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THE CANADIAN BEE JOURNAL

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

Vol. VII, No. 5. BEETON, ONT., JUNE 1, 1891. WHOLE No. 289

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	\$4.50	\$6.00	\$6.50	\$10.00
3 months.....	3.00	4.50	5.50	6.50	11.00	17.00
6 months.....	4.00	5.50	7.00	9.00	15.00	25.00
12 months.....	6.00	9.00	12.00	15.00	23.00	40.00
18 months.....	10.00	15.00	21.00	25.00	40.00	75.00

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 for the first insertion, and 5 cents per line for each subsequent insertion. Space measured by a scale of solid nonpareil of which there are twelve 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 especially 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. Cash must accompany advt. Five insertions without charge, \$1.

STRICTLY CASH IN ADVANCE

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

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

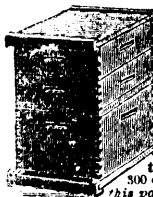
of different issues. A list of all the special topics that have been discussed, the numbers in which they may be found, and the price of each will also be sent. Remember the Review has been enlarged, a beautiful cover added, and the price raised to \$1.00. W. S. Hutchison, Flint, Michigan.

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,

107 or, Freeman & Central Avenues, Cincinnati



BEEES AND HONEY

The Detailed Strongest, Best and Cheapest BEE-HIVE for all purposes. Please order promptly. 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 Bee-Keepers' Supplies. Our A. B. C. of Bee Culture is a cyclopedia of 409 pp., 6x10, and 300 cuts. Price in cloth, \$1.25. *67 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, Wrenham, 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 K. 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 Continued Machines, last winter 50 chaff hives with 7 inc cap. 100 honey racks, 500 broad frames, 2000 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 st. 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, \$4.00. Wilson's Improved Woven Wire Tree Guards, for hindering Rabbits, Mice, etc., 50 cts. per doz. \$4 per 100. Great Dane 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's 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, which will be issued about March—free to intending purchasers.

F. W. WILSON,

Nurseryman

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, Paton's Mills, Wash. Co. N. Y.

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., 186 West Adelaide St., Toronto, Ont.

OVER * TWENTY * PENS

—OF—

SPLENDID BREEDING STOCK of the following varieties:

Wyandottes, Minorcas, Leghorns, Plymouth Rocks, Hamburgs and Brahmas

Eggs, \$2 per 13. - \$5 per 39.

—SEND FOR CIRCULAR.—

W. T. TAPSCOTT, Brampton, Ont.

IMPORTED

Cornish · Indian · Games

—AND—

MOTTLED LEGHORNS.

Grand Exhibition Birds, a limited number of eggs, \$5.00 per 13. Silver and Golden, Black and White Wyandottes, Derbyshire Red Caps, Light Brahmas, B. Javas, Partridge Cochins, Black Leghorn and Pekin Duck Eggs, \$2.00 per 13. White and Red Malay Bantams (just imported), Silver and Golden Sebrights, Pekin and Japanese Bantam Eggs, \$3.00 per 13.

No expense has been spared to mate the above for best results, many of them having won the highest honors at recent shows. Full particulars given on application and satisfaction guaranteed.

CHAS. R. BACHE

472 Parliament St., Toronto.

COMB FOUNDATION

Brood Foundation, 45 cents per lb.; Thin Foundation, 55 cents per lb. Warranted a good article in every respect or money refunded. Brood Foundation made up for 10 cents; Thin Foundation for 18 cents per lb., in quantities over 40 lbs.

BEE HIVES.

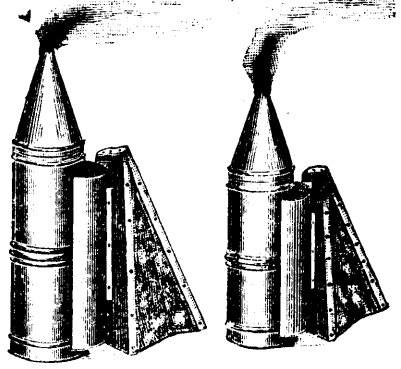
I also manufacture the Mod 1 Bee Hive, a good serviceable hive, well made from pine lumber rabbitted joints, 9 frames, (size of L.), movable bottom with slanting alighting board, division board, and quilt flat cover 1 1/2 inc. deep. Sample painted \$1, with super also painted, containing 30 sections, 1 to. Foundation starters in frames and sections 20 cts more. Complete metal rabbits super, same as above in flat, in luting and sheet of tin for covering cover, \$1.40. In quantities slightly less. This is a good hive and very cheap at this price. Sections \$4.50, Smokers \$1 by mail. Bees from 6 to \$8.50 per colony. Honey knives, Jones', 85c and \$1.25. Bedford is situated a little distance from Montreal and can ship goods over C. P. R. and G. T. R. and both lines of express. References.—Local Bank, Editor Bedford Times or P. M. No circulars. Write me what you want and I will quote lowest prices and give you satisfaction.

FRANK W. JONES

BEDFORD, Que.

SMOKERS !

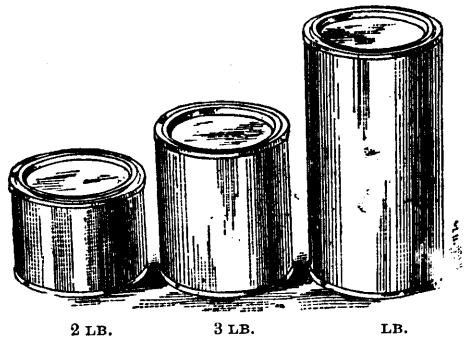
CUT IN PRICE



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. Hereafter 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 handsomest tin to handle and the price is a shade lower than the "Screw top."



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

THE D. A. JONES CO.

BEEETON, ONT.

EXCHANGE AND MARKET

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

EGGS, EGGS—Silver Wyandottes, Black Minorcas, White Wyandottes and Langshans; good stock; good value, \$1.50 per setting after May 15th. JOHN GRAY, Todmorden, Ont.

FOR SALE OR EXCHANGE—A very fine pen of Langshans, Cockerel, large vigorous bird, and three good hens, for cash or offers. JOHN GRAY, Todmorden, Ont.

FOR SALE—A nice lot of Silver Wyandotte, Yearling Hens, White Wyandotte Cockerel and other stock. JOHN GRAY, Todmorden, Ont.

FOR SALE OR EXCHANGE—Silver Wyandottes, Langshans, Cochins, White Wyandotte Cockerel, \$2.00. Some fine cockerels and hens of above for sale cheap, or exchange for honey or anything useful. JOHN GRAY, Todmorden.

POULTRY Netting.—See our advt in another col with prices. Also for shipping and exhibition Coops, with owner's name printed on the canvas. Drinking fountains and poultry supplies generally. THE D. A. JONES CO. LD. Beeton

WHITE P. ROCK—First Cockerel, first Pullet Industrial, Toronto, 1897; second on Cockerel first on Hen at Ontario show Bowmanville, 1891, also prize winning White, Brown, Black Leghorns, G. P. Hamburgs. Eggs from these birds guaranteed fresh and true to name, \$1.00 per dozen for balance of season. THOS. HAWES, Whitby, Ont.

DOGS AND COMB FOUNDATION.

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

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

SECTIONS.

NO. 2 SECTIONS FOR SALE.

70,000 Sections about 4 1/4 x 4 1/4 x 1 1/4 and 4 1/4 x 4 1/4 x 1 3/8, at the following

ASTONISHING PRICES

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

FIRSTCOME, FIRST SERVED.

The D. A. JONES Co., Ltd.

BEETON.

CONDENSED DIRECTORY.

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

MICHIGAN LAND to be let in the State to \$5 per acre; some at \$2, \$3 and \$4. Write R. M. Pierce, West Bay City, Michigan

J. FUTNAM, 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 AY Jan. 11 to 16 1890, eggs \$2 per setting.
MENTION THIS JOURNAL.

W. COLE'S Black Minorcas. I have bred these birds for 5 years and they are as good as any in Canada, United States or England. 1889 pullets 94 944 944 944, 96, 96, 96, cockerel 953, J. Y. Bicknell, Judge Eggs for hatching \$1.25 per 13. WM. COLE, Branpton

TESTED ITALIAN QUEENS bred from selected mothers, principally of Doolittle stock. Prices as follows:—for those under 1 year \$2.50 each, shipped the 20th of April, or 2c. less each day until June 10th. Queen under 2 years old one-fifth less. G. A.

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 '89. 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, \$6 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 with in 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 90 colonies, with fixtures, will be sold or leased with the place. Terms easy. Address JAMES HEDDON, Dewagiac, Mich.

FIRE HAS DESTROYED MY BEE HIVE factory, but send along your orders and we will try and fill all orders if possible. Foundation, sections, frames, hives, makers, honey knives, queens, bees, &c., at bottom prices. Address W. CHRYSLER, Box 450, Chatham, Ont.

Special Offer for May!

I WILL SELL EGGS FROM MY BEST Breeding Pen of White Leghorns or Langshans for the month of May at the following prices:—

- 1 Setting (13) - - \$1.50.
- 2 Settlements (26) - \$2.00.

This is a grand offer as my birds are good.

J. L. MYERS,
Box 94, Stratford, Ont.

BEE'S WAX FOR SALE—Crude and refined. We have constantly in stock large quantities of Beeswax, and supply the prominent manufacturer of comb foundation throughout the country. We guarantee every pound of Beeswax purchased from us absolutely pure. Write for our prices, stating quantity wanted.

ECKE MANN & WILL,
Bleachers, refiners and importers of Beeswax,
Syracuse, N. Y.



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

VOL. VII, No. 5.

BEETON, ONT., JUNE 1, 1891.

WHOLE No. 289

THE CANADIAN BEE JOURNAL

ISSUED 1ST AND 15TH OF EACH MONTH.

