. Then in the same soil, and from the same flowers, on high land, the honey is finer and brighter than it is upon low lands, and we do not find the honey in warm climates, at least any we have examined, equal to that gathered in more northern or higher latitudes. Take for instances northern New York or Maine. The linden and clover from that section, no doubt, would be superior to that of the south, from the same source, There seems to be so many difficulties to overcome in connection with it, that it is very hard indeed to devise a means that would meet every mergency. How would it do to treat it similearly, to the way we do our cheese factories-when we mention the name of a cheese factory in any locality, we say first, second and third grade of the Ingersoll cheese, or any other kind. How would it do to grade it according to the different states and northern and southern portion of each state, and let the various sections of country vie with each other as to which commanded the best price in the might course, there Of market. be some unprincipled dealers, who might attempt to palm of a poor article, for honey from some of our best locali-

ties, yet we could surely devise some means to over come that difficulty, and the fact of grading it by certain localities, would have its influence. It would stimulate all bee keepers to have their standard up to the highest possible point, and they would so pride themselves on their good name, that they would endeavor to protect it when frauds were practised upon them. would cultivate an interest in marketing and careing for the honey, that perhaps would not be reached by other These are only hints that may means. be improved on in the interest of our pursuit.

GENERAL.

For THE CANADIAN BEE JOURNAL.

Mr Fyle's Treatment of Foul Brood.

R. EDITOR,—As you ask me to give you a description of the manner in which I treated my bees which were effected with foul brood. I am not much accustomed to writing to Bee Journals, but will endeavor to give you an idea of how I treated my bees.

In the first place I rendered all my combe

into wax.

2. Then boiled all hives with the exception of covers and bottom boards which were loose, I intended to scald bottom boards and covers but the Inspector told me it was not necessary, so I just washed them.

3. I undertook one half of the yard at a time by shaking the diseased bees down in front of * clean hive which contained starters. I then let the bees work four days on the starters. Of the evening of the fourth day I took out all th^{θ} racks, shook the bees down into the same hiv⁸ and gave them a fresh lot of racks with founda-You will notice I did not scald the hives the second time. While shaking the bees down the second time considerable honey shook ont The unhatched of the combs with the bees. brood which I took from the diseased colonies was tiered up on top of my weakest colonies until most of it was hatched, then I treated the The first half of the yard same as above. which I endeavored to cure, were in rows 7 fees from the diseased bees, and did not notice and robbing, all the work was done during a great I also did all my work toward honey flow. the evening.

Vaseline is recommended in B.B.J. to drift robbers away by painting on the cracks where the robbers are trying to force entrance.

or The Canadian Bee Journal. Feeding Back to Have Sections Finished.

BY G. W. DEMAREE.

HAVE heretofore called attention to the fact that a large proportion of the 4½ sections put upon the hives in the average season, come off in a state of incompleteness. Many persons have asked what to do with them, and they have been told by some to extract the honey and save the combs for another season; while others have advised to render them into wax. It is a well known fact that combs brought over from the preceeding season, and refilled, do not make first-class honey in fancy shape. The honey is stored too fast in the empty section combs, and perhaps sealed too soon.

At any rate I have noticed, and many beekeepers bear me out in the experience, that section honey completed in this way is more apt to sweat and damage in app arance and flavor, The fact is I hardly think than other honey. it advisable to use any more of them than is necessary to start the bees promptly in the section cases. One of these drawn combs put into each row of sections in the case is a good thing, but to use them largely has never given satisfaction in my apiary. Bee keepers have been quick to overcome all defects and difficulties But it seems to me that may confront them. that this matter of partly filled sections has baffled the skiil of honey producers, or perhaps they have not brought their enquiries to besr For several years I have wondered how this can be, when the reports show that a large number of sections are left uncomplete every season, and consequently thousands of dollars are lost to bee-keepers annually, from this cause. From what I have seen in print on the subject, only some crude experiments have Our friend Mr. Hutchinson has been made. written something on the subject, but while what he did write was interesting, he left the impression that his experiments were not satis-And I am free to say that if I had actory. given my experience at the time Mr. H. wrote, mine also would not have been satisfactory. But I silently worked on regardless of costs neurred by mistakes, till now I hold the key to the situation.

To succeed in feeling back you must know just when to begin the work. Here is where I made my first fatal mistakes. The feeding back must begin right at the close of the honey flow, and while the bees are in comb building plite. If you pospone the work till the bees have become lean and pinched in condition, you must feed at considerable cost and loss, to bring them

Hence the proper in condition to build comb. thing to do is to commence when the bees are in condition, just as the honey flow is drawing to a close, and the bees show signs of wanting to rob. I make an inventory of the probable num ber of incomplete sections on the hives, and proceed to select as many colonies as will be able to finish them up, allowing 200 unfinished Then if I have 500 unsections to the colony. finished sections I would employ but two colonies to finish them, but if there were 600 I would prepare three colonies for the work. The fewer colonies used in ferding back, the cheaper the work can be done if you do not over tax them. Last season I made one colony finish up 256 sections after doing their part in gathering an average honey harvest. As all of these sections were trimmed and uncapped when any part of their surface was capped, the whole of them had to be drawn out and capped to finish them up. So this one colony capped a surface of 8,192 square inches, or a little more than 56 square Representing a space as feet of comb surface. large as the ceiling of a room 7x8 feet. I mention this to illustrate what an enormous amount of work a good colony of bees is capable of doing under favorable circumstances. us return to the practical part of the experiment. As soon as the bees begin to rob at the close of the honey harvest, as many colonies as are to be used to finish up the sections, are put Full size hives into condition for the work. Bear in mind that are used holding 10 frames. the queens lay eggs very sparingly when the workers are crowded with a continuous flow of honey, for this reason I remove all the combs containing brood but six, these are placed in the centre of the brood chamber and the sides are filled out with combs of sealed honey. cluder is used. The feeder goes directly on the top of the brood chamber, and the section cases My feeders are made are tiered on the feeder, the same size of the section cases, as to their outer structure, except as to length. made so as to project at the back of the hive to give room for the feed holes. Each feeder contains two feed boxes 2 inches deep, and are filled with climbers adjusted a half inch apart. The climbers in my feeders are not made of single thin boards as most feeders are made, but each climber is made of three narrow pieces cleated together a fourth of an inch apart, so that the bees when working in the feeders can move at right angles as well as vertically.

