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THE CANADIAN BEE JOURNAL

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

Vol. VII, No. 15. BEETON, ONT., OCT. 15, 1891. Whole No. 296

THE CANADIAN BEE JOURNAL

Devoted exclusively to the interests of the Honey Producer.

Seventy-five Cents per annum in Advance.

ADVERTISING RATES.

All advertisements will be inserted at the following rates

STANDING ADVERTISEMENTS.

| Time. | 1 in. | 2 in. | 3 in. | 4 in. | 1 col. | page |
|----------------|--------|--------|--------|--------|--------|---------|
| 1 month..... | \$2.00 | \$3.00 | \$3.50 | \$4.50 | \$6.50 | \$10.00 |
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Breeders' Illustrated Directory.

One-fifth column, \$8 per year; \$5 for 6 mos. All yearly advertisements payable quarterly in advance.

Condensed Directory.

Occupying one-half inch space, THREE DOLLARS per annum.

Transient Advertisements.

10 cents per line the first insertion, and 5 cents per line for each subsequent insertion. Space measured by a scale of solid nonpareil of which there are 10 lines to the inch, and about nine words to each line.

Exchange and Mart.

Advertisements for this Department will be inserted at the uniform rate of 25 CENTS each insertion—not to exceed five lines—and 5 cents each additional line each insertion. If you desire your advt. in this column, be particular to mention the fact, else it will be inserted in our regular advertising columns. This column is specially intended for those who have poultry, eggs, bees, or other goods for exchange for something else and for the purpose of advertising bees, honey, poultry, etc., for sale. Our must accompany advt. Five insertions without change, \$1.

STRICTLY CASH IN ADVANCE

Contract advertisements may be changed to suit the seasons. Transient advertisements inserted till forbid and charged accordingly. All advertisements received for THE CANADIAN BEE JOURNAL are inserted, without extra charge, in THE CANADIAN POULTRY JOURNAL.

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

PUBLISHERS' NOTES.

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

THE JOURNAL will be continued to each address until otherwise ordered and all arrears paid.

Subscriptions are always acknowledged on the wrapper label as soon as possible after receipt.

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

Subscription Price, 75c. per Annum. Postage free for Canada and the United States; to England, Germany, etc., 10 cents per year extra; and to all countries not in the postal Union, 50c. extra per annum.

The number on each wrapper or address-label will show the expiring number of your subscription, and by comparing this with the Whole No. on the JOURNAL you can ascertain your exact standing.

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

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

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

ERRORS.— We make them: so does every one, and we will cheerfully correct them if you write us. Try to write us good naturedly, but if you cannot, then write to us anyway. Do not complain to any one else or let it pass. We want an early opportunity to make right any injustice we may do.

We do not accept any advertisements of a suspicious or swindling nature, but our readers must not expect us to be responsible should 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.

Clubbing Rates.

THE CANADIAN BEE JOURNAL and
 THE CANADIAN POULTRY JOURNAL \$1.00
 THE CANADIAN BEE JOURNAL and premium queen 1.00
 Both JOURNALS and premium queen..... 1.25

Job Printing.

All we ask is the privilege of an opportunity to estimate. Free use of all our cuts given to those who favor us with orders. Specimen sheets furnished on application.

The Wide Awake Bee-Keeper

Who reads the BEE-KEEPERS'S REVIEW one 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 months for 20 cents in stamps, and I will also send three back numbers, selecting those of which I happen to have the most, but

of different issues. A list of all the special topics that have been discussed, the numbers in which they may be found, and the price of each will also be sent to member the Review has been enlarged, a beautiful cover added, and the price raised to \$1.00.

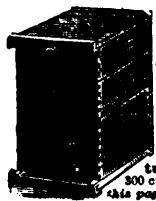
Hutchinson, Flint, Michigan.

Muth's Honey Extractor.

Perfection Cold Blast Smokers, Square Glass Honey Jars, etc. Send ten cents for "Practical Hints to Beekeepers." For circulars apply

CHAS. F. MUTH & SON.

or, Freeman & Central Avenues, Cincinnati



BEEES AND HONEY

The Dovetailed Strongest, Best and Cheapest BEE-HIVE for all purposes. Please everybody. Send your address to the Largest Bee-Hive Factory in the World for sample copy of cleanings in Bee Culture (a \$1 illustrated semi-monthly), and a 44 p. illustrated catalogue of Beekeepers' Supplies. Our A. B. C. of Bee Culture is a cyclopedia of 400 pp., 6x10, and 300 cuts. Price in cloth, \$1.25. *U. P. Mention this paper.* A. I. ROOT, Medina, O.

ALLEY'S IMPROVED AUTOMATIC

SWARM HIVER

Thoroughly tested and guaranteed to SELF HIVE every swarm that issues. Sample by mail for \$1.00. American Apiculturist one year and swarmer by mail \$1.50. Sample Apiculturist giving full illustrated description of Swarmer free

H. ALLEY, Wenham, Mass.

Michigan Lands For Sale !

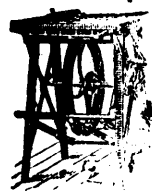
12,000 ACRES

GOOD FARMING LAND

—TITLE PERFECT—

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

BARNES' FOOT-POWER MACHINERY



Read what J. J. Parent, of Charlton, N. Y., says—"we cut with one of your Combined Machines, last winter 50 chaff hives with 7 inc cap. 100 honey racks, 500 broad frames, 3000 honey 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, 5 Ruby ist. Rockford, Ill.



Wilson's Nurseries

—ESTABLISHED 1876—

CHATHAM. ONT.

Largest variety, Best Quality, Lowest prices. All the worthy old and promising new Fruit, Nut and Ornamental Trees, Bushes, Vines; Roses Plants, Bulbs, etc. Best improved Pumps for spraying trees, bushes, sidewalks, floors, bees, etc., and washing buggies, windows, etc. Galvanized Iron, \$3.50, Brass, \$4.20. Wilson's Improved Woven Wire Tree Guards, for hindering Rabbits, Mice, etc., 50 cts. per doz. \$4 per 100. Great Danes and St. Bernard Dogs, 8 weeks old, \$20 to \$25 each; smooth-coated Fox Terrier, 8 weeks old, \$5 to \$10 each. Above dogs are from the best blood of Europe and America and won the best kennel prizes in Toronto. Greatest Bench shows in '89 and '90, where there were hundreds of competitors.

TERMS:

CASH—small but sure profits. Send your address now for my large catalogue and Guide to Fruit Growing purchasers, which will be issued about March—free to intending purchasers,

F. W. WILSON,
seryman Chatham, Ont.

MENTION THIS JOURNAL.

Piso's Remedy for Catarrh is the Best, Easiest to Use and Cheapest.

CATARRH

Sold by druggists or sent by mail, 50c.
E. T. Hazeltine, Warren, Pa., U. S. A.

CARNOLIAN -- QUEENS.

I expect to continue the breeding of Choice Carnolian Queens next season, and orders will be booked from date. No money sent until queens are ready to ship. JOHN ANDREWS, Paten's Mills, Wash. Co. N.

CONSUMPTION SURELY CURED

TO THE EDITOR—Please inform your readers that I have a positive remedy for the above named disease. By its timely use thousands of hopeless cases have been permanently cured. I shall be glad to send two bottles of my remedy FREE to any of your readers who have consumption if they will send me their Post Office Address. Respectfully, T. A. SLOCUM, M. C., 123 West Adelaide St., Toronto, Ont.

White Wyandottes Exclusively

MATINGS:

Pen No. 1—Headed by a Towle Cock that has sired some of the highest scoring birds in America. Mated to eight fine pullets.

Pen No. 2—Headed by the **First Prize** Cockere at the "International," score 96. Mated to hens that have proved themselves good breeders.

In these pens are females scoring 95½ and 97 points, and more just as good. Eggs, \$1.50 per 13. I can ship from Buffalo, N.Y., to American customers. Stock for sale after Oct. 1st.

J. F. DUNN,
RIDGWAY, ONT.

BROWN LEGHORNS

Benner's Prize-Winning Strain.

EGGS 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 cock, winning 1st as a cockerel, by Bicknell, at Owen Sound, 1890, score 94½, and 1st as a cock at Owen Sound, 1892, score 98, 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 a pullet, 96½; as a hen by Felch, 95; one pullet scored by Bicknell last year 95½; also 2nd prize hen at Owen Sound last year, score 94½, and other hens and pullets that will score from 93 to 95.

Will sell Exhibition Cockerels and Pullets in the fall
Address

J. C. BENNER, Owen Sound.

Care Polson Iron Works. MENTION THIS JOURNAL.

THOMAS A. DUFF,
287 LANSDOWNE AVE., TORONTO,

BREEDER AND IMPORTER OF

WHITE AND BLACK MINORCAS.

AND HOMING PIGEONS.

I have a great number of chicks for sale. If you want stock to win with you should write now and secure the best. My record at New York, Detroit, Toronto, Hamilton, London, Brampton, Bowmanville and New Hamburg, proves that there is no better stock in America.

My Homers (breeders) consist of the best stock that money could buy in Belgium, England and America. I have young birds bred from these in my loft that have flown 200 miles when five months old. Call and inspect my stock.



IT PAYS ::

TO ADVERTISE IN

THE JOURNAL.



WILL A. LANE,
TURNERVILLE, ONTARIO

Has for sale some extra fine young **Mammoth Bronze** Turkeys. Get his special Fall Announcement.

MODERATE PRICES. SUPERIOR STOCK

JOHN GRAY. ROBT. BLOYE. T. R. WOODS.

JOHN GRAY & COY

BREEDERS AND IMPORTERS OF

Golden, Silver, White Wyandottes

BLACK MINORCAS,

WHITE PLYMOUTH ROCKS,

WHITE MINORCAS.

The quality of our stock is second to none in America. We will sell nothing but good birds to any one. Our birds have won in the hottest competition. We select the choicest specimens for breeding purposes, and consequently have a lot of fine chicks for sale at all times. We have added to our already fine stock 1st prize cock, 1st prize hen, golden Wyandottes; 2nd prize silver cock at Toronto, 1891, also the best white Wyandotte cockerel in Canada last winter, score 97½. You will hear from us at the winter show. If you want good birds at

REASONABLE PRICES,
you can get them right here.

EGGS IN SEASON, \$2 PER 13.

Also Homing Pigeons, Guinea Pigs,
Fancy Rats, Mice, Rabbits, etc.

All communications sent to

JOHN GRAY, - TADMORDEN, ONT.

EXCHANGE AND MART

25 CENTS pays for a five line advertisement in this column. Five weeks for one dollar. Try it.

FOR SALE.—Silver Laced Wyandottes and Silver Spangled Hamburg Chicks. Good stock and at reasonable prices. M. B. HAQUE, Inglewood, Ont. Correspondence invited.

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

FOR SALE OR EXCHANGE for honey. 1 Barnes' foot-power saw, 3 honey tanks holds 500 pounds each, 1 Jones Honey Extractor, 20 Jones Hives (bodies) with frames, also 500 Hoffman frames L size. EDW. LUNAU, Buttonville.

QUEENS.—We have a few left, tested Queens, Italians, which we will sell at \$1 each to clean out. First come, first served. Address E. L. GOULD, & Co., Brantford, manufacturers of bee-keepers' supplies and dealers in Bees, Queens and Honey.

WE are now able to ship by first Express, in fact we are shipping every day all the Foundation ordered. Knives, Force Pumps; in short, we endeavor to have everything go by first train after the order is received. D. A. JONES CO. Y., Beeton.