D. A. JONES, EDITOR-IN-CHIEF.
F. H. MACPHERSON, ASSOCIATE EDITOR.

EDITORIAL.

Crazes.

DEW strains and new fangled notions in reference to bees seems to be the order of the day. Mention a way in which bees may be improved, and it will not be long before you will find somebody, advertising something, which they claim possesses wonderful merits.

There seems to be a disposition in the direction of a craze for bees that will winter. If memory serves us correctly, it was not many years ago that a certain gentleman in the states, advertised that he had wonderful hardy bees for sale that would winter in or out doors, in good or bad hives, under any and all circumstances. The following winter proved conclusively however, that such was not the case, and that a person to be convinced, had only to gaze upon his empty hives in the spring. Now we fancy there is a disposition on the part of some one, to make a boom for a season or two with a special kind of bee, and by the time the public learn that this new bee is a hollow mockery, they can jump off that hobby on to a different

one. We would suggest that, as a public safeguard and a guarantee of good faith that any one having bees, which they claim to be superior to all others in any respect, should send a colony or two to Prof. Cook or some of the leading apiculturalists of the N. A. B. K. Association, appoint a committee to test their qualities, and if they are superior in the various points claimed, that they be either awarded a diploma and the right to charge so much a colony, for a certain number of colonies. These to be distributed at the various convenient points throughout North America for breeding purposes, or that the party receive suitable government recompense, and give them to reliable queen breeders at special rates. The breeder in turn, to sell the queens at a price that will be within the reach of every bee keeper. Now, friends, we do not mean to say, that he who has succeeded in securing such a race should not be paid; far from it. Our experience in the breeding of bees, leads us to the the firm conviction that bees cannot be bred properly and carefully, unless they are located in isolated localities. We have spent a great deal of money and time, in trying to raise superior races of bees, and he who can secure a fixed race in one, two or three years is deserving of a high position in bee-keeping circles, and will accomplish what our most experienced bee-keepers have failed in. We shall be pleased to hear from any bee-keeper who claims to have a superior race of

bees and if after correspondence we fancy there is something extra good about them we shall be pleased to purchase a colony or two and give a good price for them. We have known colonies of bees to winter in splendid condition for a great many years in the same hive, and a novice might have thought that they had some especially good qualities in this respect, but he would have been mistaken.

We recollect going to a place to purchase bees, which were in old box hives. The gentleman refused to sell one colony, on account of its superiority to all others. He expatiated on the number of years that colony had stood and said that it cast from one to three swarms every year, and that the swarms had issued sooner than others, and that it never was without honey, that the bees were also good honey gatherers and in fact were everything that could be desired, and he put more value on that hive than he did on half a dozen others in the yard. He did not realize that the very claims he was making for that one hive of bees did more harm than good, for the swarm of bees that issued from that colony from year to year proved to winter no better, or gather more honey than ordinary bees. From his own statements there appeared to be nothing to recommend them beyond the good points of the one hive which he would not sell. We afterwards had the satisfaction of transferring that colony to a movable comb hive, for the gentlemen in question, and the secret was not hard to discover. The peculiar way in which the combs were built in the hive, enabled the bees to form a cluster in the centre, and move out in any direction to get stores, and thus surrounded on every side and over-head with combs filled with well-ripened honey, they had everything necessary to success.

Such a condition of things could not fail to give the best of results. We believe Mr. Corneil, of Lindsay, has adopted a similar plan, with some of his colonies, and he considers it a step in the right direction. We have frequently had colonies do wonders, but never dreamt that because a colony had given good results one season or two, that we had secured a new race of bees, and

that they would duplicate themselves in this respect for all time to come.

Now don't imagine, friends, that we think bees cannot be improved; on the contrary, we are positive they can, but there is a way to go about it different from that usually adopted, if we wish to make a permanent success of it.

Shipping Bees.

WE have frequently been asked the question, How to Ship Bees? We have just received a few colonies from a friend, who is one of our best beekeepers. They were all strong colonies and very full of brood, and just as soon as they arrived, we sent for them to the station, and as our teamster drove into the yard, we remarked that there would be plenty of dead bees if the colonies were strong when shipped. Well, we set them down and got the entrance opened, and found three of them were clogged with dead bees, in fact out of five colonies all the old bees were dead in four hives. We think we are safe in saying that there were dead bees enough to make more than two colonies out of the five. The bees had died for want of air. They were packed as follows: Over the entrance there were screens, and on the top of the frame were cross sticks about an inch high with thin cotton spread over. Had the colonies been weak they would have come through in that condition all right, or had the weather been cold it would have amounted to the same thing. As it was very warm however, the bees left the brood and crowded to the top of the hive,—the entrance being clogged with dead bees, they soon stopped all circulation of air and consequently a great many smothered.

In order to ship bees successfully they must be prevented from stopping the free circulation of air. We question very much however, whether there could be enough ventilation given at the bottom of the hive. It only takes a few bees to clog the entrance, and then the rest crowd up between the frames to the top, and the excitement resulting therefrom causes an unusual amount of heat. The bees will then pack themselves tightly together on the top, and in between the frames, which prevents the

heat from escaping, and shuts off air. This causes a great deal of perspiration or moisture to be given off by the bees, which makes them damp. We have seen colonies which had every comb packed solidly with bees on top of the frames a half an inch or more deep, and half way down between the frames. In lifting the combs apart, one would almost imagine that these bees had been drowned, so wet and closely packed were they. Now, how can we prevent this? Well, we will tell you what we have done and how we do it. It will never do to ship bees when they are strong in warm weather, unless there is plenty of room given on top of the frames. We think it better to give them too much than too little ventilation. We find that the bees will always stay on the brood during cold weather and keep it covered and warm, but if it should turn hot, they then try to get above the brood instead of below it, and for this purpose we usually put a rim from four to six inches high, on top of the hive, allowing the bees to cluster on the wire cloth that covers it, leaving the top open, if the colony is very strong. Should the weather become cold, they will leave this cluster on top of the frames and go right down and take care of the brood, so there is less danger in giving too much than too little ventilation. We do not think there is any more risk, or perhaps not as much, in shipping bees at the height of the swarming season, if proper precautions are taken to give them plenty of clustering room above the frames. We have sometimes shipped them so strong that we have had to put a second story on top. Seldom ever had a loss of bees when shipped in this way. Of course if the combs are new and not well attached to the sides of the frames, or if too heavily filled with honey, there is danger of them breaking down, but we usually select combs attached all around, or as strongly attached to the frames as possible. Old combs are better than new ones to ship bees in.

The Lifetime of the Bee

SOME think that bees that have a queen do not live more than 45 days, during the swarming season. Old bees may not live more than 45

days. If, however, we set a comb of hatching Italians, that will come out inside of 5 days in a black or Carnolian colony, they are not likely to die in 60 days. Some seasons bees die more rapidly than at others. It depends greatly on the amount of labor necessary for them to perform their ordinary duties. For instance, in very windy weather, or in a windy locality, bees wear out much faster than they do when the air is still. The same thing is true if they have a long way to go to gather their stores. What veteran bee-keeper has not frequently noticed how quickly the hives will depopulate on windy days in spring? The bees become worn out when they have to put on extra efforts to fly against the wind; and this is a point that should guide people in situated their apiary. As far as possible, they should select a sheltered locality, and the shorter the distance the bees have to go to gather their stores the longer they live. Take two colonies of equal age and strength, one having to gather its stores from two to four miles in an unprotected locality, while the other is selected in a protected spot and gathers its stores around in a radius of a mile, the one would live about a third longer time than the other. The amount of exertion the bees have to make indicates, to a great extent, the time they will live, and the less work they have to perform the longer their vitality lasts. For instance, bees will live 6 or 7 months in winter quarters, and when set out be apparently as young and lively as when put in in the fall. Locate your bees as favorably as possible, and they are likely to live a great deal longer. We believe 50 colonies favorably situated, will produce as much as 100 unfavorably situated.

Mr. S. Macdonald, of Muirkirke, among other things, in a letter to us, says: "My bees are nearly ready to swarm, they are so strong and wintered out doors without any protection or care whatever, except to be left alone. One hive has come through four winters in that way and I wish you could see it, two ends split and bottom board open about 2 inches all the time. I think people must handle their bees too much when so many die."

GENERAL.

Getting Large Yields by Raising Plenty of Bees Preventing Swarming.

DURING the past few months I have been in correspondence with a "Western man," (and that is as near as I have liberty to say who he is) and his writings have been so graphic, and his successes so wonderful that I begged him to write for the *Review*. With the following article came the information that the writer was managing bees for another man, and the owner objected to his giving the locality in connection with the report, as many would conclude that that locality was a bee-keeper's paradise, and would flock in there and overstock the locality which was well stocked now. As this article shows how to get plenty of bees at the right time, and then hold them to their work, I think best to publish it, even if the writer's name and locality must be withheld.—**ED. REVIEW.**

As our experience may help some of your readers to attain success in the matter of getting large honey yields from their apiaries, I will try to make plain, as briefly as possible, how we made a success last season.

The bees were wintered on the summer stands, or rather packed in chaff in long rows made up as follows: Place 2x4's on the ground, or on blocks just high enough to be dry. Set the hives on these about six inches apart. Board up all around with rough lumber, with four to six inch space at back. Boards in front, against hive, $\frac{1}{2}$ just above entrance and leaning out at top to give packing space of 2 or 3 inches in front. Chaff under the hive. Scraps of boards split up to about $\frac{1}{2}$ square, place on top of frames, 2 sticks to each hive. Two or three ply of burlap, (gunny sacks) spread over the chamber an empty brood chamber set on top, and about $\frac{1}{2}$ filled with chaff. Then put on lid, with a chip under to let out the moisture, but not enough to let mice in. Then all is packed full of chaff about the hives clear to the top. The packing left about them until in May. If a colony began to hang out we gave more ventilation.