I regard this as very important in a good feeder. When feeding back separators in the case are essential to nice work. Therefore I use tin T cases with tin separators. All whe sections

to be finished up are uncapped, if any part of them has been sealed, and they are trimmed down so as to go between the separators in good shape. And all combs that have the strength to bear it are placed in the case up side down, this practice induces the bees to fill the sections more perfectly.

Fresh new honey is used for feeding back, and it is thinned down with warm water at the rate of 12 pints of water to 3 pounds of honey. The honey is prepared a day in advance of feeding it. The honey is weighed when preparing the feed, and before the water is added. colony is fed once a day from 3 to 4 pounds of honey, not counting the water. The feeding is done late in the evening. Those persons who have failed to feed back with profit, have failed by feeding too fast. I know this is true, for I have paid for the information. At first, one case of sections is put on the hive, and when it is pretty well advanced, and the sealing has begun, it is lifted and another case is placed under it. In other words, you "tier up" just as that system is practiced during a good honey flow. If the bees should loose their heads and swarm, make them go back home, and take off the feed for two days. This will cure them.

I would never fail to clip the queen's wings, of any colony that I use for this purpose. Two out of three colonies will run wild when fed by my slow steady process. But I have only lost about two days time in any case. Last season I had 500 sections from \(\frac{1}{2}\) to a little over one half filled, finished up at a good profit on a margin of 4 cents difference in price between the extracted article and fancy comb. And as an experiment I had 96 sections built from the foundation starters at a loss of about 25 per cent on the extracted article.

These are the essential points to "feed back" successfully:

- 1. Commence immediately after the honey harvest has failed.
- 2. Feed new honey before any granulation begins.
- 3. Feed not more than 4 pounds a day, I obtain the best results by feeding but 3 pounds a day when there is much comb to be built.
- 4. Have a good feeder such as I have described, so as not to disturb or excite the bees, and remove the finished sections, a whole case at a time, using the automatic bee escape to run the bees out of them.
- 5. Feed regularly at the same time of day, and neglect nothing in connection with the work.

Christiansburg, Ky.

We are very glad to have this tull

explanation in reference to feeding back. It certainly has been a difficulty that many could not overcome, owing to the granulation of the honey, but it appears that if thinned with warm water, and fed before it commences to granulate, the desired effect is produced. doubt, we will have fewer partially filled sections in the market when people thoroughly understand how this is done, We would and practise it judiciously. recommend that the brood chamber in all instances be as full of honey as possible before the feeding back commences, as the bees would be likely to store a vacancy in the brood chamber with the honey fed, but as you commence feeding immediately after the honey flow, of course, the brood chamber would be very full of brood, and as the process was continued the bees will not stop brooding until the feeding is finished, so that the brood chamber will be occupied with brood.

For THE CANADIAN BEE JOURNAL.

Prospects for a Honey Crop for 1892.

HE prospect for a good honey crop for 1892 is fine at present. Buffalo clone is coming up everywhere, and the horsemint is also making its appearance in most waste places, which are two of our best honey plants. Bees usually commence gathering pollen the 1st of January from mistletoe, which starts brood rearing about the 1st of February. The water elm furnishes pollen in large quantities; then the queen starts laying in earnest, and keeps it up until swarming time is over. They commence as early as the 15th of March, and keep it up as late as the 15th of July.

L. B. SMITH,

Lometa, Texas.

Thank you friend Smith for giving us some hints about Texas honey plants and your bright prospects. We hope you will fully realize your most sanguine expectations.

A Quarter of a Million Dollar Plant.

The Family Herald and Weekly Star of Montreal is now comfortably settled in a fine new building, which with its magnificent equipment cost a quarter of a million dollars, and the best of it is that it is paid for free from any sort of incumbrance. The Family Herald and Weekly Star is in an undoubtedly strong financial position.

foundation and Foul Brood, Again; is There Danger of Infection?

N the American Bee Journal, page 713, Mr. S. Corneil, of Canada, a gentleman for whom we have a very high personal regard, both as a scholar, scientist, and bee keeper, still insists that foul broad may be spread by foundation, although the whole bee-keeping fraternity seems to be against him. Prof. Cook has often said that, when science is at variance with practice and experience, we should reject science and accept practice; but experience says, "No, no!" If we understand the matter, science is not at variance with practice in the case in question. The long continued heat to which the wax is subjected in the process of clarifying in making foundation is sufficient to sterilize the most resistant germs, as Mr. Newman shows. Mr. Corneil, however in commenting on this point, thinks we are liable to dip out infected wax that has been put in as a supply, that may have been subjected to a high temperature for only a short time. In reply to this we would say that this contingency is exceedingly improbable. All the wax, before we receive it, is supposed to be sterilized; and the chances that it should be diseased in the first place are not as one to a thousand. Another thing, the fresh supplies of wax are usually put in the night before, and there keep at a temperature of 180 all night. Seldom is wax added during the day to our large melting vats, unless it be foundation clippings that are already clarified from dirt and impurities, and these clippings are certainly sterilized. The reason We put the wax in at night is to allow the dirt that may be in the cake to settle, and not because we fear the germs of foul brood. Mr. Corneil also thinks that the disease originated in our apiary, not from purchased honey, but from foundation which we had put in the apiary, said foundation having been previously made from infected combs. Friend C. misunderstands us. We never put foundation made from known diseased combs in the apiary until after we had had foul brood; so it is improbable that the disease could have originated in the way he suggests, in our apiary. The foundation under discussion was put in another portion of the apiary, in clean hives; and to-day those hives-every one of them-are perfectly healthy.

Mr. Corneil further argues that, inasmuch as the disease starts up in different parts of the country, and for which the source of infection is unknown, therefore the disease might come from foundation. We know of quite a number

of apiaries where the foul brood originally started where foundation was unknown. It started in the apiaries of Moses Quinby and G. M. Doolittle before the days of foundation.

Again, fcundation is being used more and more, and yet, in the United States at least foul brood is becoming less and less frequent. If foundation carries infection, the disease would be on the increase; but, on the contrary it is on the decrease.—Gleanings.

For THE CANADIAN BEE JOURNAL. How to Destroy Mice in a Bee House.

