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

VOL. VII, No. 10. BEETON, ONT., AUGUST 1, 1891. WHOLE No. 293

Canadian Poultry Journal

AND PIGEON FANCIER.

Seventy-five Cents per annum *in Advance.*

ADVERTISING RATES.

All advertisements will be inserted at the following rates

STANDING ADVERTISEMENTS.

Time.	1 in.	2 in.	3 in.	4 in.	1 col. page
1 month.....	\$2.00	\$3.00	\$3.50	\$4.50	\$6.50
3 months.....	3.00	4.50	5.50	6.50	11.00
6 months.....	4.00	5.50	7.00	9.00	15.00
12 months.....	5.00	9.00	12.00	15.00	24.00
12 months.....	10.00	15.00	20.00	25.00	40.00

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 specially intended for those who have poultry, eggs, bees, or other goods for exchange for something else and for the purpose of advertising bees, honey, poultry, etc., for sale. Cash must accompany advt. Five insertions without change, \$1.

STRICTLY CASH IN ADVANCE

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

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

PUBLISHERS' NOTES.

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

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

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

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

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

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

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

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

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

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

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

Clubbing Rates.

THE CANADIAN POULTRY JOURNAL and	
THE CANADIAN BEE JOURNAL.....	\$1 00
THE CANADIAN POULTRY JOURNAL and Christy Feeder.....	1 00
Both JOURNALS and Christy Feeder.....	1 25

Fanciers' 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.

ADVERTISEMENTS.

The Wide Awake Bee-Keeper

Who reads the BEE-KEEPERS' 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. I member the REVIEW has been enlarged, a beautiful cover added, and the price raised to \$1.00. W. H. HUTCHISON, Flint, Michigan.

Muth's Honey Extractor.

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

CHAS. F. MUTH & SON,
or, Freeman & Central Avenues, Cincinnati



BEES AND HONEY

The Devotedest Strongest, Best and Cheapest BEE-HIVE for all purposes. Please everybody. Send your address to the Largest Bee-Hive Factory in the World for sample copy of **Cleanings in Bee Culture** (a 11 illustrated semi-monthly), and a 44 p. illustrated catalogue of **Bee-Keeping Supplies**. Our **A. B. C. of Bee Culture** is a cyclopaedia of 400 pp., 6x10, and 300 cuts. Price in cloth, \$1.25. U. P. Mention this paper. A. I. ROOT, Medina, O.

ALLEY'S IMPROVED AUTOMATIC

SWARM HIVER

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

H. ALLEY, Wenham, Mass.

Michigan Lands For Sale ! 12,000 ACRES GOOD FARMING LAND

—TITLE PERFECT—

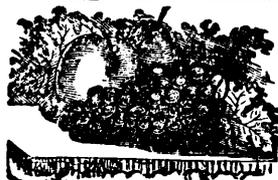
On Michigan Central and, Detroit & Alpena and Loon Lake Railroads, at prices from \$2 to \$5 per acre. These lands are close to enterprising new towns, churches, schools, etc., and will be sold on most favorable terms. Apply to R. M. PIERCE, West Bay City, or to J. W. CURTIS, Whittemore, Michigan.

BARNES' FOOT-POWER MACHINERY



Read what J. J. Parent, of Charlton, N. Y., says: "we cut with one of your Combined Machines, last winter 50 chaff hives with 7 inc cap. 100 honey racks, 500 broad frames, 3000 honey boxes, and a great deal other work. This winter we have double the number of bee hives, etc. to make and we expect to do it all with this saw. It will do all you say it will." Catalogue and price list free. Address W. F. & JOHN

BARNES, 5 Ruby 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, walks, floors, bees, etc., and washing buggies, windmills, 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 Danes and St. Bernard Dogs, 8 weeks old, \$20 to \$25 each. smooth-coated Fox Terrier, 8 weeks old, \$5 to \$10 each. Above dogs are from the best blood of Europe and America and won the best kennel prizes in Toronto. Greatest Bench shows in '89 and '90, where there were hundreds of competitors.

TERMS :

CASH—small but sure profits. Send your address now for my large catalogue and Guide to Fruit Growing, 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, Paten'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.

ADVERTISEMENTS.

ALL READY

—FOR USE—

We have a lot of Combs in Combination Frames; also a quantity of Combination Hives, 1st and 2nd story, with Honey board, which we have received from a friend, and will sell all off at a low price.

THE D. A. JONES CO., Limited.

BEETON, ONT.

PRICES CURRENT.

BEESWAX

We pay 55c in trade for good pure Beeswax, delivered at Beeton, at this date, sediment, (if any), deducted. American customers must remember that there is a duty of 20 per cent. on Wax coming into Canada

FOUNDATION

Brood Foundation, cut to any size per pound.....55c over 50 lbs. Write for price.
 Section " in sheets per pound..... 60c
 Section Foundation cut to fit 3 1/2 x 4 1/2 and 4 1/2 x 4 1/2, per lb. 65c
 Brood Foundation, starters, being wide enough for 53c Frames but only three to ten inches deep

THE D. A. JONES CO., BEETON.

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 Model 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 1/4 sections, 1 to. Foundation starters in frames and sections 20 cts more. Complete hive for comb honey, same as above in flat, including metal rabbits super, tins for same, quilt, 30 sections 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 and \$1.35. 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.

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, 1890, score 94, and 1st as a cock at Owen Sound, score 93, by J. K. Felch, a fine large bird. One hen has won three first and two special prizes three years in succession, and looks like a pullet; scored by Felch as a pullet, 96 1/2; as a hen by Felch, 95; one pullet scored by Bicknell last year 95 1/2; also 2nd prize hen at Owen Sound last year, score 94 1/2, and other hens and pullets that will score from 93 to 95.

Address

J. C. BENNER, Owen Sound.

Care Palson Iron Works.

MENTION THIS JOURNAL

SECTIONS !

NO. 2 SECTIONS FOR SALE.

70,000 Sections about 4 1/2 x 4 1/2 x 1 1/2 and 4 1/2 x 4 1/2 x 1 3/8, at the following

ASTONISHING PRICES :

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

FIRST COME, FIRST SERVED.

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

A RARE CHANCE

For anyone desiring to make a start in breeding fine poultry, or anyone wanting a good start with one breed. I have to sell my entire stock of

PARTRIDGE COCHINS

on account of my intention to keep only Wyandottes in future. My Cochins are second to none. Cock scored 94, one hen 94 1/2; Cock won as Cockerel last winter 2nd at Brampton, only time shown, and is now a magnificent bird. I have Cock, 2 Hens, 4 Cockerels, 13 Pullets, 4 Cockerels and 6 Pullets early March hatch and are fine in feather; the other 8 Pullets are early April hatch. I prefer selling the lot together; 20 birds in all, for \$30, or part cash and part trade for anything useful. I will ship on approval to any responsible buyer and guarantee satisfaction.

JOHN GRAY, TADMORDEN, ONTARIO.

The above is a good snap for some one.

GLEN VILLA POULTRY YARDS

A. R. MCKINLAY

IMPORTER AND BREEDER OF

HIGH-CLASS POULTRY.

Autocrat strain of Light Brahmas, Single Comb Barred Plymouth Rocks, White Plymouth Rocks, Black Minorcas and Buff Pekin Bantams. Eggs, \$3.00 per 13, & 5.00 per 26. BOX 18, DEER PARK, ONT.



PUBLISHED EVERY SATURDAY.

DEVOTED TO

ARCHITECTURE, BUILDING, & DECORATION.

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WM. T. COMSTOCK, Publisher,
 23 Warren Street, New York.

Sent Free.—Illustrated Catalogue of Books on Building, Painting and Decoration.

EXCHANGE AND MART

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

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

BEST thoroughbred lop-eared rabbits, all ages from 18 months down, cheap for cash, or exchange for honey extractor, good muzzle loading shot gun, or clean combs to fit Jones' hive. C. VANDEVORD, Weston, Ont.

WONDERFUL CHANCE.—For sale, 2½ acres of land with good house, barn and side buildings, good well and rain cistern. A fancy place to keep bees, poultries, and all kinds of berries. Bee fixtures at low prices. Write for particulars. H. M. FREY, Heidelberg, Ont.

FOR SALE—A choice lot of early chicks of the following varieties, in pairs, trios, or pens: Golden and Silver Wyandottes, Dorkings, E. C. B. Leghorns and Plymouth Rocks. Good birds at moderate prices. JOHN GRAY, Todmorden, Ont.

EIGHTY Colonies Bees for sale in Langstroth single walled and Jones Porous Palace Hives. Price, Langstroth, \$5.00; Jones P. P. \$5.50. Bees in prime condition. Never any foul brood in this part of Ontario. Will ship on C. P. R. or G. T. R. as preferred. I. H. MANNING, Tyrone P. O., Ont.

1891, Carniolans bred from Imported Queens, Italians bred from Doolittle's selected stock, \$1.00; six, \$5.00. After June 20th we will dispose of 100 Italian Queens, one year old, bred from Doolittle's stock, \$1.50; these are tested. 1000 lbs. Bees, \$1.00 per lb. WALKER & HORTON, Fargo, Ont.

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

1891. Don't you want to improve your stock. Don't you want large, beautiful yellow Queens, producing bees that will please you fully; the best honey gatherers on earth. Seven years carefully breeding. 650 Queens sold and have heard of only one mismatched. Queen, 75c.; 3 for \$2. A yellow to the tip, select breeder, by return mail, \$1.50. W. H. LAWS' Lavaca, Ark.

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.

A. W. GARDINER

Box 1293, Springfield, Mass.

CONDENSED DIRECTORY.