FOR SALE.—A grand lot of Ornamental Bants including Japanese, Golden, Seabrights, Pekin and Games. S. B. K., I have some birds that will please you, sent on approval if required. I will exchange Ornamental Bants for other stock or sell for cash at: Japs, \$10 per lot; Golden Seabrights, \$5 per pair; Pekins, \$3 per pair. JOHN GRAY, Todmorden, Ont.

MEYER'S S. L. WYANDOTTES are acknowledged the best grand chicks for sale all bred from the following 2 to 4 year-old hens scored last winter by Mr. Smeat: 94; five 92 1/2 each; 93 (first hen, Toronto, '90), 91 1/2 and pullet 92, mated with cock, 94, cockerel 93. If "like begets like," they must please you. J. E. MEYER, Kossuth. Mention this journal.

APPIARY 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 concerned with it. Bees in good condition. SAMUEL STAFFORD, Shedden, Ont.

1891.

Don't you want to improve your stock Don't you want large, beautiful yellow Queens, producing bees that will please you fully; the best honey gatherers on earth. Seven years carefully breeding, 650 Queens sold and have heard of only one mismatched. Queen, 75c.; 3 for \$2. A yellow to the tip, select breeder, by return mail, \$1.50. W. H. LAWS' Lavaca, Ark.

MUST be sold, pair "White Indian Games" \$10; Colored Indian Game cockerel, \$5; White Plymouth Rock cockerel, a beauty, \$3; two Black Minorca cockerels, \$3 each; trio of extra choice Golden Seabright Bantams, \$7.50; Pekin Bantam cockerels, \$1 each; Silver Wyandotte cockerels, large birds, \$3 each; and prize Silver Wyandotte cock, Toronto, \$4; trio of White Cochon chicks, \$5. All at Todmorden come and see them. Satisfaction or money refunded. JOHN GRAY, Todmorden, Ont.

A WHITE WYANDOTTE COCK and Cockerel; both good; for sale or exchange. For offers, \$3 each. JOHN GRAY, Todmorden, Ont.

FOR SALE.—A lot of Partridge Cochon Cooks at \$4 and \$3 each; also two pair of Light Brahmas, and a pair of Black Hamburgs. T. COCKBURN, 64 Canada Street, Hamilton, Ont.

A FEW PAIR of Dark Brahmas, young and old, for sale cheap. also some Light Brahma Cockerels at \$1 each. T. COCKBURN, Canada St. Hamilton, Ont.

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.

LOOK AT THIS.—To make room I will sell Golden and Silver laced Wyandotte and S. C. White Leghorn Cockerels at \$2 each. A few Pullets and Hens at same price; also 1 White Leghorn Cock at \$2. Money refunded if not satisfied. A. W. GRAHAM, St. Thomas, Ont.

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 Leghorns old and young. Cock and five hens, Silver Grey Ducking and a quantity of young Pekin Ducks, the best in Canada. JNO. COLE, Hamilton.

I HAVE about 20 Cocks for disposal in Partridge, Black and White Cochons, Light and Dark Brahmas, Langshans, Minorcas and Hamburgs; Silver Wyandottes, Brahma Cochon, Langshan, 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.

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 into 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 300 egg capacity, \$25 each; one 175 egg capacity, \$20; two 100 egg capacity, \$20 each. For further particulars address THE GERRED INCUBATOR CO. 90 De Grassi Street, Toronto. Send 3 cent stamp for reply.

JANUARY ONLY

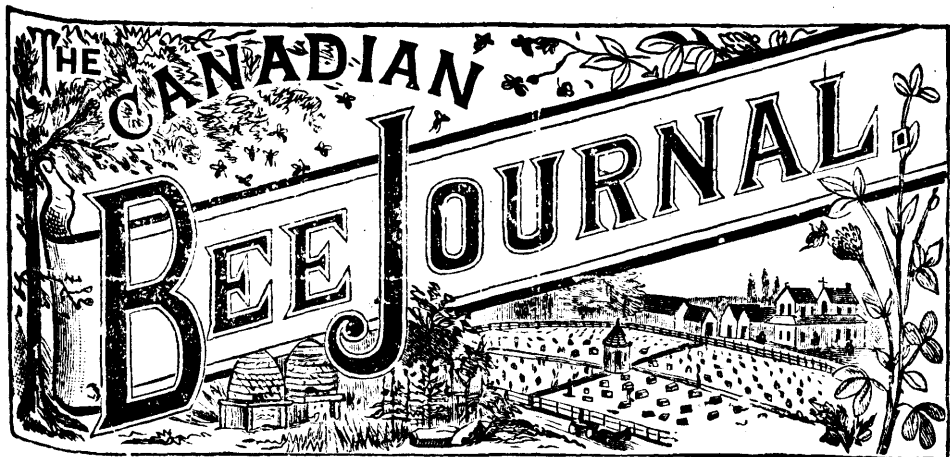
We will sell our noted 200 and 100 egg capacity - INCUBATORS - AT 15 PER CENT. DISCOUNT off our regular prices till January 1st, 1892. Read one of our many testimonials.

THE GERRED INCUBATOR CO. : Gentlemen,—I take great pleasure in writing to you of my experience with the Incubator I purchased from you. I have had two hatches, hatching all the fertile eggs. The chicks and ducks are all strong and healthy and easily raised. Yours respectfully, THOMAS HAMLIN.

Allaudale, July 6, '91 Send for circular and price list. THE GERRED INCUBATOR CO. 90 De Grassi Street, Toronto.

ONE GOLONY

Saved from Death the Coming Winter Would Repay the cost of a copy of "ADVANCED BEE CULTURE" ten Times Over. In 5 of its 32 Chapters may be Found the Best That is Known upon Wintering Bees. It costs 50 cents but its Perusal may Make you \$50 Richer next Spring. The "REVIEW" and this Book for \$1.25. If not Reacquainted with the "REVIEW," send for Samples. W. X. HUTCHINSON, Flint, Michigan.



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

VOL. VII, No. 15. BEETON, ONT., OCT. 15, 1891. WHOLE No. 296

THE CANADIAN BEE JOURNAL.

ISSUED 1ST AND 15TH OF EACH MONTH

D. A. JONES

EDITOR.

EDITORIAL.

Something further about the New System of Handling Bees.

IN our last issue we gave some points in reference to handling bees by the new system, as we might term it, or perhaps we had better call it Mr. Alpaugh's plan. The plan is to manage bees in a way that the old colonies produce no honey, but simply form stocks for the coming year, and all honey is taken from the increase. For instance, we set two colonies of bees close together, and build them up as strongly as they can be without swarming, giving them, if you like, all the room necessary to enable them to increase to their fullest extent up to the honey harvest, and when they are about to swarm; instead of being allowed to swarm, they are manipulated in a peculiar way by which the working force of both colonies is combined—the old colony being allowed to hatch out a large number of bees, which are further added to this colony. For instance, we take two colonies, and place them side by side, leaving room in the centre for an empty hive; then when everything is ready—and that is

one of the secrets Mr. Alpaugh purposes charging for—the working force of both colonies, with say one of the queens, is put into the empty hive, set between the two. In this hive would be frames with starters of foundation, much as friend Hutchison, of the *Review*, described to us years ago. These starters, we presume, would be from one to three inches wide, the outside frame being eight inches, and the centre frames one inch wide. Supers filled with sections, and full sheets of section foundation in them are placed on top of this hive, first putting a queen-excluding honey board on top of the hive, to keep the queen from getting up. Sections are added according to the size of the colony, so that the bees will have all the room they can occupy above the brood chamber. The way in which the bees are manipulated by friend Alpaugh causes them to begin work in the sections at once, and not rush about in an excited manner without attempting to do anything for a long time after being put in the new hive. We have sometimes done this by putting one frame of brood in the hive with the queen, which seems to satisfy them; but how Mr. Alpaugh does it we do not know. Supposing the two old colonies, one on either side of this new one, have the entrances facing the south, the new one also faces the south. Now, by turning the entrances of the two old colonies around to the north, all the bees that fly out and have their locations marked, and that do not already belong to the

new colony, will go there immediately on their return from the field. Now, by leaving these old colonies with the entrances turned in an opposite direction for a number of days, then gradually moving the entrances back to their old positions, when the balance of the working force which has accumulated with these two hives is transferred to the new colony, the old colonies may then be carried away and set up in some other part of the yard, or may be turned round facing another direction, moved sufficiently far from the new colony to allow it to catch all the bees. We do not say that this is Mr. Alpaugh's plan, because he has not placed us in possession of any facts in connection with his secret, while we believe it consists in the way by which he manipulates the bees, so that they may all feel perfectly at home in the new colony, and start to work immediately, and also the plan of getting the balance of the bees out of the old colonies after they have increased to a good large working force, and so deprive them of all their field bees, which discourage and prevent them from swarming. In fact it takes them all their time to build up to a sufficiently strong colony to go into winter quarters, or to gather sufficient stores for winter. Mr. Hutchinson gave us the plan of using starters instead of full sheets of foundation in taking comb honey. Mr. Alpaugh uses them for both comb and extracted, getting all the white honey even in sections, or in supers filled with comb placed on top for extracting purposes. We have argued very strongly of late the necessity of preventing a too large consumption of honey during the height of the honey harvest, in rearing young bees. By this plan it is easily seen that very little brood will be found by this system in any of the hives, as the old colonies are too weak to carry on brooding extensively, and the new colony has to build all the comb before it has a place for the queen to deposit eggs. There will be a great saving in that way, and many of the bees that might be occupied in feeding and caring for brood are left at liberty in the new hive to go forth to the fields and gather honey. Thus every available bee can be used, and instead of getting the honey from two old colonies—and say four swarms, one from each is usually the

case—it is all obtained from the one hive, and you get more surplus in proportion than you would from the two. We have made some tests in the above lines, but always desiring increase, never carrying it on to the extent Mr. Alpaugh has, but we were fully convinced, after talking with him, that we stopped our experiments too soon. It will be seen that this system when thoroughly understood, will be simple, and will keep down the increase; because if you so desire, you can put the two old colonies into one, which would keep the increase down entirely, or at least would only increase one half. Mr. Alpaugh is wonderfully enthusiastic over his plan, and feels certain that a day of prosperity is dawning upon the bee-keepers of the world. ¹¹⁸ If positive, from his extensive practice of the plan, that all that is claimed for it can be accomplished; and we consider him fully entitled to any reasonable remuneration, and to the honor of first bringing this system in its new form before the public. He is convinced that while it possesses no disadvantages, it possesses so many advantages that its value is far more than can possibly be imagined until it is tested.

Here is an opportunity for some one to distinguish himself. Who will invent a kind of food that bees can be wintered on without the loss of a single colony, without dysentery, with the smallest consumption of food, and have the bees come out in the strongest possible condition, with the least loss of vigor or vitality during their long confinement? Supposing a few bee-keepers were to make some tests. If we can ship bees and a queen that will go from 12 to 36 days in cages, in all kinds of temperatures, passing through the various climates, is it not possible, with an extraordinary small consumption of stores to winter successfully colonies without any honey, except that contained in the ground sugar, and a few combs or sticks to cluster on. We would suggest that some of our professors or best bee-keepers take a few colonies, each one inventing his own style of hive, or wintering box, and manufacturing the food to suit himself, placing them in various temperatures. This will enable us to take all our nice white honey for the market, and if the repository in which they

are wintered is very small, so that the cluster is deep and well protected around the sides, so that no air can get in, or heat escape from the bottom, as all the heat that escapes ascends into the stores, we think such an arrangement might be perfected, and colonies could be wintered cheaper than they now are, combs would not be injured by mould, and any honey that was in them would do for brooding purposes in the spring. There are a great many who could put two colonies together, and where they are weak any very small colonies could be put in a box, say six inches square, but deep enough to allow of plenty of room under the cluster. We merely throw out these suggestions, and a little experimenting in this direction will perhaps get us out of some of our present difficulties. See how long it took us to learn how to introduce queens. Thousands of breeders and bee-keepers trying year after year, why didn't we think that all that was necessary was just to drop the queen in the evening after the hive had been made queenless during the afternoon, with the full assurance that everything was right, fertile or unfertile? The simpler, easier, and cheaper the way things are done the better.

