

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured covers/
Couverture de couleur
- Covers damaged/
Couverture endommagée
- Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée
- Cover title missing/
Le titre de couverture manque
- Coloured maps/
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur
- Bound with other material/
Relié avec d'autres documents
- Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure
- Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.
- Additional comments:/
Commentaires supplémentaires:

- Coloured pages/
Pages de couleur
- Pages damaged/
Pages endommagées
- Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached/
Pages détachées
- Showthrough/
Transparence
- Quality of print varies/
Qualité inégale de l'impression
- Continuous pagination/
Pagination continue
- Includes index(es)/
Comprend un (des) index
- Title on header taken from: /
Le titre de l'en-tête provient:
- Title page of issue/
Page de titre de la livraison
- Caption of issue/
Titre de départ de la livraison
- Masthead/
Générique (périodiques) de la livraison

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12X	16X	20X	24X	28X	32X

THE CANADIAN BEE JOURNAL

AND POULTRY WEEKLY.

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

Vol. V. No. 29 BEETON, ONT., OCT. 9 1889. WHOLE No. 237

THE CANADIAN BEE JOURNAL & POULTRY WEEKLY.

PUBLISHERS' NOTES.

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.....	4.00	6.00	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 forbid 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., Boston,

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

The CANADIAN BEE JOURNAL and POULTRY WEEKLY will be continued to each address until otherwise ordered and a 1 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 55 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 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 Bee-keepers and poultrymen 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.

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".....	1.40
" " "Beekeepers' Review".....	1.40
" " "Beekeepers' Advance".....	1.50

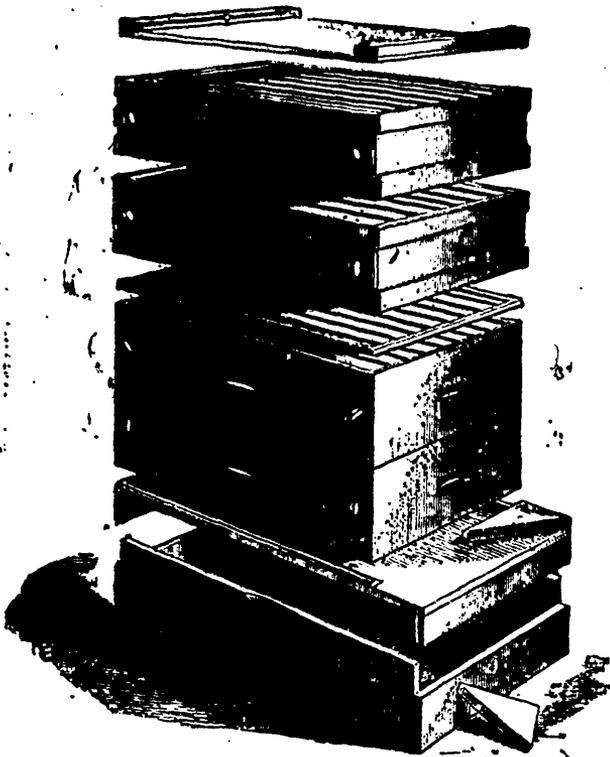
HEDDON'S PATENT HIVE

I des re to notify Canadian Bee-Keepers that I have arranged with the D. A. JONES CO., of Beeton, Ont., for the exclusive sale of their Canadian Patent on the hive of my invention, so that all desiring

INDIVIDUAL OR TERRITORIAL RIGHTS

Will hereafter communicate with me. I will also receive orders for hives and have the same promptly shipped from their factory in Beeton. This hive is now, after three years' public use, the most popular hive in the world among leading honey producers, and has the most and best testimonials from such men as Langstroth, Cook, Hutchinson, Taylor, Stiles, Baldridge and many others, ever spoken or written of any bee hive. For this testimony, full discription with illustrations and prices, address

JAMES HEDDON
DOWAGIAC, MICH.



THE COMBINATION HIVE.

This hive, which we now make in two sizes, to hold eight and nine frames, is the best and cheapest in the market to-day. The inside dimensions are:

	Length	Width	Depth
Nine frame....	12½ in.	18¾ in.	12½ in.
Eight frame... 10½ "	18¾ "	12½ "	10½ "
The frame measures	12½ "	10½ "	

NINE FRAME HIVES.