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

MICHIGAN LANDS, best in the State for 20 year acre; some at \$2, \$3 and \$4. Write R. M. PIERSON, West Bay City, Michigan

O J. PUTNAM, Leominster, Mass. has for sale several fine cockerels and pullets, B P Rocks, won 1st 2nd and 3rd on pullets, and 2nd on pen at Agr Jan. 14 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, 95, 94½, 94½, 96, 96, 96½; cockerel 95½. J Y Bicknell, Justice Eggs for hatching \$1.25 per 12. WM. COLE, Brampton

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

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 E. P. Rocks, \$2. Br. Leghorns \$1.50. BARTLETT & GEORGE, Chancery 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, Dowagiac, Mich.

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

Special Offer for July!

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 Settings (26) - \$2.00.

This is a grand offer as my birds are good.

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

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

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



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

VOL. VII, No. 10. BEETON, ONT., AUGUST 1, 1891. WHOLE No. 293

THE CANADIAN BEE JOURNAL

ISSUED 1ST AND 15TH OF EACH MONTH.

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

EDITORIAL.

Honey Dew Plentiful.

LOOK out for honey dew at this season. Walking down the street the other morning we noticed damp looking spots on the sidewalk, and remarked at the time that it looked like the droppings of *aphide*, or plant louse. The spots were under a thrifty second growth basswood tree, planted about eight years ago, the trunk eight or ten inches in diameter, with a large fine top. We looked up in the tree among the leaves for some time to find the insects that were discharging the sweet substance, and at last, on the under side of a limb, we noticed a large number of insects clustered together, and covering the under side a limb for a foot or more. They were so near the color of the basswood bark that it was difficult to see them. Taking a sheet of paper out of our pocket and holding it underneath the limb, we had before long a number of small drops on the paper. It was easy to see where the sweet substance was coming from, that was not only attracting the flies in large numbers, but also bees and wasps. After

examining this tree we went to another, some distance off, and there found that more of the same liquid had dropped on the sidewalk in various places. The grass under the tree was quite sticky, and flies seemed to be doing a land office business round these particular spots. We have not had time to examine in the woods, but feel satisfied that honey dew is likely to be quite plentiful; and right here, let us say, in every locality as soon as the basswood is over, take out all the honey, if you are extracting, that you intend to remove before it gets mixed with honey dew. Now, in localities where Canadian thistles abound, no doubt large yields will be obtained from them, and the bees will be little inclined to work honey dew so long as the honey harvest is good from thistles or other flowers, but be exceedingly careful not to allow any honey dew to get mixed with the crop that you expect to sell, as it will very much injure the honey trade. A gentleman watching our experiment asked why there were no blossoms on the tree. We could not tell him, but simply knew that our second growth trees have had no bloom on this year, or very little. We were wondering whether every basswood tree secreted a certain amount of sweet every year whether the bloom was there or not. This gentleman remarked that he thought, as there was no bloom, that these insects were sent to suck the honey out through the limbs of the trees, and discharge it where the bees could get it; but if that was the kind of honey we had to have for

basswood honey in future, we would step down and out of that part of the business.

We should like some of our friends who have old and poor queens which they wish superceded to try the following experiment:—Raise the corner of the quilt on top of the frames, just about dark so carefully that no bees become excited, or if they do notice the movement, and start to crawl out, give them the least possible puff of smoke, allowing it to roll in so slowly that it will fall on the bees as it were—this will cause them to move back quietly without disturbing any. When all is quiet allow a young queen to pass in, and drop the quilt—carefully watch the result, and give the readers of the JOURNAL the benefit of your experiment. We venture the opinion that the young queen will kill the old one. If we take an old queen and a young one, and put them under a glass, allowing them to fight, the old queen being somewhat infirm if she is laying, will be overcome by the more nimble and vigorous young one. This being the case, we believe young queens can be easily introduced in some sly, unnoticeable way without much trouble. If she enters the hive thus and is allowed her freedom, she is very much the same as a queen that had just hatched in the hive that was strong and vigorous.

We tried an experiment recently in our own bee yard which may suggest to some one an idea for a swarm catcher which will be much handier than anything we now have, and prevent the bees alighting in high trees or other inaccessible places. The discovery happened as follows: In one of our hives we had a division board across the back, which had been left there by mistake, and had a good deal of comb attached to it. Just as we were removing it a swarm issued from a neighboring hive, and several of the bees seemed attracted by the comb, and alighted on the division board which we held in our hand. An idea struck us that we might use this attraction to advantage, and accordingly we held the board in front of the hive, catching several more bees, and then we carried the division board with its bees across to a tree upon which a former swarm had alighted, and laid it across the limb with

the comb hanging down. In a very short time the other bees commenced to alight upon it until all were settled down with the exception of a dozen or so. We then carried the board to the stand we wished to hive the bees upon, the stray ones following us, and set the board in front of the hive. Only a few minutes elapsed until the bees began to drop off the board and run in the hive, and when the majority had done so we shook off the rest, and they followed. We carried the division board back to the tree, and set it again upon the limb, and two other swarms have since alighted upon it and been easily hived. The question arises—cannot something valuable be worked out along this line?

CAN any of our friends tell us what causes the strong odor of a swarm of bees when swarming, and after they have clustered. Is it because they fly around on a hot day with a heavy load of honey in their abdomens until they perspire, or they breathe so rapidly and there being so many of them, that we smell their breath. The peculiar odor is very attractive to other swarms.

Our Simpson honey plant is just beginning to bloom nicely, and the bees seem to work on it with a great deal of vigor. From one to six bees can be counted on a ball of the plant, but we think that is owing in a measure, to the partial absence of honey in other flowers. We cannot see that our bees have stored any surplus from it, perhaps it is because we only have a few dozen plants.

Picking cherries in the bee-yard, and watching the bees for swarms, is a very pleasant occupation. We find there is a nack, or perhaps we should say, there is a right and wrong way to pick cherries. Two of our young men took a tree and started to pick from below. They kept reaching up over their heads and when they could not reach any more, would go up a little higher. In this way they worked very industriously. But by the time they had half a pail we had picked a pailful. They wondered how it was that we had picked so many in such short time, we told them if they would get above the cherries, and allow the fruit to hang into their hand, they could pull them off just as fast again.

GENERAL.

FOR THE CANADIAN BEE JOURNAL.

Ashes as Packing—Drugs as Ingesta—and the Weather.

At the late St. Catherines meeting of the O.B.K.A., during the discussion on the best packing material, Mr. D. Chalmers, of Poole, stated that he was trying wood ashes as winter packing. I am informed by Mr. Chalmers that the result is favorable. He says the bees so packed came out all right, but that there was a little more mould in the hives than in the chaff-packed hives, but this, he thinks, was due to the fact that he put too much of the ashes on top—six or seven inches above a very light cushion of chaff—when two or three probably would have been sufficient. He thinks ashes will make a good packing for bottom and sides, but if used on top care should be taken not to use too much.

DRUGS TO THE "BOTTOMLESS PIT."

There is where they ought to go. So says Professor Cook. In my last letter I was disagreeing with friend Cook somewhat; this time I am glad to be able to most cordially agree with him. In discussing the "Adulteration of Honey" in a late "Review" he says:—"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 a very fit receptacle for them."

Now I say amen! to this. I go further. Not the patent medicines alone, but the orthodox drugs—all ought to be hurled into the "bottomless pit, which would be a very fit receptacle for them."

Some of the doctors themselves think so, for we have their word for it. One of the most eminent in the profession has given it as his opinion that, "if the whole of the contents of the apothecary's shops were emptied out into the sea mankind would be better off, but it would be a sorry time for the fishes."

Dr. Good, Fellow of the Royal Society, and author of several medical works, says:—"The science of medicine is a barbarous jargon, and the effects of our medicines on the human system in the highest degree uncertain; except, indeed, that they have destroyed more lives than wars, pestilence and famine combined."

Dr. Johnson, another F.R.S., and editor of the *Medico-Chirurgical Review*, is equally outspoken and explicit. He says:—"I declare as my conscientious conviction, founded on long experience and reflection, that if there were not a single

physician, surgeon, man-midwife, chemist, druggist, apothecary, nor drug on the face of the earth there would be less sickness and less mortality than now prevail."

Dr. Ramage, Fellow of the Royal College, London, says:—"I fearlessly assert, that in most cases the sufferer would be safer without a physician than with one."

Prof. St. John, of the New York Medical College says:—"All medicines are poisonous." Prof. Cox, M. D., says:—"The fewer remedies you employ in any disease, the better for your patients." Prof. Clark, M. D., says:—"All of our curative agents are poisonous, and as a consequence, every dose diminishes the patient's vitality."

Dr. Barker says:—"The drugs which are administered for the cure of measles and scarlet fever kill far more than those diseases do."

Prof. Smith, M.D., of the New York College of Physicians and Surgeons, declares that "drugs do not cure disease; disease is always cured by the *vis medicatrix nature*"—that is the remedial powers of nature, or the vitality of the patient. In this same line Prof. Stevens, M. D., says:—"The older physicians grow the more sceptical they become of the virtues of medicine, and the more disposed they are to trust to the powers of Nature." Prof. Parker says:—"Hygiene is of far more value in the treatment of disease than drugs." Prof. Clark, M.D., says:—"In their zeal to do good, physicians have done much harm. They have hurried thousands to the grave who would have recovered if left to Nature." One more quotation out of hundreds I might make. The celebrated Dr. Bailey, of London, declared:—"I have no faith whatever in medicine."

Now, the reader will please bear in mind that I have not been quoting quacks above, but men eminent in the profession of medicine—distinguished authors and professors—most of them venerable in age and ripe in experience, and, better than all, with that candor and conscientiousness which impel them to proclaim the honest truth as they believe it whether against their profession and business or not.

But what has all this to do with bees and honey and hives and all that? Hold on! Bee-keepers, unfortunately, have to die as well as other people not so good, and my desire is that none of them shall die, or be killed before their time. I feel like strengthening Prof. Cook's position, and convert him over to the Allopathic drugs for the "bottomless pit," as well as the patent medicines.

