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THE CANADIAN BEE JOURNAL

POULTRY WEEKLY.

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

VOL. V. No. 8 BEETON, ONT., MAY 15, 1889. WHOLE No. 216

THE CANADIAN BEE JOURNAL & POULTRY WEEKLY.

ONE DOLLAR PER ANNUM IN ADVANCE.

ADVERTISING RATES.

All advertisements will be inserted at the following rates

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.

STANDING ADVERTISEMENTS.

	3 MOS.	6 MOS.	12 MOS.
6 lines and under.....	2.50	4.00	6.00
One inch.....	\$4.0	\$8.00	\$10.00
Two inches.....	5.50	9.00	15.00
Three inches.....	7.00	12.00	19.00
Four inches.....	9.00	15.00	25.00
Six inches.....	12.00	19.00	30.00
Eight inches—1 Col.....	15.00	25.00	40.00
Sixteen inches—1 page....	25.00	40.00	75.00

STRICTLY CASH IN ADVANCE

Contract advertisements may be changed to suit the seasons. Transient advertisements inserted till for bid and charged accordingly.

EXCHANGE & 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 they will be inserted in our regular advertising columns. This column is specially intended for those who have bees, poultry, eggs, or other goods for exchange for something else and for the purpose of advertising bees, honey, poultry, etc., for sale. Cash must accompany advt.

BREEDERS' DIRECTORY

\$1.00, one line; \$1.50, two lines; \$2.00, three lines per annum.

THE D. A. JONES CO., LD., BEETON,

PUBLISHERS' NOTES.

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

The CANADIAN BEE 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.

We can supply Binders for the JOURNAL 53 cents each, post paid, with name printed on the back in Gold letters.

Subscription Price, \$1.00 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, \$1.00.

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 Beekeeping fraternity are always welcome, and are solicited.

Beginners will find our Query Department of much value. All questions will be answered by thorough practical men. Questions solicited.

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

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

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

CLUBBING RATES

THE CANADIAN BEE JOURNAL & POULTRY WEEKLY,	
AND "Gleanings," semi-monthly.....	\$1.75
" " "American Bee Journal," weekly.....	1.75
" " "American Apiculturist," monthly.....	1.75
" " "Bee-Keeper's Guide," monthly.....	1.40
" " "The Bee-Hive".....	1.25
" " "Beekeepers' Review".....	1.40
" " "Beekeepers' Advance".....	1.25
" " "Queen-Breeders' Journal".....	1.35

BEES FOR SALE.

One full colony of pure Italians \$5 each. Ten colonies \$4.75 each, twenty or more colonies \$4.50 each. Tested Italian queens with enough bees to hatch one comb of sealed brood, sent by express before June, \$2.50 each for five queens \$2.25 each; for ten queens \$2 each. All r June 1st ten per cent. off for queens. Safe arrival guaranteed, and references given when wanted.

Address JULIUS HOFFMAN,
Canajoharie, N. Y.

CARNIOLAN QUEENS A SPECIALTY.

Largest and Purest Carniolan Apiary in America. Send for descriptive circular and price list

Address, ANDREWS & LOOKHART,
Pattens Mills, Washington Co., N.Y.

BEES - BEES

YES, all the Bees you want by the pound Will be able to ship by May 5th to 10th if weather keeps fine. All kinds of Bee Supplies at rock bottom prices. Send for Price List for 1889.

R. E. SMITH,
Box 72, Tilbury Centre.

BEES FOR SALE.

BEST IS CHEAPEST.

I HAVE a few colonies of my improved Italian bees for sale at ten dollars per colony, also a few colonies of Hybrids and ordinary pure Italians at from \$5 to \$7 per colony. Send 10c for a sample of my best bees and be convinced that they are the best in Canada.

Address LEWIS JONES,
DEXTER P. O., ONT.

IMPORTED QUEENS.

In May and June, each	\$2 00
In July and August, each	1 80
In September and October, each	1 40

Money must be sent in advance. No guarantee on shipments by mail. Queens sent by express (eight at least), which die in transit will be replaced if returned in a letter

CHAS. BIANCONCINI, Bologna, Italy.

WHO WANTS BEES.

100 COLONIES for sale or exchange for anything I can use. All kinds of bee supplies for sale also queens for sale in season.

JAMES ARMSTRONG,
CHEAPSIDE, ONT.

FOR SALE.

OUTFITS for making Two-Ounce Shaving Sections, consisting of one Form and a Sample Frame of 20 sections made up, ready to lift off the form; also enough veneer to make 1,000 Sections. All packed and delivered at the Express Office, for \$2.50.

Address W. HARRIS,
411 Eighth St., MANISTEE, MICH.

In responding to this advt. mention the C. B. J.

BEE SUPPLIES.

Single and double-walled Hives, Frames, sections, etc., at lowest prices. Quality and workmanship of the best. Send for price list to

W. A. OHRYSLER, Chatham, Ont., (Box 450).

BROTHER BEE-KEEPERS

IF you wish any supplies for Fdn. made, please drop me a card before you ship, as I am not certain that I can get it out for you. Only brood fdn. made this season: A few Hives, Supers, Brood Frames, and Bees for sale. "Empire State" Potatoes for sale.

WILL ELLIS,
St. David's, Ont.

A CHOICE

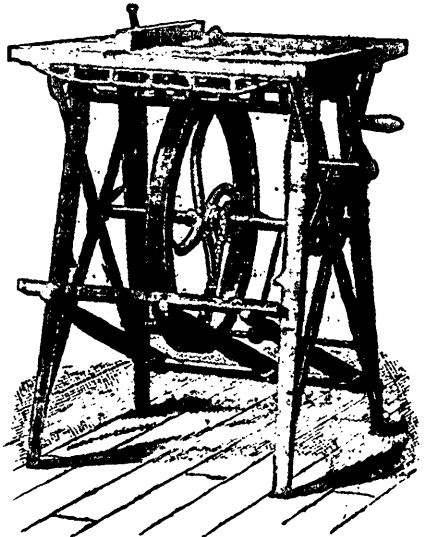
TESTED QUEEN

For \$1 For further particulars, see the BEE KEEPERS' REVIEW for May. This number discusses "The Management and Control of Increase." It will be sent free and with it will be sent the May and July numbers for 1889. Price of the REVIEW 50c a year; back No.'s furnished. "The Production of Comb Honey" is a neat little book of 45 pages. Price 25c. This and the REVIEW one year for 65 cents. The book and the REVIEW two years for \$1. Stamps taken, either U. S. and Canadian.

W. Z. HUTCHINSON,

613 Wood Street, Flint, Mich.

Barnes Foot Power Machinery.



See advertisement, on another page. We have just arranged for the sale of these machines, and we can quote a price F.O.B. cars at Toronto (duty and freight add thereto). On application we will forward catalogue and pricelist free.

THE D. A. JONES Co., Ltd
Boston Ont

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PRICES CURRENT

BEESWAX

Boston, May 8, 1889,
 We pay 330 in trade for good pure Beeswax, delivered at Boston, at this date, sediment, (if any), deducted. American customers must remember that there is a duty of 25 per cent. on Wax coming into Canada.

FOUNDATION

Brood Foundation, out to any size per pound	300
over 50 lbs.	290
Section " in sheets per pound	350
Section Foundation out to 10x14 and 12x14, per lb.	600
Brood Foundation, starters, being wide enough for Frames but only three to ten inches deep	450

A BIG OFFER

BY

The-Beekeepers' Advance.

A. T. COOK'S

SPECIAL INTRODUCTION BOX OF SEEDS,

FOR THE

Family Garden.

The following is a list of the seeds:—Beet, Cabbage, Carrot, mixed, Sweet Corn, Celery, mixed, Cucumber, Garden-dock, Musk-Melon, Water-melon, Parsnip, Pumpkin, Pop Corn, Tomato, three varieties, Radish, Spinach, Squash, Rutabaga, Sunflower, Amaranthus, Agrostemma, Petunia, Sweet William, Mixed Flowers, over 200 varieties. In all there are 25 packets, besides "extras," amounting at regular catalogue rates to \$1.75. We have made arrangements with A. T. Cook, the seedsman so that to every one who will send us \$1.00 we will mail this box of seeds and the "Advance" for one year. The seeds alone, 75c. Address

THE ADVANCE,

Mechanic Falls, Maine.

WANTED

GOOD, reliable men can find permanent employment for Maple Grove Nurseries of Waterloo, N. Y. Good SALARY and expenses paid weekly. Liberal inducements to beginners. Outfit free. Previous experience not required. Established over 20 years. All goods first-class. Write at once for terms. Address J. W. MACKAY, Gen. Manager, St. Thomas, Ont. (Mention this paper.) 51-12

Muth's Honey Extractor.

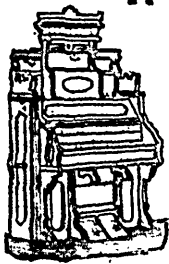
Perfection Cold-Blast Smokers, Square Glass Honey jars, etc. Send ten cents for "Practical Hints to Bee Keepers." For circulars apply

CHAS. F. MUTH & SON.

Cor. Freeman & Central Avenues, Cincinnati

JAPANESE BUCKWHEAT.

Per Bushel, \$2.00; per half bushel, \$1.25; per peck, 75c. Shipped in good cotton bags
 E. & G. W. BARBER, Hartford, Ont.



"BELL" ORGANS

Unapproached for
Tone and Quality.

CATALOGUES FREE,

BELL & CO., Guelph, Ont.



SPECIAL BOOK NOTICE.