Last of March, or first of April, every colony was examined to see that they had stores. As the weather became warmer, we would remove some of the packing about top of the hive, to facilitate work. We finally left the chaff out that was in the upper chamber, and placed the lid down on the quilt. The last packing removed being that immediately about the brood chamber. But all were kept packed in whole or in part—enough for protection—until weather was

warm and hives full of bees.

When a colony could spare brood, it was made to help the weaker ones. By the last of May we had lots of bees, and many colonies, would rear drones, if any drone cells could be found, but we "cut their heads off," ditto queen cells if any were started.

The last of May and fore part of June, we spared no pains to get large quantities of brood. If a colony was short of honey, we gave them a card or two. About once a week, or perhaps ten days, every colony was examined, and brood spread, "drones shaved," and honey given if needed. About the 10th of June, (chaff had now been all removed) some colonies seemed bent on swarming, but we nipped the cells. We now lifted each brood chamber and placed a chamber underneath, some entirely vacant and some having one or two combs, just for climbers or ladders. This was done to give room to cluster, and to keep them cool. No comb was built in these lower chambers, because no honey was in the fields.

Up to this time, the bees had not made a living, but were dependent on the honey within the hive, but, by evening up stores and feeding about 1000 pounds of honey, we had kept all in good shape. Honey, however, was very nearly gone in the whole apiary, and our reserve in the honey house nearly exhausted. We expected the flow to begin about June 15 to 20th, or possibly later. We wanted each colony to have one or two supers on before the flow opened, so they could get acquainted, chink up cracks, etc., so we put on one super to each hive. Now observe, we were stretching them both ways: an empty brood chamber below, and a super above. We used but nine frames in the regular ten-frame Simplicity hive, so you see there was lots of room in between the combs and in empty cells, for bees to cluster.

The supers we put on at this time were arranged as follows: Of last year's unfinished sections, "extracted and dried," two rows against side of super, then a separator, then two rows of new section with full sheets of foundation, then a separator, then two more rows of old sections, and all wedged up with a follower. Thus we had sixteen sections all ready to put honey in, and twelve new ones. June 15 and 16th, the bees made their living. The 17th the flow opened and then there was some flying around done. Every brood chamber had to come out from beneath, (those empty's I mean) and more room given on top. We gave another super full of new sections and full sheets of foundation, lifting up the one already on, and putting the new one under it.

We had taken cards of brood from the more prolific, placing them in the hives of less prolific and failing queens, so that, with very few exceptions, each colony had about eight combs of brood, some having the whole nine filled, others having but seven; but the average was between seven and eight solid combs of brood. All cells in brood chamber free of brood, were at once filled with honey and lengthened. The old section in the supers ditto, while the foundation was being drawn.

The thickening of the combs and the increased activity and heat only crowded more bees into the supers, so we had to add more supers, until four and five supers would not keep some colonies from lying out. The weather was not exceedingly hot, seldom going above 95° in the hottest part of the day; the nights always being cool. We also gave ventilation, by blocking up the hives in front, $\frac{1}{2}$ to $\frac{3}{4}$ of an inch; $\frac{3}{4}$ however, is too much, because some combs will be built under frames.

By clipping cells we thought to hold them perhaps ten days longer, but in this we made a mistake, for after the cells were clipped, they would swarm without waiting to rebuild the cells. The bees were in three apiaries, and to make sure that no swarms would get away we had previously clipped the queens' wings. When we saw we could no longer hold them we at once began to remove queens, killing some and making nuclei with others, building the nuclei up to full colonies as the season passed. Nine or ten days after removing the queens (every cell being carefully clipped at time of removing) all cells, save one, were clipped from each hive, and each colony allowed to requeen. After the final clipping of cells, we would remove finished supers and put on emptys, always putting the fresh one at the bottom, until toward the end of flow, when some were added at top; much depending on strength of colony.

No sections were handled singly, each super being left on until finished. As supers were finished they were removed to the honey house and stored just as taken from the hive. At the wind up, whatever sections were unfinished were extracted and kept over for the next season. If a colony failed to requeen itself because of losing a young queen, we took away the honey and let the bees work themselves to death laying in a new supply of honey or trying to do so.

Here is the result of our work: Bees were in three apiaries; home yard, No. 1, and No. 2. Home yard run for extracted honey, Nos. 1 and 2 for comb honey.

YARD No. 1		65 COLONIES.	
2	Colonies gave each	28	pounds
2	" " " "	58	"
12	" " " "	84	"
14	" " " "	112	"
21	" " " "	140	"
10	" " " "	168	"
3	" " " "	196	"
1	" " " "	224	"
Average 127 lbs. (Increased to 80 colonies.)			

YARD No. 2.		60 COLONIES.	
23	Colonies gave each	212	pounds
23	" " " "	140	"
9	" " " "	168	"
4	" " " "	224	"
1	" " " "	252	"
Average 140 lbs. (Increased to 70 colonies.)			

Took some extracted from increase in both apiaries. Average for the three yards, 150 pounds, spring count. The total crop was twelve tons and brought us \$2,700 last fall at wholesale.

Now, don't say this success was because of location or extra honey flow. It was not. The flow lasted about fifty days. The bees never made a living up to the opening of the flow; neither did they after the close of it. All the surplus and their living for the succeeding ten months, was put in during that time. If it had been the result of an extra honey flow, why did not other apiaries in the same fields show it? The very best yields from other apiaries were only about one-half the above. Summed up, here is what gave us success, Winter and spring protection, getting rousing colonies by spreading brood, evening up and feeding when necessary, allowing no colony to swarm, removing the queens during the honey-flow and by doing everything at the right time.

Remember that "work well done is twice done." Observe in the report, that 2 colonies gave each 28 pounds. One of these swarmed and skipped (we must have missed queen in clipping) and the other superceded its queen just when the queen ought to have been doing her best. Had all swarmed; how it would have lessened the yield. There was lots of work about this, but the increase in yield more than paid for all the work done securing the whole crop.

Don't slight your work. When you get a strong colony don't divide or allow it to swarm. Those bees that would be kept at home in the new hive should be sent to the fields to gather honey and the expense of a new hive saved. Double gain, do you see? Take away queens during the flow, you can't hold them unless you do—*Bee Keeper Review.*

Well now friends, you see we cannot hold them without taking the queens away. We are convinced it pays to re-queen, and if the queens are removed and allowed to hatch other queens during the honey season, there would be a good supply of honey, and the young queens would carry on a vigorous brood and give good account of themselves, the following spring. The apiarist who requeens his apiary every year will no doubt far surpass his neighbors in the result, that they will follow suit, we have sometimes had to give bees 10,000 cubic inches of space in order to keep them from swarming, but continuing to give them at the proper time sufficient room, it will prevent 95 per cent., if not more of an increase.

Haldimand Bee-Keepers' Association.

The Haldimand Bee Keepers' Association met on Saturday, May 16th, at Nelles' Corners. The following members were present: Israel Overholt president, in the chair, and Messrs. Jas. Armstrong, Wm. Kindree, Owen Fathers, Jas. Caldwell, Henry Smith, M. Richardson, Wm. Best, J. Winger, D. Fry, G. H. Renner, Wm. Atkinson, W. Evans, R. Coverdale, Alex Stewart, E. Kindree, E. Gee, Frank Rose, R. F. Cunningham, D. H. High, and the Secretary.

The minutes of last meeting were read and adopted.

REPORT OF WINTERING.

	Fall, '90,	Spring, '91.
James Armstrong	130	125
Jas. Caldwell	40	36
Israel Overholt	31	30
W. Kindree	63	58
W. Best	38	32
M. Richardson	40	35
Owen Fathers	42	40
J. Winger	34	29
G. H. Renner	3	3
Henry Smith	8	5
Isaac G. Wismer	21	20
W. Atkinson	34	32
Robt. Coverdale	75	50
Alex. Stewart	3	3
D. H. High	11	10
E. Kindree	19	15
Asaloom Booker	25	22
E. C. Campbell	28	9
Ephraim Gee	15	15
Frank Rose	90	84
F. Mehlenbacher	40	35

R. F. Cunningham

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NATURAL VS. ARTIFICIAL SWARMING.

The president did not believe in artificial swarming, and gave several reasons for not following that practice, the chief one being that the queens raised by such colonies were not as good as those raised under the swarming impulse.

Mr. Armstrong favored artificial swarming, as by this means he could manipulate his colonies to the best advantage, but it was necessary that young queens should be on hand to give the new colony.

Mr. Kindree said he had tried both plans, and preferred natural swarming; he believed it was more profitable.

Mr. Smith favored natural swarming.

Mr. Richardson said he had some experience in both plans, and agreed with most of what Mr. Armstrong and others had said in favor of artificial swarming. His practice was in making a new colony to always give it a queen cell nearly ready to hatch.

Several members took part in the discussion at this point, and several good things were brought out.

Mr. Armstrong said, in answer to a question, that with him artificial swarming was the best.

SPREADING BROOD NESTS TO STIMULATE BREEDING.

The President thought that spreading the brood nests would stimulate brood rearing, but when he went to put it into practice it put him in mind of the boy that was sent to hoe corn, when he came to a good hill he said that was good enough, and when he came to a poor one, he said that was not worth hoeing, and he soon got over the field. It was the same way with the bees.

Mr. Armstrong said that when he commenced to keep bees he thought that he knew more than the queen did, and tried to make her lay more eggs by reversing combs and spreading brood nests, but now he thought the best way to stimulate breeding was to give the colonies plenty of food and the queen would lay eggs as fast as the bees could take care of them.

Mr. Kindree, Mr. Smith and Mr. Richardson agreed with the remarks made by Mr. Armstrong, and the next question was taken up.

HOW TO RAISE GOOD QUEENS.

The President preferred raising queens under the swarming impulse, as by this means the best queens were obtained.