I think, too, that Brother Root, of *Gleanings*, ought to get a word of encouragement here, for

although somewhat inconsistent with his theology, he is of late giving his readers a good deal of wholesome hygienic advice through *Gleanings*. He will pardon me for suggesting that he might in my opinion do a world more of good by preaching more hygiene and less religion through his paper. This, however, is a matter of opinion, and opinions differ. At any rate I would like without either assumption or presumption to give him all the moral support and encouragement possible in the laudable work of teaching his readers how to live so as to avoid sickness, and how not to turn their stomachs into apothecary shops.

THE WEATHER.

This has been a remarkable month so far—rain—rain—rain. Still, it is much better than a severe drouth, so long as we don't get completely submerged. Between the rains and the showers the bees do a rushing business. But they lose so much time, that they go out in the rain frequently. When they do get a fine day they improve their time till dark. The clover crop of honey, owing to the weather, is but middling in quantity. The basswood seems to be blooming and yielding abundantly. On a tree near my yard the other day the bees worked from morning till about dark—as there happened to be one whole fine day without rain.

ALLEN PRINGLE.

Selby, Ont., July 24, 1891.

FOR THE CANADIAN BEE JOURNAL.

An Experience with African Bees in the "Dark Continent."

FRRIEND JONES,—I notice an item in the JOURNAL of the 15th inst. that calls to mind an experience of a friend of mine in connection with African bees, that brings the "ton and a half of honey" out of the realms of romance into the regions of probability.

When a youth he entered as ship's boy along with several lads, on a vessel bound for the "Cape." While lying becalmed off some point on the African coast, he, with several of the crew, got permission to go ashore. In the course of their rambles they discovered a cave in the face of a hill near the shore, from which bees were issuing. They determined to explore, and doing so saw the roof of the cave some fifteen or twenty feet above them, and, as far in as they could see, covered with huge masses of comb and bees. My friend and another lad went in search of poles, and finding something suitable, returned to the cave where the others were waiting in anticipation of a glorious feed. Like the "two young bears of wanton mood," of which the

old English Reader used to tell us of, they thought they had nothing to do but take and eat. With the poles they brought down a mass of the comb large enough to supply the ship's crew for a week, and with it millions of bees. They never tasted it. Luckily for them, they were near the water. It was every man for himself, and let the bees take the hindmost, and the bees took them. Some of the crew were fearfully stung, and were only saved by plunging into the water, and swimming to the boat.

It is some years since the above was related to me, and I regret I cannot call to mind what part of the coast it was on, as it might throw some light on the African bees, and what is being said and written about them.

The gentlemen in question is Mr. Benjamin Wood, of Toronto, and if this should meet his eye, he would much oblige many readers of the JOURNAL, myself, and I am sure its able editor, by giving a detailed account of the affair.

Hoping the JOURNAL may live a thousand years, and its shadow never grow less; and you, friend Jones, continue to direct it, either in the body or the spirit.

Yours, &c.

W. D. ROSEN.

Bognor, 25th July, 1891.

We thank you very much for the description of the honey cave in Africa, but we fear your closing remarks are unmerited. We do not wonder that when they pushed down a large mass of comb and bees that the boys had to take to their heels. We have had some little experience with African bees, and one of the worst stings we ever had was from these bees. It was in the garden belonging to the Khedive of Egypt. In strolling through his fine grounds, we came to the apiary, and wishing to have some samples of his bees, stooped down in front of a hive, and commenced catching the bees by their wings, and slipping them into a small vial of alcohol, which we usually carried to preserve specimens. During the operation one of them happened to turn and get his sting into my finger, and as soon as the odor was caught by the other bees they swarmed in on us in thousands. The bottling business was soon stopped, and we made for a very thickly-wooded bush, but they could fly as quickly as we could run, and although the wood was very thick it did not prevent a large number from sticking to us, and our recollections now are that those we killed stopped follow-

ing, but the rest stuck to it. We believe that African bees would follow a person almost any distance, but it seems hardly probable that that kind of bee found in the northern part of Africa would be likely to store such large quantities of honey, and can only account for it in this way: as they swarmed, the different swarms clustered in the under side of the cliff, and although they were separate colonies, their combs might be built adjoining each other. Doubtless, many of us still remember Mr. Benton's *Apis dorsata*, when he was getting specimens of them from *Apis Dorsata* rock in Ceylon, where he found a large number of colonies all clustered on the under side of a cliff. Although their combs were very large, and some of them close together, yet there were about 14 colonies. In a country where the bees have to get on the under side of cliffs in the absence of any other place, it is not unreasonable to suppose that a large number of colonies might be clustered together. A friend, writing us from India, stated that he saw a large number of colonies so clustered, and he termed it a small village of bee colonies attached to the under side of a cliff. We should be glad indeed if Mr. Wood would give us any further information in regard to this matter. It is certainly very interesting to us.

FOR THE CANADIAN BEE JOURNAL.

Chloroform to Prevent Increase.

WE are always learning, and particularly so, if we are willing to look into new ideas and methods. The man that has learned it all, and the man that is full of good ideas he will not impart to others is generally one and the same man. Although we must have every respect for the bee-keeper who does not care to write articles for the public press from inability to put good practical thoughts on paper, or disinclination—these very good practical men I may say, however, are always willing to answer any question fully when conversing with them. We are all anxious to get at a system largely non-swarmling, and be able to use it at will. I have been particularly anxious to do this, as I believe a great deal of our winter losses would after certain seasons be reduced if there were less swarming permitted. I am not ashamed to say I allowed myself to be led into testing and inducing others to test the system of

prevention of increase by swarming, by chloroforming bees, and induced the Experimental Union to undertake the work. Now let it be understood every experiment conducted is not good work, only if it prove a success. It may be just as good if it prove a failure, as if it does others need not spend time or money over the matter. It was in such a spirit willing that the results should decide—that the matter was taken up—a spirit in which to make a just and fair test any experiment should be conducted. Your correspondent, who does not sign his name (probably he is ashamed to do it) says the agreement was to supply the chloroform. I think not—the method was simply given in which the experiment was to be conducted. Your correspondent should state facts, not fiction. We had very few respond as willing to take part—probably the majority felt sure that it would not prevent swarming, and did not care to convince others, only one or two reported, as the season was a very poor one with those experimenting—the results were duly reported to the Experimental Union, and so few reported, and so indefinitely, the bee journals were not afflicted with the report. If your correspondent will apply for the report to the Union, I will be happy to send it to him with more interesting matter printed with it. Perhaps it would have been better to have undertaken something else in the line of experimentation, as few believed it would prevent swarming, but our funds were small, and the experience of the committee smaller than it is now. I may say our efforts this year are meeting with a very hearty response, and some of the sections have already been returned—we have a few more to spare. As far as the personal attack on myself is concerned, of course I cannot deny that I feel it; it, however, casts a reflection upon the judgment of not only all the bee papers in America, but the British and Norwegian journals, and all the agricultural papers in Canada; two of the leading ones I withdrew from owing to pressure of work. Under the circumstances, and being in such good company; I will try and bear my share of the burden with resignation, knowing, Mr Editor, that you will be kind and just enough to grant this space in your valuable journal. I have no faith in prevention of increase by chloroform. If you wish it, I will tell you why.

Yours, &c.,

R. F. HOLTERMANN.

Brantford, July 9, 1891.

The above article was received too late to be inserted in our issue of the 15th of July, in which our apology to Mr.

Heddon, on page 592 of the JOURNAL appears. We are pleased that experiments of all kinds are carried on in the interest of bee-keeping; but it is only reasonable to suppose that a great many of the experiments will not prove successful. We have frequently tried much greater and more expensive experiments than that which proved a failure, and yet we consider that we were justified in going on experimenting. A great many of these we have tried without reporting results to any one except our students and those immediately connected with our apiary work. We have frequently written to friends consulting with them in reference to various experiments, and we feel very grateful for the kind advice we have received from them from time to time. Several times we were just on the eve of announcing something that we thought would almost be sure to work if properly managed, yet we felt we ought to give it a little trial ourselves first. Then, again, we think, perhaps, we have been a little too backward occasionally in not telling people all the experiments we were trying. I recollect many years ago, one evening after a convention, telling friend Heddon or Hutchison about the possibility of both breeding and mating queens in second and third stories, even while the bees were storing section honey. We succeeded in breeding and mating a number of queens in that way, and perhaps if we had mentioned it a little more publicly, and not waited until we had time to experiment further, the world would have had the benefit of it much sooner. If we are correct, the credit now belongs to friend Doolittle, of bringing this matter prominently before the public. My advice, friend Holtermann, is to be neither afraid nor bashful; continue to experiment or suggest anything that will be in the interests of bee-keepers, and let us discuss it on its merits, and we hope that all who assist us in the matter will do it in that friendly spirit which should pervade all discussions in bee keeping; put as much vigor in your article as you like, but please don't leave out the kindness and respect for your opponents' opinion. Plenty of room, with the proper management at the right time, will prevent increase far better we think than chloroform.

FOR THE CANADIAN BEE JOURNAL.

From Fenelon Falls.

I PUT into winter quarters forty-two fairly strong stocks, but they were not as well supplied with stores as I would have preferred, and I commenced extracting from sixteen. The others failed to materialize, from various causes, mostly diarrhoea and spring dwindling. It was a very bad fall last year for getting bees into proper shape for winter—the frost came both early and hard, and that settled it. I have quit going to any expense in the fall unless all the conditions are favorable. I have paid (oh! so dear) for my whistle that I am nearly a disciple of G. B. Jones, re-purchasing in the spring. However, the bees are now booming, and every prospect of a big basswood harvest looks promising, and the white and alsike clover are bound to stay late with us. All we want is suitable weather. I had to do some feeding this spring, and made a new kind of feeder, which acts as a division board also. I took a two inch plank, and cut to proper length, then put into into vise and bored a row of one inch holes the whole length, leaving one inch at each end, and within an inch of bottom cleared all out, with chisel made a bee space on one side, put rubber at ends, and top bar on with hole through top to feed through. I shall make one for every hive I have in the coming spring.