We have a number of books which, have been superseded by more recent editions, which we will sell at very low prices. In some instances they may be a trifle worn or abraded. We have:

	REGULAR PRICE.	OUR PRICE.
1 British Bee-keepers' Guide Book, T. W. Cowan, edition 1886—good as new	50	35
1 Bee-keepers' Guide, Prof. A. J. Cook, edition 1882	1 25	50
5 Bee-keepers' Guide, Prof. A. J. Cook, edition 1884	2 25	85
1 A.B.C., A. I. Root, edition 1883—good as new	1 25	75
1 A.B.C., A. I. Root, edition 1886	1 25	75

First come, first served. Now, don't all peak at once.

EXCHANGE AND MART.

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

BEEES

20 Colonies of Bees for sale cheap. Apply to L. WADE, Angus.

100 COLONIES OF BEES TO SELL. Send for prices and state number required. G. A. DEADMAN, Druggist, etc., Brussels, Ont.

40 60-LB HONEY TINS, D. A. Jones' latest make; only 40c in lots of ten; Jones' price, 48c. G. A. DEADMAN, Druggist, etc., Brussels, Ont.

I HAVE 600 pounds of very nice white Honey on hand for which I solicit offers. ERNEST SCHULZ, Elworthy, Ont.

FOR SALE or exchange at reduced value, bee hives, honey extractor and other appliances for the apary; apply to A. E. GILPIN, 88 Queen st, Halifax, N. S.

FOR SALE—40 or 50 Jones S W hives with from 8 to 13 good combs; hives well pointed for \$1 each, also 50 in the flat for 70c each; address JOHN R. WASON, Lachute, Que.

1 000 LBS. OF BEES FOR SALE.—Will be able to ship 1st of May; 100 colonies of bees, 500 lbs. of Foundation at 40c and 45c. Send for price list. J. A. FOSTER, Tilbury Centre, Ont.

ITALIAN BEES for Sale or Exchange.—Can spare 8 or 10 colonies in either 8 frame Langstroth or the New Heddon hive, all in prime condition; wax or foundation taken in exchange as cash. F. A. GEMMELL, Stratford, Ont.

25 JONES HIVES for extracting, with 2nd stories; made of good pine lumber and well painted. Jones' price, \$1.25, without 2nd storey. Will sell these with 2nd storey for \$1 each, or 90c if you take the lot. Address, G. A. DEADMAN, Druggist, Brussels, Ont.

BEES FOR SALE.—15 colonies, good and extra strong, in Root's winter chaff hives. Must be sold, as the owner is giving up bee-keeping. Inspection invited. P. R. SHAVER, Box 84, Stratford.

POULTRY

WYANDOTTES and other varieties of high-class Poultry. Eggs from \$1.00 to \$2.00. Send for circular. W. T. TAPSCOTT, Brampton, Ont.

FOR all varieties of Poultry, Pigeons, Rabbits, Ferrets, Guinea Pigs, Shetland Ponies, Maltese Cats, Dogs, address Col. J. LEFFEL, Springfield, Ohio.

FOUND AT LAST—How to keep eggs fresh the year round for about a cent a dozen; send for circular to DR. A. B. MASON, Anburndale, O., U.S.

EGGS ONLY.—One dollar per 15 from White Leghorns that won at all the local shows last fall, beating prize winners at Industrial. H. W. G. SIBBALD, Britannia, Ont.

EGGS FOR HATCHING.—From prize winning Brown and White Leghorns and Black Minorcas, \$2.00 per 15; also a few Brown Leghorn hens for sale cheap. BROADBENT & EDWARDS, Box 633, Brantford, Ont.

FOR SALE.—Great big Light Brahmae, \$12.00 per breeding pen. Also pen of Wyandottes, and S. S. Hamburgs at \$10.00 per pen. Address CHAS PALMQUIST, Knoxville, Ill.

OLENTANGY BROODER. Only \$5.00, Patented. 1st medal at Ohio Centennial. Eggs for hatching, of 20 varieties. Warranted true to name. (Box 483). Address GEORGE S. SINGER, Cardington, Ohio.

BUFF COCHINS.—Have two cockerels very fine in color and shape (one of which was scored 92 by Mr. Blomell) well worth \$25 each, that I will sell singly with two pullets or hens for \$125; apply at once to F. C. HARR, Whitby, Ont.

MAMMOTH Bronze Turkey Eggs for Hatching. \$4 per 15 or \$2 per half doz. THOS. BLACK, Heathcote, Ont.

JOHN A. EDGAR is breeding from three pair of imported Pigeons—Yellow Jacobins, Black Crested Fantails and White Fantails. For sale—Yellow Jacobin Cook \$3; 1 B.C. Fan. Cock \$3 or the two for \$5. One White Fan Hen \$2. Forest, Ont., Canada.

FOR SALE.—Eggs from grand W C B Polish fowls \$2 per doz. White and Brown Leghorns \$1. Bronze Turkeys, weighing 40 lbs., eggs \$3 per 15. Pekin Ducks \$2, Langshans \$2. Mauff dog wanted. J. M. CARSON, Lock Box 105, Orangeville, Ont.

ONE pen of Black Minorcas, good will and use of 22 advertisements, for sale cheap, this pen cannot be beaten in Canada, also eggs from Golden Laced Wyandottes and Silver Laced Wyandottes, the best money can buy.—JOHN A. NOBLE, Norval, Ont.

EGGS from prize winning Buff, Black, White and Partridge Cochins, Light and Dark Brahmae. My breeding stock are all prize winners and will average 93 points. Buff and Black Cochins imported stock, will only have a few settings to spare this season. Send on your orders at once. Young stock for sale after Sept 1. Eggs \$2.00 per 15. No reduction. G. H. HANSLER, Tilsonburg, Ont.

The Queen of Incubators.

300 EGGS, SELF-REGULATING, \$25.00

The QUEEN of REGULATORS can be easily applied to any incubator to regulate the heat. Send a cent stamp for circulars to

H. D. MOULTON, Taunton Mass.

HOW TO MANAGE BEEES; OR BEE-KEEPING FOR THE "MASSSES"

Every farmer, and all beginners in bee-keeping, as well as those more advanced, should have it as it is especially adapted to their wants. Fully up to date. Price \$1.00 by mail. In beautiful paper covers. Illustrated. Address

W. S. VANDEBUFF, Waynesburgh, Pa.

1889 10th YEAR IN QUEEN REARING 1889

ITALIAN QUEEN BEES.

Tested queen in April, May and June\$1.00
after July 1st 1.25

Untested Queens 0.90

Sent by mail and safe arrival guaranteed; also nuclei and full colonies. Eggs of Pekin ducks and White and Brown Leghorn chicks, \$1.50 per setting of thirteen.

Address, W. P. HENDERSON, Murfreesboro' Tennessee.

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

CHAS. DADANT & SON, Hamilton, Hancock Co., Illinois.

AUCTION SALE!

Of Bees and bee-keeper's supplies on Monday, May 27. 26 stocks of bees in good condition, honey tanks, scales, bee-tent, honey extractor to suit any kind of frame, wax extractor, democrat wagon in good order, foot-power saw and a lot of useful articles too numerous to mention. Sale to begin at half-past one o'clock sharp on Lot 6, Con 2. MRS. J. R. MORRISON, JOSEPH HEFFERNAN, Guelph Tp. Div B, Ayrshire, Paisley Block



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

VOL. V. No. 8

BEETON, ONT., MAY 15, 1889.

WHOLE No. 216

EDITORIAL

WE understand the prize list for the Industrial has been revised and will shortly be published.

* *

The fruit trees are a mass of bloom, the bees are working lively, and considerable honey is being stored.

* *

It must be thoroughly understood that our offer of two free ads in the exchange and mart column applies *only* to those paying one year in advance, and not to persons remitting back dues. Lots of subscribers have sent money which pays for the JOURNAL to date and have asked for advertisement coupons. Such are not eligible.

* *

We regret to learn that Mr. J. R. Morrison, of Guelph, has lately passed away. Some five years ago Mr. M. spent his first season with us at Beeton and proved apt and intelligent. Our sympathies are with the wife and little ones. By referring to advertisement in another column will be seen that a sale of bees and fixtures will take place on the 27th May. We hope that the sale may be largely attended and that good prices may be the result.

We are now prepared to take any quantity of wax in exchange for supplies. When shipping place your name on the package and advise us when sent.

NO MORE CUT SECTIONS.

THE revising committee of the Industrial Exhibition Association have decided that no more sections shall be cut up into five-cent "bites," and it behoves all who exhibit to cast around for some smaller size of sections which can be sold at less than twenty cents. As will be seen by our advertising columns, we have a large lot of sections put up in 500 boxes which will hold a half-pound, and will sell nicely at ten cents. These we are offering at ridiculously low prices to clear, and they will not likely last long at the figures we quote. Turn over and read the advertisement.

FOR THE CANADIAN BEE JOURNAL.

COLOR OF HIVES.

BRINGLE'S CRITICISM CRITICISED.

NOT the least attractive feature of bee-keeping is the number of interesting subjects, with more interesting associations, which are constantly coming to the surface for our examination. The one before us, "Color of Hives", is not only interesting, but is very imperfectly understood, and let me take this opportunity of paying my humble tribute to the pen of one of our best apicultural writers. I refer to Allen Pringle. His writings are practical, incisive and erudite. However, his last paragraph on p. 26., vol. v., C. B. J., is the text for my present article.

"In painting hives, Mr. Jones recommends dark colors, I think light colors better and white

best, as being better non-conductors. A white hive will be cooler in very hot weather and warmer in very cool weather than one of any dark color"

Heat for our purposes, may be divided into luminous and obscure. The source of luminous heat is the sun, and comes to us in the form of light. Obscure heat is a product of the tissue change going on constantly in the bee. Many think that color modifies radiation and absorption. This applies to luminous heat; not to obscure heat.

There are four factors for our consideration.

1 ABSORPTION.

White is not the coolest because it is a "better non-conductor" but because it absorbs less heat than darker colors. *Experiment 1.* Take three thermometers, surround the bulb of one with white, another with red, another with black. Place equally favorably situated in the sun and watch results. The white will register the lowest and the black the highest. Other colors may be used, hence, we conclude, that color modifies luminous heat. Black absorbing most; white the least, and white hives will be the coolest for summer, black the warmest.