Mr. Armstrong took his strongest hive to

raise queens, and a few days before the queens were ready to hatch he prepared nuclei hives and put in each of them a queen cell and left them until the young queens were mated. He also advised the use of a queen nursery.

Mr. Kindree agreed with Mr. Armstrong except that he made his colony queenless when he wanted to raise queens.

QUESTION DRAWER.

Under this head a large number of questions were asked, and a great deal of useful information brought out, but want of space prevents a report of it.

On motion of Mr. Rose, seconded by Mr. Smith, Mr. M. Richardson was appointed a director for Caledonia.

Moved by Mr. Rose, seconded by Mr. Armstrong, that \$6 be granted to the Caledonia, Cayuga and Jarvis shows, and \$4 to the Dunville and Rainham shows, on condition that the said shows give twice that amount.

Moved by Mr. Caldwell, seconded by Mr. Smith, that the next meeting be held at Hagersville on the last Saturday in August. Carried.

E. C. CAMPBELL, Secretary.

Adulteration of Honey

WRITE WITH some hesitation on this subject as I differ with many whose opinion and judgment rank, in my mind among the first, of whom Mr. Editor, I include yourself. But I have thought a good deal upon this subject, and believe it is a matter of much importance, and one that we should consider.

I think we saw enough at Detroit to convince us all that adulteration is extensively carried on. This is never the work of bee-keepers—the real producers of honey, but of some middle man; some "manufacturer" whose stock is in Detroit, Chicago, or some other usually large city. A little honey and very much glucose which often sells for half the market price of honey is mixed and all is sold as "pure strained honey." This is sent out in such large quantities that the business is very profitable. Thus men will engage in what they know is unlawful and fraudulent, because there is money in it. As long as we have saloons and worse places, just so long will men engage in such nefarious work as adulteration, unless we say them no, so emphatically that all will listen and heed. I do not believe we should ever defend any such article. I regret Mr. Editor, that you and one other of our honored and justly loved editors have done so. You say it may be better than honey. I say never. Honey is honest; this a lie? A lie never can be as

excellent as truth. But this "pure strained honey" is sold under a false name. We do not know what it is. It may be poison. Because a mixture is sweet and pleasant to the taste is no surety that it is either good or safe. I fully believe that we were all better off if fraudulent or even secret compounds like patent medicines were all hurled into the bottomless pit, which would be in a very fit receptacle for them. Such stuff is not safe; its manufacture is not right; its sale is iniquitous. I speak strongly but I feel that every word is the truth.

Again, I do not believe we can gain by smothering the truth or hiding evil. So many say, don't talk about it, it will hurt sales. Sin never takes rebuke kindly, but the rebuke is good nevertheless. To hide evil practices that we know exist and are injurious to society, is really cowardly and wicked. The better way as it seems to me, is to face the evil, bring it to the light and squelch it.

But is it bad policy? In the highest sense, doing right is never bad policy, and decrying fraud is right. But, again, as long as such manufacturing is carried on people will know it; many will go without honey rather than risk the purchase, of, they know not what. I have a case in point. A wealthy gentleman in Detroit sends to me each year for his extracted honey. He says he wishes to know what he is eating. Thus many refuse honey because of this fact. I say fact for it is a fact, and there is no need to disguise it. Others will blazon forth the fact even if bee-keepers open not their mouths.

Is it not then wiser to acknowledge the evil and try to cure it; or else counteract its effects? I believe this to be our wisest course.

THE PROCEDURE.

I believe that we should all publish far and wide that honey is adulterated, but never by bee-keepers. They can not afford to do it. It is never policy for a bee-keeper to practice such fraud, never safe or profitable. Thus let us spread the information that honey stamped with the name and locality of the producer is sure to be pure. Such knowledge will help not hinder our sales. Again if we have not laws against such adulteration and fraud—Michigan has a good law—let us have them. Let us see that any man who sells any product under a wrong name is rendering himself liable to fine and imprisonment. If he stamps his product "glucose and honey" or "manufactured honey," no one will be wronged, and he is welcome to his profits. Then having a good law, let us set the law to work, through the

Union to stop the nefarious business. We had a good chance in Detroit last winter. I would have the Union employ a good lawyer and have the matter pushed to the bitter end. A few convictions would not only stop the frauds but would educate the people to the truth that only pure honey could be sold as such. The Union through its able manager has done right royal service already. There is here a grand opportunity to win even brighter laurels, and to confer, as I believe, a greater benefit upon the bee-keeping industry.

AGRICULTURAL COL., Michigan, Apr. 22, 1891.—

—*Bee-Keepers Review.*

Lambton Bee-Keepers' Association.

THE above Association met in Music Hall, Watford, on May 11th. On account of the busy season, and probably on account of heavy winter losses the attendance was not as large as expected, yet a very successful meeting was held.

Mr. George Shirley. Reeve of Watford, in a few well chosen words welcomed the bee-keepers to his town, and said he should be glad to have them meet there again. He was not posted on bee-keeping; had tried it, but thought the bees did not like him.

It was decided to continue affiliated with the O. B. K. A., and to grant an equal sum to each of the following fairs, to be used as prizes for honey; and Committees were appointed to wait on the directors of these societies to get out prize lists for honey exhibit:—

Brooke and Alvinston, L. Travers, W. E. Morrison; Wyoming, G. Forbes and Dr. Harvey; Forest, Rev. W. Huggins and Mr. Dodge; Arkona, R. Auld and E. A. Jones; Petrolia, E. A. Brown and John Hutchinson. During the afternoon a great many questions were discussed. Deep top bars were thought of benefit to prevent brace combs. Deep and shallow hives were discussed, and both had their admirers, and it was thought equally good results could follow from either if they were properly handled. Italians were thought to be the best beer. The meeting adjourned to meet in Alvinston on 1st. September, 1891.

Take the Frame Hive.



WHAT style of hive shall I use? is quite a prominent question in the mind of the farmer, who is just starting in bee keep-

ing, and desires to raise only honey enough for use in his family. Usually a rough box is nailed together, or an old nail keg improvised and the bees are hived with the idea of taking the honey in the fall, by brimstoning the bees, but when the end of the season is reached, the colony having done so well and filled the hive, the farmer guesses they will winter and the use of match and brimstone are deferred. Perhaps it is applied to some old swarm and the honey obtained for family use is a mixture of old comb, dark honey, bee-bread, etc., not very inviting for the family or any one else to use. If the farmer is at all progressive in his ideas, he will naturally apply the same progressive ideas to his growing apiary. I would therefore recommend any good movable frame hive, preferring some of the later patterns such as the Jones, Langstroth or Combination hives. In the use of an improved hive the honey is secured in the best marketable shape. The farmer may not be particular as to how nice the honey may look upon his own table, but I think it pays to have it as beautiful on his own table as anywhere. If more honey is raised than the farmer can consume, what an acceptable present one of these white 1 lb sections makes. If the bees are in an improved hive there will be no necessity of brimstoning the weak colonies. Such colonies can be easily strengthened by giving to them from their strongest neighbors combs of unhatched brood, or two weak colonies can be doubled into one by simply removing empty combs and inserting those filled with honey and covered with bees. Another advantage in having bees in an improved hive is their salability. There is always in the spring a demand for bees if they are in such a hive, while the box hive or nail keg colony will go begging for a purchaser. A few persons in every community should keep bees, for they are indispensable for the fertilization of many kinds of flowers that are necessary to the well-being and prosperity of the farmer.—J. H.

Prize Essay on the Honey-Bee.

KATE RICHMOND.

In point of antiquity at least the bee is deserving of honor, since it, in all probability, was a native of the garden of Eden. I wonder, in those halcyon days of the early purity and innocence of man, when the long and beautiful days must have seemed to the two human inhabitants, an endless paradise of glorious summer, if the beautiful silence was ever displaced, or, perhaps, made more restful, by the "humming" of the bee, as it winged its drowsy

flight from blossom to blossom, gathering the honey that must have been spread with such a lavish hand in that queen of gardens.

Amongst the ancient Egyptians the bee was the hieroglyphical emblem of royalty. I do not know whether it became the emblem of royalty to them from the fact that something analogous to a monarchy has frequently been erroneously supposed to exist in a bee-hive. True, there is one of the members of the colony known as the queen, who, at certain seasons, is the object of particular regard on the part of all the other members, but only because the instincts of all are variously directed towards her, at that time, as one indispensable to the objects for which the bee-community exists; but, beyond the fact of having this attendance upon her, those who make a study of the subject, tell us that there is no evidence whatever of anything like the authority exercised by the queen.

To modern nations the bee furnishes an example of all that is inspiriting and patriotic. The patriotism is there, at any rate. You do not find the members of a bee community taking exception to the way in which the affairs are managed. There is no clamoring for promotion, but each insect fills the pace for which it was intended, without questioning.

They all co-operate towards the common benefit of the community, and agree that "union is strength," since in repelling invasion or avenging aggression, the whole community becomes as one, inasmuch as their several energies are directed to the one object of the preservation of their hive; and, as to the inspiration, no one can deny that an interview with a bee that means business, is decidedly and intensely inspiriting. The interviewer is inspired with feelings of—well, they need not be recounted here, as everyone who has had the pleasure of an interview with the bee, can supply the ellipsis to suit himself.

As a mathematician, the bee can prove Euclid mistaken, when he said, "There is no royal road to learning," since it is a geometrician par excellence, and reached that state, too, without any of those weary interviews in which the human student questions the advisability and accuracy of the Great Mathematician's geometrical plans, but in which the student invariably comes out second best.

Look, for example, at the mathematical ingenuity exhibited by the bee in the formation of the cells in the comb of the hive. They are hexagonal in form, the shape which, as every mathematician knows, will combine the great

est economy of space and material, since the hexagon being perfectly regular, there can, therefore, be no interstices between, and, consequently, every atom of space is economized.