We think the ordinary feeder as illustrated in the JOURNAL, which is not patented, and which you can copy if you choose, is far superior to the one you make, as it sits directly over the bees, and the heat from the cluster warms the food. It also enables the bees to work in this when they could not without a division board at the side. However, it might not do for all of us to think exactly alike, and if you have a division board feeder which suits you, and works well, we would not advise you to throw it away for the sake of adopting something else. We hope that you will get your bees in good shape for winter early this year, and that those that have to be wintered out doors will be packed in September—no harm if they were packed by the first of that month. By keeping them warm early in the fall the honey is ripened much thicker and better. Cold nights cause bees to cluster in unprotected hives more tightly; and the moisture instead of being evaporated from the honey is very frequently absorbed by the uncapped

honey outside the cluster. This is just the reverse of what we should have. Now this matter of getting rid of surplus moisture or water from honey intended for winter food is important. We are convinced that it is one of the causes of winter losses, and we are also convinced that even though you winter your bees in doors in cellar or bee repository, it will pay to put an outside case with packing around them, and keep them so warm that they will even fan at the entrance on a cold night. Keeping them warm late in the season allows the bees to ripen all the honey they gather late, and instead of consuming 25 per cent. of surplus water in the food this morsel is evaporated, and the thick, rich honey enables the bees to cluster more tightly, as much less food gives better results. Look at a colony of bees even in warm weather, and if they are feeding on thin liquid honey, see how large their bodies are, as a result of consuming such large quantities of thin food. Let any one test this matter on a small scale, and he will soon be convinced.

Getting Bees to Work in the Sections.

BY DR. C. C. MILLER.

THE following questions came from H. Hine, of Sedan, Ind.:

What is the reason that bees will not store honey in the surplus boxes (which were put on new), when swarms will fill the brood-frames in less than three weeks? What can I do to build up a weak colony at this time of the year?

In reply, I would say that as long as there is plenty of room in the brood-chamber, bees do not care much to go off some distance from what is really their home, to store the provision that they expect to use in the brood-chamber.

You may, however, hold out sufficient inducement to get them to work in the surplus apartment much sooner than they otherwise would do so. If you put a bit of drone-brood, or even worker, in the surplus apartment, the bees will promptly go up to care for it, and then if they do not store surplus there, you may be pretty sure they have no surplus to store.

Generally it will be sufficient to put into the super a section that has been fully or partly worked out into comb, such sections being often left over from the previous year. After you have succeeded in getting one colony to working in the super, you will find it work very nicely to

take partly-filled sections from the super where the bees are at work, bees and all, and put it in the super of a balky colony. See how soon they will go to work; always provided that they need the room to store.

There is no little difference in colonies about commencing work in the supers. Some will fill their supers nicely, leaving abundance of empty cells in the brood-combs while they are at work in the supers, while others will leave the supers unoccupied, and cram the brood-combs full, and build burr-combs in all directions.

To build up a weak colony at this time of the year requires no great skill. If they can get enough stores from the field to build upon, they only ask to be let alone. Possibly however, you want to know how to make them build up faster. Well, you can give them help from the stronger colonies. But do not make the mistake of thinking that you can take from the strong and give to the weak, and thus increase your crop of honey, if that crop comes from anything as early as clover or linden. Better, in that case, take from the wheat and give to the strong.

But if you want to have more colonies to work on a late crop, or if your object is to multiply colonies, without regard to the honey crop, then you may do well to help the weaklings. You may do it either by giving them young bees or brood

Shake the bees off of a frame (or several frames) in front of a hive to be strengthened, and all bees young enough will remain with the colony where they are shaken.

On the whole, it may be more satisfactory to strengthen them with brood. Take from the strong colony a frame of brood which is nearly all sealed, and give to the weak one, but be sure that they have bees enough to care for it. When the weather is hot, a very few bees will care for several combs, for if the brood is all sealed, it will take care of itself pretty much. Look out for cold nights, though, and have all tucked up warm.—American Bee Journal.

Marengo, Ills.

A SEASONABLE WORD.

The American Bee Journal of the 16th says: "A hint to the many friends of the Rev. L. L. Langworth will be timely. The amount subscribed for his annuity has again become due, and we hope that each one will now send him the usual "free-will offering." Let every lover of that "grand old man" act promptly, and help to pay our debt of gratitude."

Why, Oh! Why?

TO DR. TINKER.

WHY will you willfully misrepresent me, Doctor? Why don't you admit that your old Scotch term "storifying," which they applied to old boxes, in wholly a different manner and for a different purpose, is with your practice precisely the same as my divisible brood-chamber as described in my book?

Why do you say that the testimonial, which you sent me in October, 1886, was "strained" and sent me to "befriend" me, when at the same time you wrote the following sentiments to a brother bee-keeper:

"I have examined Heddon's hive carefully; I have submitted it to a first-class expert who informs me that the claims are valid, and I have made a trade with Heddon whereby I am to use his patentable features in my hive. I must do this, for Heddon's hive will take; it must take; it is bound to take, and I must keep good with him else my bee business is gone up."

Why didn't you tell your friend that that "trade" was for one year only?

Who were you "befriending" when you wrote the above?

Why do you misrepresent me by saying that I have recently given you credit, which I refused to give before? I have always given you all the credit for invention, which I do now. I can't tell just what hive construction you may be using at any time, when you change so often.

The hive you were swearing by when you made the "trade" with me, was a tumbled-down, iron-rod concern, which I told you would never "take" at that time, and now why don't you admit that I saw what you could not?

Why won't you admit my rights in a manner which will allow of my being your "friend"?

Why do you talk about my laying claim to your new system, when I am claiming nothing but what I published to the world before you claimed anything of the kind, or any system at all?

Why do you say that you first concluded to patent the special manner of adjusting Jones' zinc to Heddon's honey-board, and afterwards gave it to the public, through Gleanings, when the facts are, you first gave it away through Gleanings and after that tried to get a patent on it, not seeming to know that the patent would have been invalid? Gleanings and the U.S. Patent Office show that. It was a copy of Gleanings containing your article which stopped your proceeding in that line at once.

Why do you use such unheard-of terms in connection with patents? You have asserted

that you tried to patent my invention, but unintentionably so, no doubt.

Why do you say that if you have made mistakes in dates I should correct them in my book, which was printed long before you made the mistake? How can I?

Why do you insinuate that other bee-keepers can see only personal interest, when a few years ago you advertised in several bee papers that you would prosecute all who infringed your continuous passage way, invention, when you had no patent at all? Is this what you call "Christian spirit"?

If that is not "sordid gain," what is? The records show this.

Why do you think I am making "light" of your magnanimity, doctor? In the "light" of the foregoing it seems that you are hardly inclined to do a great deal of hard work for nothing, and at the same time board yourself.

JAMES HEDDON, Dowagiac, Mich.

Rapid Increase to Preserve Combs.

G. M. DOOLITTLE.

A CORRESPONDENT writes thus: "I lost four-fifths of my bees last winter and spring. What shall I do to preserve the combs, and how can I increase the few remaining colonies so that they will again take all the combs? Please answer through the American Bee Journal."

As I propose to answer the first question by telling how to do the latter, I will dwell on the first only long enough to say, that if the bees are so reduced that they cannot possibly be multiplied so as to use all the combs left by those which have died, the only thing to do is to fumigate them with burning sulphur every two or three weeks during warm weather, unless you have some moth-proof room, in which you can place them, after fumigating twice—which should have two or three weeks intervening between the times, so as to allow all eggs to hatch.

The hanging of combs two or more inches apart cannot be depended upon, as I have had quite a number of combs destroyed in trying that plan. I am sorry that this question could not have arisen a little earlier, for by the time it comes before the readers it will be rather late; but perhaps it will be in time for those in the extreme North, and those in the South can preserve what they wish of it for another year.

The main question before us, then, is how to increase the few remaining colonies as much and as early as possible. As nothing can be

gained by trying to increase colonies until some of them have their hives full of bees and brood, I advise all to wait until at least one is strong, before trying the plan. When you have such a colony, and desire to proceed, make a box which will hold about six quarts, having two sides covered with wire cloth, one of which is to be removable, so that the bees can be shaken out of the box when desired.

Besides this box you will want a large funnel, such as is used in putting up bees by the pound, a hole being made in the top of the box for the funnel to go into, and some means provided for shutting this hole after the bees are in. In addition to the strong colony, it will be necessary to have one other strong colony, and if any do not have such a one, I should advise the purchase of one, or a pound of bees with a queen.

Having two colonies, such as is referred to, I proceed to the strongest and get a pint of bees which are caused to fill themselves with honey before they are shaken down through the funnel into the box; and it is also very essential that you are sure that you do not get the old queen with these bees. These bees are now placed in a dark, cool place and left for four or more hours, until they are very "hungry" for a queen, when the queen from the weaker colony is given to them, and the bees and queen left in the box until the next morning.

A frame of brood is now taken from the weaker colony and a frame of honey from the stronger, when both are placed in a hive, and the little swarm from the box hived on these combs. The colony from which you took the queen is now allowed to build queen-cells, which should give better queens.

As soon as the first cell is sealed, you are to form another little colony in the same way, and from the same full colony as before, also using the same queen to form it with; when in 48 hours, this first cell which was sealed, should be given to the little colony, using bees each time from the strong one, and the same queen to form each colony with. In 48 hours a cell is given to the second little colony, and thus we keep on forming little colonies as long as we have cells or virgin queens to give them; for if the cells are not all used up when it is time for the first young queen to hatch, all but one (which should be left for that colony) are to be cut out, and placed in a queen nursery, so that we can use virgin queens instead of cells.