2 CONDUCTION.

Concerning conduction and convection we will have little to say.

The woods employed for hive building are not dense in structure and therefore contain considerable air. Conductivity of heat is inversely proportional to porosity; hence plaster of paris is used between the plates in the manufacture of fire-proof safes, on account of its pores or meshes, when set containing much air. Loosely packed chaff hives are warmer in winter than densely packed ones. Woolen garments are warmer than cotton on account of the air contained in the meshes of the former.

3 CONVECTION.

Convection promotes the circulation of air in the hives.

RADIATION.

Experiment 2. Take one of Leslie's cubes, which is simply a cube of copper, hollow, with sides of the same thickness. Cover three of its sides, one with white, another with red, and another with black velvet of precisely the same texture. Leave on fourth side polished copper. Fill the cube with boiling water, place four thermometers equally favorably situated, one from the centre of each side the bulbs being 3/4 inch from the surfaces. Watch results, the three velvet sides will radiate alike; the polished copper side radiating least. Hence, we conclude color has nothing to do with the radiation of obscure heat. And a white hive will not, therefore,

be warmer in very cold weather than one of any other color. We are frequently told that white stockings and white clothing are warmer in winter than black or any other color.

Experiment fails to confirm this statement, but let us be careful of error here, for by Leslie's cube being used with other substances and calling lampblack the standard for radiating power, the following results will be obtained:

Lampblack.....	100
Whiting.....	100
Paper.....	98
Sealing wax.....	95
White glass.....	90
Varnished lead.....	45
Mercury.....	20
Polished lead.....	19
" iron.....	15
Tin, gold and silver.....	12

And as black paint often contains carbon, and white paint lead, the relative radiating powers of these paints can be approximated by at the above table.

Interesting questions will here present themselves.

▷ WHITE POLAR BEARS.

Those who believe color influences radiation believe polar bears are warmer white than if they were any other color. Does experiment 2 support this view? The question of uniformity of temperature favoring comfort may come up.

While the sun shines on bruin he would certainly be cooler white than any other color (Exp. 1.) and when the sun did not shine he would be no cooler white than black, but probably the correct view is to be found in the fact that he would be safer from his enemies, as being more difficult of detection.

WHITE SNOW.

If the snow were black it would absorb much more heat from the sun, and hence, melt easier.

OUR COLORED FRIENDS

In equatorial regions demand slightly different treatment, although the same reasons will apply to their always desiring white clothing in hot weather.

Nature's method, for the reduction or maintaining the equilibrium of temperature in animals, is by evaporation or perspiration. For example, take the temperature of our friend Doolittle. It will be found 98.5. Run him a mile or so, his temperature will be yet about 98.5, but he has lost considerable sweat probably. Latent heat of steam is 537 i. e. the heat employed in changing one pound of water into steam will raise the temperature of 537 lbs. water from 0. C. to 1. C.; and the surplus heat

of the body has been employed, in changing water into vapor, thus keeping at 98.5 the temperature of the body.

With the negro, the sun's heat is absorbed by his black skin, which heat is changed into sweat producing power, and which escaped vapor actually keeps the negro cooler than if his skin were white. Here some one says "wouldn't the negro sweat more and be cooler if he wore dark clothing instead of white?"

Experiment 3. Place your finger for a minute into your mouth or under your arm, where a physician ascertains the temperature of the body. The temperature there is 98.6. Remove your finger and place it for a minute into water of temperature 98.5; watch results, you speedily remove it from the water, hence we conclude that heat from living tissue manifests itself in another way than heat from dead tissues. One seems to be changed in-sweat producing power; the other into sensation of heat through nerve terminations.

R. KNECHTEL.

Walton, Ont.

FOR THE CANADIAN BEE JOURNAL.

SUGGESTIONS FOR A NEW HIVE.

AS soon as the swarming season begins I intend to set up a hive, but as I have no cellar to winter in and no time to make clamps, I must perforce try to get a hive which will be safe to winter in on the summer stands.

My idea of such a hive is as follows: For size of frames I like your Combination much the best. It is most like the English Standard, with which I did good work, but which is just a little shallow, or rather too long for the depth. I think your Combination frame would answer better than any I have seen or read of. I like, however, to use the W.B.C. metal ends which I believe are unknown here, so I must try and do without them.

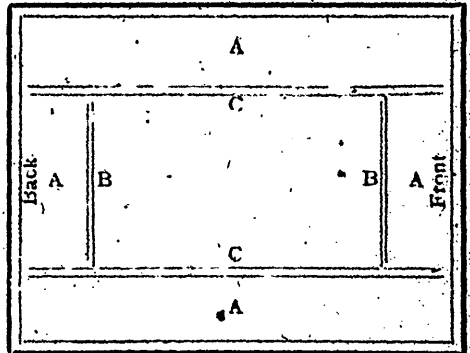
I should prefer to take outside measurement of frames as the standard; say, top bar fifteen and a half inches long and seven-eighths thick; sides eleven and a half inches long five-eighths inch thick; bottom bar thirteen inches long three-eighths thick, making frame outside thirteen inches long by eleven and seven-eighths deep under shoulder and about seven-eighths inches wide.

By taking outside measure one is sure of having the frames fit the hive, while the inside measure is always approximately correct whatever thickness of stuff is used in making.

Then for the hive. The bottom board should

be after the pattern of the Cowan hive, with entrance cut out of it three-eighths inch deep, sloping up as soon as it reaches the inner front wall.

For the inside of the hive this is the plan I have thought out:



This, as you can see, is not drawn to scale. The spaces "A" are intended to be four inches wide clear. The bottom of the front one would have to be stopped with a piece of thin board to prevent bees making their way up there. Frames to fit closely inside them and enclosed with cotton or other stuff nailed on the sides, and then the space inside stuffed with dry sawdust, chaff, or cork dust would fill them in winter, and, I think, be sufficient protection against frost and cold.

The frames would rest on the pieces BB, the sides CC coming level with the top of frames. Rabbits, sawcut, and metal rest for frames as in your make of hives.

The outside walls to come one inch lower than inside walls, and to slip down over bottom-board, thus doing away with the objectionable plinth of the Cowan hive. With this exception the bottom-board would be that of the Cowan.

The roof would slip over the body in like manner and be shaped either like Cowan's or like your Combination. The second story to be like that of Mr. Cowan, merely a "lift" for the roof, leaving plenty of room inside for either "supers" or an additional lot of frames for extracting.

If you think my idea worth using, you are welcome to it, only if you should make a small fortune out of it please remember that I am only a poor country parson.

I believe that if this hive worked well many would gladly get them in spite of extra cost, to avoid the nuisance of carrying into the cellar.

I am, sir, yours faithfully.

(REV.) ROBT. W. RAYSON, M.O.B.K.A.
Lombardy, Ont., 3rd May, 1889.

By the way, sir, why not suggest to "Ama-

teur Expert" to join the O.B.K.A. and write five letters after his name? He was wanting a degree some time ago for that purpose.

For the CANADIAN BEE JOURNAL.

VARIOUS TOPICS.

WINTERING ON THE BRAY PLAN.—STORING WAX IN CELLS.—QUEEN-MATING MORE THAN ONCE.

I HAVE to report: Put seven in winter quarters buried on the McFadden plan, only I think with a little more stores. The Bray plan would be nearer it, I think. Six came through it, all right. In the one lost nearly all left the hive, as there was only a handful of dead bees in it. I had one, a light and late swarm of last year, I expected to lose; I put it in a Jones Combination hive, gave it comb, but did not feed it any—but that was not the one lost. It came through all right. The one lost was twice as strong. I consider the the Combination hive the Jim Dandy.

I have always understood by bee writers that all wax was made from honey. I have for a long time thought differently, and think I have good reason for it. I have at different times left combs in the sun; wax melted and ran out of the cells—pure yellow wax—not the comb itself, but wax stored in the combs. It is a light yellow mealy substance until it melts, then it turns into wax. The red or as I call it bee bread will not melt or make wax. If bees do not build comb with the stored wax what do they do with it?

It is said the drones are no good—only to make love to the queen. I do not believe that. They are for chewing wax and hatching brood. I had two hives that swarmed three times each. They left the hives filled with brood and drones with very few workers. I killed all the drones in one; it spoiled the hive. The other came along all right. I don't kill any more drones henceforth.

It is said mating is always done in the air or on the wing. I cannot believe that. I have often found drones dead at front of hive with signs of mating, their abdomens protruding and partly torn out. It is also said a queen only mates once. I cannot believe that either. I have good reason to think a queen is mated after each batch of eggs is laid. That may be once a month or six weeks, varying according to circumstances and season. Just before the first swarm issues the queen is as slim as a weasel. Candell when they are going to swarm, or about ready, by the appearance of the queen.

She will not go until she has deposited all the eggs. Whether she is mated again before leaving the hive or after locating I do not know, but am sure it does take place about that time.

I send you sample of comb with wax deposited in it, which was melted by the sun.

D. McLAREN.

Alliston, May 3, 1889.

The comb you sent us is the ordinary comb, the same as found in all hives, and it is quite true that the wax will run out, leaving the pollen and cocoons if the comb is placed in the heat, but if you took new combs just built you would not find any pollen and but few cocoons. There is no wax stored in combs as you suggest, but after each hatching of brood there is a light coating of the cocoons with wax. In reference to your other statements, we think if you look over Prof. Cook's "Manual of the Apiary" you will find that your opinion is quite at variance with known facts. Finding dead drones at the entrance of the hive does not prove your theory. The queen, in the ordinary course of things, never mates but once. There is no doubt but that the Combination hive is going to prove a great boon to our bee-keeping friends.

For The Canadian Bee Journal.