▼ E do uot believe in advocating cruelty to animals, but we are forced from last years experience to advocate most strongly the use of any and every means to rid and keep rid the hives from mice. It is very important indeed that this should be closely looked after-equal quantities of arsenic, white granulated sugar and flower mixed dry, put on little pieces of paper about the hives or apiary, where it can remain for some time without being exposed to dampness, is a very sure way of ridding the place of mice, yet in some instances where they can feed on bees in hives they seem to care little for the poison. Another plan we have adopted, which frequently gave us verv good satisfaction, take a tin pail, half-full of water; scatter a little wheat chaff on the top to make it look like a chaff bin. A board from two to four feet long, with one end on the floor and the other on the side of the pail, in fact better one on each side of the pail, then scatter a little bran, meal or flour, dust it lightly on the board. the mice will run up and look down upon the chaff where you may have the meal scattered, they will jump down off the board on the chaff in the pail to get the meal, the chaff will sink around them, and the mice drown. We have caught five or six in a pail in one night this way. We recollect once, that in one of our out apiaries having several deer-mice and a chipmonk, which had gone into the bee-house from a neighboring wood about twenty rods away, they were so anxious to investigate the pail business that they all got into it, perhaps rats might be caught in the same way. "W. F."

A rumor is afloat that Mr. Frank Benton, now in the employ of the government at Washington, D. C., is about to start on another expedition under the auspices of Uncle Sam, to hunt up the *Apis dorsata* and other races of bees. If experience in this line of work is any requisite, Benton is the man.—Gleanings,

Foul-Brood Cannot Existin Foundation.

T. H. KLOER.

HAVE just read Mr. Corneil's last article on "Foul-Brood Spread by Comb-Foundation,"with great interest, as I read all of Mr. Corneil's articles. I am quite interested in this vital question, as I am a mak-r of foundation myself, and also quite an enthusiastic experimenter in methods of rendering wax from old combs.

Now, while reading, it suddenly dawned upon me-nay, I may say it flashed upon me like an electric light—that none of the parties to this controversy have yet seen the matter in its true nature.

I have often wished I were a scientist, but I am not. Neither can I offer any experiments showing the degree of temperature required to kill the spores of foul-broad in melted wax. But I believe I can tell Mr. C. why it will not be at all necessary to spend much time, and better still in these hard times, any money, to determine that point. This may put Dr. Sternburg out of a job, but it will be "all for the better."

I believe that I can assure Mr. C. that every spore of foul brood that has ever been in melted beeswax during the processes of rendering, refining and sheeting for foundation, is as dead as an Egyptian mummy. How do I know? Why, Mr. C. proved it to me in his last article. The funcy part of it is he does not see it in the same light as I do, and that none of the veterans like the Dadants and the Roots have "caught on" to the point.

But to the proof: Just turn to page 714 of the American Bee Journal, where Mr. C. quotes a paragraph from Mc, Dadant's article, in which the latter says: "Sometimes we find bits of paper, which, soaked with wax, are so transparent that it seems impossible to separate the two su stances, yet, when our cakes of wax are cold, we find the paper altogether clear of wax." See, then, how Mr. C. goes to work and proves, in a very wise experiment, that Mr. D. is mistaken, that paper once saturated with wax cannot be freed from it by any amount of boiling in water, and that he concludes thus: "It must now be clear to the reader that in Mr. Dadani's molds all foreign matters, including foul-broad spores, remain like the paper encased in wax.

Now, mark well the words, "incased in wax." Was it not rather saturated with wax? Was it not so well saturated that no amount of boiling in clean water would free it from the wax? And why should Mr. C. continually talk of | Review.

foul-brood spores encased in wax?" Are not dry foul-broad spores certain to be not only encased, but saturated with wax? And, being once saturated, does Mr. C. think that any amount of boiling would ever free them from wax? Remember that Mr. C. himself says, right at the top of page 714, that the dry and indurated spores are the most obdurate to the effects of heat, Now, any one at all used to melting much wax knows how very penetrating hot beeswax is. Stick in a piece of dry wood and it will be soaked so that you can never free it from the wax. Heat your finger and put it, perfectly dry, into wax even moderately hot, and it is next to impossible to get the wax off without taking parts of the cuticle along. Then why should foul-brood spores alone be only "encased" in wax, and not saturated? I think they are saturated. And does any one think that any such saturated spores as remain in foundation can be infused with life? Well, 1 for one do not. But I am open to convic-

I will only, in conclusion, state I do not think it requires very hot wax to be penetrating; that, directly after it has passed the melting stage, it will penetrate dry substances of any kind which cau be at all penetrated, provided they are of the same temperature as the wax, and left in contract with it for awhile.

Terre Haute, Ind.

-American Bee Journal.

Handling Hives Insteadiof Combs.

RO. HILL, of the Guide, says "There can be nothing new under this heading because before movable hives were invented all bee keepers handled hives in tead of frames." It is true that frames were not handied before they were invented, and, at that period, neither were hives handled in the sense in which the matter is now under discussion. The bees were simply hived and left "silting so." As has been before mentioned, movable combs were needed to enable us to learn the mysteries of the hives; having in a large degree mastered these, there is little need in practical bee keeping to handle combs.

Evidently, bee keeping is on the eve of 2 One man will own and manage more tees. They will be scattered about in different apiaries, and self-hivers or something that will eliminate the difficulty, will enable one man to care for them all. When a nive and system pre-eminently adapted to handling hives instead of frames is offered to bee keepers, most of the criticisms offered come about as the result of viewing said hive and system from the old styles frame handling point of view .- Bee Keeper,

For THE CANADIAN BEE JOURNAL.
The McEvoy Method--A Grand Success:

N reply to Brother Fyfe's article anent his unsuce ssful attempt to stamp out that dread disease, Feul Brood, I would say that I am very much surprised that such an intelligent, pains taking and experienced apiarist should have allowed such a state of affairs to exist in his apiary to such an extent. His eye sight must be dim, or his olfactory organs deranged, to allow 85 colonies of bees to become so diseased, when close observation and proper application of Inspector McEvoy's system would have cured the whole yard in from eight to sixteen days, as a great many no doubt can testify.

Now, as to my own personal experience in the treatment of Foul Brood by Inspector McEvoy's method, it has in every instance proved successful when carefully carried out. If done in the proper season, when a flow is on, a cure can be effected and a surplus secured. I may add that my experience has been gained at the expense of several brother bee-keepers in my own neighborhood, whose yards have been visited and sadly neglected by the ravages of Foul Brood; it has become so bad around Toronto of late, that one wishes he were out of the business. Although up to the present time my yards are pronounced clean, yet I am watching for it every day.