Moving bees to new apiaries has paid better than usual this year, as the late warm weather had a very favorable effect on the flowers, and many secreted considerable honey. The great point is where it was intended for winter stores, the weather was sufficiently warm to allow the bees to ripen their fall stores, which is not very often the case, and this no doubt, is the reason why so many imagine that fall honey is not as good as summer honey for wintering. The difference is not so much in the honey as it is in the ripening. Now, friends, do not think that you can feed your colonies that lack winter stores, on ten pounds of water and five pounds of sugar, and say they are heavy enough to go through winter. Better have only seven pounds in your hive and have it well ripened. It will go further with a colony of bees than fifteen pounds of poor thin stores will, and why? The rich, thick honey allows the bees to cluster closely and compactly, retaining the heat as far as possible, and as a

very little of this superior food does them it is not necessary for them to gorge themselves, and they do not gorge themselves like they do with poor watery stores. Then their bodies never become distended, when fed on this superior quality of food, and in the spring when taken out of winter quarters, bees wintered in this way are generally quiet and dormant, apparently dead. We have frequently had to rap and jar the hive to make the bees sensible to the fact that they were in daylight once more, but these were the ones that built up quickly. No fear of spring dwindling from such colonies unless, the weather is exceedingly unfavorable. Be sure your bees do not go into winter quarters with poor, thin, watery stores.

"Sweet clover," says a writer in the *Omaha Bee*, "is supplanting the wild sunflower in the neighborhood of that city, and he becomes poetically eloquent in speaking of the beauty and fragrance of the new comer." Why is it that our friends here do not raise more of this sweet clover? We have urged time and again, and it certainly seems strange that they will neglect their interests. In order to encourage our friends we will give them the balance of our imported seed at cost or less. Mr. John McArthur, of Toronto, is gathering large crops of honey from it every year. He has divided his apiary into three, and I think he said there were from ten to twenty-five acres of sweet clover blooming within range of his bees, right in the City of Toronto, and a gentleman who visited him a short time ago was surprised to see Mr. McArthur's bees storing honey from this source, when all other sources had failed. Other people's bees were idle while he was getting about 100 lbs. per colony surplus.

J. A. Green, in *A.B.J.*, makes some very true and sensible remarks in reference to the different races. It is high time that bee-keeping friends should know that any one who attempts to raise pure bees in an apiary, within one, two, or even four miles of other bees, is not sure of purity. Queens do mate with drones from apiaries miles away, and any one who is ignorant of this fact, and attempts to produce pure bees

of a different race, within easy range of bees of another race, should accept the facts already known, that it cannot be done. Any one who attempts this, and believes he is doing right is to be pitied, but any one who knows it is wrong and does it, is to be pitied all the more.

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We are asked by a friend if we exhibited at any of the Fairs this year, and if so, why we did not report the prizes awarded us, as we had others. We have not exhibited for three years, as we wished to let others have an opportunity of displaying their wares. As far as the honey exhibit goes, we decided long ago that it was unfair for us to exhibit honey, as the prizes should go to those not in the supply business; that if we manufactured supplies for our customers, we should allow them the privilege of exhibiting their honey, and reaping the benefit of their products, while we reap the profits of our manufactured supplies.

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We would suggest that any person who finds a large number of robbers around a hive, to remove it, and put a decoy hive in its place, with a bee escape at the entrance, but turned so that the bee could get into the hive, and not get out. Keep them there a day without giving them anything to eat, and let them out at night. We think you could return the old colony to its stand after one or two days, and not be troubled with robbers.

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In a late Journal we said something about how rapidly bees could fly, but there is one point we forgot to mention that may have some thing to do with their keeping up with the train and that is, there is a motion in the atmosphere surrounding the train which might assist the bees somewhat, although we do not question their ability to fly at least a mile a minute.

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A great many have reported an unusually large quantity of dark honey this year. It is owing in a measure to the scarcity of honey in clover and basswood, and the bees gathering in from various other sources; also from buckwheat and fall flowers being mixed with the earlier honey, which was not in the hives in sufficient quantities to be extracted.

Some claim bad management and lack of knowledge concerning the honey flow, is the cause of many complaints. No doubt it is, but a strong desire to increase rapidly, and have too many colonies with very few bees has undoubtedly something to do with it. You may leave your colonies extra strong without much injury, but when they are too weak, you may as well hang your hat on the hook of blasted hopes.

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American Bee Journal.—"That to be successful in either, the bees should be deprived of their queen for 72 hours before introducing operations are commenced." It is a great mistake to keep a hive queenless for more than a few hours for the purpose of having the queen successfully introduced. Queens may be removed any time during the day, and be replaced by others at night, without loss, if properly done.

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Any one who feeds back honey to have sections filled, should sell the sections as soon as they are filled, and bind the purchaser to eat the honey in two or three weeks, or keep it in a very warm place to prevent granulation. When once it granulates it cannot be liquified without melting the comb.

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An inquirer wishes to know how to keep pollen out of the supers. We would advise him to use queen-excluding honey boards, as we have never known pollen to be deposited in the sections where queen-excluder zinc was used.

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We notice that scented soap for uniting bees is favorably spoken of in the *B.B.J.* Why not have the scent and leave the soap for washing purposes when the scent is all the virtue there is in connection with it?

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Bee escapes still continue to attract inventors' attention. We shall be pleased to see anything better than we now have, but it would be a mistake for any one to attempt to get up anything more expensive.

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Colonies require more food than usual this fall, and many people will be disappointed after weighing and noting results.

GENERAL.

Swarm-Catchers and Bee Veils.

SIR,—“X-Tractor” has my sympathy in his failure to produce a swarm-catcher with a piece of excluder zinc. I tried the same dodge this year, as I didn't want the swarms to go over the garden wall. After a few hours they got used to the impediment, and used to squeeze through like diving ducks. The incoming bees took particular precaution not to drop any of their pollen, for they passed in their pollen legs sideways, and the effect was very ludicrous. I kept the catcher on for about a month, and then had to take it off because the drones were unable to get out, and caused too much excitement. The strange part of the performance was, that when I took the bent excluder off I stood it on a box a few feet away, and nearly the whole of the bees flying home flew to the excluder, squeezed through the holes at the end, then flew to the hive. I notice, for the first time, bees working on the yellow marigold pretty freely. I quite agree with some readers asent veils. About two months back I was manipulating without my veil. One bee turned in honey-gathering to manipulate me. It eased itself on my eyelid, which turned out a veritable *multum in parvo*, for within two days one side of my face became like a half-moon, and remained so for a week. I was told by several young ladies that I looked very fascinating. Now respecting intoxicating plants. Nothing seems to overcome the honey-bee, but last week I took drunken honey-bees off dahlias, hollyhocks and sunflowers, and so far were they gone as to lie on their sides on the ground and hold up a leg for a ‘pal’ to give them a help up. They disappeared by the morning, but whether they reached home in the ‘sma’ hours of the ‘twa,’ or have been invited into the ‘proverbial parlor’ of the spider, I know not.—Yours etc.,
G. NEWMAN, Camberwell, in B.K.R.

The above plan should work all right as we have tried a similar one, and sometimes we put partly filled sections on top of strong colonies, to have the honey taken down, and the bees have refused to do it, then by smoking them down into the hive, after having placed an empty super under it, and by placing one between the partly-filled sections of the brood-chamber, they would go up and take the honey down at once, storing it in the brood-chamber.

Naphthol, Beta and And Naphthalline.

NOW that the season for feeding bees has arrived we have been asked to give simple instructions in the above remedies for the cure and prevention of foul brood. Most encouraging reports have been coming in from those who have been trying these remedies, and in many instances cures have been effected. There is, however, a great deal of misunderstanding with respect to which of the two substances to use, and this we would wish to clear up.

Naphthaline is not recommended for trial as a remedy, but only as a preventive, although, in some cases, we are assured that a cure has been effected with the use of naphthaline only. However, we believe it has the power of arresting the growth of bacilli, and so long as it is present in the hive, the disease is held in check. This substance has a powerful odor, and should be pure, for several cases have been brought to our notice where the bees had deserted their brood owing to an impure form of naphthaline having been used. It is sold in two forms, viz., in white crystalline flakes and in sticks. If flake naphthaline is used, about as much as can be heaped on a sixpence should be put on the floor-board of the hive as far from the entrance as possible. The quilt can be lifted up at the back, and the naphthaline dropped in between the combs. If the sticks are used, they should be cut into pieces about the size of a nut, or about three-eighths of an inch long. One or two such pieces can be put into the hive at one time. Naphthaline evaporates; therefore as soon as it has disappeared, renew it. This can be done at intervals of eight or ten days. Naphthaline must not on any account be used in food, and should only be administered in the manner described. In an apiary where foul brood exists, it would be advantageous to give some to every hive, and the same should be done if foul brood exists in the vicinity. The substance is very cheap, and could be given to cottagers; who might be thus induced to help in exterminating this pest of foul brood.

For the purpose of curing the disease, it is advisable to give Naphthol Beta in the syrup. This does destroy the bacilli which are present in the alimentary canal of adult bees, and given by the nurse-bees as food to the larvae, also destroys the bacilli in them. Naphthol Beta is a fine crystalline powder, almost odorless, and is insoluble in cold water, but it dissolves freely in alcohol and to a small extent in hot water. If however, it is first dissolved in alcohol, and this solution added to the syrup while still hot, it

remains in solution. The proper proportions are three grains to every pound of sugar used. This quantity will cover a sixpence heaped up in the centre to a little more than one-eighth of an inch. Such small quantities, however, are not conveniently measured by every one, and when a good many pounds of sugar have to be boiled up, measuring on sixpences is not the most expeditious plan. The following may be found more convenient, as avoirdupoise weights are to be found in almost every household:—

1 drachm Naphthol Beta to 9 lbs. sugar.

$\frac{1}{2}$ ounce “ “ “ 18 “

$\frac{1}{4}$ “ “ “ “ 36 $\frac{1}{2}$ “

$\frac{1}{8}$ “ “ “ “ 72 $\frac{1}{2}$ “

Those who have apothecaries' weights can use the following table:—

1 scruple Naphthol Beta to 6 $\frac{1}{2}$ lbs. sugar.

1 darchm “ “ “ 20 “

$\frac{1}{2}$ ounce “ “ “ 80 “

These proportions are not exact to a grain, but quite near enough for all practical purposes.

When the proper quantity is weighed out, dissolve it in alcohol, or rectified spirits of wine, by pouring just as much of this upon it as will dissolve it, and then shaking, and as soon as all the Naphthol is dissolved stop adding the spirits. Boil the syrup in the usual way, and when it is taken off the fire, add the Naphthol Beta solution to it and stir. When cold enough it is ready for use. When Naphthol Beta is used in syrup, there is no necessity to add any salicylic acid, as it takes the place of this. Where foul brood does not exist, half the quantity of Naphthol Beta could be used as a preventive. To medicate candy the same proportions can be used, and when the syrup is taken off the fire and begins to cool, just before stirring is commenced, put in the Naphthol Beta dissolved in spirits of wine. We hope that these instructions will be found simple enough, and will be a sufficient answer to the numerous questions we have had upon the subject. Remember that Naphthol Beta can only be used in food, and naphthaline only as a preventive.—B.K.R.