Besides the hexagon, the bee constructs other mathematical figures of various forms that are necessary to the strength and continuance of the hive. And then, in respect of the construction of these mathematical figures, the bee is always ahead of the human student again, for it never make mistakes. All its proceedings are founded on sure and infallible principles, and you never find a bee unwise enough to question those principles.

The bee furnishes a lively testimony to the proverb "Familiarity breeds contempt." With what supreme and wholesome contempt for the insect are you permeated after an interview, in which the bee, to say the least of it, has been decidedly familiar, and how feelingly you remark to yourself that you will keep it at a distance evermore.

What a lesson is furnished to us, too, in the provident industry of the bee. Observe, will you, how instinct, which is merely a blind impulse as far as the bee is concerned, leads it to provide for a possible future, to care for its young, to provide, in fact, in every way for the healthful continuance of the community; while man, whose superiority over the insect is asserted in the fact that he is provided by the Creator with reason, the noblest of all God's good gifts to man, will look upon to-day only as the day before to-morrow, and defer being prudent to old age, looking forward to a promise of wisdom as a patron of his latter years, and who, when he arrives at old age, finds that his years have far outstripped his wisdom, and that he has now neither the opportunity nor the capability for the wisdom that might have been his portion had proper prudence been exercised in his earlier years.

In studying the habits and work of the bee, we cannot help referring to the instinct shown in their work to a higher power, which makes the instinct subserve the highest ends for which it was created, and we must conclude also that the Creator, in showing His perfect work in the bee, has also shown His perfect love to man. May we have, in a measure, the true philosophy displayed by that insect.—California Fruit Grower.

Purity of Italian Bees.

Beside me lies a letter in which I find this question: "Can pure Italian bees have more than three bands?" The purity of the Italian

bee has been, and still is, a question in which every apiarist and queen-breeder is interested in, notwithstanding that some claim they care nothing for bees only for their honey-gathering qualities. It is but natural to the most of us to want something nice, or that which is the best; hence the labor and enthusiasm of the past in trying to make the Italian bee the standard of excellence, or "Apis Americana." Inthus trying, most of those who were interested have claimed that the Italian bee was a pure race, while some of our best writers have claimed that the Italian bee was only a variety or thoroughbred bee, the same as the variety of sheep called Merino, or that variety of cattle called Devon; or with swine, the Berkshire variety. Those who belong to the part claiming that the Italian race of bees is pure, have lived to see the progeny of queens imported direct from Italy vary all the way from a worker whose outlines regarding yellow bands were so slim that they were scarcely discernable, to those best specimens which show the three yellow bands so clearly and distinctly that no one need make a mistake; while the same breed in this country has so deteriorated that it shows no bands at all, or has so far advanced over the bees as imported from Italy that the first four segments of the abdomen are one solid yellow, with the fifth segment showing as much yellow, on the best specimens, as is usually seen on the third segment of the imported stock. It seems to me that this should be sufficient to prove to any one that the Italian bee is not a pure race but only a variety. To those who have watched this improvement as to color in the Italian bee, and fully taken it in, the words of Capt. Balstien, uttered in the sixties, come home in great force, where he writes from the native home of these bees and says:—"No snow clad Alps or Chinese walls have kept the different races of bees from intermingling in Italy." [I quote from memory, not having time to hunt it up.] and also the words of "Father Langstroth," which were written about the same time:—"There is every reason to believe that the Italian bee is itself a hybrid." Those familiar with our earlier literature also remember of the experiments made in crossing the black or German bee with the Silvery Egyptian, by which the fourth or fifth cross along that line brought forth a bee which no man could tell from the Italian. The fact that the Italian has been improved as to color, without in any way crossing them with any other race or variety, also shows that they are only a thoroughbred. If we take the German bee in its purity we find the queens and drones so constant in color that out of hundreds of specimens not

one can be found having the least variation in color, so that in these bees we have queens which will duplicate themselves as to color every time. Without my taking time to describe the queens of the Italian variety, all who are at all conversant with them know that they vary from queens as black as any black queen ever seen, to those whose abdomen is a handsome orange yellow clear to the extreme tip. If these bees were pure, why this extreme variation as to color of the queens and drones; for the drones vary fully as much as the queens. The most constant color in all yellow bees is found in the Cyprians, the queens of this race nearly or quite duplicating themselves every time, so that if there is a pure race of yellow bees I should say that such was to be found in the Cyprians, hence I would name the Egyptian, German and Cyprian bees as the original races as far as I am acquainted with bees. Taking this view of the matter, (which view I am confident will be proved during future generations to be the right one,) our question will read:—"Can Italian bees have more than three yellow bands?" To which I answer yes. They can not only have three bands, but they can have six in a few years, if the improvement as to color should continue as great during the next ten years as it has during the past decade. Not only can they show what is termed six yellow bands, but the abdomen can become a solid yellow its entire length, the same as some of the best specimens of queens and drones now do. There is nothing impossible with any animal or vegetable that is hybrid, or that will "sport." But the question naturally arises, are these yellow bees as good for honey gathering as the darker Italians? Where properly bred, I can see no difference in favor of either along this line. Admitting both to be alike as to honey gathering qualities, we find the reason why the yellow bees are so eagerly sought, in the thought expressed in the beginning of this article, that "most of us want something nice," and beauty is a thing to be desired, where we can have it without lessening other valuable qualities. Some seem to think that these yellow bees have been bred in and in more than any other bees, but this is, I think, a mistake. There were plenty of four banded bees as early as 1871 in an apiary near me. These bees were crossed with other four banded bees from a piaries in the west, and these in turn crossed with very yellow Italians in the south-west; and so the crossing of the yellowest bees in the United States has been kept up, till we have to-day bees in the New World whose abdomens are three-fourths a solid yellow, and yet so far as I can see they are just as good honey gatherers as those bees formerly

called Italians, showing but very little yellow that would sting the "socks" off any man. The standard for queen-breeders should be the same to-day as it was with the Rev. E. L. Briggs in 1870, when he said, "Send out no queens for breeding purposes but such as are fully up to the standard of excellence; and those who delight in handling this wonderful insect may not only have the most beautiful, but the gentlest, the largest, the most fertile, and the most industrious honey bee known to the world."—*Missouri Bee-Keeper*

Bee-Keeping in Australia.

SIR, I get the *Bee Record and Adviser* forwarded to me by a lady in London, and am very pleased with it. But my object in writing is to offer my experience in bee-keeping in this far-away place. I used to look upon bees as very tiresome, stinging little things, and have occasionally found them so since I captured a swarm passing by, two years ago last December; anyhow I only got one sting in taking them. Three weeks later, wanting some advice, I applied to a friend some distance away. He examined the bees, and told me there was no queen amongst them, but offered to help me until such time as I got my bees queened and in working order. He brought me a frame of brood, but no queen was raised from it, nor was a second frame of brood more successful. He then brought a third frame with a sealed queen cell, from which a very nice queen hatched out. I paid him 15s. for the queen. I then paid 14s. for a Langstroth hive for them, but by this time our winter was at hand, and the bees had a good supply of honey, which my friend advised me not to take away till after the winter had passed; and not till the following August did I carry out my first removal of surplus honey, and up to December I had taken about seventy pounds. On looking at the bees a fortnight later, I found one frame nearly full of royal cells, two of which were sealed. I very foolishly destroyed all but one, and that one I put into a nucleus, thinking to raise another swarm; but I reckoned without my host, for they swarmed, and then flew away, so I was left worse off than ever, as I had destroyed all the other cells. Three days later we had a number of wet days in succession, and the moth got into my nucleus and destroyed the royal cell, and nearly everything else in it. The combs were one tangled mass of web and grubs. What few bees were left I united to the old hive. I then procured another queen, and clipped her wings, thinking this would prevent her wandering off, but after several attempts to clear out she got into the grass and was there destroyed by

small black ants. My friend having no more queens for sale, he offered to sell me a small swarm for a pound note. I accepted the offer, thinking to unite the bees, but I found that the old stock was rearing more queens, and I did not disturb them. Things went on fairly well, though each lot took an occasional swarming fit. By this time another winter had passed, and I still had my stocks, but both were very weak. Then, Mr. Editor, I read your advice to beginners, not to lose heart at failure, and it cheered me on, and the summer which is now drawing to a close, proved a fairly good one, for I have taken about seventy pounds of honey, and have increased from two to five stocks, two of which are strong, and the other fairly so. Then a stray swarm came past, which I secured, and I afterwards bought a beauty for 6s., so that I have now seven stocks, of which I am very proud. My daughter has been a great help to me in my bee work this year.

In closing, I thought perhaps some in the old country might like to know about bee-keeping here; and so I may say the seasons are very fickle, as they are with you. Just as we think we have a good time coming, wet weather sets in, at which time the moth is a real terror to bee-keepers here. One lady, half a mile away, last year lost nineteen out of twenty two stocks through it. She has kept bees for a number of years. The same lady kept a few bottles of honey for several years, and when examined she found that the honey had crystallized into a beautiful white sugar. Is this a customary occurrence? [Yes, all pure honey will granulate in time.—Ed.] We have to depend upon our honey supply almost entirely on the trees, among which are several varieties of the eucalyptus. One of them (the bloodwood) produces a beautiful honey. Then we have a variety of gum trees, the odor of which is quite perceptible at the hives, as soon as they begin to bloom. The mangrove also produces a large flow of honey for about a fortnight. My friend took 37 pounds of honey in seven days from one hive; and from one of mine I extracted the honey one day, and two days later the same combs were full and sealed again. My mode of increasing has been to take the queen with the frame she is on and put into a new hive on the old stand, and remove the old stock to another place. In one case when I had done so, the queen, with a few followers, made another swarm next day, so, as I wanted to move them, I took them away and put another hive with one frame on the stand, and when a week or so later enough bees had hatched out to cover it, I gave them a sealed queen cell. On reading in the *Record* of the flour process for uniting, I tried the experiment with perfect success, not one being killed so far as I could see. I am afraid I shall tire your patience, but ere this rather rambling letter reaches you your readers will be in their busiest part of another season, which I trust will be a prosperous one for you all in the dear old home land.—HENRY TURNER, Koongal, Lake's Creek, Rockhampton, Queensland, Australia.—*Bee-Keeper's Record and Adviser*, England.