Price each in lots of	1	5	10	20	50
No. 33—For extracted honey—Brood chamber, cover, 9 brood frames, second story and 9 extracting frames (same size as brood frames) made up....	1 50	1 40	1 35	1 30	1 20
No. 34—No. 33 in flat	1 15	1 10	1 05	95	
No. 35—For Comb Honey—Brood chamber, cover, 9 brood frames, and two supers, suitable for Reversible Honey Board and to hold twenty-seven 4¼x4¼x1½ sections, made up.....	1 72	1 10	1 05	1 00	95
No. 36—No. 35 in flat	87	83	80	75	
No. 37—For comb honey—Brood chamber, cover, 9 brood frames, and two supers suitable to take either J rests or skeleton crates. (J rests take 27 4¼x4¼x1½ sections; skeleton crates take 27 4¼x4¼x1½ sections) specify which—made up....	1 12	1 10	1 05	1 00	95
No. 38—No. 37 in flat	87	83	80	75	
No. 41—Brood chamber, including frames and cover, made up	75	83	80	78	75
No. 42—No. 41 in flat	65	62	60	55	
No. 43—Second stories, including frames only, made up....	70	75	63	60	55
No. 44—No. 43 in flat	55	52	50	45	

EIGHT FAME HIVES

No. 45—Same as No. 33, but holding only 8 frames, made up	1 35	1 25	1 20	1 10	1 00
No. 46—No. 45 in flat	1 00	95	90	80	
No. 47—Same as No. 35, but holding only 8 frames in brood chamber, and taking twenty-four 3¼x4¼x1½ sections, made up.....	1 00	95	90	87	85
No. 48—No. 47 in flat	75	70	65	63	
No. 49—Same as No. 37, but holding only 8 frames, made up	1 00	95	90	87	85
No. 50—No. 49 in flat	75	70	65	63	
No. 51—Same as No. 41, but holding only 8 frames, made up	75	72	70	67	65
No. 52—No. 51 in flat	55	53	50	45	
No. 53—Same as No. 43, but holding only 8 frames, made up	65	62	60	57	55
No. 54—No. 53 in flat	45	42	40	35	

REVERSIBLE HONEY BOARDS AND REVERSERS FOR COMBINATION HIVE.

The prices for these are the same for either eight or nine frame hives.

Price each in lots of.....	1	5	10	20	50
No. 55—Without perforated metal, made up.....	25	24	23	22	20
No. 56—No. 55 in flat....	22	21	20	19	17
No. 57—With perfd metal made up.....	30	29	27	26	25
No. 58—No. 57 in flat....	25	24	23	22	20
No. 59—Reversers made up	15	14	13	12	12
No. 60—No. 59 in flat.....	13	12	11	10	10

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

ADVERTISEMENTS.

TABLE OF CONTENTS.

BEE-KEEPING.	
Benefits of bee culture	633
Combs, preserving empty	637
Cruciation, its prevention	642
Cruciation of honey	644
Honey, does light injure	633
Queen rearing, new methods of	634
Robbing to prevent	635
Feeding sugar	635
Bees drowning in feed	636
Winners at Hamilton	634
T. Font	634
POULTRY	
Benefit of Exhibitions	639
Best broods for eggs	670
Detroit's great fair	670
Exhibits at Barrie	672
Detroit	673
Ontario Poultry Association	676
Poultry in large flocks	676
Winners at Detroit	674

CHEAP!

LIGHT Brahmas, cockerels and pullets bred from 1st cock at Toronto and Hamilton; P. Rocks, Cochins, Leghorns, Blk Javas, G Polands, Langshans (4 on 8, Cayuga Ducks, Game and soabright (anytime) 1) Firsts, 8 seconds and diploma at Kingston 13 firsts and 10 seconds at Ottawa, 9 firsts, 7 seconds and diploma at Toronto 6 firsts, 1 second on 9 entries Barrie 10 firsts, 8 seconds, 8 diplomas, Hamilton.

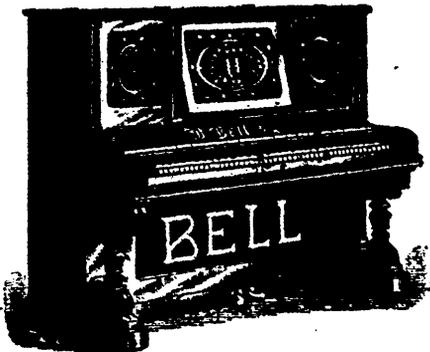
A. G. H. LUXTON,
Hamilton P.O., Ont.

CARNIOLAN BEES

Pleasantest Bees in the World, hardest to winter, best honey gatherers. In order to introduce them to the bee but our paper THE ADVANCE, we offer to anyone who will send us \$1.25 a copy of our paper and a nice Carniolan queen. The queen alone is worth \$2. Address

THE ADVANCE, Mechanic Falls, Me

BELL PIANOS.



QUALITY, FIRST-CLASS, TONE, PURE and BRILLIANT, DURABILITY UNAPPROACHED, CATALOGUE FREE.

W. BELL & CO., GUELPH, Ont

THE BEE-KEEPER'S REVIEW.