Bees Storing Winter Food In Supers.

MY bees are all very strong, but as usual, feed feeding. I double and treble my Woodbury's, which are now mostly full of bees—far too many to squeeze into a single body of a Woodbury size. Of course, the supers are now void of honey, but how am I to feed them? If I put my bottle on the top of supers, they fill, I find, the super immediately under, and not the body hive, which is what

I desire to fill for winter use. Can you tell me how to make them fill this without trying to squeeze them into an impossible space?—G.A.R.

REPLY.—If an empty chamber or 'eke,' four to six inches deep, is placed under the hive-body to give the needed room, the bees will store all food given in the combs above, and will make no attempt to build combs in the space below at this late season. The extra space under combs will conduce to the health of the bees in the winter, and may be removed in March next, when breeding is well started.—B.K.R.

An Unfavorable Season.

A correspondent to the Bee-Keeper's Record from Blairgowrie, N.B., says:—"Weather has been so unfavorable lately that in this district bees have done almost nothing since last month. Some hives have been taken to the heather, but, so far as I am aware, no honey has been got. Should weather improve, I shall have a load of ours taken north first opportunity, but if weather does not materially alter they had better remain at home. I trust more favorable reports will be the rule, and this but the exception."

We notice that our Scotch friends go to the heather with their bees, but according to the above it seems they have not been successful in storing heather honey this year. If we had heather in Canada, we wonder what some of our bee-keepers would think of it at first sight. We believe the honey cannot be extracted from combs, but has to be pressed out, and while the flavor is very strong, the price for good heather honey in London, in one or two pound sections, to be far above that of the best white honey we could produce. In fact, I believe the late Wm. Rait, of Blairgowrie, sold his one-pound sections for two shillings each. It brings a very high price in the British market.

Immense Labor Performed by Bees.

NECTAR is the term applied by botanists to the sweet tasting fluid which is secreted within the cups of flowers, and the object gained to plants by its presence is that insects, induced to visit flowers for its sake, are useful to the plants by effecting a cross fertilization, an additional amount of vigor being thus conferred on the seeds which subsequently result, in contrast with the evil results of "breeding in and in."

The formation of nectar is observed to take place most freely in hot weather, and to be pre-

vented by cold or wet. So great economy is exercised by the plant that it is only formed at the time when insects' visits would be beneficial, that is, when the anthers are ripe, and shedding their pollen, or when the stigma is mature and ready to receive pollen. By biologists the visits of bees, butterflies and other insects are believed to have exercised in past time, an important influence in modifying the shape, size, color, etc., of flowers.

Nectar is, of course, the source whence bees derive honey, but it also affords food to many kinds of insects which do not possess the same habit as the former in storing it up.

Prof. Alex. S. Wilson, of Glasgow, has recently investigated the amounts of sugar contained in the nectar of various flowers, and laid the result of his labors before the British Association. He shows that $2\frac{1}{2}$ pounds of honey are equivalent to the supply obtained from five millions of flowers, or about two and a half millions of visits for one pound of honey.

This shows what an amazing amount of labor the bees must perform, for their industry would thus appear to be indispensable to their very existence.—*Michigan Farmer.*

The remarks in reference to the number of flowers that bees visit in order to get a load of honey; applies to times when honey is very scarce. When honey is coming in rapidly, take a little flour, chalk, vermilion, red, or some other coloring, and as the bees come out of the hive, dust them a little with this coloring, and then watch and see what time elapses before they get back. Some days they will come back in from seven to ten minutes, occasionally in five, while during a scarcity of honey, they will be from one to two hours. We have sometimes noticed them apparently fill themselves from very few flowers. The quantity of nectar in many flowers in the time of scarcity is so slight that it requires an immense number of flowers in order that the sac of the bee may be filled, while any one who has taken a basswood flower and bent the leaf down around the edge, and examined the little drops of honey, cannot but be convinced that a very few would furnish sufficient nectar for one bee.

The Season's Experience--Foul Brood

DOW that the honey season is practically over (except for heather honey), there is time to put down the results of one's experience. I cannot let this opportunity

pass without expressing the gratitude bee-keepers owe to your journal for the many practical instructions given in it.

From amongst many such instructions, I would refer more particularly to two, namely, uniting with the help of flour, and placing swarms on the stand of the original stock. These two simple instructions have probably enabled me to double my crop of surplus honey during the past season. In this district the past season has been the best, at any rate, since 1885, the year from which my bee-keeping experience dates.

I began the season with eight stocks, and after losing several swarms, I can now count twelve. I have taken off over 450 completed sections. On opening some of the hives to pack up before removing them to the heather, I find that brood frames are absolutely full of honey, so much so that I propose to give the bees breeding space by inserting some empty frames of comb or foundation in the centre of each hive.

Here the winters are very mild, and the winter consumption of honey till at any rate the end of April, is very small. I should not hesitate to winter a stock of any size on ten pounds of well sealed stores.

Last was the most severe winter we have had for many years, and on three or four occasions we had from ten to twelve degrees of frost. I left some hives through all the winter on the heather, with empty section crates on them, and did not bring them home till about 20th May of this very backward year. I found them perfectly crammed with bees, and with at least ten or fifteen pounds of last year's heather honey in each hive. I should add that by 15th June (when honey first began to come in here) all the heather honey was gone, and even the outside frames were filled with brood. Had the season been an early one, breeding would have been checked by the cells being filled with honey.

Before I close I should like to say a few words on the very sore subject of foul brood. I have had a long and melancholy experience with this pest, and in my case mere feeding with disinfectants (salicylic acid phenol, formic acid, or Naphthol B.) has proved useless. But, early in my troubles, I found that swarms from infected stocks, if put on sheets of foundation in fresh hives, remained comparatively free from all trace of infection, especially if the new hive was, as far as practicable, saturated with some disinfectant. I have for some time past thoroughly washed my floor boards and frames (when I had any suspicion as to the stock from which the swarm came) with a strong solution of carbolic acid; but the difficulty has been that this cannot be continued with such a disinfect-

ant when bees are once in the hive. I welcome, therefore, such a disinfectant as naphthaline promises to be, for apparently it is just what is wanted, as it can be used at any time. But I should advise no half measures in dealing with foul brood. Has this question been ever definitely answered? Does the melting temperature of wax, or what other temperature, with certainty destroy the microbes or bacilli of foul brood?—W. Cornwall, in *British Bee Journal*.

[If wax is kept at a temperature of 212° c for four minutes, it is said the microbes are destroyed. In making foundation, wax is kept at this temperature for twenty-four hours.]

We notice from the editor's remarks that four minutes' time is sufficient to destroy the microbes at 212°—the ordinary temperature of boiling water. As our esteemed friend, Mr. Cowan, seldom, if ever, makes a statement unless he is positive of its correctness, we are pleased to know that the time necessary to destroy the microbes has been reduced. We are gradually collecting more light on this subject, and trust that the foul brood scare from comb foundation is quickly passing away.

Bacillus Alvei.

BY reading the replies to Query 782, I see that a number of those answering the question, "What is the cause of foul brood?" says *Bacillus Alvei*. Dr. Tinker modifies his a little by speaking of Cheshire as the author of the name, but says it "is, without doubt, the true cause."

Well, I am not going to say that it is not, but if Cheshire is no more correct as to the name of the disease, than he is in his diagnosis of the same, then there is little dependence to be placed on what he says regarding the matter—not enough so for any one to say that foul-brood is caused by *Bacillus Alvei*.

Every person in North America, who has any personal experience with foul-brood, knows that the honey from a foul-broody colony will spread the contagion far and wide, if this honey is placed where the bees have access to it. There is no guess-work about their being "death in the honey," and yet Cheshire says "the popular idea that honey is the means by which it is carried from hive to hive, and that mainly through robbing, is so far in error, that only occasionally and casually can honey convey it from colony to colony.

He also tells us that the egg of the queen contain bacilli, from which it would appear that

the disease must go; for, surely, if these are in the eggs, the larva hatched from these eggs must, of course, be fed upon by these bacilli; hence would die of the disease; yet, the fact remains, that where no foul-brood honey goes no disease goes, or the thousands of colonies cured by the Jones, or more properly, the original Quinby plan of fasting, could never have been cured. Although Jones, Root and many others have proven the fallacy of Cheshire's conclusions regarding foul-brood, yet, as far as I have seen, he has not taken back what he wrote, or even said he might have been mistaken. I wish to impress upon the minds of all that honey from foul broody hives must be scalded, the first thing after being taken from the hive, or from the bees, or there is great danger that your own or your neighbors' bees will carry a little of it off, when, just as sure as effect follows cause, the colony which receives a bee load of this honey, will in due time become extinct from foul-brood, unless the apiarist is on hand to cure it by the fasting plan.—*American Bee Journal*.

Friend Doolittle gets right down to business in this *Bacillus Alvei*. We are surprised at this late date, that any one should maintain that honey is not one of the principal sources of spreading the disease, and that queens that affect colonies would transmit the disease to other colonies by laying eggs that are affected. Now, thousands of queens that affect colonies have been used without transmitting the disease. If the fasting plan cures the disease, what is the use of anybody holding to the theory "that a queen from a diseased colony will transmit the disease through her eggs, or some other way when fasting along with the colony." We fear that science will have to give way to the ordinary methods now in use, whether the cure is done upon scientific principles or not, so long as it is a cure, that is all we need trouble ourselves about, and we feel very much relieved that we are not depending any longer on theory, but practice has given us so much information on this point, that theory or imagination will have to give way to facts as proved by practise.

North American Bee-Keepers' Convention.

As previously stated, the meeting of the North American Bee-Keepers' Association will

President has been working hard, and has secured reduced railroad rates from Chicago and the Mississippi River, and from the South. The meeting promises to be the grandest in the history of the association, and we hope the West will send a good delegation. Besides personal members' attendance, we expect every local and State association to send one delegate, or more.

This will be a good occasion for Western bee-men to become acquainted with the noted bee-keepers of the East, nearly all of whom will attend this meeting. Bee-keepers desiring to attend will please send their names to either the President, Mr. P. H. Elwood, of Starkville, N. Y., or to the undersigned, as we intend to publish a full list of those that are expected to be present.

C. P. DADANT, Sec.

Hamilton, Ills.

False Ideas About Eastern Bees.

PH. J. BALDENSPERGER.

Allow me to correct some false ideas about our eastern bees, appearing from time to time in bee-periodicals all over the world.

I am a honey producer, and not a queen breeder, and would take to any bees as soon as it would pay to keep them—even the wonderful Punic bees, which I have in my apiary, and have worked in their own Punic homes, without discovering the marvelous qualities described in the *Bee Journal* of May 28, 1891.

On page 713, an article copied from the *Indiana Farmer* says the Palestine bees are inferior to the Syrians. "They use more propolis than any other variety and are more troubled with laying workers." The writer of that article must have had a great deal of experience with Palestines I have worked both Syrians in their own homes, and have failed to detect the difference to which some breeders like to call attention.

Both are apt to have laying workers, as well as any other race, when neglected, but will survive queenlessness an astonishing length of time, if properly manipulated. Sometimes virgin queens remain nearly a month in the hive, before flying out to mate, and still laying workers do not appear. When a queen is lost, the danger of having laying workers becomes greater, but can be prevented by putting in a frame with eggs, occasionally, and sometimes hatching brood.