FAVORS THE CHANGE.

I THINK that the amalgamation of the BEE JOURNAL and the POULTRY WEEKLY is a step in the right direction, and a great benefit to both the bee-man and the poultry-man. I think it is a business that should go together, for in the winter we would be kept occupied with the poultry, and as we have such an able man as Mr. Peter as editor, and a man that has had long experience in the poultry business and a very obliging person. All the information that we wanted he would be most happy to supply, and as I know his stock is first class, he must be the right man in the right place. And then instead of wholly depending on the bees, we would have the poultry to fall back on in a bad year, and it would be the same with the poultry man, and it makes the JOURNAL far more interesting to the reader, and I think that every one that keeps bees or poultry should not be a day without the BEE JOURNAL,

Angus, May 1st 1889.

L. WADE.

FOR THE CANADIAN BEE JOURNAL.

MASON TO MCKNIGHT.

TEMPERATURE OF BROOD NEST IN WINTER.

MR. EDITOR, I have a P. S. for "Mr. McKnight's Medley," on page 86 of the C. B. J. I think the heading to his article very appropriate indeed, for according to my "booktionary" a medley is a mingled and confused mass of ingredients; a jumble; a hodge podge—used often or commonly with some degree of contempt, and if that isn't an appropriate title to his article then I never saw one, and I think a P. S. to it is really needed.

It was Carlyle (good English authority or pretty near it) I believe who once said "that England was composed of forty-four millions of people, mostly fools," but I (good authority also, but only part English) want to put myself on record as having a much better opinion of the English, for there are a great many English people that I number among my friends, one of them being a sister-in-law, and none of them are fools; so, if as Mr. McKnight says: "His (my) weakest point is his anti-British proclivities," I must be almost if not quite a giant. When he states that I am "clearly of the opinion that no good thing can come out of Nazareth," his fertile imagination seems to be laboring under a cloud, for I have ever thought that Nazareth brought forth the most valuable production the world ever saw. If he wishes to intimate that England is a Nazareth I shall not object, for it is the crossing of English, Irish, French and Spanish, German, Italian, Dutch and Danish that has produced the "conglomeration" that makes the United States the peer, if not the superior, of any other nation on earth, and the more this "conglomeration" of blood gets mixed with the English-Canadian the more anxious will they be to "link their destiny" with ours.

No doubt Mr. McK. would be pleased to be in company with an honest Scotchman, * * * a beef-steak and pudding-eating Englishman * * * or a whole-souled, generous German," but, oh my! how would the Scotchman, Englishman and German feel about it? Aye; there's the rub.

When he says: "the Doctor is evidently proud of his origin * * * and of his country" he for once "hits the nail" square on the head; but to say that I am "spoiling for a fight" shows a very great lack of—of—of—. Well, if I were in that condition I should prefer for an adversary some one who was not so slippery, and did not remind me of a breed of porkers a friend recently told me about. He said they could flatten themselves so thin that

no fence could keep them from getting out of the field, and the only way to keep them within reach was to tie a knot in their tails. Having been so long accustomed to bragadocio he has, no doubt, as he says "learned to estimate it at its true value."

Yes, I was "in fighting trim before Lee resigned the sword of the South to Grant," and had the pleasure and honor of following in the footsteps of my ancestors who twice made the English lion curl his tail between his legs and crawl into his lair, and besides helping to whip the rebels, helped to make their leonish ally again "gig back," and for his "fool hardness" come down to the tune of millions of dollars; and although my shoulder straps didn't quite show the rank of Major-General, I'm still in fighting trim if I can find anything worth fighting, but I don't care to indulge in any controversy with any one who can find nothing but "eccentricities," and peculiarities of physical make-up.

I am also "a man of peace," but whether competent or not, shall never fail to do what I can to defend my country and its products whenever maligned by any one.

If Mr. McKnight, or any other Canadian, English, Scotch or Irishman wishes, honestly and fairly to discuss the relative merits of United States and Canadian basswood (I beg pardon linden) honey, I am confident that some Yankee will be ready to help them.

A little spice put in occasionally gives relish, but too much of it, especially when it has lain so long in the sun as to become warped and twisted, becomes nauseous.

TEMPERATURE OF BROOD NEST IN WINTER.

Mr. Editor, I want to give my experience in regard to the "temperature of the brood nest in winter."

On page 945 of the CANADIAN BEE JOURNAL for February 20th, 1889, our friend Hutchinson, of the Review, takes that "Hallamshire Bee-keeper" (my what a name) to task for being "amused" at reading American bee-papers lately, and finding the different writers quite unanimous in saying that 65° is the correct temperature of the brood nest. Amused means to be pleased, does it not, and what's the harm in being pleased?

It seems that Mr Cheshire in his "Bees and Bee-keeping," says in substance that 65° is the temperature of the brood nest in winter, and that could this degree be preserved without variation, as it practically may be by the plan of "cellaring" the bees would come through, to spring, young, with life before them. And Mr. Hutchinson says: "Now then, after having said this much

we are prepared to defend 65° as the normal temperature of the inside of a colony of bees in winter," and calls it "the regulation temperature."

Now I'm not at all amused at the outlook, but am not a little worried. I have for years taken no little pride in the fact that I wintered my bees without loss, and now Messrs. Cheshire and Hutchinson pretty nearly knock me and my success into "smithereens" with "a regulation temperature." Please come to my rescue and get them to tell me before next winter how this 'regulation temperature' may be maintained in my cellar.

Last winter I tried the temperature of several colonies, at different times, and every time the thermometer showed 90°, and the same thermometer when hanging in the cellar showed 50°. It made no difference whether the colony was small or large. The temperature of the cellar was higher last winter by five degrees than I have ever kept it before, owing to a natural gas fire being kept constantly burning in the room over it. The hives were without bottom-boards, and the quilts just as the bees fixed them in the fall. I have always before wintered with tight bottom boards.

The average loss last winter from dead bees taken from the cellar bottom, was four and three-eighths ounces: being the largest I have had for ten years. The bees were quiet, and in testing for temperature I used a dairy thermometer, raising the quilt and running it down into the centre of the brood nest in the evening, generally leaving it till morning, but the same temperature would be indicated in a few minutes as was in the morning.

I'm not doubting Messrs. Cheshire's and Hutchinson's statements, but I'm anxious to find out what's the matter with my cellar, for I would like to save that four and three-quarter ounces of bees to every colony, and then they will be stronger in the spring than when put in winter quarters

A. B. MASON,

Auburndale, O. May 2nd 1889.

How the Bees Wintered.

F. BRIDGMAN writes to the North-Western Farmer. "Spring has fairly opened again, and it is in order now to give our spring reports. These, upon the whole, I think, will be encouraging. My new winter repository has brought the bees through in better shape than I have had them yet, notwithstanding that the place was a little too damp. This trouble was lessened a good deal

by the liberal use of ashes on the floor as an absorbent of the moisture. April 8 and 9 being bright and warm, I set out a few colonies which had showed signs of restlessness. On the 10th they were carrying in pollen. The weather turning cooler, no more were removed until the 17th, when the remaining ones were carried out, except one which will be left in for experimental purposes. Some of the bees could not possibly have wintered better, everything about the hive being dry and clean and the bees very quiet. One colony especially was in such a dormant state that it could not get up a hum in response to a tap on the hive, and was set aside as having passed to the happy hunting grounds. Wishing to know the probable cause of their dying, I proceeded some time after to examine, and found upon lifting the quilt that they were still speechless; but they lifted up two or three legs apiece in silent but effectual remonstrance against further dissection. That colony certainly could have gone through winters much longer than ours.

Some hives were wet inside owing to the cluster not being able to keep up the required heat. Probably had the cellar not been damp the hives would not have been wet, as dampness necessitates a greater expenditure of heat in which to preserve the proper temperature. Some few colonies were affected with the diarrhoea, and these were either short of stores or wet.

Most of my correspondents report the bees coming through in fine condition, some report loss, which was occasioned chiefly by over-kindness or some other misconception regarding winter and preparation therefor. Taking everything into consideration, that this was a new and untried country for bees, and that we were all beginners so far as bee management peculiar to this climate is concerned, I think we have every reason to have great confidence in the future. There is every indication that this will be a good season."

Fernton, Man.

When to Set Bees Out.

F. BRIDGMAN, Fernton, Man, writes The Farmer. "When beautiful spring-like days come on it is just about as natural for the apiarist to want to get his bees out as it is for the bees to fly. The colonies in good healthy condition should be left in the cellar until willow bloom comes. If set out before they will be continuously looking around for something they cannot find—wearing out their lives for naught. The variable weather before bloom time is more conducive to a higher death rate among the workers than the more settled weather on the same colony, although somewhat older, set out at bloom time. It should be the policy in spring to save the workers as much as possible. They are older then and weaker, and can stand less work and worry than at any other time of the season. The longer their lives can be spared the more brood can be reared. This is the main object in spring. If they have plenty of stores on hand it gives them

several advantages. They will not be required to gather it in the fields, thereby saving labor and leave more bees at home to attend to keep warm a larger amount of brood, and the knowledge of plenty of food on hand is a great stimulus to brood-rearing. In Manitoba I have not observed that it requires a little feeding daily, in spring, in order to induce bees to their greatest breeding capacity. They, like our farmers, seem to think that as much of the crop as possible must be in early to get the best possible returns. Colonies that are affected with diarrhoea will not be content to remain in the cellar so long. The first warm day they should be set out for a fly and taken back at night. The more they can fly in suitably warm weather the more likely their cure. This is their best medicine and does not apply to healthy colonies any more than sick men's medicine does to men in perfect health.

Fernton, Man.

QUERIES AND REPLIES.

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

Spraying Fruit Trees.

QUERY No. 233.—Please inform me if it would be injurious to bees to spray fruit trees with Paris green, in the blossom season.