A 50 cent Monthly that gives the cream of apicultural literature; points out errors and fallacious ideas and gives each month the views of leading bee-keepers upon some special topic. -THREE samples free.

W. Z. HUTCHINSON

618 Wood Street, Flint, Mich.

1889 19th YEAR IN QUEEN REARING 1889 ITALIAN QUEEN BEES.

Sorted queen in April, May and June\$1.60
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, \$1.20 per setting of this town.

W. P. HENDERSON,
Murfreesboro' Tennessee.

Muth's Honey Extractor.

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

CHAS. T. MUTH & SON.

Cor. Freeman & Central Avenues, Cincinnati

FRIENDS IF YOU ARE IN ANY WAY INTERESTED IN BEEES AND HONEY

We will with pleasure send you a sample copy of our BEE-MONTHLY GLEANINGS IN BEE-CULTURE, with a descriptive Price-list of the best improvements in Hives, Honey Extractors, Comb Foundation, Section Honey Boxes, all books and journals, and everything pertaining to bee-culture. Nothing patented. Simply send your address on a postal card, written plainly A. I. ROOT, Medina, Ohio

THE ODELL TYPE WRITER

\$15 will buy the ODELL TYPE WRITER. Warranted to do as good work as any \$100 machine.

It combines SIMPLICITY with DURABILITY—SPEED, EASE OF OPERATION—wears longer without cost of repairs than any other machine, has no ink ribbon to bother the operator. It is neat, substantial, nickel plated—perfect, and adapted to all kinds of type writing. Like a printing press, it produces, Sharp, Clean Manuscripts. Two to ten copies can be made at one writing. Editors, lawyers, ministers, bankers, merchants, manufacturers, business men, etc., cannot make a better investment for \$15. Any intelligent person in a week can become a GOOD OPERATOR, or a RAPID ONE in two months.

\$1,000 offered any operator who can do better work with a Type Writer than that produced by the ODELL. Reliable Agents and Salesmen Wanted. Special inducements to Dealers. For Pamphlet, giving endorsements &c., address the

The Odell Type Writer Co.

THE ROOKEY, CHICAGO, ILLS.

ANNUAL EXHIBITION
OF
Dunnville Poultry and Pet Stock Association
AT
DUNNVILLE
ON
DEC. 3, 4, 5th, '89

Open to All!
Enlarged Prize List.
New Attractions.
ALL PRIZES PAID IN FULL

For all information address

Louis A. Congdon.

Secy. D. P. & P. S. A.
Dunnville, Ont.

PATENTS!

Patents, Caveats, and Trade-marks procured. Rejected Applications Revived and prosecuted. All business before the U. S. Patent Office promptly attended to for moderate fees and no charge made unless Patent is secured. Send for "INVENTOR'S GUIDE."
FRANKLIN H. HOUGH, Washington, D. C.

The Improved Monitor Incubator
FIRST PRIZE

AT THE GREAT N. E. AGRICULTURAL FAIR, WINCHESTER, MASS.

Send for circulars which contain valuable information.

A. F. WILLIAMS,
BRISTOL, CT, U.S.A.

SAVE YOUR BEES

From dying in winter, spring dwindle and chill of brood in spring and from the heat in summer by using

MY NEW CHAFF HIVES.

The surplus can be tiered up the same as on the slung or walled hives. Labor in the apiary is greatly reduced in preparing for winter and summer. They hold eight frames of the improved Langstroth size, and \$2.00 gets a sample complete, unpacked. Quantities in flat at rock bottom prices. The speediest foundation fastener which does the best work for only 50c. A full line of supplies made and kept in stock. Send for price list.

W. A. CHRYSLER, Chatham, Ont. Box 457.

BEES AND HONEY.

TO ALL that are interested in Bees and Honey, send for our Free and Illustrated Catalogue of Apian Supplies. Address

M. RICHARDSON & SON,

Port Colborne, Ont.

Game Fowls Exclusively

Irish Grey, English, Irish and American B. Reds, English, Dorbys, Hawthoods, Claibournes, Dominiques, Malays, Mexican Greys and Grists. Free circular. Send for it.

O. D. SMITH,
Fort Plain, N. Y.

**HOW TO MANAGE BEES;
OR BEE-KEEPING FOR THE "MASSES"**

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. VANDRUFF, Wayneburg, Pa.

Ask For Ayer's

Sarsaparilla, and be sure you get it, when you want the best blood-purifier.



With its forty years of unexampled success in the cure of Blood Diseases, you can make no mistake in preferring Ayer's

Sarsaparilla

to any other. The fore-runner of modern blood medicines, Ayer's Sarsaparilla is still the most popular, being in greater demand than all others combined.