This year I gave an old queen, which I wished to dispose of, to a colony containing laying workers: she was accepted, and the lay-

ing workers soon disappeared. The queen was soon after removed, and queen-cells given to the colony, and by April 7 they had a young queen, which began laying on April 26, and the colony stored 80 pounds of surplus honey after all that manipulation. July 30 being the date of the last extraction, this colony will be in few condition for Winter—plenty of stores, young queen and bees.

The Cyprian, Syrian, Palestine and Egyptian bees all sting. Do not the Albinos and "niggers?" I suppose very much depends on the climate in which they are bred, and how they are managed. For instance, Mr. Benton, some years ago, exchanged some Punic bees for Palestines, and he said: "Mrs. Benton says she would rather manipulate the 'ugly Palestines' than those 'Tunisians,' while I thought to the contrary. I find the 'Tunisians' less liable to sting than the Palestines."

But crossing and recrossing has been practiced so extensively, both in Europe and America, that I think there are none who can claim a pure race except those possessing imported queens. If this is not so, why is fresh blood always demanded?—*American Bee Journal*.

Jaffa, Palestine, Aug, 11, 1891.

A Beard of Bees.

SIR,—Your interesting extract from the *Toronto Weekly Globe*, 'Bees in his Brecks,' reminds me of an incident related to me a few days ago, the truth of which can be vouched for, and names given of the man and his master. The man was moving away the hives at the swarming season, when a swarm with very little ceremony settled on his chin, and hung suspended therefrom, forming, as an eye-witness—my informant—described it, a beard of bees. The bearded man stood still while skep and other things were brought, when the swarm was brushed off. No stings resulted.—Yours &c., T. F. Eynsford, in *British Bee Journal*.

It is evident from the above that the queen lighted on the man's chin and the bees settled around her, same as they would on an ordinary limb.

Lambton Bee-Keepers Association.

A meeting of the above association, will be held in the Council Chamber in Alvinston on Monday, November 2nd, 1891, for the transaction of business and discussion of various subjects of interest to Bee-Keepers. All interested are cordially invited.

W. E. MORRISON, Sec-Treas,

Alvinston,

Ont

Yellow Carniolans.

DO not know just what to think about the purity of Mr. Alley's yellow Carniolans. I know that none other had Italian bees in this district but myself when black queens, five miles distant, were rearing yellow-banded workers.

I notice that you are annoyed at would-be inventors taking out patents on useless ideas, and old at that, so you will want something fresh, and perhaps I can give you that.

Solomon was no doubt the wisest man that ever lived, and he said that "there is nothing new under the sun," so you need not expect anything new, but it strikes me forcibly that I can give you something different in the way of a super from any you have ever illustrated or described in the Bee Journal.

What are Mr. Heddon and Dr. Tinker quarreling about queen-excluding honey-boards for? I am not sure but that I could down them both on the first round. Most all who use the disputed board must admit that when it is clogged with wax and propolis, it requires a person with a good Heddon (head on) to be able to clean it off, and then there is a good deal of "Tinker"-ing about it.

I have introduced a new system this summer, of using the queen-excluding zinc, and at as early a date as possible I propose sending you a super and queen excluder, with explanations, but I am thinking seriously about patenting the ideas. It was my intention to show them at the Toronto Industrial Exhibition, but time forbade.—D. CHALMERS, Poole, Ont., in *A.B.J.*

We are pleased to see our friend Chalmers coming to the front, and about to give us some of his new ideas. We shall willingly give him space in our journal to describe anything in connection with the improvements on honey-boards. We do not object to patents that are of any value to bee-keepers.

What Kind of Packages Shall we put Extracted Honey in to Ship.

FROM our experience we say, emphatically, 60-lb. square cans, not kegs or barrels. Several years ago, when the square cans were first brought prominently before the bee-keepers as a convenient package in which to ship extracted honey, we were continually having trouble by the barrels and kegs springing a leak; and before we knew it, the bees would find it out and set to robbing. We had so much of this that we well nigh made up our minds that we would not buy honey in kegs of

or barrels at all, or, if we did, we would transfer it into cans soon as it arrived. About a year ago, inquiries were sent to the commission men to find out what kind of packages they preferred for honey, both comb and extracted. Some few favored the cans; but the majority said that, while they preferred cans for California honey (because they could not get it in any other way) they would rather have extracted honey, so far as possible, in kegs and barrels. From the reports we concluded that, maybe, we were prejudiced, and have gone so far as to offer honey-kegs for sale. This year we have received five or six lots of honey in kegs and barrels, and in ever instance they were leaking on arrival, while we very seldom have a case of leaking with cans. Is this merely accidental, or are the cans really better? We certainly have good grounds for thinking so. And if we put aside this matter of leakage, are not the cans a much more convenient package for the retailer to draw from than a keg, or barrel, especially if he uses the screw-top honey-gate? For storage the cans take less room; and though they cannot be rolled around like kegs or barrels, yet on the whole they are convenient to handle. We are much inclined to think that the commission men or their customers prefer the barrels, for the same reason that some of us stick to old things and notions that we are used to, simply because we are used to them and dislike to try new things; and yet, if they have had the same experience we have with leakage, it would seem as if they would welcome something better. Leaky kegs and barrels can usually be remedied for the time being by driving on the hoops; while if a can springs a leak a tinner has to be called in, or the can emptied to stop the leak. Maybe this is the explanation of it. We greatly prefer to contend with an occasional leaking can than to be continually tinkering with leaky barrels and kegs.—*Gleanings*.

Leaky tin packages, unless the leakage is very bad, may be repaired without going to the tinsmith. Even though it is full of liquid honey it can be permanently stopped by pressing a piece of soft beeswax into the crack. We think Mr. C. P. Dadant is entitled to the credit of this system. We have found it very effectual whenever tried.

Pruning off the Corn Tassels From Every Other Row.

WE have been practicing this until we are satisfied there is no question but that it really will do all the experiment

stations claim. Two small boys go out nearly every day in our field of Shoepeg corn, right opposite the factory, with a wheelbarrow, some half-bushel market-baskets, and a couple of ten-cent pocket-knives. They cut every tassel out as soon as it makes its appearance. As the boys are small they do not work many hours a day, and the tassels cut are worth nearly if not quite what we pay the boys for doing it. I suspect the tassels are worth a little more for horses and cattle than the other part of the corn-fodder. Now for the result: The pruned hills have developed great stocky plants, with ears that stand out, both in silk and size, in a marked degree in contrast with those in the other rows that are suffered to mature the tassels.—*Gleanings*.

Closed-End Frames.

BELIEVE we all entertain a just pride in forming correct conclusions. I am very glad there have been bee-journals through which we may aid each other, not only, but on whose pages I might place my opinions, which I believe to be advanced opinions, on record. You know, Mr. Editor, that the man who really believes himself a true prophet, really capable of laying down such truths to-day as, although not accepted now, will surely be in the future, desires to make his prophecies public.

The above thoughts are suggested by the article of brother Stachelhausen, on page 592. You know very well that the mechanical construction and devices of apiarian fixtures and implements, especially of the hive, have been my hobby for twenty years; and probably from the great importance of having a good hive have flowed forth the bitter jealousies between inventors. I desire to make this article short, although devoted to a very long subject.

While for fifteen years a user and admirer of the laterally movable suspended L frame, never a moment did I cease to study into and look after the merits of close fitting frames. I have gone slowly and carefully, and made my experiments on a comprehensive scale; and I desire now to go on record for the following:

1. The Hoffman frame will never come into general use and remain so. It is not as worthy as the L^o frame. If I must use a Hoffman frame or a Langstroth frame I will have the latter.

2. A closed-end frame in a close-fitting case is the only arrangement that will supersede the L frame with practical honey-producers. As you say in your foot-notes on page 592, such an

arrangement works more perfectly in shallow cases like those used in my divisible brood-chamber; but, please place me on record, here and now, as affirming that this same arrangement in a case of ten inches deep makes a more worthy hive than the L. hive with the suspended frames; and don't fail to record me as saying that no other close-fitting style of frame does.

Some of your readers may say that some of the above are strong statements, and savor of conceit in the writer, to which I take no exception. I meant to make them strong; for, when I go upon record I desire to go squarely so, and I think I know that every statement above is true; and have I not a right to some conceit? I think that, as long as ten years ago, and perhaps longer I foresaw that the practical money-making bee culture of the future must desert the rules laid down in text-books and bee-journals; that the future bee-keeper who would succeed in honey-producing must abandon all work except the absolutely necessary, and this he must be able to accomplish in the shortest space of time. This demanded a different system of management, and that, in turn, different implements, especially different hives. Then I began making and advocating lighter hives, recommending the manufacture of the brood-chamber and supers of thinner material. Of course, I was met with plenty of opposition. My lumber was "too thin for winter" and "too thin for summer." My recommendation of eight instead of ten L. frames was also heresy. Very few, at least, agreed with me, even if Adam Grimm did use eight frames. Handling hives more and frames less is also a part of the reform above referred to, and was the title of an article of mine published more than ten years ago, and yet I did not get on record in letters large enough and ink black enough.

Let me refer you to many numbers of the American Bee Journal and Gleanings, away back as above mentioned. Please get me on record strong, this time, Bro. Root, and record me as saying that there is nothing superior to or equal to the L. hive system except the close-fitting frame as arranged in my late invention; and that is so much better that any apiarist who thoroughly understands it and knows how to use it can handle double the number of colonies with the same labor required with any other style of hive. Are the above statements any too strong, if true? Now, let the future decide; and when it comes, don't forget the past, I pray you.—JAMES HEDDON, in *Gleanings*.

Dowagiac, Mich., July 22.

Foul Brood.

QUERY No. 615.—I have sent by post for your inspection some comb with brood. I think it is a bad case of foul brood. Kindly give me your opinion, I have ten stocks, seven in frames and three straw skeps; they are all doing fairly well considering the season and district, but the hive I cut the comb from was doing nothing, so being anxious I had a look at them, and found them in this dreadful state. I at once closed the entrance, so that nothing could get in or out, and next night I gave them a brimstone cake and settled them; I thought death was the safest plan. There is about twenty pounds of honey in the back and front combs. 1. What is best to do with it? I do not like to use the extractor for the combs, or use the honey, except for feeding the bees in autumn. 2. Will the brimstone fumes make it unsafe to use the honey? 3. Is it safe to use the combs that have no brood in them, or would you burn the lot? I presume the hive, if I burn more brimstone in it, and then paint inside and out, will be all right and safe, and ready for use again next season?—DON PEDRO.

Reply.—If you fumigate the hive well with burning sulphur and then paint it inside and out, it may be again used. 2. We do not advise using honey from foul-broody hives for feeding bees, but it may be used for household purposes. 3. By sulphuring very thoroughly they might be used, but in these days of foundation it is best to melt the combs down for wax, and have new ones built. Use a little naphthaline in all your hives as a preventive.—British Bee Journal.

We think it would be dangerous to use this honey on the table, or as food for the bees, unless boiled with a little water until evaporated. Supposing it is used on the table, and the water that the dishes were washed in thrown out in the yard, the bees might get it, and carry it back to the hives. The use of foul broody honey for any purpose should be strongly condemned unless it is disinfected by boiling.

 Central Canada Fair at Ottawa.

The exhibit of honey and apian supplies, while not nearly so extensive as at Toronto, is very good, the number of competitors in some sections being as high as five.

The quality of comb honey is hardly up to Toronto, and the quality of extracted honey is decidedly better—in fact, it would be difficult to beat it.