S. CORNEIL, LINDSAY, ONT.—Never investigated the matter.

G. A. DEADMAN, BRUSSELS, ONT.—I do not think it would, but cannot speak positively.

MARTIN EMIGH, HOLBROOK, ONT.—I don't know. There is very little spraying of fruit trees in this section.

DR. C. C. MILLER, MARENGO, ILL.—Certainly, and it is of no use to fruit till after the blossoms drop.

G. M. DOOLITTLE, BORODINO, N. Y.—Should prefer not to do so yet; it might do no harm. Have had no experience along this line.

H. D. CUTTING, CLINTON, MICH.—Don't spray the trees until the blossoms fall.

J. E. POND, NORTH ATTLEBORO, VT.—It has never proved so with myself, and I have used Paris Green in this way, season after season, for years.

JAS. HEDDON, DOWAGIAC, MICH.—Yes, but it is just after the blossoming is past and the bees have ceased to visit the trees, that the Paris green is needed.

ALLEN PRINGLE, SELBY, ONT.—Have had no

experience in the matter, but I believe it would prove injurious and would not care to risk it.

EUGENE SECOR, FOREST CITY, IOWA.—As I understand it the best time to spray fruit trees with chemical compounds is after the blossoms are past the stage when bees are attracted to them. I would not do so when bees are at work on the flowers.

R. MCKNIGHT, OWEN SOUND, ONT.—If sprayed while the bees are working on the bloom it will be sure death to them. The proper time to spray fruit trees is when the bloom is spent. It is then spraying will effect most good.

JACOB ALPAUGH, ST. THOMAS, ONT.—I am not sure if it would be injurious to the bees or not. Will the writer of this query please inform me if it does any good to spray the trees with Paris green.

J. K. DARLING, ALMONTE, ONT.—I would not care to have my bees working on trees that had been sprayed with Paris green. Have not had any trouble, but complaints have come from some places where Paris green had been used.

PROF. A. J. COOK, LANSING, MICH.—I should not dare to do any such spraying till the blossoms fall. Earlier than that is too early even to get the most good from the spraying. Let me emphasize, no one should spray trees till the blossoms are all fallen.

WM. McEVoy, WOODBURN, ONT.—I think it would. The fruit men are going too much into the Paris green business. I know some that use it on both large and small fruits and what is worse at all times at that. Less of it will be used when some person is killed by eating small fruits which had too much Paris green put on the bushes.

G. W. DEMAREY, CHRISTIANBURG, KY.—It would be dangerous to the bees and their owners too, to spray fruit trees while the bees are gathering nectar from the bloom. Fortunately to the bees and to bee-keepers it does no good to spray fruit trees till the blossoms have dropped and the bees have done working on the fruit trees. The poison is applied to destroy the codling moths and the work of the codling moth does not begin till after the blossoms have fallen and the fruit has "set."

If the Paris Green got in the nectar we fancy it would be injurious.

SUNDRY SELECTIONS.

M. E. MORRISO:—My bees have wintered well, losing but three out of eighty-two. Alviston, April 30th, 1889.

AGREEABLY SURPRISED.

A. A. ANDERSON.—The JOURNAL just at hand, and I am agreeably surprised to receive a combined Bee and Poultry Journal, as I am also in the poultry business.

Sundridge, May 4, 1889.

WM. ELLIS.—There is every present prospect of a good season. All signs, however, may fail.
St. Davids, Ont., May 7th, 1889.

REV. D. ANDERSON.—Bees hereabout appear to have wintered well. Mine I put out on the 17th April, ten days earlier than last spring, and they were busy bringing in pollen two or three hours after they were set out. The weather at time of writing is bleak and cold.
St. Andrews, Que., May 1st, 1889.

ALEX. BLACK.—I am glad to report that my bees wintered well. I put 17 colonies in cellar last fall, lost one of them through queenlessness, all the rest came out in fine condition. I took them out on 8th of April and they commenced gathering pollen on the 12th. Am looking forward to a better season than we had last and I think we all need it.

Songa, April 30th, 1889.

L. WELLER.—I have 50 swarms; all came through with no loss. Set out on 6th March, 6 hives first; two weeks later 18 more, first week in April the balance of them. It is cold now and has been for over a week. Last year lost 30 by spring dwindling. Only had ten swarms for the season. Sold over \$15 worth of honey from 10 to 20 cents per pound.

G. L. McLAUGHLIN.—Commenced season of 1888 with six colonies. Took 325 lbs. of extracted honey and increased to nine. Wintered part in chaff hives and part in clamp packed with chaff about a foot all around, lids off hives, a cotton cloth over frames and fifteen inches of chaff on top. Lost one colony in chaff hive; the rest are in fair condition, carrying in pollen plentifully.

Blackstock, Ont., April 29, 1889.

R. H. SMITH.—Put bees out of cellar on the 16th and before night they were carrying pollen. On looking them over I found they had consumed much less stores than other years, perhaps owing to the mild winter and warmth of cellar 45 to 48°. Found one dead out of fifty with plenty of stores, the rest strong with brood, well started, several had hatching bees. On enquiry I find that bees have wintered well throughout the district.

Bracebridge, April 27, 1889.

RICHARD RIVERS.—I enclose subscription for another year and must say I am much pleased with the addition of the Poultry Department. My wife thinks it will help her very much amongst her poultry. I lost all my bees last year but one hive; bought three swarms and increased one more, so put five hives in winter quarters. Came out with four; three very strong; the other weak. Though I lost so many bees (18 hives) and got no honey last year, yet I am determined to give them another trial and need the Bee Journal to help me along.

Walkerton, April 29, 1889.

SUBSCRIBER.—This is my report in the spring of 1888. I came out with 40 good colonies and five bad ones, and I took 1500 lbs. of surplus

honey, 1000 lbs. of comb honey in section, and 500 of extracted, and increased to 94. In the fall united to 68 and put them in in winter quarters the last day of October—60 in cellar and 8 packed in sawdust outside. This spring I took out the 60 colonies from the cellar all good and strong. Of those packed in sawdust one died through starvation and since that five of them were robbed. Was busy at something else and couldn't attend to them, and to-day I have 62 colonies.

Glen Sandfield.

PETER BRENNAN.—What is the best kind of timber to make a table for a foot-power sawing machine that will not shrink, and the best way to put it together?

Birch, beech, maple or white ash. Cut from one to two inches wide, and glue or dowel together.

I got first-class sugar and melted it down and made it into cakes and fed it to my bees, and they are carrying it out. What is the reason?
Lakeside, Ont.

You allowed it to granulate, and they extracted the moisture and carried out the sugar.

Convention Notice.

The International Bee-Keepers' Association meets at Brantford, Dec. 4 to 6. R. F. Hotterman, Sec'y.

OXFORD BEE-KEEPERS ASSOCIATION.

The spring meeting of the Oxford B. K. Association will be held on Tuesday, May 21st, 1889, commencing at 9 a. m. promptly, at the Council Chamber, Woodstock. As important business is to be transacted in connection with the Fall Fairs all members are earnestly requested to attend.

J. E. FRITH, Secretary.

Special Announcement.

WE have made arrangements with Dr. B. J. Kendall Co., publishers of "A Treatise on the Horse and his Diseases," which will enable all our subscribers to obtain a copy of that valuable work FREE by sending their address (enclosing a two-cent stamp for mailing same) to Dr. B. J. KENDALL Co., ENOSBURGH FALLS, Vt. This book is now recognized as standard authority upon all diseases of the horse, as its phenomenal sale attests, over four million copies having been sold in the past ten years, a sale never before reached by any publication in the same period of time. We feel confident that our patrons will appreciate the work, and be glad to avail themselves of this opportunity of obtaining a valuable book.

It is necessary that you mention this paper in sending for the "Treatise." This offer will remain open for only a short time.—T. F.

POULTRY WEEKLY

W. C. G. PETER,

EDITOR.

All communications intended for publication must be sent to W. C. G. Peter, Angus. All advertisements, subscriptions and business letters to be addressed to the Publishers, Beeton.

WE are glad to notice the success of the Dunnville P. and P. S. Association. They have "snatched victory from the hands of defeat." Such perseverance foretells a future of no mean power. Yes, friends, the "coops" and the experience in particular will help you greatly next time. No doubt you will have a good show in December, and "may I be there to see."

* * *

Mr. G. H. Sheerés, of Clarksburg, has had the misfortune to lose his poultry houses by fire, and unfortunately some of the stock. Accept our sympathy, Bro. S. You will have pluck enough, we expect, to build up again; and "fortune favors the brave," you know.

NOTICE OF REPORT.

OUR readers will notice that we have commenced in this issue the very interesting report to the Hon. the Minister of Agriculture from the manager of the Experimental Poultry Farm. We trust all our readers will follow this with interest and a desire for information. The plan of building, etc., will be an interesting subject for many, while the tests of the several breeds furnished by such a disinterested person cannot fail to impress us in its results. As our space is limited we have decided to divide the report into three or four parts.

CHICKS, TESTING EGGS, EGGS.

THE raising of young chicks is one of the greatest pleasures attendant on the poultry industry, and it is a work peculiarly adapted to the gentler sex, or rather, I would say, the gentle, tender, patient nature of a woman better fits her to take charge of these fragile little creatures.

The most important thing to guard the very young stock from is extreme change of temperature and over-feeding at first. For 24 hours after hatching they need nothing but warmth, and the quieter they are kept the better for them.

The first feed is best to be of hard boiled eggs chopped fine; moist crumbs of bread, oatmeal grits and cracked wheat are all good if the egg is objected to.

Be sure to provide shade for the heat in the noon-tide hours is often greatly above the rest of the day, and the skin of the young chicks gets hard and dry; in fact the quills on some that I have seen could not force their way through the sun-baked skin, and the poor bare little body was still subjected to the sun's burning rays. Poor little creatures! How can any one neglect such helpless mites, after taking the care of them upon themselves voluntarily.