I quite agree with Mr. Fyfe in giving more publicity to the work being done by our genial Inspector, especially the good work he has accomplished; for he has to be a man of good common sense and full of good nature, and able to deal with insults charitably-I was going to say assaults-for I remember being out one day with him in this section when a lady bee-keeper put him at defiance, and dared him to approach or make an inspection of her bees, and I was afraid she would break the law, and as I did not wish to be a witness in such a case I withdrew from the scene, leaving the Inspector to take care of himself. I assure you in this case he showed tact and adaptabil ty to a wonderful extent, and in a short time.

He enjoyed the freedom of the place, and no one was hurt. I think the names of all whose yards are affected, and where residing, should be publishe!, so as to keep clear of infected honey, which in my opinion is the chief cause of the trouble, and that no honey so affected shall be exhibited, or put on the market for sale.

That compulsory registration of all bee-keepers in every municipality be made under a penalty of \$——so that it may be easily ascertained who keeps bees, and how.

John McArthur.

Toronto, Dec. 11th, 1891.

Still another proof of the great work our government is doing through the Inspector. We also know that our Sub-Inspector, Mr. Bray, has made most effectual cures; but no Inspector can keep a yard free from the disease when there are diseased colonies near by, or where diseased honey is sold and used. We feel quite safe in saying that when we learn the cause of Mr. Fyfe's failure, the ventilation it will get through the Jour-NAL will be a warning to others.

FOR THE CANADIAN BEE JOURNAL.

The McEvoy Method.

N page 728, C.B.J., an article entitled "Foul Brood—The McEvoy Method a Failure," appeared in the columns of the Journal of the 15th inst. Mr. A. Fyfe, for the benefit of those who have had the disease in their apiaries, gives the result of his experience. It is with pleasure I give mine and that of three others in my neighborhood:

In 1884 the disease broke out in my apiary. Having seen in one of the stock journals a method by which a cure could be effected, I at once had Mr. McEvoy to come and see mine. He gave me instructions which I followed closely on 15 colonies that were affected more or less. It being the last week in August, my efforts were successful. and my apiary free from disease.

In 1890 the Inspector was asked to visit the apiary of Thomas Simi son. He had 20 colonies in chaff hives badly discased, of which a complete cure was effected. While there, two others, Duncan Gillies and a Mr. Amos, neighbors of the other, asked him to come and see theirs, which he did. He found one badly affected, the other slightly, both of which were perfectly cured by carrying out his treatment. So much for the Inspector and his successful treatment of Foul Brood. I might add, lest any of your readers should be skeptical on this point, that the address of the two latter parties benefitted by the Inspector's treatment, is-Moffatt P.O., County of Halton, Ont., who, if referred to, will vouch for the truth of what I say.

I would like to ask friend Fyfe how it is that he got the disease in so many colonies, and had not mastered it before it got such a headway? He, a student o D. A. Jones—and I believe Mr. Jones could cure Four Brood—should, with all the experience he acquired with that gentleman, have been able to bring about a cure of his diseased colonies. His bees must have had access to broody comb or honey, or probably there may have been some diseased bees not far

from his apiary He says that he followed the Inspector's instructions closely. There is a cause somewhere, which if properly explored, would go to prove that the Inspector was not responsible nor his method in the treatment of Foul Brood. He says the inspector's method is a complete failure, and yet in the application of this same method he admits of a cure of twenty!

Now, I would say for the benefit of Bro. Fyfe. that there is a bee keeper living about seven miles from here who made a similar assertion regarding Mr. McEvoy's method in my hearing. In a few days after I had occasion to visit his apiary, and what do you think I saw? Why he was actually melting broody combs in a sugar kettle not more than 20 feet in front of his hives. How long would that man be curing his bees? yet he claimed to be following Mr. McEvoy's method closely! He desisted only when I told him that I would send for the Inspector to come and see that the instructions he would give for the treatment of Foul Brood were closely followed. It has been a hard season for this disease on account of the scarcity of honey.

A. PICKET.

Nassagaweya, Halton.

We fully agree with Mr. Piggot in reference to there being some mishap in connection with foul broody honey in the locality; and it is quite eertain that Mr. McEvoy's method, or any other method that will get rid of the honey in the sacs of the bees, when properly treated, will cure foul brood. Now, there is no question but that Mr. McEvoy has cured hundreds, and perhaps thousands of colonies by his method. We gave place to Mr. Fyse's letter in order to bring out the facts, not to complain about the Inspector, who, we believe, is doing his duty, and doing a most noble work. In our earlier experience with the disease, we, ourselves, sometimes failed, and scarcely knew to what to attribute the cause of failure; in fact we were sometimes almost in doubt about being able to cure it at all, but reasoned Why is it that we cure some this way: colonies, and do not cure others, and why is it that we free some yards of the disease, and in other yards it will reappear? and on tracing our operations we began to see that it required a great deal of care and painstaking.

Will our subscribers who do no keep the Bee Journal on fyle kindly send us their copy of Dec. 1st, 91.

For The Canadian Bee Journal.
The McEvov Method Sustained.

HAVE before me Mr. Fyfe's article re Foul Brood, askig for reports from those having tried the Inspector's plan of cure. In 1890 I had one colony affected, but being from home all summer, was not aware of it until I was taking off the supers at the close of the heavy flow. I found one with the queen in the super, having it filled with brood in all stages, which, at that season, rather astonished me; but when I examined the brood chamber I found it pady diseased, and entirely deserted by the queen-the super had not a sign of disease—when put on it had full sheets of foundation. Now, the question arises in my mind-would the bees have effected a cure had they been separated from the old hive ?-at least I think they were trying to do so. However, I treated them a la McEvoy with perfect success. It being late in the season, they had only six or seven sheets of foundation partly drawn out when I put them in the cellar, and fed them syrup with a Jones feeder; this season they are one of my best colonies. I did not use the old hive, as I considered it risky-new hives only cost me 30c. I had my bees in Toronto then, and it is pretty hard to keep clear of the disease if near the Exhibition grounds.

I cannot understand how Mr. F. (being an expert), let his apiary get so badly affected, and how he failed to cure, if, as he says, he carried out the Inspector's instructions.

JOHN MCKIMMIE.

Niagara, Dec. 12, 1891.

The Italian Bee.

WHAT ARE ITS PRINCIPAL POINTS OF EXCELLENCE
AND TO WHICH QUALITY SHOULD WE GIVE THE
PREFERENCE WITH A SCALE OF MARKINGS AS
TO NEAT STOCK?