If we were successful in getting a good lot of cells, we shall have, at the time the last virgin queen is used, from ten to twelve colonies of bees, into which we now begin to place the

combs we wish to keep the moths from. I forgot to say, that, after making the first little colony, a comb should be placed in the strong colony in place of the frame of honey taken from it; and that for each succeeding colony formed, this comb, now having a few eggs in it, is taken out and another put in its place, while the frame of honey should be taken from those you wish to preserve from the moth.

In putting the frames of comb in the little colonies, I place them beyond the division-board until the queen gets to laying, when, one by one, they are placed in the brood-nest, as the colony gets strong enough so the queen will fill them with eggs. The bees will care for the combs as regards keeping the moth from them, just as well beyond the division-board as they would if no division-board were there.

When the last little colony is made I use nearly three times the bees in making it, and give, when hiving them, two or more frames of hatching brood, so that in a week or so I may again have a fair colony to rear queen-cells from—for, at the expiration of about two weeks the same operation is to be repeated, and eight or ten more colonies formed.

Again, in two or three weeks, or as soon as the original strong colony is in fine condition, more are formed; but as it grows later in the season, a quart or more bees are taken to form the colony, instead of a pint. Finally, as fall draws on, the first formed little colonies, are strong enough to spare bees. At this time I take bees from three or four colonies, thereby getting bees enough to make a good, full colony at once.

By the above plan it is easy to build up a depopulated apiary again, especially if you are willing to feed liberally when honey is not coming in from the fields; and I believe it is far cheaper than to buy bees by the pound, and queens to put with them, as many do.—American Bee Journal.

REQUIRED MORE ROOM.

Bro. Newman announces his removal into larger and more accessible quarters, as below: "Circumstances have made it to our advantage to remove to more commodious quarters, and we may hereafter be found at 199, 201 and 203 East Randolph street—two blocks north and one block east of our former location. This move doubles our floor space—of which we now have over 10,000 square feet. Our former location was in the fifth floor of a building, but we now occupy the third floor of a building near the corner of Fifth avenue and Randolph street. Our friends are always welcome." We wish our cotem every success, and hope that the A.B.J. will find its business increase in proportion to its floor space.

Handling Hives Instead of Frames

BY C. J. H. GRAVENEHORST.

FRIEND ROOT:—I was much delighted in reading *Gleanings* for May 1, p. 388, where I found a letter from Mr. A. F. Brown, and your foot note to it. Yes, you and Mr. B. have undoubtedly hit the point exactly: and never, I think, was a word truer than yours: "Sooner or later bee-keeping has got to resolve itself into the handling of hives more and frames less." You say further: "It may be truthfully said, that old bee-keepers do not spend the time they once did over their bees; and we think it is equally true, that, as our industry progresses, bee-keepers as a class to-day, or in the near future, will not spend the time over their bees they did a few years ago: in other words, they will get a thousand pounds of honey with less labor."

Now, friend R., let me tell you why I rejoice over your words. First, those words came from one whose name is known to bee-keepers all over the world; and because you fully know, I believe, what you are speaking of as an authority in bee-matters. Second, because I have fought for that principle to which you give expression in those words, nearly as long as I have kept bees in movable-comb hives. Descended from a family which was in the bee-business for generations, I kept bees at first just as did my forefathers in the old Luneburgian straw skeps; and, I may say, with no less success than they. Our crop from 60 to 80 colonies, spring count, which were increased, by swarming and driving, to 180 or 240 colonies, was, in the best seasons, from 3900 to 6000 lbs. of honey, and from 50 to 80 lbs. of wax—a yield that is to this day not uncommon among our old-fashioned bee-keepers in North Germany, especially in the province of Hannover! and, what is the main thing, they get it at less cost of labor and time than bee-keepers do to-day with their movable-comb hives.

At the time I became well acquainted with Dzierzon's writings and with himself: I got some Dzierzon and Berlepsch hives, and kept bees in them by way of trial. But I soon found out something by this new method that did not satisfy me in contrast with the old one. In the course of several years I always got more honey and wax in the old-fashioned way, with my old Luneburgian straw skeps than with my accurately constructed and skillfully handled Dzierzon and Berlepsch hives; and last, but not least, with undoubtedly less cost, labor, and time. What was the reason? Not taking into the account that the bees did not do as well in

winter, nor thrive early in the spring in this frame hive, experience soon convinced me that the principal point was, that I could handle my old skeps instead of individual frames, and get a thousand pounds of honey with less labor. Of course, my experience would have prompted me to abandon the movable-comb hive totally had I been blind enough to misunderstand the great advantages of the latter. What was to be done under such circumstances, not to fall out of the frying-pan into the fire? All things considered I thought: How would it be if you combine the great advantages of the Luneburgian straw skep with the superiority of the movable-comb hive? This idea was strengthened by Dzierzon and Berlepsch. Both of them wrote at that time in their works as well as in the *Bienenzeitung* (*Bee Journal*), that, if it were possible to furnish the Luneburgian straw skeps with suitable frames, there would be no better hive than such a one, in regard to wintering bees, rapid increase in the population of colonies in the spring, and, not least, easy manipulation; but the cylindrical shape and the arched top of the old hive would not permit this. All right, I thought; but, why not alter the shape and enlarge the hive to a moderate movable-comb hive? The result of my endeavor was the construction of a hive, of which you will find some pictures in Dadant's Revised Langstroth. It is this: The old Luneburgian skep with the arched top, only larger, and not in the shape of a cylinder; but by means of this it is furnished with 16 movable fixed frames, nearly as large as the Langstroth frames. Although Dzierzon, Berlepsch, and other prominent bee-keepers in Germany acknowledge the great value of this hive, it is adopted, with few exceptions, only by such bee-keepers as have kept bees in the old straw skeps, and therefore they know by experience the great advantages in handling bees by turning the hive over and manipulating the whole hive. On the other hand, this hive has met more vehement opposition than all others. But that is easy to understand. He who has never handled bees in the Luneburgian straw skeps, especially in the rational way, like the bee-keepers of North Germany, can not have the slightest idea of the advantage bees may be handled with in such hives.

The greatest objection to this hive has been the inversion, or turning over, before one can manage the bees. But by doing it in the right way it is not a bit more troublesome than to take off a well filled super from a Dadant hive. If you have those skeps standing on the ground (as is always the case in America), you do not have to lift the whole hive—only to turn it to-

ward you. Let it first rest on the front edge, then on the front side, and at last on the top.

Now, I don't intend to urge any of my brother bee-keepers in America to accept this movable straw hive—no, not in the least. Their honey-market and other circumstances are different from those of Germany in more than one respect; and, besides that, I am fully aware that the hive used in America is the most suitable one for the wants of the American bee-keepers. But as there is nothing perfect in this world of trouble, and progress must take place everywhere, I am convinced that very decided progress will be put forward in that line which has been pointed out by you friend Root, and by Mr. Brown—*handling hives more instead of frames*. How this is to be done in the most suitable way, in your country, will, no doubt, be shown by American bee-keepers without any assistance from other countries. James Heddon has already taken a great step forward; and other steps of importance, to further your idea are, I think, the accession of the fixed Hoffman frames and the movable bottom-board.

After these preliminary words, let me explain in what way you, friend Root, and Mr. Brown have advanced a most valuable idea in the bee-keeping world by advocating the handling of hives instead of frames. You will allow me to describe this by referring to my hive, as I lay great stress thereon. American bee-keepers do not think ill of my hive; but I wish to convince them that it is not the production of the writing-table, but the fruit of careful experience, and such a one as has helped me to raise a crop of honey not surpassed by any other bee-keeper in Germany, unless by one of my disciples.

The handling of the hive, and not touching any of the frames, can be accomplished if the colonies are in a normal condition, as a colony will be if the bee-keeper did his duty at the close of the previous season, and the wintering was good. Of course, there will be exceptions to the rule; but of such I shall speak by and by. As for these colonies, the movable comb and handling of frames is of the greatest benefit. I handle hives: 1. After the first cleansing flight in the spring. I do not have to remove any warming materials, quilts, nor to open a door, as is necessary with side-opening hives. I simply turn my hive over, in the way before mentioned. This gives a most complete view of the interior of the hive, not limited by wide top-bars and thick honey-combs, or one single comb, as is the case with German hives. I see how many spaces between the comb are filled with bees, and how strong the colony is. No one will deny that an exact knowledge of this is of

great importance every time. If the bees come up briskly from a compact cluster below, then I take it for granted the colony is not queenless. Should the bees not sit in a compact cluster, but more scattered between and on the combs, then the colony is most probably queenless. A few puffs from the smoker will drive the bees down. I now let the bright daylight in, and see whether there is brood in the comb or not; and then should I not see what I wish to, I push aside two combs from those in the middle of the cluster, and take them out of the hive to look after the queen or eggs. In the same way I find out how it is with the provisions, providing lifting the hive and weighing it in my hands has not told me what I wished to know. Finding all is right, as a good normal colony always will be, the whole task is done without handling any frames. In less than a minute the hive stands again in its old position—no replacing of a quilt or warming materials, nor a window; no loss of heat from the brood-nest, no tearing up of the nicely glued cover to cause a draft of air from the entrance through the cluster of the bees to the top of the hive. If not prevented by loss of time, there is no disturbing the bees by handling frames. To let the bees alone till a time of mild weather would not be judicious. The sooner I know the wants of a colony, the sooner I can help. I do not need more than three hours on the day following a cleansing flight, to know the minute conditions of hundreds and more of my colonies; besides having swept with a brush the dead bees and the cappings of the honey-cells from the floor board, saving more than four pounds of wax from a hundred colonies in this way. All colonies that need my further attention (and these are always a considerable part) get one, two, or three sticks on the front side, according as the brood-chamber is to be contracted, queenlessness is suspected, or stores are supplied. In these colonies, as exceptions to the rule, I do not avoid handling the frames; on the contrary, in such case it is a benefit to help them by means of the movable combs.