A little chicken appeals to our sympathies in so many ways; it is so active, yet very frail is its hold on life as yet. It is so beautiful, the most perfect newborn creature in all creation. They appeal to our affection by their helplessness, to our senses by their perfect beauty of form, color, and their activity. Then let us not wilfully neglect them, and they will repay us by their rapid growth and thrifty activeness and give us in the future the delicious eggs.

for breakfast, or the rich custards that seem obtainable only at the farmer's table. It is better to get all the chicks possible in May and early June.

Hens now will be getting broody. If possible set two, three or more at one time, and when these have been sitting ten days test the eggs by rolling your BEE AND POULTRY JOURNAL and tying it round. You can test them by placing the egg at the one end of the hollow before a lighted lamp, and looking through the other end. The eggs that are clear are not fertile, i.e., not impregnated, and will still be good for baking with; those that have just one small vein in them will not hatch; the germ is dead. Those in which you see a speck about the size of a hazel nut, with veins running from it like long spider legs to

White Crested Black Polish.

PERHAPS no other fowls in existence deserve the name of fancy fowls more than the white-crested black Polish, and they are especially and always admired by the ladies at all our poultry shows. This is owing to their beautiful large flowing white crests, or top knots, contrasted with a pure black body with green metallic reflections in the sunlight.

The crests of good specimens should be very large, compact and round, with as few black feathers in front as possible, the fewer the better. The combs of all Polish fowls (if any) should be very small and should have the appearance of two small spikes or horns directly in front of the crest, but some of the best specimens have none.

As to their merits, the W. C. B. are classed with the best layers. I find them equal to the



WHITE CRESTED BLACK POLISH.

Owned by J. M. Carson, Orangeville, Ont. Hen Canada scored 84. Cockerel "Afton" scored 96.

the inside of the shell, are in most cases hatchable. So if these only are given to one or two of the hens it will leave the other hen free to be set again, and only ten days time is lost, and another sitting can be hatching but a little time behind the others. The chicks, too, being so nearly of an age, will do better while growing together.

TO READERS.—There is one way in which you can materially aid us, whether you are a subscriber or not, and that is in mentioning this WEEKLY when answering advertisements.

Leghorns in this respect, especially during the six months summer weather, and they are a much better table fowl, being very plump and juicy and the flesh of excellent flavor.

The crests of the little chicks should be examined occasionally, and if any lice be seen, which is a common occurrence, Persian insect powder should be applied, working it well into the little woolly crests with the fingers. Sulphur will answer the same purpose, but the Persian powder is almost immediate death and is the latest and best discovery for all kinds of hen and chicken lice. It is sold by most druggists.

In handling Polish fowls, or chicks, care should be taken never to scare them or pick them up suddenly, as they are liable to die in your hands of fright. This is peculiar to this breed of fowl, therefore it is best to draw their attention first by speaking to them. I have never lost a bird in this way, but I have had them tumble over and gasp for five or ten minutes, and then get up and stagger away and get better.

J. M. CARSON.

Orangeville.

Our cut this week represents the White Crested Black Polish, a very highly bred fancy variety, and one that no illustration can do full justice to; they must be seen to be appreciated. The chicks are exceptionally pretty; their little fluffy crests giving them a very cute look. When first hatched, and beginning to feather, the chicks are rather delicate; and care must be taken to keep them from getting their crests wet, but when fairly feathered they are much hardier and as pretty as a chick can possibly be.

Value of Hen Manure.

THE statement that the droppings of one hen per year are worth fifty cents is going its annual round. We have kept about one hundred hens on the average but find them credited with only five dollars on our book for manure, or five cents each. Ten cents is the very highest that we would be willing to allow for the annual manure crop from each hen. —Am. Agriculturist

The droppings of one hen per year are not worth fifty cents, except in an occasional instance, when it might be absolutely necessary to obtain that fertiliser. We should think though that ten cents is too low to allow, but so much depends upon the market open for sale, or the need of the poultry man, as to its use on his own ground. Years ago when close neighbor to a market gardener, I could sell all I had for 25c. per bushel as swept clean off the dropping boards; if mixed with straw etc., 30c. per barrel. Here I have no sale for it at all, but exchange for straw etc. Farmers here are not alive to its value as a fertiliser. If they were they would have all they could get of it. Many do not know its strength as compared with other manure. It is not good to use it too strong; if allowed a covered place to dry in—it can be covered with earth

layer for layer of manure and earth, and all the ammonia is absorbed by the earth and not given off in evaporation. It makes in this way the most valuable manure for strawberries, and cabbages thrive extra well on it, in land that would not grow them without it.

"ACROSTIC."

UNDER the above signature a Torontonion has a few words about cross breeds. He says that he "is not in love with any pure breed of fowls for the farmer's use." That he would like the equal of the Brahma without its "intense motherly instincts." What do our Brahma breeders say to that! In three years I have not had a Brahma to sit but one, and that deserted the nest in two weeks. I have one now clucking but do not think she will sit, and that is all the "motherly instinct" my Brahmas have. Friend McDonald, of Acton, wrote me some three weeks ago that "out of a flock of twenty-eight Brahmas that have been laying since January *not one* showing signs of broodiness", and he is full of complaints as to their lack in this respect. Bro. Carley, of Barrie, was lamenting last time we saw him that his would not sit and in fact any Brahma breeder can tell the same story. The sitting business has been bred out of them largely, and the egg business has been bred into them by careful selection in the past twenty years. These are the little things the fancier does for our pets.

The Spanish Leghorn cross is no use for table except in a very poor market, and though the first cross is good, if bred back again it fails in most cases in egg production. We have many thorough-breds too that will equal them the year round as layers, and be fine birds and *prime* too for market besides.

We are aware that in England the cross breeds are advertised, but fowls for market are mostly sought in that case, and crosses with the Dorking and Brahma or other large table fowl are nearly always the cross that is bred. I should say your cross of D. Brahma and P. Rock is a good first cross.

Accept our thanks for the kind words of congratulation and wishes for success. It is not intended that the WEEKLY shall become the organ of any person or breed.

It is to be strictly in the *interest of the poultry industry*, and "cliques and booms" do not work with that object in view. We desire to make the WEEKLY of interest to all, and although it is not controlled by any breed or breeder it is in the interest of the *fancy* seeking in a humble way it may be, to extend the fancier's work, to open up a new path for sales to our brothers, and extend the boundary of the poultry world, and its usefulness and interest.

The Egg and Poultry Trade.

THE poultry industry in Canada and the United States is very large, and if the latest statistics from the United States are reliable, the poultry production of that country has exceeded that of wheat, cotton and dairy and is three times that of the pork output. Ontario has produced poultry in a like ratio. We over-produce in eggs and poultry, and want to find the best market. Now by establishing a trade with Great Britain, which annually imports \$15,385,545 worth of these commodities, a trade in eggs might be built up in that direction. The matter of storage, packing and freight rates would be prime factors in the profitable handling of eggs and poultry. With but little more additional trouble, cold storage and proper packing of eggs, this commodity could be placed in the British markets with bigger margin of profit than is possible in the larger cities of the United States. The minimum price of eggs in England is 25 cents per dozen, and the following recent report from the Metropolitan poultry market (London, England), will show how poultry sells there:—Chickens 50 cents to \$1.25 a piece; ducks 75 cents to \$1 a piece; turkeys, \$2.50 a piece; goslings or young geese, \$1.50 to \$2 by the single bird. If a regular trade were established ship loads of poultry and eggs could be profitably sent to London and Liverpool, just as well as cheese, butter or dressed meat; and where there is a want of \$15,385,545 annually in England we in Canada could supply a large amount of this demand. Let us try it.—London Free Press.

In the above item it is stated that "we over-produce in eggs and poultry." This must not be taken literally. We in Ontario can hardly be said to "over-produce," when for the largest part of the year our dealers cannot supply us with new laid eggs. Still the market in England could be made use of to our benefit, in the season of surplus. The prices are not over estimated in the least, and in eggs it can be increased. Here is a market at our hand in the

event of a large increase in our out-put of eggs and poultry, but I am afraid that day is far distant. For these articles would only be open to such a market in very large consignments, and it would take capital to start it on the way to success, for the English market cannot be worked except by choice goods, and with a thoroughly practical and reliable man at the head to carry it to a successful issue. That there is money in it, I for one am quite confident it only requires a man of good business ability to handle it and success is assured:

The "Real Truth of It."

WHEN we know how to do it, it comes to be a very easy matter to breed good poultry, and to find this work both agreeable and profitable, if continuously managed just as such live stock should be cared for. The breeder must feel an interest in his avocation. He must educate his mind to sympathise with the needs and constant requirements of his stock's best daily welfare. He should look to their comfort and wants, *all the year round*.

The culture of poultry to profit is no longer a problem in this country. It matters not what branch of this trade the earnest competent poulterer undertakes—whether he breeds the "fancy" varieties for sale and exhibition, or whether he cultivates the more ordinary varieties and crosses of good fowls upon common stock, for the marketing of chickens and eggs. In either case, where the business is properly attended to, and the breeder avails himself of the opportunities current to make himself and his stock known, there follows satisfactory remuneration and constant pleasure in this work.

Yet we have been amused many times at the strange ideas that creep into some men's brains regarding the breeding and rearing of poultry. "It is so easy a thing to do," exclaims one; "It pays so well," says another; "anybody can raise chickens," contends a third "it's precious small business," adds a fourth; "I can do it as well as the next man," boasts the novice. "All you have to do," continues the first one, "is to get half a dozen old hens and set 'em. The chickens will come out fast enough, and then you turn hen and chickens into the barnyard, and let 'em grow. That's the way my folks do it on our farm." "It's mighty profitable, to," remarks the second wisacre. "There's so-and-so, and so-and-so, and a hundred more, that have made a fortune out of it. Everybody knows that." "And any one can do

it just as well and just as profitably as those chaps have; there's no secret about it, and no trouble with it, anyway," shrewdly observes the third man.