CAPPINGS.

VASALINE.

Vaseline seems to give satisfaction wherever used in bee hives. Many of our British beekeepers recommend it very highly, and we quote the following from the Br. Bee Journal:

"Seeing in the *Bee Journal* of April 23rd reference to the use of vaseline, I thought you might like to hear of the experience of those who have used it. From something I read in the *Journal* last year, I used it freely the greater part of last season, and would strongly advise its use. I found frames, supers, &c., treated with it could be moved with little or no disturbance. Using divisible supers, I found I could put on one crate under another almost unknown to the bees until it was on. I found the sections when taking them off finished, nearly as clean as when put on, and easily taken out of the supers."

MOULDY COMBS.

What would you advise me to do so that I might freshen up over fifty bar-frames filled with comb, as they are slightly mouldy, having come from hives in which bees died during the winter?—H. C. SCLATES, *Littlehampton*.

REPLY.—If the combs are sprayed with salicylic acid solution and dried, they will be all right.—*British Bee Journal*.

Entrances, Ventilation, Etc.

G. M. DOOLITTLE.

A correspondent asks me some questions, and says, "Please answer through the *AMERICAN BEE JOURNAL*." He first wishes to know if two or more entrances are not needed in a hive during the Summer months. "One for the main or front entrance, and one at the rear for ventilation, to be opened during hot weather."

Regarding ventilation, I would say, that I much prefer to make the main entrance large enough to give all the needed ventilation in times of extreme heat, and have it so arranged that it can be easily contracted to meet the requirements of even the smallest colony, when desired.

My reasons for so preferring are, that unless the rear entrance is closed during cool nights, it makes the hive so cool, by the draft of air, that the bees cannot work to advantage at brood-rearing, comb-building, drawing out comb foundation, or evaporating nectar; while to open and close any entrance or ventilation every night or every time the weather changes, is out of the question, except by a person who has the "bee-fever" bad, or a very few colonies. If a person tries such a thing when they first start out in bee-keeping, it soon becomes an old story, when the extra entrances are neglected, and often causes robbing in times of scarcity, if all are left open.

But the worst part of all is that the bees get in the habit of using the back ventilator as an entrance where it is left open all the while, as it usually is during the latter part of the Sum-

mer; so that when it is finally closed, the bees which have been accustomed to use this as an entrance to the hive, go out of the regular entrance, but return to the old place, only to find it closed, thus causing their loss, as they know no other place of their getting into home, having so marked on their first flight.

He next wishes to know if it is not necessary to have an entrance near the top of the hive, which is to be left open all the while when the bees are storing surplus honey, "so that the bees need not have to travel so far as they must of necessity do where they have to carry the honey all the way from the bottom entrance to the top of a two or three-story hive."

It is evident that our friend is laboring under a mistaken impression, and by arguing that such an entrance is a necessity; admits his lack of a thorough knowledge of the inside workings of the hive. The bees which gather the honey are not the ones that deposit it in the cells, as I have several times proven by taking away a queen of one variety of bees and introducing a queen of another variety. For instance, I once took away a queen of a black colony during the month of June, and noted the time the last black bee hatched, and also when the first Italian emerged from her cell.

As young bees do not gather honey until they are 16 days old, when the colony is in a normal condition, if we watch that colony on the fifteenth day in the forenoon, before the young bees go out to play (counting from the time the first Italian hatched), no Italians should be seen going in and out at the entrance, and all should be black bees.

In looking at the entrance on the day named, I found only black bees at work, as I had expected, but an examination of the sections, in which the bees were busily at work, showed scarcely a black bee in them, but all were Italians which were busily employed building comb and depositing honey. Now, if, as our friend supposes, the field bees carry their loads of nectar and deposit them in the cells, why were not some of those black bees seen doing this, as there were multitudes of these coming in from the field all the while with large loads of nectar.

Again, for several years I used an observatory hive, containing but one comb, and many were the hours I spent in watching this to see what I could find out about cup-pts.—what they usually did "in the dark." During one of my experiments with this, I had black bees as field bees, and young Italians for the inside work.

By watching the entrance through the glass, I could see the loaded black bees come in, and when one came on the side next to me, I could easily see what it did with the load of honey it had. The bee would pass along on the comb until it came to a young bee, when it would put out its tongue or proboscis toward this young bee. If this young bee had no load, it would take the load, when it was given up to it.

If the light was just right I could see the nectar sparkle as it passed from one to the other, on or through their tongues. The field bee then rested a little while, when it would go for another load. Thus it will be seen that any entrance leading directly to the surplus arrangement (as is now used by a few), is of no use, but on the contrary a positive damage, as in cool nights it causes the bees to leave the boxes or

sactions, from allowing too much cool air to enter them.

To secure the best results, we should acquaint ourselves with all the minutia know whether what we propose will bring us the best results, or prove a disadvantage to us in securing the most honey and money for our labor.

Borodino, N. Y.

The Plant-Louse on The Wax-Plant.

HOW TO DESTROY IT.

The following clipping from *Gleanings* will be found of interest.

Prof. Cook:—I send you a small box in the same mail with this. It contains a leaf of the hoya, or wax-plant, on which there is some sweet deposit; also a twig of the same plant with the little insects that produce this deposit. The plant has not been out of the office, where it runs up one window for several years. The insects were all alive when placed in the bottle but I fear they will be dead ere it reaches you. It was handed to me at Boonville by Capt. Toloferro during our State convention of beekeepers, and we were all curious and anxious to know whether the deposit is honey-dew, the name of the insect, or species, etc. Please examine, and report if already discussed in the journals.

Mrs. J. M. NULL.

Miami, Mo., Apr. 12.

(Prof. Cook replies:)

In response to the inquiry sent by Mrs. Null, let me say that the sweet substance on the leaves of the hoya, or wax plant, is genuine honey-dew, and the insects sent in the accompanying bottle are genuine plant-lice. In these the necaries—the black tubes which project from the back—are very long, as is also the sphyra-like ovipositor. The beak or sucking-tube, is always long in plant-lice, and it is through this that the lice suck the sap and life from the plants. The sweet substance, or honey-dew, comes from the tubes or necaries, and, in many cases, that from these plant-lice is wholesome, delicious, and no injury to honey, which it helps to produce.

The remedy for this plant-louse evil is the kerosene emulsion, which should be made as follows: Dissolve, in two quarts of water, one quart of soft soap or $\frac{1}{2}$ lb. of hard soap, by heating to the boiling-point, then add one pint or kerosene oil, and stir violently for from three to five minutes. This is best done by pumping the liquid into itself through a small nozzle, so that it shall be thoroughly agitated. This mixes the oil permanently, so that it will never separate, and can be diluted easily at pleasure by simply shaking or slightly stirring after adding the water to dilute it. I have often stated, that it is not necessary to use so much soft soap, but that it is better, as it insures a perfect emulsion even upon dilution, and the soap itself is an insecticide, and valuable, aside from its emulsifying powers. I have also stated, that, in using soft soap, a quart of water would do. I prefer, however, the two quarts, as the emulsion is more sure; and the thinner material permits more ready and more speedy dilution, especially in cold weather. I have always placed soft soap first, as most farmers have it, and convenience is very important in such

matters. A farmer will make and use an article when all the ingredients are at hand, whereas he would not do so had he to go and purchase them for this express purpose. The agitation should be violent, but need not be long. We have formed a perfect emulsion in one minute, even with cold water. This emulsion should be diluted by adding an equal quantity of water. Shake well, and apply to the plant by the use of a syringe or force-pump, like the Lewis or Whiteman. It kills all the lice, but does not injure the plants.

Many readers of *GLEANINGS* will be glad to know that this kerosene emulsion is a sure cure of cattle, horse, and hog lice, and also sheep-ticks. For the lice, scrub the animals with the emulsion diluted with one-half its bulk of water. We use a brush, and do it thoroughly. The cost for a full-grown cow is not more than five cents and five minutes of time. It kills nits as well as lice, and seems to brighten the hair. I think the scrubbing with this soap solution is excellent for the skin, and thus we do more than kill the lice. For sheep we dip the animals in the emulsion, diluted with one half its bulk of water.

A. J. COOK.

Agricultural College, Mich.

PROMOTE BROOD REARING.

The experienced apiarist manages to have but little honey in his hives at the beginning of the surplus honey flow. By uncapping the cells, and placing the combs in the center of the brood nest it is used for brood raising. If some hives contain more than can be used in this way, probably others will be lacking in stores and an exchange of combs may be made. Worker combs from box hives may be fitted to frames and use in place of old combs, which may be cut out, re-ndered into wax and the frames refilled. Whenever I have tried the plan of getting foundation drawers between frames containing full combs, I always get irregular combs. Colonies that contain a large amount of stores at the beginning of the honey harvest will store only about half the surplus they would if the brood nest had been judiciously enlarged. The entire stores may be used for brood rearing and when the surplus cases are put on frames containing eggs should be placed at the outside of the brood chamber.

(J. H. ANDRE, In Farm Home.)

The Young Canadian.

The number of this bright and clever paper for this week is a vast improvement upon any former one. See the story "Beech and I" keenly interesting to our young readers, also the sketch of "Cook's Friend," with pictures unsurpassed in any Magazine on this continent full of delightful reading is every page. Send five cents for sample copy.

Box 1896 Montreal.