Mr. Alford has the largest display of extracted honey, and right here I would say that it is seldom that one meets an exhibitor so universal courteous as Mr. Alford. He lives close to the exhibition grounds, and appears to consider it his special business to see that all of the other exhibitors are helped in every way possible. He will even render assistance when it appears to be detrimental to his own interests. Mr. Alford has about 50 colonies, largely Italians and hybrids. The award of prizes is as follows:—

Display of comb honey—First prize, E. L. Goold & Co., Brantford; second, Wm. Alford, Ottawa.

Display of comb honey by a lady—First, Mrs. R. and H. Alford, Ottawa; second, Miss H. F. Buller, Campbellford.

Display of extracted honey in marketable shape—First, Wm. Alford, second, E. L. Goold & Co.

Display of extracted honey by a lady—First, Misses R. and H. Alford, second, Miss H. F. Buller.

Colony of bees, properly named—First, Wm. Alford.

Display of queens—First, Wm. Alford.
Beeswax—First, E. L. Goold & Co.; second, Mrs. H. F. Buller; third, Wm. Alford.

Comb foundation for surplus—First, E. L. Goold & Co.; second, Wm. Alford.

Comb foundation for brood chambers—First, E. L. Goold & Co.; second, Wm. Alford.

Honey vinegar—First, Misses R. and H. Alford; second, W. L. Alford; third, Miss H. F. Buller.


Bee-keepers' supplies, E. L. Goold & Co., Brantford.

The article which deserves special mention is honey vinegar; the entire three lots taking a prize are exceptionally fine. Miss H. F. Buller has heretofore usually taken the prize for honey vinegar. Owing to the illness of Miss Buller's mother, that lady was unable to attend the exhibition herself.

Ottawa and the surrounding country, especially Quebec Province, is noted for having no bee-keepers' associations, and the number of bee-keepers having the old box or straw hive system.—R. F. HOLTERMANN, in A.B.J.

Brantford, Ont.

 The "Point of Confidence."

OST persons who undertake bee-keeping enter upon the work with some misgivings. While they do not exactly fear the bees, yet there is at first an involuntary hanging back, a reluctance to handle bees more than is absolutely necessary. Beginners should wear not only a veil, but also gloves; many nov-

ices who see old bee-keepers handle them with bare hands try to imitate them—like to appear professional—to go among the bees with a reckless air. Some of the most successful bee-keepers have said that before the first year had passed they had almost decided that there was something about them that antagonized the bees, and that they could do nothing with them. An acquaintance declared in the fall of the first year, "I've had enough" of bees. They will not accept me. It is useless to tell me that bees do not sting. They don't do anything else with me." But he decided to struggle through another year, for in spite of many stings, he had a good crop of honey. Before the second year closed he remarked that bees were as harmless as flies. What had brought about this change? He had reached the "confidence point," and the bees knew it, and recognized him as master. He had become so familiar with the work, so much interested in it, that he forgot self, forgot to jump, to jerk hand away when a bee started to explore the back of his hand. Therefore, let every beginner faint not, but keep up courage and keep at the bees. Without knowing when the change takes place, he may reach the stage of perfect confidence, and will make light of the stings implanted earlier in his own faltering hand.—*American Agriculturist.*

Native Bees in India.

AS to the tiny bee of Australia, referred to in B. B. J. of July 23rd as *Trigona carbonaria*, I met that bee, or one very like it, in the Central Provinces of India. The manner of our meeting was in this wise: I was leaving my bungalow for a time, and went round to see that its doors and shuttered windows were properly secured before starting. Finding a window with its shutters left open—glass was not used—I hastily slammed it, and a small swarm of *Trigona carbonaria*, or a near relative, flew in my face.

I have never had a shovelful of hot ashes thrown in my face, but the sensation suggested it, and the stings tingled and smarted for a long time. I was much struck by the minute proportions of my assailants, which were, as you say, a little smaller than a house fly, and their Liliputian comb was elegance itself.—*AMANISHAH, Bideford., in B.B.J.*

Foul Brood.—Its Cure.

IN its early stages foul brood may be cured by the use of antiseptics. These are used in weak solution, and are sprayed over the combs and mixed with the honey and syrup which are fed

to the bees. The chief of the antiseptics used are known as salicylic acid, carbolic acid, formic acid and naphthol Beta. Salicylic acid is a powder which does not readily dissolve in water. It must first be dissolved in alcohol, or in a solution of borax and water. It is then diluted and sprayed upon the combs of brood, and mixed with syrup or honey and fed to the bees. In preparing this antiseptic use 16 grains salicylic acid, 16 grains soda borax, and 1oz. of water. One ounce of the mixture is used with 1q. of the food, and the mixture is diluted with 50 per cent. of water when used for spraying. When carbolic acid is used, it should be in the pure crystallized form. One oz. may be mixed with 40 lbs. of sprug. It is carefully stirred into the cool syrup until well mixed, but must first be dissolved and diluted by mixing with water. As bees often refuse to take food that contains carbolic acid during the honey season, it must be sprayed over the brood when used at that season. Formic acid, which is nearly odorless and highly antiseptic, is usually purchased as a 25 per cent. solution, as a 100 per cent. solution is somewhat dangerous to handle. A wineglassful of the former is added to each gallon of the syrup which is fed to the bees. Naphthol Beta is a white crystalline substance obtained from the distillation of coal tar. Twenty-three grains are added to one gallon of thin syrup. As the naphthol Beta is insoluble in cold water, it must first be dissolved in a mixture of hot water and alcohol.

Another Feeder.

DEAR SIR,—I mailed you a sample of my two-cent feeder, which ought to help the sale of your five and ten pound cans, just fill a ten pound can, say the grooved side on top. Hold it down with left hand and turn it over, it should not leak more than the full of the rim, I used them altogether this year, you will find no bees in them when you want them off. Set one or two in a top story they should be empty next morning. A great many have ten pound cans, which can be filled with honey and sold afterwards. Those boards can be grooved on a section machine. Also grooved end cleats, would keep it up off the frames, and would be easier taken off.

CHAS. MITCHELL,

Molesworth, Oct. 19, 91,

Another feeder presents itself this time from Mr. Mitchell, of Molesworth, and I think we shall have to give him the credit for offering us the cheapest and simplest feeder ever offered. He calls it his two cent feeder. The one

before us is about seven inches square, x three sixteenth of an inch thick, a little strip of wood is tacked on all around the edge. The following is what Mr. Mitchell says about it:—Now, an old ten pound tin, that would be no use for holding or shipping honey, could be used for this purpose, as long as it was air tight. I think we will call this, "the Mitchell two-cent feeder."

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Frank Benton.

FRANK Benton, who has for years been in Europe, and made a trip to Asia and "the Islands of the Seas" to find new races of bees, is now in Washington, D. C. He is engaged by the Government in the Apiarian Section, Division of Entomology, Department of Agriculture. He is well qualified for the position. The Chattanooga (Tenn.) Times says:

Dr. C. V. Riley, United States Entomologist, has signified a desire to send Prof. Benton, next year, to India on a mission to investigate *Apis dorsata*, a species of bees of that country. No one else is so well fitted as he for the satisfactory discharged of such a mission.

Last spring he returned with his family from a residence in the Old World of eleven years, the whole of which time he devoted to the study and exportation of bees. He established apiaries, and lived for one or more years in each of the following places: Island of Cyprus in the Mediterranean sea, Beyont, Syria, where his apiary was on Mt. Lebanon; Munich, Germany; Laibach and Krainburg, Province of Carniola, Austria; he also traveled very extensively, establishing an apiary on a French estate in Tunis, North Africa, and even penetrating, in the interest of apiculture, the jungles of India, where he contracted "jungle fever."

In addition to his special work he has been an ardent linguist, and speaks fluently German, French, Italian, modern Greek, and so on. At one time he was studying ten different languages.

Dr. Riley intends to put Prof. Benton in charge of the whole matter of an exhibit in apiculture at the World's Fair. This is a fitting recognition of his ability and he can be depended on to make the most of the display. He is well known to some of our citizens, having lived for some time in Knoxville, Tenn., where he was instructor in apiculture in the University of Tennessee.—American Bee Journal.

We gladly give place to the above, and congratulate Dr. Riley on his selection. We know of no person more capable to perform this work than Mr. Benton, and although small in stature, is large in hopes, and his determination to succeed, will make up for any physical want. There is probably no person living who has had so much experience in shipping bees, as Mr. Benton has, and we hope the department at Washington will intrust him with the enterprise, and that he will not be stinted as to means to carry on the work successfully.

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Flour For Uniting Bees.

QUONE of our British Bee friends speaks strongly in favor of flour for uniting bees, and says as follows:—

I put three swarms into one hive with ten standard frames: the first one on the 10th of June the second on the 26th, and the 3rd on the 28th June—all swarms from small straw skeps. The surplus was taken off the first week of August—thirty well-filled one-pound sections, and about eight pounds extracted from those not quite finished. This is my first experience of flour, and I am delighted with it.—South Down.

Now why is flour good to unite bees? There is no particular odor about it, and yet there must be some cause for it quieting them. We have stopped bees from robbing by throwing flour on them. They become messed, as it usually fills up the space between the hair on the thorax, and we presume, causes the bees to have a disagreeable feeling. We consider water more effective and much better, especially if scented a little. By taking the water in the mouth, after a little practice, it can be blown out in a fine spray on the bees. Once they are moistened they will not fight, but should the flour get moistened it becomes a dough on the bees, and is liable to shorten their days, as anything that tends to irritate and disturb them has a greater tendency to shorten their days, than ordinary labor, which is a pleasure to them. Water is more easily obtained, and cheaper than flour; more effective when properly applied; very much less injurious, as it soon dries up, whereas the flour will remain on them for days.

Queries and Replies

UNDER THIS HEAD will appear Questions which have been asked, and replied to, by prominent and practical bee-keepers—also by the Editor. Only questions of importance should be asked in this Department, and such questions are requested from everyone. As these questions have to be put into type, sent out for answers, and the replies all awaited for, it will take some time in each case to have the answers appear.

A Question About Foundation.

QUERY No. 315.—Are the raised edges of foundation drawn out and thinned by the bees in constructing comb upon it?
E. F.

J. F. DUNN, DUNNVILLE, ONT.—Yes—but not always.

ENGENE SECOR, FOREST CITY, IOWA.—Not in my yard.

G. M. DOOLITTLE, BORODINO, N. Y.—Generally, but not always.

JAS. HEDDON, DOWAGIAC, MICH.—Yes, when all conditions are right. Sure.

PROF. A. J. COOK, LANSING, MICH.—I think both the base and walls are thus thinned.

R. F. HOLTERMAN, BRANTFORD, ONT.—Nearly always, if not always, at least as foundation is generally made at present.

J. K. DARLING, ALMONTE.—Yes, and if you will observe a little you can see them do it.

F. J. E. POND, NORTH ATTLEBORO, MASS.—Yes, so far as my own apiary is concerned, but it is not well to use too heavy foundation.

ALLEN PRINGLE, SELBY, ONT.—I am inclined to think from all my experience, that in fine points like this, the bees differ in opinion, and in their methods. Some would do it one way and some another, and reach the same mathematical result, the same as you might figure a sum in fractions one way while I would figure it another, and given a correct solution in both cases, the better man would be the one who took the shortest cut.

G. W. DEMAREE, CHRISTIANBURG, KY.—Yes Sir. But bees do not "construct comb upon" foundation. They draw out the rudimentary cells, which constitute foundation till the material gives out, and then they continue to draw out the cells by adding the little pellets of wax of their own secretion till the cells are as deep as wanted. The honey bee is not a mason, she does not build her comb, she is a smith, she draws out her work, using her finely formed vice like jaws to weld and hammer to orthodox thinness, the delicately finished honey comb.