"But it's a petty business," adds the novice. "Anything but a chicken-man for me!" he concludes. And then he rights up his shirt collar, and dusts his patent leather shoes with his cambric handkerchief. These are all nice young men, and mean well. But what do they really know about it?

Nothing!

Try it, young gentlemen. It is an easy thing to do, and a very pleasant occupation, when you undertake it properly, and in good faith.

Try it, Master Pay-so-well. If you manage as have the enterprising fanciers you have alluded to, you can make money at it. No doubt about this.

Try it, young man, you who are so certain that anybody can raise chickens. When you have had a year or two of the right sort of experience, you will know more about it than you do now, surely.

Try it, young gentleman with the immaculate shirt-collar. Give the same attention to this business that for ten years you have given to the gloss upon your dainty boots, and we will guarantee that you will make more clean money out of this "petty business" than you ever have yet, in any prior pursuit you have followed.

Try it, Mr. Novice. You can do it well (as many others have done it); if you study, experiment judiciously, read the CANADIAN BEE JOURNAL and POULTRY WEEKLY attentively, and adopt the advice you will find in our Weekly and Monthly issues. It is an easy thing to accomplish—when you know how it is done.

It will "pay" well, when you have learned to conduct the business as it should be conducted.

And, one can "raise chickens," if he go about the work not blindly and recklessly, but intelligently and sensibly. It is not very "small business" in the estimation of hundreds or thousands of the best men in this country who make in their chief calling, or pastime—as we happen to know. And thus, the expressions we have above quoted appear to our vision to be simply queer notions.

BREEDING POULTRY.

IN order to breed poultry successfully it is very necessary that your fowls be provided with warm and roomy houses. They must be protected from the cold of winter, and the heat of summer, and the chicks must have suitable accommodations.

Ample provision must be made for giving your flocks the very best of care, if you desire prime birds.

It would be folly to plant a field with corn and then leave it to care for itself. It must be cultivated and kept free from weeds and continually watched and helped onward to a perfect maturity, and the field that receives the best care will return the most bountiful harvest.

Thus it is in breeding poultry. No matter of how good blood the chick may be it must have watchful care from the time it leaves the shell until it becomes a mature fowl, in order that the good that is in it may be developed.

It is not necessary that your poultry-house should be an expensive one, but it is necessary that it should be constructed with due regard for the health and comfort of its occupants.

In selecting a site for your poultry-house bear in mind that the location should be as dry and warm as possible. If you can locate it on a piece of ground sloping gently to the south do so, for in this latitude every poultry-house should have a south front.

After deciding upon the location of your house you should next determine the size that will be necessary to meet your requirements. Bear in mind that each pen of 6 or 12 fowls should not have less than seventy square feet of house room; that you should have separate apartments for sitting hens; that you should provide a warm and comfortable room for sick and diseased fowls; that a feed room is necessary and that you should have surplus pens in which to keep cockerels by themselves, and pullets by themselves, as during the early winter it is quite necessary that the growing chicks should be fed more liberally than old fowls should be.

In fact, you can't have too large a poultry-house. Build it twice the size that you think you will need and you will find use for every square foot of it.

In preparing plans for your fowl-house have constantly in view these points, viz: economy and durability if you are breeding for profit, size, convenience, warmth, ventilation and sunlight.—Fanciers Gazette.

RAISING TURKEYS.

FOR an ordinary place, select from a good breed (I prefer the bronze) a large gobbler and two or three hens. If the selection be made from a flock that has been raised about the house, so much the better, as then they will ramble from home less. About Mar. 1, or as soon as the warm weather comes, place

about the barn in sheltered places two or three barrels on their sides, and in them make nice nests. In these the hens will lay. Gather the eggs every day, placing them in boxes and keeping in a cool place. When a box contains 23 eggs mark it No. 1 and begin to fill a second box, and when it contains 23 eggs mark it No. 2 and so continue as long as eggs are received. When a hen first desires to sit, pen her up just as you would a common hen and thus secure a second laying from her, or in some cases one may secure three layings. It is well to leave turkey hens on the nest two or three days, for they often lay one or two eggs after they begin to show signs of sitting.

When you have decided to sit a hen, give her a nest and 15 eggs and at the same time give a common hen eight eggs. These, when hatched, are all to be given to the turkey hen. Never try to raise turkeys with a domestic fowl, for, after much trouble, you will generally lose them all. When the young birds have hatched take the hen under your arm, gather the young ones into a basket and carry them all to a plot of grass land on which the grass is very thin, so that the young birds can run freely. Here throw down some feed and leave them. If you have no place free of heavy grass, you can start turkeys with difficulty. Feeding is of the greatest importance. For the first week I have found wheat bread moistened in water the most satisfactory. The birds should be fed very early in the morning. If you can feed them by sunrise for the first three or four weeks, you need lose hardly a bird. If not fed, the old hen wanders about, the little ones become wet and cold and speedily die. Feed them morning and evening, and each evening, try and call them nearer and nearer home, so that you will not be troubled with their wandering to the neighbors. As early as possible train them to roost high, so as to be out of danger at night. With a little care they will soon learn to do this. Especially guard them against dogs. Bird dogs kept by many persons for hunting are often very destructive to turkeys, at times destroying a whole flock in a single night. When the flock is reared, fatten with corn, and do not kill until cold weather is established. I have long held that the turkey crop ought to be one of the most profitable on our farms.

Union County, Pa.

G. G. GORR,

Report of the Poultry Manager of the Government Experimental Farm, Ottawa.

PROFESSOR WILLIAM SAUNDERS,
Director Experimental Farms,
Srn.--I have great pleasure in submit-

ting the first report of the Poultry Department of the Central Experimental Farm. Although the operations thus far have been on a comparatively limited scale yet some results have been ascertained which, it is hoped, will be of interest and benefit to the farming community and especially to those desirous of obtaining eggs and poultry for market or home use.

In the early part of the month of May last it was deemed advisable, in order to have a number of fowls ready for the occupation of the poultry building about to be erected on the Farm, to procure eggs of the most useful varieties and hatch them by means of sitting hens, a number of which had been secured. Accordingly 30 sittings, representing 388 eggs, were purchased from the leading breeders of Canada, Great Britain and the United States. Eggs from the latter country were obtained for the purpose of securing different strains for breeding purposes in the forthcoming spring. The following table will show the number of eggs purchased and the results therefrom:—

EGGS PURCHASED AND CHICKENS HATCHED.

No. of Sittings	No. Eggs Set.	DESCRIPTION OF EGGS.	No Chickens Hatched.	Date when Chickens were hatched.
1	13	Buff Cochins	9	May 18
2	26	Andalusian	18	18
1	13	Black breasted Red Game	8	30
2	26	Plymouth Rocks	15	9
2	26	Wyandottes	8	29
2	26	White Leghorns	19	June 7
1	13	Silver Pencilled Hamburgs	5	May 25
2	26	Bearded Golden Polands	8	25
2	26	Houdans	15	25
1	13	Black Hamburgs	7	25
1	13	Langshans	1	23
1	13	Black Minorcas	9	June 5
FROM ENGLAND				
1	12	Indian Games	7	July 4
1	12	Red Caps	5	4
FROM UNITED STATES				
1	13	Dirigos	5	June 2
2	26	Black Minorcas	13	27
1	13	White Leghorns	6	16
1	13	Houdans	3	18
2	26	Colored Dorkings	8	16
1	13	Buff Cochins	4	16
1	13	Black Java	8	16
1	13	Langshans	4	27
		Hatched in Incubator	25	May 31
30	388		209	
DUCES				
1	12	Pekin	4	June 13
1	11	"	3	29
2	33		7	

It will be seen from the above that 209 chickens were hatched, which was satisfactory, when the very unfavorable season and the long distance the greater number of the eggs travelled, are taken into consideration. It is worthy of

TO THE DEAF.—A person cured of Deafness and noises in the head of 23 years standing by a simple remedy, will send a description of it FREE to any Person who applies to NICHOLSON, 177 McDougal Street, New York.

notice that from twelve Indian game eggs, shipped by Messrs. Abbott Bros., of Norwich, England, seven chicks were hatched, and from twelve Red Cap eggs, shipped by the same firm, five chickens were the result. The eggs were sent from Norwich, England, to the agent of the firm in Toronto, and were by him re-shipped to Ottawa, so making a long journey by ocean steamer and railway, yet yielding a return of 50 per cent., thus proving that fertile eggs, properly packed, can be shipped a long distance and hatch well. In this case the eggs were packed in cut straw.

EGGS FROM CANADIAN BREEDERS MATCH BEST.

It will also be seen that the eggs supplied by Canadian breeders hatched better than those from the United States. The eggs furnished by our home breeders were wrapped in paper and packed in bran, while the eggs from the United States breeders were tightly packed in saw dust, a method strongly condemned by Canadian poultrymen, who assert that the turpentine contained in pine sawdust lessens the fertility of the eggs. There is room for interesting experiment here.

To be Continued.

For the Poultry Weekly.

Toronto, Bantam, Pigeons, and Pet Stock Club.

THIS club held its regular monthly meeting at 27 1/2 Wellington Street East, on 16th inst., the President, Mr. Miles, in the chair.

There was a fair attendance of members present, but not so many as we would like to see.

The annual report was not yet prepared by the late secretary, and it was proposed that he be present at the next meeting with the best report he can make.

Mr. Desaporte was requested to attend the next meeting and explain, or send a written statement in regard to the Homer rings.

As only one auditor was appointed to audit last year's report viz., Mr. J. H. Thompson, Mr. H. B. Donovan was also appointed to make up the proper number.

The prizes were offered for ornamental Bantam cocks. Only one bird turned up, viz., a Golden Sebright, which was disqualified for being over standard weight. Judges were Messrs. Thompson, Donovan and Miles.