THE Italian bee, as its name implies, is a native of Italy, and was first successfully imported to this country in 1860. Since that time the race has been multiplied by American breeders until you can scarcely find a colony of our black or native bees that do not show indications of admixture of Italian blood; yet large numbersare still imported each year, which is a good proof of their superior quality. Although we get two distinct types from Italy-the dark or leather-colored Italians in the north, and the smaller and brighter yellow in the south-the three yellow bands have usually been considered the sole test of purity. I was also told a few yeas ago by a gentleman of undoubted integrity who had been there several times, that there were dark bees in Italy; and to me this is the explanation of the great diversity of the markings of importeed bees and queens. Let me briefly note some of the principal points of excellence as compared with the black or Italian bee. The workers have longer tongues, and work on blossoms that the natives do not, and often store white honey when they are working on buckwheat, also quite frequently gather a little honey when the natives are consuming their stores, and towards the close of the honey flow, as the workers emerge, they gradually fill the cells in the brood chamber, and in consequence no race is so well prepared for winter. This sometimes accounts for results in a less number of finished boxes; but where a beekeeper has a large number of colonies to look after, and when you take into consideraitor the Valuable time required in fixing and feeding the others up to get them in shape to stand our rigorous winters, I consider it a desirable characteristic. They work earlier and later-are more active - less inclined to sting, and protect their stores better. The queens are more prolific, this combined with the greater activity of the workers, cause them to breed up quicker in the spring, and in consequence they are in better shape to take advantage of the honey flow.

This has been my experience with dark or leather-colored Italians, while with the very handsome four and five banded strains it has always been the reverse.

In answering the next question—to which qualities should we give the preference—a great deal depends upon the bee keeper and the circumstances. If the apiary is run exclusively for profit, but little attention need be paid to any thing except working, wintering and comb building qualities; while in the apiary carried on for pleasure as well as the dollars and cents, due attention should be given to gentleness and color; and again, if a few colonies are kept just for pleasure and recreation, then docility and color could be the qualities largely allowed to predominate.

That it would be desirable to have a scale of markings that would be universally accepted as a standard for the American-Italian bee, I think will be admitted by nearly all who are present at this meeting; and it seems to me that some action can be taken at this time as well as at any subsequent meeting, by which a standard can be established so that queen breeders will have something to guide them in the selection of their breeding stock as well as the breeders of domestic animals, who have a standard by which to indige every breed and race. By way of illustration, let us imagine that the breeders of she

black faced varieties of sheep had no model to breed from, and did not continually reject these animals that did not come up to the standard, in both form and markings-if, after a few years of such haphazard breeding, Mr. A, who breeds Shropshires, Mr. B. Hampshiredowns, Mr. C, Oxforddowns, and Mr. D Southdowns, were to turn their flocks together what would be the result? You would not find a man who would be able to select out every sheep and put it in its place. Are we not, as breeders of Italian bees, in this same predicament? Is there any reason why we should not have some standard by which the average bee keeper would be able to determine whether or not his bees with this yellow band contained an admixture of Cyprian or Syrian blood? Is it not an indisputable fact that these races and crosses have many times been sent out for pure Italians, and that many of the so called pure Italians show at least a trace of Cyprian or Syrian?

As to a scale of markings I have nothing to offer that I consider anywhere near perfect; but as a suggestion I offer the following as a scale of 100 points. I would divide them as follows;

Olling. I would divide the	
Honey gathering and comb building 40	
Wintering 15	
Breeding 15	
Temper 10)
Color	
a bands 4	Ł
bqucens 3	3
cdrones	,

I hope on the discussion which is to follow, that a Committee be appointed, and fix upon a scale for the American-Italian bee.

To Whom it may Concern.

HIS is to certify that I had 42 colonies of bees more or less diseased with Foul Brood, in the year 1888, and with the help and instruction of Mr. McEvoy, I made a complete and successful cure.

Dec. 15, 1891.

We readily publish the above, but we do not think there are many bee-keepers among our readers who are not convinced of the value of the McEvoy method when properly carried out.

Chance to Learn Bee-Keeping.

pushing young man, or lad who is not afraid of work, and who would like to spend a year or two in farming and learning bee-keeping, and then get started in the business, let him address for further particulars—Allan Pringle, Selby P.O., Lennox Co., Ont.

The New Method of Handling Bees.

BY JACOB ALPAUGH.

SUPPOSE you are all anxious to hear a few words from me one way or another, at least I would judge so from the host of inquiries I have had lately. I have given up the notion of answering them all personally-they may find a few words of information in the following: Mr. Jones in his first article would lead you to believe that I was quite a long way behind the times, where he says that he thinks probably it is just the Hutchinson method when fully found out; and in his second article he tries more fully to explain how the method is operated, but yet he did not give one word of the secret that I intend charging for. Mr. Hutchinson and Mr. Demares try to explain the method, but neither one of them knows any more about it than I did before I found it out.

Most all bee-keepers have some serious obection to natural swarming for comb honey. Some hives will swarm too early-some too late, and some swarms will be too small to work well in the upper story, and often you have to put your sections on the old hives to give your bees employment, which is not the place to get nice comb honey, and the worst of all, you have to watch them all through the swarming season. The new method does a way with all of the above objections. Now, I have done quite a lot of dividing to prevent swarming, and I have also done considerable shaking on to starters or full sheets of foundation to prevent swarming, and to get the bees started to work on sections when I wanted them; but I think, like most beekeepers heretofore, I have made a failure of such practices, but with the new method, I can have my bees in fine shape for the clover flow, and working for comb noney when it comes, if I wish, without swarming or nearly so. You all know that there will be some crazy swarms, but of these there will be not more than three or four per cent. If I wish combs built under the new system, I can get about 90 per cent. of worker on an average from all ages of queens. If you want to produce your comb honey above sheets of foundation or starters (where it ought to be produced), you will only need half the usual number of spare hives; and you can have all young queens for next season with very little trouble and no expense. Now, laying Jones' first aside, you all know that a man commonly handles so many hives, say from 100 to 150 according to the season, but under the new method, you can handle them in one, two, or three different apiaries if not more than from six to ten miles away from home, and do it all yourself, if you have a horse to drive around from apiary to apiary,

A great many bee-keepers know that ever since I have had bees I have been inventing and experimenting which has cost me considerable, and now I claim I have something good; but the next question is, am I to charge for it, or am I to give it to the public free. If I make a charge it will be about two dollars, and I think, to anyone that has 50 or 75 colonies, it would be worth twenty times that much yearly. I do not want to be hard with my fellow bee-keepers, but I think I ought to have something for my expense and trouble. Let us have the voice of the people.