I handle only the hives, to know whether a colony is on the swarming-point, or fit to swarm artificially. No one will deny that it is of great importance to know this. I simply turn the hive over, giving a few whiffs of smoke; and now, as the true workplace of the colony lies open before me, I see whether queen-cells are started, whether there are eggs in them or larvae, or on the point of being capped over, or have reached maturity.

All my hives have a space of from two to three inches beneath the small bottom-bars of

the frames, as such a space secures a good wintering, and shows me whether a colony is ripe for artificial swarming, or whether I have to extract honey. As soon as I see, by simply turning over, that the bees begin to start combs beneath the bottom-bars, I know for certain that the colony is ripe for artificial swarming, or that I have to take out some capped honey-frames, and insert other full combs to be again filled with honey. You see, friend R., the chief point in most cases is to learn the true condition of the colonies, without handling frames, covers, quilts, doors, etc.

TO CONTROL COMB-BUILDING SWARMS.

Whether I have given only starters or full foundation, I must always strive to secure perfect combs. Without such combs, the movable-comb hive is nonsense, and more objectionable than an old skep or box hive. All my thousands of combs in frames are perfect—not crooked in any way, nor do they show any drone-cells where I did not allow them to be built. Therefore I have no more drones in my hives than I wish. A drone-trap is for me a useless thing, and not to be seen in my apiary.

To avoid faulty combs, one must have the easiest control of the comb-building swarms; and that is to be accomplished in the most complete way by turning the hive over. Then one has a view of the actual workhouse of the bees. Here is performed comb-building; and there is to be seen the busy life of the colony; here are hanging the wax-secreting and comb-building bees. A little smoke, and one sees the new combs built on the starters, or the finishing of the foundation. In most cases I remove the beginnings of drone-combs, and also regulate crooked combs by a so-called drone-knife—a hooked knife with a long handle. Of course, in some cases the drone-knife will not do all that is to be done to secure perfect combs; but then, one may handle one or two frames to do the rest. If I have before me a normal colony, or such a one as has worked according to my wishes, I need not handle a single frame. An inversion of the hive, a few puffs of smoke, a peep at the combs, an inversion of the hive to its normal position, and the work is done in less than a minute.

Now, friend Root, I could point out to you far more advantages in handling hives instead of frames; but it may be enough to show of what great importance your and Mr. Brown's suggestions are for the advancement of bee-keeping. As I have said before, I am of the opinion that American bee-keepers will themselves soon find out in what way this is to be carried out

with their unsurpassed Langstroth hive; and I should be very glad to learn from them how they in future handle their hives instead of frames.—Gleanings.

Wilsnack, Germany.

After reading the above, we could not help but reproduce it, as it brought so vividly to our minds our esteemed friend Gravenhorst. I almost fancied I was walking around with him in his apiary, watching him turn up his hives and handle them easily and smoothly. His hives were extraordinarily well made, being built of straw, very tightly and neatly pressed together, about three inches in thickness. The arched top of the hive enables the bees as they cluster tightly together to draw up very compactly among the hives. He certainly has an excellent hive for wintering. With a suitable frame or bench, as he kept them on, about two feet above ground, the hives can be tipped over very readily, and the rounding top allows one to turn it up almost as easily as taking off a lid. Some may wonder how the top frame is held in place. This is done by nails the proper distance apart or bent wire which holds the frame at the top, and another wire nail is pushed through the hole in the projecting bottom into the side of the hive. Each frame is firmly held and correctly spaced, and so perfectly are all the frames adjusted, that there is no sticking them with propolis, in fact, he would remove and replace them after the hive was turned up, as quickly as we would the ordinary frames. We believe he did not take much comb honey, his crop being principally extracted. Our pleasant and instructive visit to Gravenhorst will ever form one of the happy recollections of our lives.

Discovery of the Cause of Foul-Brood'

BY WM. M'EVY



My first experience with foul-brood was in the Spring and Summer of 1875. In April of that year one of my colonies swarmed out, and about two-thirds of the bees got into another colony before I got the hive closed. I then put the remainder of the swarm and its queen back into the hive they came from.

Then, about sundown, when the bees had settled for the day, I examined the colony, and found plenty of both brood and honey, but a

very small cluster of bees—too small to cover or care for all the brood—and if the bees that got into the other colony had been in the hive there would not have been any more than enough bees to cover and care well for all of the brood.

In 1881 I wrote up my discovery and cure of foul brood and mailed it to *Gleanings*, but it was not published.

In January, 1884, I wrote up the cause and cure of foul-brood for the *Canadian Stock Raisers' Journal*, where it was printed

I thought I was all alone in the world on the cause of foul-brood, and never read or heard of Mr. C. J. Robinson or any other ever having discovered the cause of foul-brood until I read his letter in the *American Bee Journal* of Nov. 1, 1890. I will use that letter where ever I go to prove that I am in the right on the cause of foul-brood.

I never scalded or boiled, or advised any bee-keeper to scald or boil, any hive that foul-brood had been in. It is what is fed to the brood that causes foul-brood, and not the empty hive. My experience is that the empty hive never—no never—gave the disease to any colony of bees.

I have found the disease in 19 counties and 3 cities in Ontario. In all about 600 colonies had foul-brood, and I burned 10 colonies out of the 600, and those 10 would not have burned, but the owners would not do anything but sell the diseased colonies to ruin some one else, so I had to burn them according to law. I have been in the bee-business 26 years. It is my only business, and has been for many years.

I never saw a copy of the *Kansas Bee-Keeper*, and only saw a few copies of the *Bee-Keepers' Exchange* just after it started, and never saw or heard of Mr. Robinson's discovery until I read it in the *American Bee Journal* of Nov. 1, 1890. I would not do such a small thing as even try to claim another man's discovery. I discovered the cause in 1875, but I do not care to take any credit for the discovery. It was not for the sake of claiming to be the original discoverer of the cause that I wrote what I did in the *Official Bulletin*. I wrote that in the bulletin to show the bee-keepers that foul-brood was caused by the rotting of uncarried-for brood, and that that was the whole, sole, real, and only cause of foul-brood.—*American Bee Journal*.

Woodburn, Ont.

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.

Dots on Queens.

BY G. M. DOOLITTLE.

A CORRESPONDENT says that he has a few Italian queens which have dots on them, like what we used to see pictured out some years ago, while the most of his queens do not have these dots. He wishes to know whether these dots are a sign of their purity; and if not what they do denote. I do not know that I am competent to tell just what they denote; but of one thing I feel quite certain, and that is, that they do not denote parity. On the contrary, I should sooner think that they denoted impurity, for I never had a queen which showed these dots that was a good breeder as to the color of her queen progeny. If a mixed race is desired, then such queens are as good as any; but if it is desirable that a queen should duplicate herself in her queen progeny, or come anywhere near it, then such queens would have to be discarded. That we may have hybrids of the best class, it is necessary that the breeding queen should be of good Italian blood, else we can not have good hybrids. Some seem to think that good hybrids can be obtained by breeding from hybrid mothers; but so far as my experience goes along this line, the best hybrids come from the first cross between the Italians and the blacks, or *vice versa*; hence we wish a good queen, as nearly pure as possible, for our breeding mother. Where queens have many of these black dots on them, they are likely to breed queens with black stripes, which, with the Italian bee, so far as my experience goes, always denotes quite a large amount of black blood. Again, the purity of a queen can not be told by her looks. Her progeny is what tells. Of course, if the queen is of equal value otherwise, a good-looking queen is to be preferred.

INTRODUCING VIRGIN QUEENS.

Another correspondent wishes to know how I introduce virgin queens which come to me through the mails. Well, I do not *always* do it; yet when I have suitable notice of time of shipment, so that I can prepare for them, I am nearly always successful. Young virgin queens, just hatched, can be introduced much more surely than those which are from two to six days old, as are those which come from abroad. I had an order not long ago for a dozen virgin queens; and after sending half of them, I was requested not to send more, as all had been lost so far; and this was from one of our most noted queen-breeders. Not long ago I saw, in the CANADIAN BEE JOURNAL, something from

friend Jones, on this subject, in which he said that all should know how to introduce virgin queens, or something to that effect; but after reading carefully all that was said on the subject, I failed to find how to do it explained. There are two ways to do this with oldish virgin queens, and *only* two ways, that I know of. The first (and, as I consider it, the best plan) is, to make a colony queenless for from four to nine days before the introduction is tried, then drop the virgin queen in honey, looking out that she does not fly away in getting her into the honey, after which she is to be rolled in the same, and, with a teaspoon, dipped up and turned down between two frames from the top of the hive. If the colony or nucleus has been queenless long enough to have sealed queen-cells, not one in ten will be killed, providing said colony does not desire to swarm, no matter whether the queen-cells in the hive are destroyed by the apiarist or not. In fact, as a rule I prefer not to destroy these cells, for the bees seem to rather let the virgin queen do it. If they have a desire to swarm, the virgin queen will generally be killed in spite of all precautions.

The other plan is to take all the combs out of the hive where you wish to put the virgin, placing the queen in a cage having Good candy in one end of it, to an amount sufficient to take from 12 to 20 hours for the bees to eat through to her. By this time they know that this queen is their only hope, so will accept her, but the combs and brood must be kept out of the hive till she becomes fertile; for if put back sooner, the bees will often kill her and raise another from their brood; and they will often kill her if only combs having no brood are placed in the hive within 48 hours after the bees have liberated her. I consider the introduction of virgin queens as impractical, only as we wish to do it as a means of changing "blood." If Bro. Jones makes it practical, will he please tell us in detail just how he does it?

USING OLD COMB FOUNDATION.