The meeting then adjourned. Receipts \$3.50. All come next meeting.

E. F. DOTY, Secretary.

P. G. KAYES.—Your favor of the 29th received together with a copy of the *POULTRY WEEKLY* with which I am much pleased. I am glad to note the rapid strides the poultry industry is making in Canada, and trust that you will make the *WEEKLY* a success. It is certainly a step in right direction.

QUERY • DEPARTMENT.

TELLING SEX OF EGGS.

I am a beginner in poultry. A friend told me that the round eggs would hatch pullets, and the long eggs would hatch roosters, will they? I want to get most pullets if I can.

S. R.

Owen Sound.

Your friend has not had enough experience in that line I think. With us no rule has worked to give us control of sex. It has occasionally happened that a certain result was obtained once or twice, and then again would fail us altogether. An old cock mated to pullets may sometimes give a preponderance of pullets, but not always.

A LONG FELT WANT.

J. M. CARSON.—I have received the first copy of *THE POULTRY WEEKLY*, and I congratulate you on its appearance. We have often read of a long felt want but in many cases the publishers felt a long want viz, want of money, but this weekly poultry journal is one of the greatest "wants" of a poultry man of all others. The idea of having to wait a round month when we have anything to dispose of is very perplexing. This is the case especially when we are overstocked with male birds and wish to run them off quickly, but this trouble can now be obviated to a very great extent by using the *WEEKLY*. Most breeders know that there is scarcely a week during the year in which they do not require to either buy, sell or exchange something in their line; therefore I say that the *POULTRY WEEKLY* is a great boon to the whole poultry fraternity and I wish it every success.

Orangeville, Ont.

DOUBLE OR SINGLE WINDOWS.

I am thinking of building a new house this summer for my fowls, and wish to ask your advice whether double windows and shutters or single windows and shutters would be best, and is the tarred paper any good to help keep away vermin?

S. J. G.

Omemeé.

In our opinion the single windows and shutters would be preferable. Glass throws back the cold, although the air space between would prevent it to some extent. Still the shutters would stop it altogether; have them inside the house. If you sit with your back near an uncovered window on a very cold day you will find out how the cold will strike to you, but put a blind up and the effect is wonderfully lessened. Yes, the tarred paper is good, but nothing will keep away vermin if they collect about the

perches. The tarred paper will keep them off the walls, but there are other places where the paper could not be applied and they would collect there. Have the perches movable, and use coal oil on them and on the rests they stand upon.

A Grand Trial Trip.

We want every poultry fancier or breeder in the country on our list of subscribers, and to them we make the following liberal offer:

There are none of you but either have something for "sale or exchange" or some "want," and we offer to all who send us \$1.00, subscription to the CANADIAN BEE JOURNAL AND POULTRY WEEKLY for one year, a

Free Trial Advertisement

in the "Exchange and Mart" column of the C. B. J. & P. W. Upon receipt of One Dollar we will credit you one year ahead on our subscription list, and will insert at any time during the next six months a FIVE-LINE advertisement as above, for two consecutive weeks.

Cash must accompany the order.

If you do not need the advertisement at once we will, on receipt of your remittance, send you a coupon, which will be good at any time during the continuance of this offer.

It applies to anybody and everybody who desires to take advantage of it, and who conforms to the conditions, viz - pays one full year in advance.

Our regular price for such advertisements as this is 25c. per week, per insertion, and should you wish the advertisement longer than two weeks, it will be charged at the above rates or five times for \$1.00.

Do not delay in taking hold of this grand opportunity.

THE D. A. JONES CO. Ltd., Boston,



The Canvassers Opportunity.

I hereby offer a sitting of Light Brahma eggs to the person sending in most names by the 15th May with one dollar for each, for yearly subscription to the CANADIAN BEE JOURNAL AND POULTRY WEEKLY. These eggs are from my prize winners, and I have put the date early so that chicks may not be too late to do well. To the person sending next largest number of names, by May 25th, with dollar for each, I will give one sitting of Plymouth Rock, or single comb White Leghorn eggs. This is a good chance to get to work. Three names to be the lowest received. As soon as the Publishers notify me on expiration of the days named I will ship eggs at once. Send full name and address, with names sent in. The publishers will notify the parties who obtain prize, and then notify me. Send all names and remittances to the Publishers at Boston.

W. C. G. PETER,

Angus, Ont.



Coming Shows.

ONTARIO.

Dunnville, Dec. 3, 4, and 5. R. H. Marshall Sec'y.

OHIO.

Central Ohio, at Mt. Gilead, Ohio, January 7th to 11, 1890. J. Y. Bickdell, Judge, W. F. Bruce, Secretary.

Cleveland, January 14th to 19th, 1890. C. C. Schellentrager, Sec., Glenville.

Fayette Association, at Washington C. H., January 14th to 16th, 1890. J. B. Collier, Sec.

Union, at Cardington, Dec. 17, to 21, 1889. G. S. Singer, Secretary.

NEW YORK.

International, Buffalo, N. Y., December 11th to 18th, 1889. H. M. Fales, Sec., La Salle, N. Y.

ENGRAVINGS.

As publishers of the BEE JOURNAL we have exceptionally good arrangements made for the production of engraving of all kinds, and we can assure all poultry-men who favor us with orders for cuts, getting exact representations of their stock, of perfect work, and at extremely reasonable rates. We do not give our work to Canadian engravers, who while they do good work, charge high prices, but we go right to head quarters for it all—to New York city. We will charge only actual cost of production to advertisers. All we want from you is a good photograph of your bird or of your pen.

Poultrymen should note the fact that the JOURNAL issued weekly and that it visits the homes, and the advertisements catch the eye four times as often as the monthlies, at no higher scale of charges. The circulation is rapidly increasing.

ADVERTISEMENTS.

GLEN VILLA POULTRY YARDS.

A. R. MCKINLAY,

Breeder and Importer of High-Class

POULTRY.

The Renowned Autocrat Strain of Light Brahmas, Langshans, Pea-Comb Barred Plymouth Rocks, White Plymouth Rocks, W. F. Black Spanish, Silver Spangled Hamburgs, Buff Pekin Bantams and Pekin Ducks:

SILVER PENCILLED HAMBURGS.

♣ Eggs \$3.00 per 13. Hamburgs \$2.00 per 13. No stock for sale until the fall.

BOX 18,

DEER PARK, ONT.

W. C. G. PETER,

IMPORTER AND BREEDER OF

WYANDOTTES

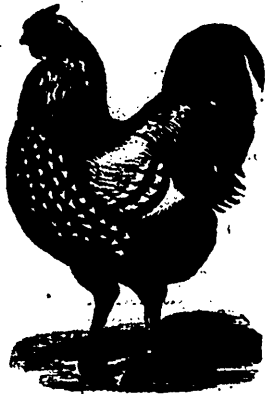
Plymouth Rocks, Rose Comb, White & Brown Leghorns,

Single-Comb White Leghorns, Light Brahmas, Langshans,
B. B. R. and S. D. W. Game Bantams.

My Stock is A1. Eggs in season \$3.00 per setting, two for \$5.00. Birds for sale at all times. At the late great Ontario Show, held in St. Catharines I exhibited 15 birds and obtained 13 prizes. Send for Circular.

ST. GEORGE POULTRY YARDS,

ANGUS, ONT.



W. A. SOULES.

IMPORTER AND BREEDER OF

SILVER LACED - -

—AND—

WHITE WYANDOTTES.

ADDRESS :

HIGHGATE, ONT.

THOS. BARRETT,

Norfolk Poultry Yards,

BREEDER AND IMPORTER OF

LANGSHANS.

SILVER GREY DORKINGS, SILVER-LACED WYANDOTTES, AND SILVER SEBRIGHT BANTAMS.

Eggs in Season, \$3.00 per Setting ; two for \$5.00.

ANGUS. - - ONTARIO.

SID. CONGER,

Flat Rock, Ind.

BREEDS PRIZE-WINNERS OF

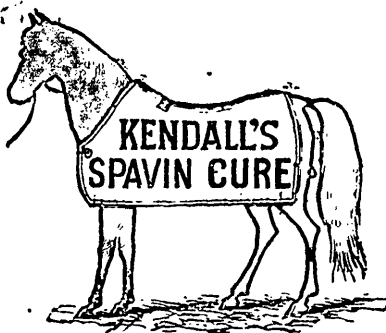
PLYMOUTH ROCKS

—AND—

GOLD & SILVER WYANDOTTES.

Will sell prize-winners to any one that wants to win. Send for illustrated circular giving matings, prices and prizes won: EGGS, \$3 and \$5 a setting.

SID CONGER, FLAT ROCK, INDIANA.



The Most Successful Remedy ever discovered, as it is certain in its effects and does not blister. Read proof below.

KENDALL'S SPAVIN CURE.

OFFICE OF CHARLES A. SNYDER,
BREEDER OF
CLEVELAND BAY AND TROTTING BRED HORSES.
ELMWOOD, ILL., Nov. 2, 1888.

DR. B. J. KENDALL CO.

Dear Sirs: I have always purchased your Kendall's Spavin Cure by the half dozen bottles, I would like prices in larger quantity. I think it is one of the best treatments on earth. I have used it on my stables for three years.

Yours truly, CHAS. A. SNYDER.

KENDALL'S SPAVIN CURE.

BROOKLYN, N. Y., November 8, 1888.

Dear Sirs: I desire to give you testimonial of my good opinion of your Kendall's Spavin Cure. I have used it for lameness, Stiff Joints and Spavins, and I have found it a sure cure, I cordially recommend it to all horsemen.

Yours truly, A. H. GILBERT,
Manager Troy Laundry Stables.

KENDALL'S SPAVIN CURE.

SANT, WINTON COUNTY, OHIO, Dec. 19, 1888.

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