G. A. DEADMAN, BRUSSELS.—I believe that it depends to a certain extent on the location of your sections and the honey flow. I can imagine if honey was coming in very fast, there

would not be much of the side wall used. To illustrate my first assertion, I may say that on one occasion I had a frame holding six sections, which filled in the hive proper, and would be what is known as "side storing." For some reason or other I placed a frame of these behind the stove, and before I was aware of it the cells had melted off even with the base. Now in the two top sections all surplus wax had been used. The next two I might say were likewise, but the two at the bottom not at all.

D. A. JONES, BRETON, ONT.—Yes.

Raising the brood Chamber.

QUERY No. 316. (a).—Is there anything gained by raising the brood chamber two inches from the bottom board by means of a rim in wintering outside?
(b) Ditto—wintering in cellar?—A.M.

J. F. DUNN, RIDGEWAY, ONT.—I think so.

EUGENE SECOR, FOREST CITY, IOWA.—Never tried it. It would do no harm in my judgment.

ALLEN PRINGLE, SELBY, ONT.—Yes, if your winter protection is ample and proper. Ditto inside.

G. M. DOOLITTLE, BORODINO, N. Y.—Yes, in both places. The rim allows a free circulation of air, and also the dead bees to drop clear of combs.

JAS. HEDDON, DOWAGIAC, MICH.—(a) I guess so, some times, but I don't know. (b) In the cellar I should have more faith in the procedure.

PROF. A. J. COOK, LANSING, MICH.—(a) Not outside unless very thoroughly packed. (a) Yes, but whether enough to pay may be questioned.

R. F. HOLTERMAN, BRANTFORD, ONT.—(a) I do not know if it is necessary. I think it might be an advantage, and could do no harm. (a) I think it an advantage decidedly.

J. K. DARLING, ALMONTE.—More space for dead bees. Not so much danger of entrances getting clogged up and bees dying for want of ventilation.

G. H. DEADMAN, BRUSSELS.—Not if you have large entrances, say from eight inches to one foot, try $\frac{3}{4}$ slack. I would use the former size for outdoor, and the latter for cellar wintering although less will do.

J. E. POND, NORTH ATTLEBORO, MASS.—Not as hives are usually constructed. They should be raised high enough to give ample ventilation, and allow the pulling out of dead bees, without disturbing the others.

G. W. DEMAREE, CHRISTIANBURG, KY.—I think not. But it would depend on the climate as to the benefit to be derived from such an arrangement. In my locality bees can fly in the winter months sufficiently often to keep the bottom board cleaned of dead bees. But in a very cold locality when bees are confined for months on account of steady cold weather a rim under the brood chamber would prevent the possible clogging of the entrance with dead bees, and much would be "gained."

D. A. JONES, BEETON, ONT.—Some claim it is an advantage, but it certainly would be a preventive from clogging with dead bees.

Wasps, And How to Destroy Them.

SIR,—Wasps are more numerous in this district than they have been for some years past. Perhaps the method I take to destroy them may be of use to some of your readers. Wasps, for the most part, have their nests in the ground, and not far from the entrance. They have them most carefully constructed, and by following the method I have done for years, the nest can be removed whole without any breakage, and examined without the slightest danger of being stung.

Moisten with water a little gunpowder to the consistency of dough, from which makes balls about the size of a marble, which are called by boys 'fizz balls.' Make some touch-paper with saltpetre or powder, put the fizz-balls in a small piece of touch-paper, and put it into the hole so as to prevent any of the wasps getting out, set fire to it, and cover lightly with a sod to prevent the smoke escaping; press the sod firmly when the ball goes 'fizz' so as to keep the smoke wholly inside. In about two minutes you may remove the soil and get the nest carefully out. The wasp will be powerless. The combs may now be removed, and the wasps shaken off and destroyed. Replace the combs, and you will have the nest complete. This should be done after sunset, when the wasps are all at home.—J. Brown, Kelso, N. B., August 19th, 1891

The above plan might work very well with some of our nests that are hung on limbs of trees, fences, and various places, by simply shoving the powder, and paper in connection with it, into the nest.

The cure by the use of antiseptics is often ineffectual. Indeed, it is considered so unsatisfactory by some bee-keepers that they do not use these at all. Yet, in the early stages of the disease, cure may be effected by the use of antiseptics. But where the disease has made much progress, it is difficult to make a permanent cure. This is owing to infectious matter that remains latent in the hive. This matter may be "bottled up in a cell of honey or pollen, or it may remain dried up in the lining of a cell, or

among the wax cappings," as stated in Bulletin No. 9, recently issued by the Rhode Island State Agricultural School.

The above article which is taken from the *Canadian Live Stock and Farm Journal* indicates that we are getting the people educated in more ways than one; but we would suggest that the fasting plan be advocated and practised. All these acids and various cures by medicines have failed so many times that it simply means to perpetuate the disease to fool with it.

One secret of success in securing section honey, says the *O.J. Farmer*, is to have the brood combs all occupied with brood before the honey harvest opens, so that when the harvest commences the bees are obliged to put the honey in the sections. If we use a small brood chamber, it will be seen that the brood comes clear to the tops of the frames or hive, and consequently very close to the sections, hence the bees readily enter the sections, while with a large brood chamber the bees store the comb the queen does not occupy, with honey at the beginning of harvest, so that the sections are excluded from the brood by several inches of sealed honey, and they do not readily fill them, or refuse to go in at all. Gallup even saw this point, although he advocated a large hive, for he said nearly thirty years ago: "We should never allow the bees to get in advance of the queen, for if we do, the prosperity of the colony is checked at once; that is, if the bees are allowed to fill the comb with honey in the spring before the queen has filled them with brood, the colony will be an unprofitable one."—*Michigan Farmer*,

THE CANADIAN BEE JOURNAL.

ISSUED 1ST AND 15TH OF EACH MONTH.

D. A. JONES

EDT.C.

Any one wanting to get a stock of supplies for the coming season had better write us for special rates, as we are now making extra large discounts to purchasers of quantities.

We have a lot of bee veils which we will sell at a discount of 50%, as the cloth is a little fine, and scarcely as strong as our ordinary veiling.

We have a large stock of sections on hand, which we will dispose of at a very large discount; and we have a fine lot of basswood in stock, which we expect to manufacture into sections this fall, and those requiring quantities had better write for quotations.

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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. FURNAM, 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 Ayr Jan. 14 to 16 1890. Eggs \$2 per setting.

W. COLE'S Black Minorcas. I have bred those birds for 5 years and they are as good as any in Canada, United States or England. 1889 pullets 94 94½ 94, 94½, 96, 96, 96½, cockerel 95½, J Y Bicknell, judge Eggs for hatching \$1.2 per 13. WM. COLE, Brampton

SEND your address on a postal card for samples of Dadant's foundation and specimen pages of "The Hive and Honey-bee," revised by Dadant & Son edition of '98. Dadant's foundation is kept for sale in Canada by E. L. Gould & Co., Brantford. Ontario CHAS. DADANT & SON, Hamilton, Hancock Co., Ill.

A FEW Trios, Buff and Partridge Cochins, \$5 to \$10 a trio, also three breeding pens of Br. Leghorns, \$8 a pen. Eggs from Cochins and B. P. Rocks, \$2. Br. Leghorns, \$1.50. BARTLETT & GEORGE, Clarence St., London.

A RARE CHANCE—If you desire a good home within a stone's throw of railway, express and post office in one of the very best honey locations in the United States. Write me for particulars. Excellent neighborhood. An apiary of 50 colonies, with fixtures, will be sold or leased with the place. Terms easy. Address JAMES HEDDON, Dowagiac, Mich.

GET new blood in your bees by getting our large beautiful yellow Queens, 75 cents each. Honey extractors, knives, smokers, frames sections, &c., &c. We are selling our nice foundations for 45 and 55 cents per lb. W. CHRYSLER, Box 450, Chatham, Ont.

GOOD BOOKS

—FOR THE—

Beekeeper and Poultryman.

The following books we can supply direct from Beeton, at the price named opposite each, by mail postpaid.

| | |
|--|------|
| A Year Among the Bees, by Dr. C. C. Miller..... | 75 |
| A.B.C. in Bee Culture by A. I. Root, cloth..... | 1 25 |
| A Bird's-Eye View of Bee-Keeping, by Rev. W.F. Clarke..... | 25 |
| Success in Bee Culture, paper cover... | 50 |
| Production of Comb Honey, by W. Z. Hutchinson. Paper..... | 25 |
| Cook's Bee-Keepers' Guide in cloth... | 1 50 |

THE DA. JONES CO., - BEETON

BEES

MENTION this Journal if you are writing about anything advertised in its columns.

WE have about 75,000 more sections on hand of the 2nd quality, which we will sell for \$1.25 retail. Large discounts for will be given agents. D.A. JONES Co. Beeton.

LARGE BEES are a consideration. Our No. 1 colony from which we purpose breeding next season produces as large Italian Bees as I have seen. I will not guarantee delivery of any queens not booked in advance. G. A. DEADMAN, druggist, etc., Brussels, Ont.

LOOK AT THIS!

HAVING nearly completed our new factory, in order to keep it running, we offer 5 per cent. discount off our list prices on all orders for goods to be used next season. This does not apply to Honey Cans, Sections, Crates, or Chaff hives. Only on goods for next season's use. We pay 30 cents cash or 35 cents trade for good average beeswax.

MYERS BROS.,

MENTION THIS JOURNAL Box 94, Stratford, Ont

SECTIONS!

NO. 2 SECTIONS FOR SALE.

70,000 Sections about 4½ x 4½ x 1½ and 4½ x 4½ x 1 3/8, at the following

ASTONISHING PRICES:

Per 1000, \$1.25, or in lots of 10,000, \$1.00.

FIRST COME, FIRST SERVED.

D. A. JONES Co'y Ltd. BEETON.

HONEY GLASSES.

"BOUND TO Go."

We are selling one pound Glasses at a great reduction below prices as quoted in our catalogue. Write for special quotations for quantities. Only about 50 gross left. Now is the time to place your order.

THE D. A. JONES CO., Limited, Beeton, Ont.

I CURE FITS!

THOUSANDS OF BOTTLES GIVEN AWAY YEARLY.

When I say Cure I do not mean merely to stop them for a time, and then relapse. I have made the disease of Fits, Epilepsy or Falling Sickness a life-long study. I warrant my remedy to Cure the worst cases. Because others have failed is no reason for not now receiving a cure. Send at once for a treatise and a Free Bottle of my Infallible Remedy. Give Express and Post Office. It costs you nothing for a trial, and it will cure you. Address:—**H. G. ROOT, M.C., Branch Office, 186 WEST ADELAIDE STREET, TORONTO.**



ROBERT BLOYE,
TODMORDEN, ONT.
WHITE WYANDOTTES
Exclusively.

Having decided to keep only White Wyandottes in future, I offer for sale my entire stock of

WHITE PLYMOUTH ROCKS (EMPIRE STRAIN)

Cheap. A large number of Chicks of both varieties for sale now.

EGGS IN SEASON, \$2 PER 13.

LOOK HERE!
Dunville P. P. Stock

3rd Exhibition

1st and 2nd on S. C. B. Cock. These birds are for sale
2nd on S. C. B. Hen, 96; 1st on Blk Minorca Pullet, 94
1st on S. C. B. Leghorn, B. P.; 1st on Blk Minorca B. P.; 1st on Pekin Duck, 1st on Pekin Drake, drake for sale. A 1 birds for sale now.