Report from St. Thomas.

MR. ED. HEAL writes us as follows:—Gents, my first swarm for 1891 came out to-day at 2 p.m., about two weeks later than last year. Yours truly,

ED. HEAL.

SELECTIONS.

Catching Swarms.

CHEAP WATCHING.—Instead of keeping some one watching for swarms, here's the way the *Review* reports Mr. West's plan: Clip the queen. Clear away rubbish, and a few inches in front of the hive stick in the ground, not upright, but leaning away from the hive, a branch of an apple tree perhaps an inch in diameter and a few feet long, with a few twigs at top, twigs cut back to 4 or 6 inches. Swarm issues, queen climbs stick, returning swarm clusters with her, and stays till hived.

We have frequently had queens running up sticks and little bushes set in front of hives in that way; and if the swarm is issuing, sometimes they stayed on the stick, but if the swarm got fairly into the air, and there were few or no bees flying around, they would run up the stick and try to fly off and then flutter to the ground again. If the bush stuck down is sufficiently high, with plenty of twigs on it, some of the bees will climb it with the queen, and others if they wish to rest after flying, will light on it, so that the queen will soon have an escort, and in that way will remain on the bush. We do not like the short stick principle, but the bushes may be from 3 to 6 feet high, and will stand from 3 to 5 feet in front of the hive. A narrow strip of thin board running from each corner of the hive to the butt of the tree is an improvement, as it guides the queen directly to the bush where she climbs.

WHAT THE FORCE PUMP IS GOOD FOR.

AARON SHANTZ.—DEAR SIR,—I notice in the *BEE JOURNAL* that you have a force pump for sale. I would like to know what it is used for. Is it good for spraying fruit trees, how is it used, and what is the cost of it? I put 15 hives in champs last fall, and when I took them out this spring there were 4 dead. I have one that is dying. When I opened first time they seemed to be all right—had brood in the combs—they have no queen, but the brood is hatching out. The bees seemed to be bloated when they were dying. Bees are doing well at present.

Haysville, May 26, 1891.

Our force pumps are used for various purposes. They are very valuable in time of fire, and one of these pumps will do more effective work than ten men with pails, and will throw water from a considerable height. They are good for spraying fruit trees. You can just put your material in a pail, set in the pump and spray the trees thoroughly in a very short time. If your bees swarm and are likely to go away, just spray them a lit-

tle, and it will stop them. You can put down straw at the entrance of the hive, covering it up and then spraying the robber bees as they go in, which wets their wings and causes them to desist. The same thing may be said of bees robbing other colonies. If they have to go out through wet straw, hay, bushes, or any material that will allow the air to get into the entrance of the hive, the cold wet material seems to dampen their robbing propensities. We recollect on one occasion taking a piece of tin, and bending in the four sides about half an inch high; we made it the same length as the entrance of the hive, and slipped it in on the bottom board, putting in about one-eighth inches of water. The bees refused to wade through this water to get in to rob, but would light on the front part of the hive, and run down crawling in over the water on the top side of the entrance. By stretching a little wire cloth across the entrance with the points of the wire reaching down within one-fourth of an inch from the water they could not get in without wading, and this effectually prevented them from further depredations. However, we did not admire the plan, on account of the trouble and accuracy necessary to make it a success; and after using the straw or hay we found it as well, if not better. The colder the water is put on the better. We have frequently stopped bad cases of robbing in less than five minutes, that is, we stop them from going in; for as soon as they would light on the wet material, and attempt to work their way through, they got wet and would retreat to their hive. They would sometimes pitch on to the next colony, and it then would have to be served likewise. Now here is where the force pump serves an excellent purpose. Just set it in a pail of cold water, and as soon as the bees begin to fly thickly about start your pump, which casts a spray for ten feet around the hive, so that scarcely a bee can go out without becoming more or less wet. In a few minutes the wet bees begin to think there is a very cold shower in that neighborhood, and conclude they would rather hunt for honey. In regard to the bees, we think they probably have dysentery, caused by gorging themselves with poor stores, their bodies becoming distended and bloated.

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.

QUERY No. 299.—Without separators I wish to use $1\frac{3}{8}$, $1\frac{1}{2}$, $1\frac{5}{8}$, $1\frac{3}{4}$ sections, $4\frac{1}{2} \times 4\frac{1}{2}$, what width shall I use with separators to get the same quantity in each section, take it for granted the honey flow is average?—F. A.

PROF. A. J. COOK, LANSING, MICH.—There is so much variation, that no sure width can be given.

H. D. CUTTING, CLINTON, MICH.—A section $4\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{2}$ with separators are the nearest to one pound of any I have used

EUGENE SECOR, FOREST CITY, IOWA.—Without being sure that I am right, never having weighed enough to determine it, I should guess about $\frac{1}{2}$ inch wider when separators are used.

G. M. DOOLITTLE, BORODINO, N. Y.—I use sections 2 inches wide, with separators and see no good reason for using any other thickness.

G. A. DEADMAN, BRUSSELS.—I should say allow $\frac{1}{2}$ inch for the separators.

C. W. POST, MURRAY.—Use sections $\frac{1}{2}$ wider in all cases to get the same amount of honey.

J. K. DARLING, ALMONTE.—I do not think it can be done except you provide each colony with a weighing apparatus and teach them how to use it.

J. E. POND, NORTH ATTLEBORO, MASS.—You ask too much! I don't know, and don't see how any data to govern can be obtained. Localities differ so, that no positive information can be given, and results in different years vary so, that it is a mere matter of guess work. Test the matter for yourself. The general rule though is to use $1\frac{1}{8}$ inch wide sections with separators to average one pound honey of each.

JAS. HEDDON, DOWAGIAC, MICH.—What will you think of me if I tell you that after sufficient experimenting, I found seven to the foot to be the best width for sections, both with and without separators. The theory that the section should be wider where separators are used, is correct, but in practice it is not. My advice is, adopt seven to the foot sections, and at any rate use but one width both with and without separators. The width which is just right for separators, is also just right without them. Strange but true.

G. W. DEMAREE, CHRISTIANBURG, KY.—I hope you have good reasons that you do not mention,

for using so many widths of sections. I use only one width section as a compromise, and use them with and without separators to my entire satisfaction, and that is the $1\frac{1}{8}$ section. I know of no other width of section that will answer so well to be used with and without separators.

D. A. JONES, BEETON, ONT.—I could not say positively; probably $\frac{1}{8}$ to each width would do.

QUERY No. 300.—Do you think the comb honey market may be injured by using too heavy section foundation?—W. B.

PROF. A. J. COOK, LANSING MICH.—I do.

C. W. POST, MURRAY.—Yes.

G. A. DEADMAN, BRUSSELS.—Yes, if it becomes generally known.

G. M. DOOLITTLE, BORODINO, N. Y.—I know it has been so injured in some localities, and what has been, may well be supposed to continue under the same circumstances.

J. K. DARLING, ALMONTE.—Certainly, bees will not draw heavy foundation as thin as they will the lighter, and consumers would not like to find a back bone in their honey.

EUGENE SECOR, FOREST CITY, IOWA.—Yes, I do. Only the thinnest should ever be used.

H. D. CUTTING, CLINTON, MICH.—The market may not be injured, but the consumer will in many cases find fault with the amount of wax. No honey producer can afford to use heavy foundations in sections under any considerations.

JAS. HEDDON, DOWAGIAC, MICH.—No. I used foundation from the first mill ever made in this county. For years before a person in this country knew there was such an article. I filled all my sections full of heavy foundations. (heavier than most of our brood foundations of the present) and only one customer ever spoke of a tough comb. I think that was because the bees failed in that case to thin down the foundation.

G. W. DEMAREE, CHRISTIANBURG, KY.—Yes, there is sufficient danger connected with the use of full sheets of foundation to make the honest and prudent honey producer very careful about what sort of surplus foundation he uses. Several years ago a supply dealer filled my order with thick and very yellow surplus foundation, and not having time to send it back, and ordering a nicer and thinner article I used it any how, and that year I had some trouble with customers. Since then I have been very careful to use nothing but the thinnest I can get.

J. E. POND, NORTH ATTLEBORO, MASS.—Yes I do. For section foundations not less than would make 10 sheets, 1 foot square, should be used,

and I should much prefer 14 or 15 such sheets to the pound. Too heavy foundation will give a very thick mid-rib.

D. A. JONES, BRETON, ONT.—Yes, but it is just as important to have the wax annealed or in first class condition for the bees to work out easily, as it is to have it thin. We recollect of once getting a fine sample of white wax from a bee-keeper. He said it was all made from cappings, in fact it was about as white as paraffine. We thought to make some beautiful section foundation, and sheeted part of it for that purpose. We ran the foundation very thin, placed it in sections over a strong colony, putting in alternate rows of nice, bright, yellow, annealed wax, of ordinary thickness of foundation, and to our surprise the yellow wax was drawn out and in fact, filled with honey, and they had commenced to cap before they had worked scarcely any on the white wax. Occasionally they would bite holes and pass through from one side to the other in order to get at the yellow foundation, and in cutting through the sections of honey found less back-bone in the yellow than in the white wax.

* * * Please send us the names of your neighbors who keep bees, that we may forward copies of the BEE JOURNAL to them. A postal card and five minutes time will do it.

THE CANADIAN BEE JOURNAL

ISSUED 1ST AND 15TH OF EACH MONTH.

D. A. JONES, - - - EDITOR-IN-CHIEF.
F. H. MACPHERSON, - - - ASSOCIATE EDITOR.

BRETON, ONTARIO, JUNE 1ST, 1891.

We are now in a position to furnish incubators very cheaply, to parties who intend going into the poultry business.