"A year ago I put some foundation in both brood-frames and section boxes. Will it answer to use the same this year?" is a question asked by another correspondent. Well, now, I should like to say to every one who has a similar question to ask on any subject, you can tell just as well as any one; and all you have to do is to try and see. I have hundreds of questions asked me which I answer by saying, "Try it, and that will tell you." Anything which you can try and prove for yourself, just as well as not, with little or no cost, don't run off to some one else with; for after you have tried it you will have a knowledge regarding it which will

be of more value than a dozen answers to the same question. In trying these things always do it on a small scale; then if it is a failure, little harm will result; and if a success, you have plenty of time to try again more largely. Then if it pleases you, use the whole apiary in the same way if you desire, with no fear of a heavy loss.—Gleanings.

Borodino, N. Y., July, 1891.

In reply to friend Doolittle's request, to state how to introduce virgin queens, we would say:—We are in the habit of keeping young queens in queen nurseries, until they are from one to six days old, but usually try to use them, when they are from three to five days old. We have kept them much longer and used them very successfully. Any queen nursery or caging system that protects the queens from destruction, in a hive, would answer the purpose. We have sometimes taken from our strong colonies nuclei and just as orders came in from day to day, any number of queens to fill these orders. Sometimes we have taken over 20 queens out during the day, and marked the hive thus queenless. Then in the evening, about sun-down, or later, we would go to our nurseries and select the number of queens we required to re-queen the queenless colonies. Then just as it was growing dusk, we would lift the lid carefully off the hive, in fact, would sometimes go round and take off all the lids, and set them down by the side of the hive. Then with a pocket full of queens, in the little cages, we would go from hive to hive, raise up the corner of the quilt, and if the bees did not offer to come out, would not use any smoke, but if they offered to come up, we would blow in a little smoke, so gently that there would be no excitement. Then we raise the quilt just enough to see, and let the queen crawl in, by taking her by the wings and poking her head in under the quilt. Sometimes, if we fancied we had disturbed the bees in any way putting on the lid, we would blow smoke in at the entrance. We remember on one occasion, the foreman of our apiary, introduced between 25 and 30 queens, and on looking through the hives afterwards, found that every one had been accepted. A queen just hatched, may be put into a queenless colony during

the day, in this way, but if they have been hatched long, it is better to leave it until evening, and if it is so nearly dusk that the bees are not inclined to fly out at all, so much the better. Where the colony is very strong, and between every comb packed with bees, we just let the queen run right in among the bees, but if there is a place which the bees do not occupy, we have allowed them to run in there, and crawl gradually over the cluster, after the quilt was down. The nearer dark the operation was performed, the more successfully it was. In first testing this matter, there were some queens lost, but after a while we came to the conclusion that if the condition of the colony was thoroughly understood, and the work properly done, that none, or very few, losses would occur. Not being present on all occasions, while these experiments were going on, we have written the party who was then engaged in the work, and to whom the credit is largely due for making it a success, to give us any further particulars and points that he thinks may be of interest. We see no reason, why all queens, either fertile or unfertile might not be introduced in this way. We slipped in 6 the other evening, after it got dusk, and do not think we were any more than 4 or 5 minutes introducing the six, that is after we had taken them from the nursery. We were so certain that they were all right, that we never bothered looking at them for 4 or 5 days, and they were doing nicely when examined.

CAPPINGS.

CUT FROM A VARIETY OF COMBS

A Young Queen.

IN a very kind private letter from our esteemed friend, Chalmers, of Poole, we find the following:—

"P. S.—A little queen arrived at our house, last Friday morning, at 3 o'clock. She is doing very nicely, as is also the mother."

Mr. and Mrs. Chalmers will accept our congratulations, and trust that it may not be the last of the kind. This is not the kind of queens we raise in our apiary.

DOOLITTLE CUPS.—CHAPMAN HONEY PLANT, ETC.

Prof. Cook in *Gleanings* discourses on various little matters as follows:—

Please ask Dr. Miller to wait a little before he comes to take lessons on the rearing of queens in the Doolittle cups. Our last gives eighteen good capped cells and eight destroyed. In some cases all, or nearly all, were destroyed. Our students are now trying the Doolittle method. They have some success.

The Chapman honey plant is a fraud. Our plants, self-sown two years ago, are weak and of little account. We have two fine fields of rape and three of sweet clover. Our Rooky Mountain bee-plant has failed again. This plant will never pay to plant except to throw about in waste places. This should be done in August or September to secure the best results.

I am not a chemist, but have no doubt that beeswax can be distinguished from either ceresin or paraffine. Not only is the composition somewhat different, but the texture and strength are not the same. We shall soon have these matters (purity of honey and wax) worked out by our Experiment Station. We are only getting a good ready. I wish some Wisconsin bee-keeper or other would furnish me some basswood honey, say two pounds, where the honey was gathered very rapidly—say 15 or 10 pounds per colony in a day. I have special use for it.

Our reversible frames are not working well. The bees are filling in on the sides below with honey. They never did this before. "One swallow does not make a summer."

The honey-dew is coming from several trees. Lice are very common, and the secretion equally so. Bee-Keepers must look out.

I should expect no harm from eating poisonous animals like centipedes. Even the venom of the rattlesnake or copperhead is harmless if taken into the stomach, though deadly if injected directly into the blood.

We, too, are among the fortunate ones, for Rambler is spending the Fourth with us. As he comes from so many bee-keepers, it is like a visit from the whole fraternity.

A. J. COOK.

Agricultural College, Mich., July 4.

In every rich soil the Chapman plant produces honey in moderate quantities, but unless the ground is rich the yield seems to be poor. Although we have saved a large quantity of seed, we have quit sowing it; but if we were living in a locality where there was plenty of wild land, we think it might do to raise some, as it is very hardy. To raise it on valuable land exclusively for honey is certainly a fraud.

A NEW TOP BAR.

C. C. Miller in *Gleanings* writes:

"Thick top-bars for me, if for no other reason than to keep them straight. I used to say that my top-bars didn't sag, but that was because I didn't look close, and didn't realize how exacting the bees are about spacing."

Well, friend Miller, while you are talking about thick top-bars, we have one before us which is both thick and thin. The top bar is $\frac{3}{8}$ inches thick, cut out of one straight piece of wood. There are two pieces $\frac{7}{8}$ in. square nailed on the proper distance from each end. These pieces are nailed in with the grain of the wood, running the same as the top bar and endways. Then there is another $\frac{1}{2}$ inch piece nailed on cross-ways in the centre, and another piece $\frac{7}{8}$ in. wide by $\frac{1}{4}$ in. thick by the length of the under side of the top-bar nailed on to that, which forms a top-bar over $\frac{3}{4}$ of an inch deep, solid at each end same as any top-bar, solid in the middle also, with a crack each side of the centre cross-piece $\frac{1}{2}$ inch deep between the top and bottom bars. This our friend claims gives a bee passage under the top-bar and over the combs, and perhaps it may have something to do with preventing burr or brace combs. The bottom bar is split in two in the centre, one half is nailed on solid while the other half is tacked on lightly, so that it may be removed and the comb foundation put in, pressed down and then nailed on. This is a little more trouble to make than the ordinary top-bar, but it has the advantage of a bee space over the combs when the quilt is down or the cover fits tightly, preventing the escape of heat. The above frame was sent us by Mr. D. A. Bartels Fellows.

Replies to Queries.

The following answers to queries 297 to 300 by friend Pringle by some means went astray and did not reach us in time for insertion with the others. By turning up back numbers the reader will be able to connect these answers to the queries numbered.

QUERY No. 297.—Certainly it would increase the mortality if it resulted in starving the bees. My general practice has been for many years to crowd the frames up to one bee space and leave them that way till the next spring or not leave them according to circumstances. They will winter all right that way provided the other conditions are favorable. In such case there must be a passageway over the frames in winter. Then if the temperature of your repository is as high as 40° and there are plenty of stores the close proximity of the frames will do no harm. When bees, however, are wintered in a low temperature the frames should be well apart and well filled with honey in the tops.

QUERY No. 298.—No doubt partly owing to the mild winters of late, but each bee-keeper must decide which is best under his own circumstances. The bee-keepers of the Niagara peninsula of Ontario seem to be growing more in favor of outside wintering, while those of the East here are, I fancy, of about the same mind still. I have tried both ways, and can winter either outside or in; but on the whole, I am in favor of the in. However, they are better outside well prepared than inside poorly fixed.

QUERY No. 299.—I should think you would stand a better chance to get "the same quantity in each section" by using the 1½.

QUERY No. 300.—Yes, I do think so. My sheets of section foundation are "gradually diminishing and growing beautifully less" from year to year. By using full sheets of section foundation you can get comb honey first rate in outward form and appearance, but not first rate in quality. As quality must come in a little ahead of every other consideration, whatever deteriorates it must ultimately go in producing a number one article.

THE CANADIAN BEE JOURNAL

ISSUED 1ST AND 15TH OF EACH MONTH.

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

BRETON, ONTARIO, AUGUST 1st, 1891.

Bee escapes, escape the attention of very few now.

Brood and section comb foundation is 5 cts. a lb lower, on account of the price of wax declining 5 cts. a lb.

Foul brood appears to be getting much scarcer in Canada. Thanks to Government support in exterminating it.

Why does not the Dominion Government add Apiculture to their Agriculture College and experimental Farm?

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Doolittle cup.....	100
From Fenlon falls.....	100
Getting bees to work in the sections.....	100
Handling hives instead of frames.....	100
New top bar, a.....	100
Rapid Increase to preserve combs.....	100
Replies to queries.....	100
Why oh why.....	100

ADVERTISEMENTS.

BEEES

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.

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

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.

MISMATED QUEENS—As I am making preparations for extensive queen-rearing next season, and only wish to keep over selected stock, I will sell beautiful Italian queens of this year's rearing, but mismated, for 50 cents each. G. A. DEADMAN, Druggist, & C, Brussels, Ont.

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. WM. SNELGROVE, Woodstock, Ont.