St. Thomas, (box 704) Dec. 19, 1891.

For THE CANADIAN BEE JOURNAL.

A Letter From Australia.

EAR SIR,-I notice in the Canadian Bee Journal of July 15th, 1891, you publish a "curious bee story," and add that you would be pleased if your subscribers would furnish further facts in reference to these bees. I am afraid the facts I have to furnish will considerably damp your enthusiasm as to this particular species. Our native Australian bee is small, black and stingless, looking indeed more like a tolerably robust black ant than a bee, they rarely store more than two or three pints of a thin, watery honey with a peculiar aromatic acid taste due, I think, to the large quantities of propolis, gathered from the encalypti, which they mix with their wax and in which their honey is stored. It may have valuable medicinal qualities, but as yet they are unknown.

We Australian bee-keepers have often heard that curious bee story with variations, but there were too many things connected with it that were palpably false, we wisely declined giving it any credence whatever. This wonderful bee tree was discovered in Tasmania by M. Guellment and his band of Ranakas. Ranakas cannot, and do not live in Tasmania, it is the name applied to the native coolie laborers (South Sea Islanders) of Queensland; it is but rarely individual specimens are seen in New South Wales, certainly not further South.

There are many bee-keepers in Tasmania, but so far as we can learn they are in utter ignorance of this most wonderful bee, and it was left to a foreigner pass no through the colony to discover it. The mystery of this most extraordinary discovery may be explained when the fact becomes known that this honey to which most valuable and extraordinary medicinal qualities were attributed, was sold in Paris and London in small vials at a guinea each. A vial of it

was sent to one of our oldest and most respected physicians by a friend in London and proved to be Orelenary honey with a few drops of extract of eucalyptus in it.

One cannot help admiring the light and easy manner in which Mr. Guellment speaks of cutting down a eucalypt 21 feet in diameter. The 'nut' is a new addition to the old story. Why not have cut down the limb from which it was suspended? Surely it would have been easier, and Ranakas can climb like cats.

You are so true and enthusiastic, and have done so much for the bee-keeping world, I telt that it would not be fair to let you be misled by what is, I daresay, to strangers, a plausible story, though row it is only laughed at.

I forgot to say that the native Australian bee builds its nest in hollow logs and trunks of dead trees. We have a log containing a colony in our apiary as a curosity. They are dreadful little robbers, and seem to rob the Italians with perfect impunity, they were so small the bees seemed hardly to know what to do with them.

You will be glad to hear me anticipate a healthy flow of honey this year, and very welcome it will be after three bad seasons, I trust you will have a good year too.

Yours faithfully, SOPHIA A. BRADLEY.

November 28th, 1891.

Ontario Bee-Keepers' Association.

EAR SIRS,—You are respectfully requested to be present at the annual meeting, of the above Association, to be held in the City Hall, London, on January 5th, 6th and 7th, 1892.

It is desirable that all members attend to assist in making a successful meeting.

Arrangements have been made with the C. P. R. and G. T. R. for reduced rates, as follows:—

Persons going to London will ask the Railway Agent at starting point for a Certificate, which he will fill in, certifying that they have purchased a First-Class Single Ticket to London. If there are fifty persons attending the Convention and holding these certificates, the Return Ticket will be given at one-third Single First-Class Fare; but if there are less than fifty persons holding certificates, the Return Fare will be Two-Thirds Single Fare,

All persons travelling by rail should be sure to get these Certificates filled out. It takes the Agents a few minutes to fill them in and they should be asked for fifteen minutes before train time. If you require to travel over more than one railway you will require a Certificate for each road.

Arrangements have been made with the "Grigg House" and the "City Hotel," for the accommodation of persons attending the Convention—the former at \$1.50 per day, and the latter at 80 cents to \$1.00

It is desirable to have as many members of the Association as possible at the beginning of the year as the Officers will be elected then, and the larger the membership, there can be better choice for Officers.

I will be pleased to receive your renewal fee of One Dollar before the end of the year. When remitting it would be safer to send by Post-Office Order or Registered Letter.

The prospects are for a large and interesting meeting as London is situated centrally and in one of the best bee-keeping parts of the Province.

Hoping you will be present at the Convention on the 5th, 6th and 7th of January,

I am yours truly,

W. COUSE,

Secretary, Streetsville.

PROGRAMME:

2 P.M., JAN. 5.—Reading of Minutes; Secretary's Report; Treasurer's Report; Other Official Reports; President's Address.

7 P.M.—Report from Mr. Corneil, Delegate to N. A. B. As'n; Paper by D. Chalmers on "Hives and Wintering;" Paper by R. H. Smith Bracebridge, on "Apiarian Exhibits."

9 AM. JAN. 6.—Affiliated Society's Report · Foul Brood.—Inspector's Report.

2. P. M.—Paper by F. A. Gemmell on—"Shal we have a New Bee Journal or Official Organ?" Election of Officers, Question Drawer, etc.

7 P.M.—Paper by R. H. Meyers on "Rendering Old Comb." Address by J. B. Hall on "Comb or Extracted Honey—Which?"

9 A.M. Jan. 7.—Other Papers and Unfinished Discussions.

[N.B.—There may be an afternoon session on the last day, depending on circumstances. One or two prominent gentlemen have been invited to be present and give addresses,]

Important Announcement.

UST as we go to press we have received word that the offer of a local syndicate for the old D. A. Jones business has been accepted and the estate passes in their hands on Monday, January 4th. The BER JOURNAL will be continued at the old stand and will be run in the interests of the Bee-keepers of Canada-Next issue we shall be able to give full particulars.

A Word to the Novice.

ENTS.—I don't get much time to wr te tor the Bee Journals, but December 15th, C. B. J. has just come to hand, and I have struck in briefly, taking two articles therein as text. The article I send may not be considered of any value, well it is not, only in the way of giving a caution to those of your readers, who are novices, and if even one of them is kept from throwing away a few dollars some good will be done. C.B.J. holds its own with the Bee Journals, and is an educator in bee matters to its readers. I trust your subscription list is growing all the time. It ought to do so, for you give full value for the money.

PATENTS.