The fruit bloom is now over, and the bees have had a glorious time. They are working on the dandelion now, which seems to be producing an unusual amount of honey. The cold, and in some places frost, which has characterized much of the fruit bloom season, is giving way to beautiful weather. The honey this year produced from the dandelion seems to be unusually thick, no doubt on account of the dry spell which has ensued.

Well friends, we thought our force pumps were almost perfect, but the manufacturers have just completed a new patent, so much superior to the others, we have been sending out that we actually wonder whether or not it would

almost pay to lay aside the old ones and try the new. Now we shall not increase the price of this lot of pumps, and all who have one of the old pumps if they send for a new one can send ten cents less than the regular list price. Of course the margin is very close, but we think them such an acquisition to every beekeeper and household, that we feel anxious to have you try one.

Wax is constantly being shipped to us in various kinds of packages, sometimes for sale, other times to be made into foundation and returned, but frequently, with very little direction as to its disposal, and accordingly we are at a loss what to do with it. In a week or ten days after we get a card—when will the wax be ready, and what is the cause of the delay? Any person sending us wax must send particulars, and tell us what they wish done with it, at the time of shipment, also the address and the amount of wax sent. If the wax is for sale, they will receive payment for it, and if to be made into foundation, the order will be attended to promptly. From a friend who has quit bee-keeping, and gone to the Pacific coast, we have purchased a lot of hives, combs and supers, with queen-boards, both metal and wood and metal. They are about as good as new, and we will take 25 % off some, and for a few will take off one-third. This is a rare chance to get a nice lot of goods at a very low figure.

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* * * Subscribers who fail to receive their copies of the JOURNAL promptly, will kindly advise us. Missing numbers are always replaced where possible.

ADVERTISEMENTS.

BEES

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

WAX FOR SALE—100 lbs. good clean wax. No sediment. Offers solicited. J. H. MANNING, Tyrone P. O., Ont.

FOR SALE—100 Brood Foundation 104 x 124, 45% per lb. F. O. B. here. Cash with order. Lindsay Poultry Farm and Apiary, Lindsay, Ont.

WE have about 75,000 more sections on hand of the 2nd quality, which we will sell for \$1.00 per tail. Large discounts for wholesale agents. D. A. JONES Co. Beeton.

ITALIAN Bees and Queens for sale. Comb foundation and speciality. Agent for the D. A. Jones Co supplies. Bees wax wanted. Ship either by G. T. R. or C. P. R. H. COUSE, Cheltenham.

1,000 LBS. OF BEES, at \$1.00 per lb. 50 colonies of bees for sale. Comb foundation and sections and everything you want cheap. Send for price list. J. A. Foster, Tilbury Centre, Ont.

BEES, BEES, yes all the bees you want, 2000 lbs. for sale, also Queens, Root's Comb Foundation, Honey Extractors, Sections, Hives, and all kinds of supplies at rock bottom prices. Send for price list for 1891 now out. PETER BUSSEY, Colton, Ont.

DRAMER, Cedar Grove, Ont., is prepared to fill all orders for bee hives and sections and all necessary bee-keepers supplies. Write him for prices before ordering elsewhere.

BEE-SUPPLIES—No. 3 Honey Knife, 85c. Very large stock just to hand. Bee Veils can ship in quantity by return mail. Second hand Jones and Combination hives, used from one to three years. Write for special quotations. D. A. JONES Co., Beeton.

JUNE 1ST.—Orders booked now to ship June 1st or after. Tested Italian Queens, under 1 year, \$1.25; under 2 years, \$1.00; selected stock. Order now. G. A. DEADMAN, Druggist & Apiarist, Brussels, Ontario.

FOR SALE OR EXCHANGE—For anything I can use about one hundred empty bee hives, very superior to any in this country for storing honey and bees, glass boxes, sundries, etc., etc. Also a first class patent incubator by the very best maker, cost \$40, capacity, 200 eggs; also brooder, capacity, 300 chicks. The above have only been in use one season. W. M. SNEEGROVE, Woodstock, Ont.

LOOK HERE!

If you want Hybrid or Black Bees from March 15th to May 15th at \$1 Per lb or Hybrid Queens at 50 cents and Black 25 cents. I have untested Italian Queens, in April, \$1.00, May and after, 75c. My breeding yards are out on the prairie at safe distance. Send me your orders and see how promptly I will fill them. Have shipped bees successfully for 10 years to Northern States and Canada. Safe arrival and satisfaction guaranteed. Mrs. JENNY ATCHLEY, Farmersville, Tex.

POULTRY

FOR SALE—Pekin Duck Eggs, only \$1.00 per setting. Packed carefully. Address: J. A. GUTTIN, Owen Sound, Ont.

A FEW Silver Laced Wyandotte Cockerels for sale from American prize winning birds. Eggs for hatching in season. W. J. O'NEILL, Paris, Ont.

EGGs from choice W. Wyandottes, R. C. B. Leghorns, B. Plymouth Rocks and S. C. W. Leghorns at \$2 per 15, or \$3 per 26. Fine Pekin duck eggs at \$1 per 11, my birds win at Canada's largest shows. Satisfaction guaranteed. R. J. GRACEY, Wellandport, Ont.

R BLOYE, Todmorden, has eggs for hatching from grand pens of White Wyandottes (Knapp) White Plymouth Rocks (Empire) and White Javas at \$2 per 13. Pekin duck eggs, \$1 per 12. Correspondence a pleasure.

FREE 1 pack Mam. Russ. Sunflower seeds with each order. Dark Brahmas and Toulouse Geese. Eggs 10 and 40 cts each, respectively. From best prize-winning strains. Price reduced one half, owing to large numbers. Mention this Journal. S. R. B. SMITH, Brighton, Ont.

FOR SALE—Four White Leghorn Cockerels, scoring from 924 to 954; 4 Black Leghorn Cockerels, scoring from 92 to 954 by Smelt and Jarvis; 3 Black Minorca Cockerels, Pickrel's strain, also one pair of White Bearded Poland Chicks. I guarantee satisfaction. JOHN FLETSCH, Shakespeare, Ont.

EGGs FOR HATCHING—I have spared no expense in securing best stock to be had in America in the following varieties:—Black Minorca, single comb Brown and Black Leghorns and Light Brahma. My black Minorca and Light Brahma are headed by imported stock. No better in America. Eggs \$2.50 per settings. J. G. LYALL, Wyevae, Ont.

FOR SALE—My entire stock of Black Leghorns, one Cock, 3 Cockerels, 10 Pullets and four hens, for twenty dollars, with following score cards. Cock, 95, Cockerels, 93, 95, 924, hens, 934, 94, 951, 2, 35. Pullets from 94 to 95. Have to sell for want of room. Eggs from White and Brown Leghorns and Black Minorcas for \$2 per setting. JOHN FLETSCH, Shakespeare, 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 Hicknell, at Owen Sound, 1890, score 944, and 1st as a cock at Owen Sound, 1891, score 93, by K. Felch, a fine large bird. One hen has won three first and two special prizes three years in an exhibition, and looks like a pullet; scored by Felch as a pullet, 964; as a hen by Felch, 95; one pullet scored by Hicknell last year 954; also 2nd prize hen at Owen Sound 1st year, score 914, and other hens and pullets that will score from 93 to 95. Will sell Exhibition Cockerels and Pullets in the fall.

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ADVERTISEMENTS.

Prices to suit the Times

A FEW pairs of Silver Laced Wyandottes and a few Plymouth Rock cockerens 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

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, Dunville.

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\$3 25	4 00	18 GAUGE.	6 30	9 90
		07		

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

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—BREEDER OF HIGH CLASS—

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My laced Wyandottes are large and beautifully laced; My Partridge Cochins have scored from 91 1/2 to 94. Cockerel won 2nd at Brampton 1891 show. The above birds are mated to produce best results. I aim to please try me. Eggs \$2 per 13. A few choice birds for sale. Send for testimonials etc., never mind stamps.

BACK AND WHITE LEGHORNS

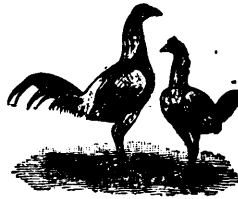
AND IMPERIAL - PEKIN - DUCKS.

Will be able to spare a limited number of eggs from the above varieties. My Black Leghorns have always won highest honors wherever exhibited and have genuine standard legs; "no artificial coloring about them," my whites are headed by "Snowball," recently purchased from R. H. Marshall of Dunville, Ont., having score 796 1/2 points last winter at the Ontario and 94 1/2 again this winter at Dunnville— as a cock. I have him mated with Hens and Pullets, scored 610 from 94 1/2 to 97. I consider this as grand a pair as there is in Canada to-day. My pen of ducks comprise the 1st prize Drake and 2nd prize Duck at Industrial last fall, owned then by Allen Bruce, London, Ont., also 1st prize Duck at Milton this winter. Leghorn eggs \$3 per 13 or settings one of each, \$5. Duck eggs \$2 per 11, packed carefully in baskets with lardies. Address P. H. Hamilton, Hamilton.

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Bantam Fanciers

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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-laced 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. DGTY, 47 Wellington Place, Toronto

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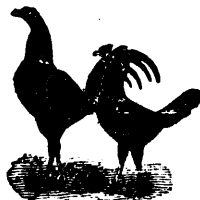
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ADVERTISEMENTS.

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In these pens are females scoring 95 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.

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RIDGWAY, ONT.

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ATTENTION FANCIERS!

I shall soon import from England a large number of

BUFF LEGHORNS

—AND—

Indian Games.

Orders received until Nov. 20th for imported birds. Buff Leghorns are all the rage. Send for prices. I have some fine BLACK LEGHORNS for sale.

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Will sell the above in bulk or separately, at low prices. A rare chance to locate an apiary. Apply to

R. F. HOLTERMANN
ROMNEY, ONT.

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- Wintering, And Preparations Therefor 15
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The undermentioned books are supplied direct from the office of publication, postpaid, at the prices named.

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