C. H. McRae
Park Poultry Yards, Dunnville.

NOTICE.

I have a few White Leghorn Cockerels and Pullets from my best breeding pens. These are fine birds. Will sell singly in pairs or in trios.

J. L. MYERS.

P. O. Box 94. **STRATFORD. ONT.**

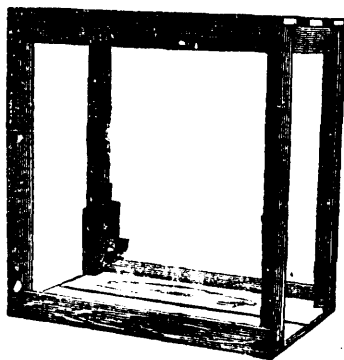
EGGS, \$1.00 for 13.

- Light Brahmas**—Six yards. Fletcher, Duke of York, Williams and Bucknam strains
- Dark Brahmas**—Three yards. Mansfield and Bucknam strains
- White Cochins**—Two yards. Lovell strain
- Partridge Cochins**—Three Yards. Williams, Booth and Washington strains.
- Buff Cochins**—Three yards. Gold Dust strain
- Black Cochins**—Two Yards Williams strain
- Langshans**—Three yards. Croad strain
- White Plymouth Rocks**—Four yards
- White Wyandottes**—Two yards
- Silver Wyandottes**—Two yards
- Barred Plymouth Rocks**—Twelve yards. Drake Upham and Corbin strains
- Houdans**—Two yards Pinckney strain
- White-Faced Black Spanish**—Two yards McMillan and McKinstry strains
- Hess-Comb Brown Leghorns**—Two yards Forbes strain
- Hess-Comb White Leghorns**—Two yards Forbes strain
- Single Comb White Leghorns**—One yard
- Single Comb Brown Leghorns**—Two yards Bonney strain

I make a specialty of furnishing eggs in large quantities for incubators at reduced rates. Send for 1890 catalogue.

E. H. MOORE, Melrose, Mass.

MENTION THIS JOURNAL



SHIPPING - COOPS

For Exhibition and Sale Purposes.

Save money in express charges by buying light, well made coops—weigh only 5½ lbs.

We keep in stock one size only, 20 in. x 13 in. x 20 in for pairs or light trios.

PRICES MADE UP.

| | | | | |
|------------------|------|--------|--------|---------|
| | Each | 10 | 25 | 100 |
| Skeletons, only, | 30c. | \$2.75 | \$6.25 | \$23.50 |
| With Canvas, | 40c. | 3.75 | 8.65 | 30.00 |

PRICE IN FLAT.

| | | | | |
|--|------|------|------|-----------------|
| | 50c. | 2.50 | 5.60 | 18.00 |
| Skeletons, only, | | | | |
| Name and address printed on canvas 5c. each extra. | | | | \$3.00 per 100. |

For Exhibition purposes, where coops are not furnished by the Fair Associations, strips are supplied which are tacked on one side of coop, at 4c. per coop.

OTHER SIZES.

We make coops in any size desired, and shall, at all times, be prepared to quote prices. In asking for estimates please give size and number wanted.

DRINKING FOUNTAINS.

| | | | | | |
|--|--------|------|------|--------|--------|
| For shipping and exhibition coops, to hold one pint water. | Price, | Each | 10 | 25 | 100 |
| | | | 15c. | \$1.40 | \$5.25 |
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The water cannot slop out or become dirty. Larger sizes made to order. Ask for Prices.

The J. A. JONES CO. LD.

BEETON ONT.

DOGS AND COMB FOUNDATION.

Brood Foundation, 50 cts. per lb.
Section Foundation, 60cts. per lb.

L. JONES,
DEXTER P. O., ELGIN COUNTY, ONT.

ADVERTISEMENTS.

**LOOK HERE!!
SMOKERS.**

We have about 500 Smokers, No. 2 and 3, ready for immediate shipment, by mail or express. Special rates for large orders. See our Catalogue for regular rates. We have also

1000 Honey Knives

of various kinds. Extra discount to dealers Write for particulars.

**HE D. A. JONES CO., LTD.,
Beeton, Ont.**

TO BEE - KEEPERS

AND FARMERS.

We have on hand a large quantity of 5-gallon (oak) kegs, just the thing for cider or vinegar, at only 50 cents each; also a quantity of second hand hives and honey tins at half price.

Foundation and General Bee Supplies always on hand.

THE D. A. JONES CO., Ltd.

Beeswax Wanted

PRICES CURRENT.

BEESWAX

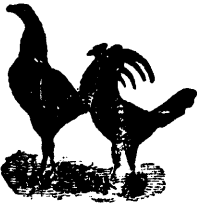
We pay 85c in trade for good pure Beeswax, delivered at Beeton, at this date, sediment, (if any), deducted. American customers must remember that there is a duty of 20 per cent. on Wax coming into Canada

FOUNDATION

Brood Foundation, out to any size per pound.....50c
" " over 50 lbs. Write for price.
Section " in sheets per pound..... 55c
Section Foundation cut to fit 3x4 1/2 and 4x4 1/2 per lb. 70c
Brood Foundation, starters, being wide enough for 480
Frames, but only three to ten inches deep

THE D. A. JONES CO., BEETON

THIS SIZE AD.



3 months..... \$3 00
6 " 5 00
1 year. 8 00

Payable in Advance.

BE SURE AND GET

GOOLD & CO'S

—PRICE LIST OF—

HIVES, EXTRACTORS, FOUNDATION, &c.,

before ordering elsewhere. Address: E. L. GOOLD & Co., Brantford, Ont.

- C. J. DANIELS, -

221 River St., Toronto, Canada.

BREEDER AND IMPORTER OF

Buff Leghorns, Indian Games (Imp.)

Red Caps, Black Javas,

Red and White Malay Bantams,

Golden Wyandottes,

Long Distance Homing Pigeons.

Canadian Agent for Mann's Bone Cutter; 100 per cent. more profit in feeding ground green bones to your poultry.

Poultry Netting & Fencing.

We can now furnish the best Poultry Netting at the following low prices for 2 in. mesh No. 19 wire, in the various widths, in full roll lots (150 feet to roll):

| | | | | |
|--------|--------|-----------|--------|--------|
| 24 in. | 30 in. | 19 GAUGE. | 48 in. | 72 in. |
| \$3 10 | 4 00 | 36 in. | 60 | 9 50 |
| | | 4 85 | | |

| | | | | |
|--------|------|-----------|------|------|
| \$3 25 | 4 00 | 18 GAUGE. | 6 30 | 9 90 |
| | | 00 | | |

Less than full roll lots the price will be 1 1/2 c sq ft

D. H. JONES, CO., BEETON,

1882-Chester Poultry Yards-1891

E. J. OTTER,

90 DE GRASSI ST., TORONTO.

IMPORTER AND BREEDER OF

**EXHIBITION DARK BRAHMAS,
ORNAMENTAL BANTAMS.**

My birds are second to none. They have won since 1890, 97 in money prizes; 4 specials. Birds for sale at all times. Eggs in season, \$3 per 13, or 26 for \$5. Satisfaction guaranteed.

Guelph Poultry and Pet Stock

ASSOCIATION

Annual Exhibition

City Hall, Guelph,

Dec., 14, 15, 16 and 17, '91

Prize list sent on application

**JOHN COLSON, SECT. - - BOX 462
GUELPH.**

ADVERTISEMENTS.

*** P. H. HAMILTON, ***
HAMILTON, - ONT.,
 Breeder of
White and Black Leghorns,
 —AND—
IMPERIAL - PEKIN - DUCKS.

Chicks and Ducklings for sale in September. No more Duck Eggs for sale. Leghorn Eggs for balance of season, \$2.00 per setting of 13; or two settings for \$3.00, one of each if desired.

Prices to suit the Times

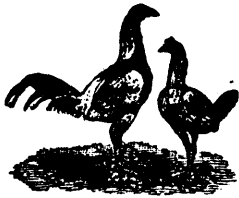
A FEW pairs of Silver Laced Wyandottes and a few Plymouth Rock cockerels for sale cheap. Brown White and Black Leghorns, White and Barred Plymouth Rock, White and Silver Laced Wyandottes Eggs of any of the above varieties, or mixed, at \$1.50 per setting, or two settings or \$

WM. MOORE

MENTION THIS JOURNAL Box 462 LONDON, ONT

GAME

Bantam Fanciers



NEW FANCIERS.

Eight Black Red Cockerels—grand ones, guaranteed. Bred from a Crystal Palace cup winner. Sure to please you; from \$2 to \$5 each. Some fine

Brown-Reds at \$4 to \$5 per pair; also a good Pile Bantam Cockerel, (yellow legged), bred from a great English winner, fine station, color, etc. Price only \$3, these are sold on account of having too many birds; also large Game fowls. All are in fine health and condition. First money gets the best. E. F. DOTY, 47 Wellington Place, Toronto

COCKERELS AND PULLETS

S. C. BROWN AND WHITE LEGHORNS

COCKERELS, PULLETS, HENS,
 \$1.50 to \$3.50 \$1.00 to \$2.00 \$1.25.

Barred Plymouth Rock Cockerels, \$1.50.

Setting of Eggs.

BROWN AND WHITE LEGHORN..... \$1.50.
BLACK MINORCAS..... 2.00.
BARRED PLYMOUTH ROCKS..... 2.00.

I have not spared money in procuring best strains in the country, and you can rest assured you will get

GOOD VALUE FOR YOUR MONEY.

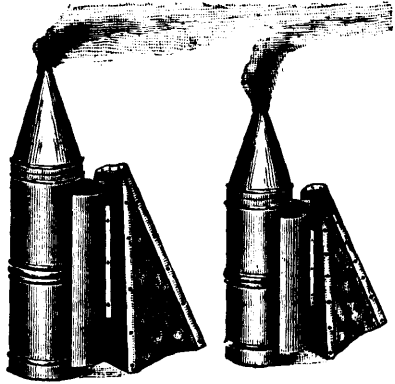
Bay of Quinte Poultry Yards with 40 acres of a run.

GEO. H GRILLS,

Box 339.

BELLEVILLE.

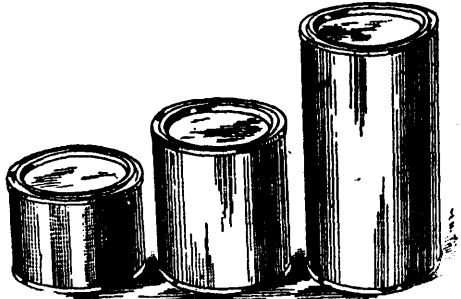
SMOKERS !
CUT IN PRICE



Since our Catalogue was issued, we have made a contract for a large number of smokers by piece work, at such figures as will enable us to reduce the prices. Here after the price of the No. 2 Smoker will be \$1, (formerly \$1.25,) with goods; \$1.25 by mail.

HONEY TINS.

We now offer the "Penny Lever" Tin in three sizes. These are probably the handiest tin to handle and the price is a shave lower than the "Screw top."



2 LB.

3 LB.

LB.

PRICES.

| NO. LBS. | PER 1000 | PER 500. | PER 100 | EACH |
|----------|----------|----------|---------|------|
| 5 | \$60.00 | \$32.00 | \$6.75 | 8 |
| 3 | 47.50 | 25.00 | 5.25 | 6 |
| 2 | 40.00 | 21.00 | 4.25 | 5 |

THE D. A. JONES CO.

BETON ONT.