The article on patents found on page 747, C.B.J., and credited to A. B. J., give just the pointer needed by the inexperienced. Bee hive patents at this late day are of not value enough to be tested even at no expense. A patent moth proof hive would be a miracle. Don't Mr. Ewing know that a moth can go wherever a he-bee can travel? Don't he know also, that very few if any eggs of the moth miller are laid inside the hives? If not he should study bee-ology before he attempts to invent moth proof hives. It is a pity to fool away money for worthless patents, but the patent office examiners are not wholly at fault. The so-called inventor has to make oath in his application for a patent, that his invention in new and useful, and that he is the first inventor, etc. eet. If an examination, (and the examinations made at our patent office, are thorough to my knowledge), shows nothing to the contrary, the oath that it is new and useful is accepted of course. The patent office has nothing to do with the matter of whether an invention is valuable or not. If it is new, the law says a patent shall issue on payment of the fee. The inventor expects to get his money back by gulling an unsophisticated public; and right here is where the bee journals can do their work as public educators, and right here let me say, that any bee-keeper, who has any one of the standard movable frame hives, cannot improve his condition by changing for some new fangled patent humbug. Speaking of patents, the next thing I expect to hear is that Mr. Alpaugh will take out a patent on his new method of handling bees, of course he has the right to do so, and if he has originated, such a method, he ought in justice to himself to so secure it, that he can reap some beneat from it. The question is, has he done anything of the ki.d? We shall

see by and by I suppose, but I have little faith in these wonderful improvements. I have kept bees too long, and seen too many of such ideas come to naught, that I am an unbeliever of the worst kind you ever saw in regard to them.

A hint of mystery will always take with the crowd, and if Mr. Alpaugh can by means of correspondential advertising, draw on the crowd, "bully for him," and if the crowd is satisfied all right. Conservative men will wait and see, and if the method is valuable, will take it up and make use of it.

J. E. Pono.

No. Attleboro, Mass.

Well, we do not know exactly what Mr. Alpaugh's plan is, but as he is willing to take \$2.00 for it we are perfectly willing to give it and run the risk, because he says if it is not as he recommends he will refund the money. Now, nothing could be fairer than that, and you have only to know Mr. Alpaugh to be satisfied that he is thoroughly conscientious in what he says. We wish that we had more Mr. Alpaugh's in Canada.

Disinfecting Hives-Spores of Foul Brood in Comb Foundation.

OBSERVE that on several occasion in the current volume of the British Bee Journal the editors have recommended that hives be fumigated by means of burning sulphur to destory the spores of Bacillus alvei. Sulphurous acid has tor a long time occupied a very high place among disinfectants; but the elaborate experiments of Kooh and Wolfshengel in Germany, and of Sternberg and others in the United States, prove that it is of no value as a disinfectant of spore-containing material.

In Mirtheilungen aus dem Kaiserlichen Gesundheitsamte, Vol. I., pp. 188-232, Dr. G. Wolffhengel has an article on the value of sulphurous acid gas as a disinfecting agent; and in the same volume, pp. 234-282, Dr. R. Koch gives the results of his experiments, made to determine its exact value as a germicide. In the Report of the Committee on Disinfectants of the American Public Health Association, for 1885, there is a paper by Dr. J. H. Raymond on 'Experiments with Sulphurous Acid Gas,' and another on 'Sulphur Dioxide,' by Dr. George M. Sternberg, who says: 'My experiments show most conclusively that it does destroy the specific infecting power of vaccine virus dried upon ivery points, when present in the air of a disinfecting chamber, in the proportion of one

volume per cent.; but, after giving an account of his own experiments and of a number of hose made by Dr. Koch, Dr. Sternberg writes:

'In view of the exprimental data here recorded it is evident that the use of su phur dioxide for the disinfection of spore containing material must be abandoned. This is the conclusion of Woffnengel on the basis of Koch's biological tests and his own experiments. He is, therefore, inclined to abandon entirely the use of this agent for disinfecting purposes.'

It appears that the germs of smallpox, diphtheria, cholera, scarlet fever, puerperal fever, and yellow fever do not form spores; therefore, Dr. Sternberg still recommends sulphurous acid for destroying the infection of these diseases.

From the foregoing I think it will be admitted that bee-keepers cannot depend upon the fumes of sulphur to disinfect their hives. Dipping them in a solution of corrosive sublimate, 1:500, is sure death to all spores, but the hives must be rinsed afterwards, or the bees may get some of the poison.

May I be permitted to direct attention to another matter? On p. 407 of the present volume of the British Bee Journal the editors asy: 'If wax is kept at a temperature of 212° for four minutes, it is stated the microbes are destroyed.' This is true as regards moist heat—that is, heat supplied when the spores are soaked with water, as is a seed when it is in a condition to germinate; but Koch and Wolffhengel have shown that the same spores which are killed by a temperature of 212° for four minutes when soaked and in a moist condition, require a temperature of 281° for three hours to destroy their vitality when in a dry state.

I have been contending in the columns of the American Bee Journal that spores in wax melted in boiling water are dry spores, because, on Account of being coated with melted wax, they are incapable of absorbing water. I believe that sheets of foundation often contain millions of live spores of foul brood; but, while they temain encased in the wax, and are thus pre-Yented from absorbing moisture, they are harmless. I think it probable, however, that when the bees are drawing out foundation into somb, or when they are cutting down or rebuilding Cells, or in some of the manipulations to which wax is subjected, spores may occasionally become exposed to heat and moisture, and thus be the means of starting foul brood. Question is a difficult one to preve experimentally. If some of the readers of the British Bee Journal can find a way to test the vitality of appres in foundation, and thus settle the

question beyond dispute, we shall all feel under obligations.

I notice that in the item referred to above, the editors say, also that wax is kept at 212° for twenty-four hours in making foundation; probably basing their remarks on the statement of Mr. Newman, editor of the American Bee Journal, to that effect. Mr. Newman gives Mr. Dadant as his authority; but, on reference, it turns out that what Mr. Dadant says is that 'to get rid of impurities wax should be kept liquid twenty-four hours.' Mr. Newman's attention has been called to his error, but, up to the present, he has not corrected it.—S. CORNEIL, Lindsay, Ont., Canada.