A REVOLUTION.

Bare crops of honey and no weak or dysenteric hives.

PUNIC BEES (APIS NIGER.)

The coming bee, bred by A. Hallamshire Bee keeper. For particulars of this wonderful race see C. B. J. for March 15th, page 457. Virgins \$1, fertile (untested) \$5, tested \$25 each, free by mail. Guaranteed against loss in delivery, introduction, or winter dysentery. Imported, if to spare \$80 each. Money returned to every dissatisfied party buying the \$5 or \$25 ones. Address

JOHN HEWITT & CO.,
SHEFFIELD, ENGLAND.

SECOND HAND HIVES!

ABOUT FIVE HUNDRED COMBINATION AND JONES HIVES

that have been used one or two seasons. All have been painted and are in good shape, ready for use. We will sell the entire lot

AT HALF PRICE

—in large or small quantities.—

D. A. JONES, CO., - BEETON.

Special Notice.

ON account of increase in our business we have taken another brother into partnership with us. On this account the business will be carried on under the name of Myers Bros. instead of J. & R. 't. Myers.

We have a few more price lists left which we will send to any one on application.

We pay 33 cents cash or 35 cents trade for Beeswax delivered here.

MYERS BROS.,

MENTION THIS JOURNAL

Box 94, Stratford, Ont.

White Wyandottes Exclusively

MATINGS:

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

PEN No. 2—Headed by the **First Prize Cockerel** at the "International," score 98. Mated to hens that have proved themselves good breeders.

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

J. F. DUNN,
RIDGWAY, ONT.

Poultry Netting & Fencing.

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

24 in.	30 in.	19 GAUGE.	36 in.	48 in.	72 in.
\$3 10	4 00		4 85	6 00	9 50

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

Less than full roll lots the price will be 1½c sq ft

D. H. JONES, CO., BEETON,



ROBERT BLOYE,
TODMORDEN, ONT.

WHITE WYANDOTTES
Exclusively.

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

WHITE PLYMOUTH ROCKS (EMPIRE STRAIN),

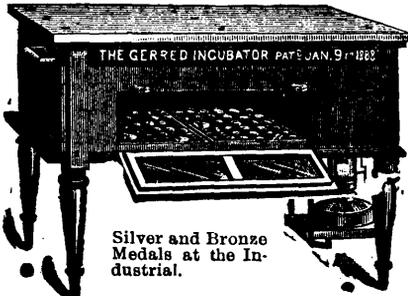
Cheap. A large number of Chicks of both varieties for sale now.

EGGS IN SEASON, \$2 PER 13.

I CURE FITS! THOUSANDS OF BOTTLES GIVEN AWAY YEARLY.

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

ADVERTISEMENTS.



Silver and Bronze Medals at the Industrial.

Address E. J. OTTER, Manager, Gerred Incubator Co., 90 De Grassi street, Toronto.

All sizes, 50, 100 and 200 egg machines. Send for descriptive circular. MENTION THIS JOURNAL.

EGGS, \$1.00 for 13.

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

I make a speciality of turning eggs in large quantities for incubators at reduced rates. Send for catalogue.

E. H. MOORE, Melrose, Mass.

MENTION THIS JOURNAL.

CLAMPS FOR SPRING PACKING.

All practical Beekeepers concur in the opinion that bees wintered in the cellar, should be packed on their own stands in spring, to keep them in the best condition. We are making a light clamp specially designed for this purpose.

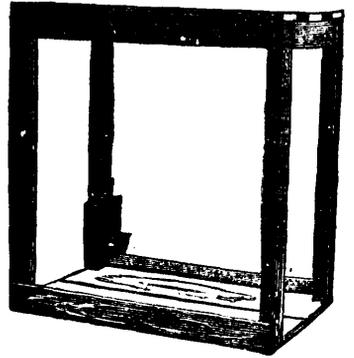
This clamp consists of a bottom board of 3 in. lumber to cross pieces 7/8 x 3 in. to set hive on to allow of packing under; the four wall and a bevelled rim to cover the packing above, arranged so as to allow of using the ordinary lid of hive for cover. To be used with 4 inches of sawdust or chaff, and will be in sizes to suit the Jones Combination or Langstroth hives, at the following figures:—

Each	5	10	25	100
	75	70	67	63
				60

They will be shipped in panels, ready to nail together.

D. A. JONES CO. LD.

BEEON, ONT.



SHIPPING - COOPS

For Exhibition and Sale Purposes.

Save money in express charges by buying light, well made coops—weigh only 5 1/2 lbs.

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

PRICES MADE UP.

	Each	10	25	100
Skeletons, only,	30c.	\$2.75	\$6.2	\$22.00
With Canvas,	40c.	3.75	8.50	30.00

PRICE IN FLAT.

	50c.	2.50	5.80	18.00
Skeletons, only,				
Name and address printed on canvas 5c. each extra.				
				\$3.00 per 100.

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

OTHER SIZES.

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

DRINKING FOUNTAINS.

For shipping and exhibition coops, to hold one pint water. Price,	Each	10	25	100
	15c.	\$1.40	\$6.25	\$19.00

The water cannot stop out or become dirty.

Larger sizes made to order. Ask for Prices.

The D. A. JONES CO. LD.

BEEON ONT.

HONEY GLASSES.

"BOUND TO Go."

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

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

DOGS AND COMB FOUNDATION.

Brood Foundation, 50 cts. per lb.

Section Foundation, 60cts. per lb.

L. JONES,

DEXTER P. O., ELGIN COUNTY, ONT.

ADVERTISEMENTS.

Prices to suit the Times

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

WM. MOORE,

MENTION THIS JOURNAL Box 462 LONDON, ONT

LOOK HERE!

Dunville P. P. Stock

3rd Exhibition

1st and 2nd on S. C. B. Cock. These birds are for sale. 3rd on S. C. B. Hen, 96; 1st on Blk Minorca Pullet, 04. 1st on S. C. P. Leghorn, H. P.; 1st on Blk Minorca B. 1st on Pekin Duck, 1st on Pekin Drake, drake for sale. A 1 birds for sale now.

C. H. McRae

Park Poultry Yards, Dunville.

BE SURE AND GET GOULD & CO'S

-PRICE LIST OF-

HIVES, EXTRACTORS, FOUNDATION, &c., before ordering elsewhere. Address E. L. GOULD & Co., Brantford, Ont.

LOOK HERE!! SMOKERS.

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

1000 Honey Knives of various kinds. Extra discount to dealers. Write for particulars.

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

IT'S OUT NOW

"ADVANCED BEE-CULTURE," a book of 88 pages, is now out. It begins with "The Care of Bees in Winter," and clearly and concisely goes over the ground, giving what its author believes to be the best methods, until the bees are again prepared for winter. Price, 50 cts. THE REVIEW and this book for \$1.25. If you are not acquainted with the "REVIEW," send for samples.

W. Z. HUTCHINSON, Flint, Mich

+ P. H. HAMILTON, +
HAMILTON, - ONT.,
Breeder of

White and Black Leghorns,

—AND—

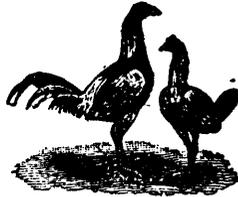
IMPERIAL - PEKIN - DUCKS.

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

GAME

Bantam Fanciers

NEW FANCIERS.



Eight Black Red Cockerels—grand ones, guaranteed Bred from a Crystal Palace cup winner. Sure to please you; from \$2 to \$5 each. Some Fine Brown-Reds at \$4 to \$5 per pair; also a good Pile Bantam Cockerel, (yellow legged), bred from a great English winner, fine station, color, etc. Price only \$3; these are sold on account of having too many birds; also large Game fowls. All are in fine health and condition. First money gets the best. E. F. DOTY, 47 Wellington Place, Toronto

The Bee World

A Journal devoted to collecting the latest Apicultural News, Discoveries and Inventions throughout the world, containing as it were the cream of apian literature, valuable alike to amateur and veteran. If you want to keep posted you cannot afford to do without it. SUBSCRIBE NOW. It is a 20-page monthly only 50 cents per year. Stamps taken in one or two cent denomination.

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—BREEDER OF—

S. C. White Leghorns,

S. L Wyandottes,

Black Langshans.

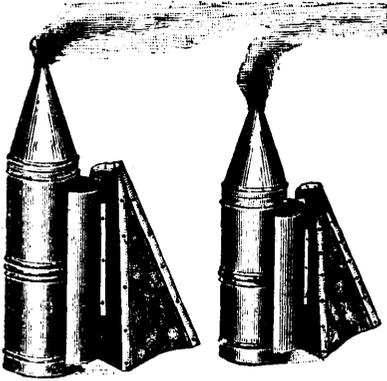
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ADVERTISEMENTS.

SMOKERS !

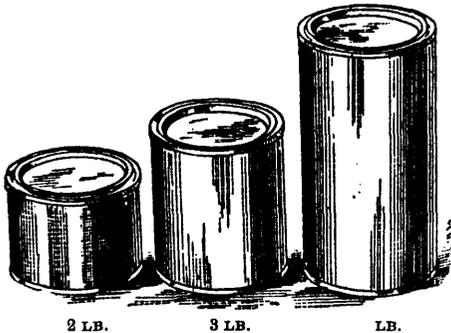
CUT IN PRICE



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

HONEY TINS.

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



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

THE D. A. JONES CO.
BEETON ONT.

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—FOR THE—

Beekeeper and Poultryman

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

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- Bee-Houses And How to Build Them 18
- Wintering, And Preparations Therefor 15
- Bee-Keepers' Dictionary, containing the proper definition of the special terms used in Bee-Keeping..... 25

The undermentioned books are supplied direct from the office of publication, postpaid, at the prices named.

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- Burnham's New Poultry Book..... 1 50
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- Felch's Poultry Culture..... 1 50
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