[It is very evident that the more we know of the subject the more difficult we find it to destroy the vitality of spores. The bee-keeper's hope, therefore, in contending with the disease. is to continue the use of disinfectants in order to destroy or neutralise crops of bacilli. Better to prevent them from coming into existence than to destroy them afterwards. 'Prevention is better than cure.' Most scientists are agreed that bacilli can be destroyed much more easily than spores. We cannot recommend the use of corrosive sublimate in an apiary, owing to its dangerously poisonous nature, for we must bear in mind that every bee-keeper has not received the scientific training which would enable him to exercise due cure in manipulations with dangerous compounds, and were corrosive sublimate to be used, it would not fail to get into the hands of some careless individual, probably with disastrous results. Valuable as it is in the hands of the trained scientist, some eminent men consider that the value of mercuric chloride as an antisptic is much overrated. It is possible. if wax were merely melted on the surface of the water, for the spores to remain dry, but we doubt very much if they have the coating of wax our esteemed correspondent imagines-this because the water is boiling, and the act of ebullition causes the water to pass through every portion of the wax. In fact, if any one Will observe wax boiling in water, it will be seen that wax and water are constantly changing places. Then we think it probable that the spores are subjected to the moist heat necessary for their destruction. We apprehend that if the speres are in foundation, they would be encased in wax, and would then be harmless. We have never had a case of foul brood brought to our notice that could be traced to using foundation. We do not see that it would be impossible to test the matter, as a bacteriologist ought to be able to separate the spores from foundation, and if they are still alive he should have no difficulty in cultivating them. There are solvents of wax that have no effect on the vitality of spores. We thank Mr. Corneil for the correction as to time of boiling, although practically the error is unimportant, for if four minutes' boiling kills the microbes, several hours can do no more. We hope that Mr. Corneil's surmise of sheets of foundation containing millions of live spores will not prove to be correct, and we hope that the matter will be tested. In the meantime our friends will do well to use the remedies now on trial, and which have so far given every promise of success. We allude to Naphthol Beta and naphthaline, which will destroy the crops of bacilli as they appear. -EDS.]-The British Bee Journal.

For THE CANADIAN BEE JOURNAL.

Foul Brood.

EAR SIR,—As in the C.B.J. of Dec. 15th, I see no one has given any reply to the letter of A. Fyfe's, appearing in the Journal of the fourtnight previous, in which he asks for expressions regarding the work of the foul brood Inspector, I would venture just a few words.

From the fact that Mr. Fyfe had his yard in such a state in June last that on the call of the Inspector, it was found that almost all of his 85 colonies were affected with foul brood, one would judge that there was either some very deadly source of infection around his vicinity, or that there has been something very sadly wrong with his management.

I learn from Mr. McEvoy that Mr. Fyfe's yard is more than usually isolated from other bee yards, and consequently from the usual out-If it were not that side source of infection. Mr. Fyfe had been a pupil of the Editor, and that the latter considered him intelligent, painstaking and reliable, one would naturally have been forced to the other alternative conclusion mentioned above, viz., that there has been something very sadly wrong in his management. Indeed from the fact which I have learned that Mr. McEvoy got Mr. Fyfe up one night last June and worked till long after midnight with a lantern overhauling work which Mr. Fyfe had done that day with his colonies, I cannot escape the conclusion that in Mr. McEvoy's judgment at least, he did not comprehend what the job was he had in hand, nor how to go about

Mr. McEvoy, as I learn, never gave more strict instructions than he gave to Mr. Fyfe, and as Mr. McEvoy's directions when followed, seem to have been uniformly successful in

cleaning out the pest, so far as I have ever learned hitherto, I can only now suggest that the failure in this instance is not to be attributed to him.

I do not like to condesend to personalities, but when I see a young and comparatively inexperienced bee-keeper sit in judgment over an old tried, and strongly accredited veteran like Mr. McEvoy, even at the expense of being a little personal, I cannot but express satisfaction at the fact that he seems to be left to sit alone

I sympathize with Mr. Fyfe in the trouble he has in hand—from experience I know that it is no pleasant job—nor one that can be dealt with in a slip-shod way; but when Mr. McEvoy has gone from yard to yard over the province, by his instructions and assistance, curing the most apiaries with marked success, and calling forth the lasting gratitude of not only the novice and humbler class of bee-keepers, but also of the very furthest advanced, I cannot but think that the matter for regret in this case, is that he did not find it possible to call again and spend a little more time with Mr. Fyfe and make him also his debtor in this respect, as I am confident he would have done.

The foul brood act has been of immeasurable benefit to the bee-keepers of this province, and the way it has been administered by Mr. Pringle, and under him, by Mr. McEvoy has, I believe, been without reproach.

I am, yours truly, R. W. McDonnell.

Galt, Dec. 24th, 1891.

And still another proof of the great advantages that we are deriving from our foul brood Inspector's work, why, if Mr. Fyse had kept quiet we would not have known how much our Inspector is appreciated. All our Government will have to do, is to simply continue the grant and continue our present Inspector and sub Inspector, and beekeepers may consider themselves perfectly safe. We hope Mr. Fyse will give us every particular he can in reference to his treatment that others may see wherein he failed.

Subscribers in arrear for the Bee Journal will confer a favor by sending along their subscriptions promptly. The Journal will be more interesting than ever the coming year.

The JOURNAL is the best advertising medias for bee-keepers in Canada.

CONDENSED DIRECTORY.

Advertisements under this heading, occupying onehad inch space, three dollars a year

MICHIGAN LANDS, best in the State for \$5 per acre; some at \$2, \$3 and \$4. Write R. M. Pierce, West Bay City, Michigan

O J. PUTNAM, Leominster. Mass. has for sale several fine cockerels and pullets, B P Rocks, won 1st 2nd and 3rd on pullets, and 2nd on pen at Avr Jan. 14 to 16 1890. Eggs \$2 per setting.

MENTION THIS JOURNAL

W. COLE'S Black Minorcas. I have bred ose birds for 5 years and they are as good as ny in Canada, United States or England. 1889 pullet 4 943, 44, 96, 96, 963, cockerel 953, J Y Bickne judge Eggs for hatching \$1.2 per 13. WM. COLE, B1 ampton

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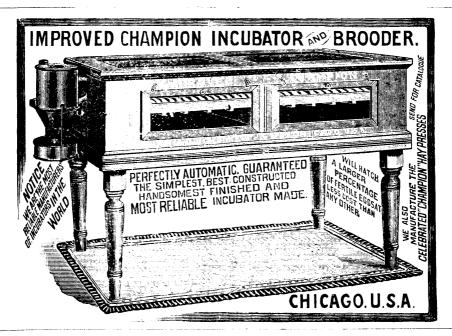
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