"Ayer's Sarsaparilla is selling faster than ever before. I never hesitate to recommend it."—George W. Whitman, Druggist, Albany, Ind.

"I am safe in saying that my sales of Ayer's Sarsaparilla far excel those of any other, and it gives thorough satisfaction."—L. H. Bush, Des Moines, Iowa.

"Ayer's Sarsaparilla and Ayer's Pills are the best selling medicines in my store. I can recommend them conscientiously."—C. Bickhaus, Pharmacist, Roseland, Ill.

"We have sold Ayer's Sarsaparilla here for over thirty years and always recommend it when asked to name the best blood-purifier."—W. T. McLean, Druggist, Augusta, Ohio.

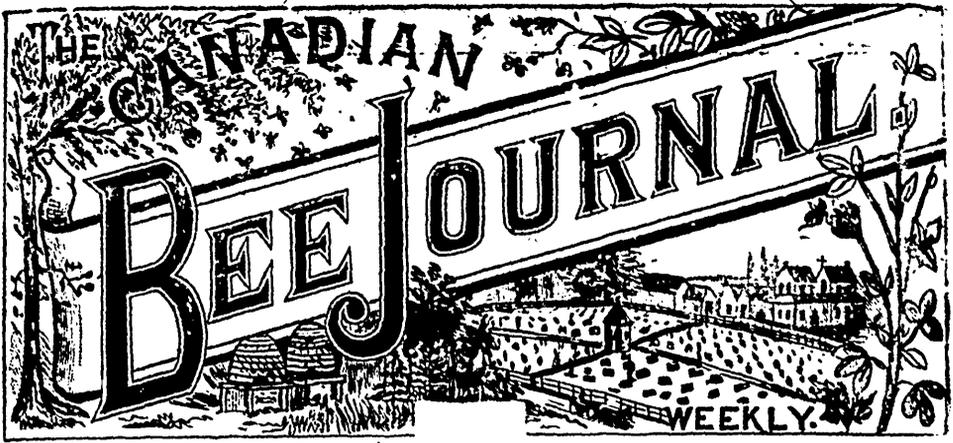
"I have sold your medicines for the last seventeen years, and always keep them in stock, as they are staples. There is nothing so good for the youthful blood as Ayer's Sarsaparilla."—R. L. Parker, Fox Lake, Wis.

"Ayer's Sarsaparilla gives the best satisfaction of any medicine I have in stock. I recommend it, or, as the Doctors say, 'I prescribe it over the counter.' It never fails to meet the cases for which I recommend it, even where the doctors' prescriptions have been of no avail."—C. F. Calhoun, Monmouth, Kansas.

Ayer's Sarsaparilla,

PREPARED BY

Dr. J. C. Ayer & Co., Lowell, Mass.
Price 25c per bottle, \$5.00 per dozen.



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

VOL. V. No. 29 BEETON, ONT., OCT. 9 1889. WHOLE No. 237

SPECIAL ANNOUNCEMENT.

We have completed arrangements with the publishers of the *Farm Journal*, a first class agricultural monthly, published in Philadelphia, whereby we can make the following unparalleled offers :

1—To every present subscriber who will get us a new subscription, for one year at \$1.00, we will send the *Farm Journal* FREE, and the new subscriber, whose name is sent will also receive it free of all charge.

2—For 30 cents, we will send the CANADIAN BEE JOURNAL AND POUDRY WEEKLY, the balance of the year (1889) and the *Farm Journal* right through 1890.

This splendid offer enables all our subscribers to get for themselves an excellent agricultural paper, *absolutely free of charge* and we hope to see hundreds of our patrons take advantage of it. Please lose no time in attending to this matter. All subscriptions received with \$1.00, will be entered as expiring January 1st 1891, so that the new subscribers will receive each paper 15 months. Come now, and help us.

EDITORIAL.

SOME of our friends have asked whether they should buy or rent their bee farms. That of course depends on circumstances. I used to be more in favor of buying than I am at the present time. It seems from the last two seasons' experiences that those who are not bound to the one locality are likely to be more successful. Our locality here at Beeton used to be an extraordinarily good one for honey, it used to abound in golden rod, bone set, aster willow herb in fact all the fall flowers necessary to a yield of honey after the clover and basswood were over until the frost came.

Lately however it has been growing scarcer until we have been forced to move our bees to get the fall bloom and the basswood being largely cut away deprives us of the yield from that source our apiary. We think 50 colonies here now, would not have any more flowers to gather from in proportion to their number than 500 had years ago.

Where the land is largely cultivated for raising grain, and the farmers summer fallow a large area every year thus destroying the natural white clover it must necessarily make a great difference. We are more than ever convinced that where farming is conducted on the most favorable plan is not the best for bees, especially if much of the

timber has been taken away. We think the forest usually contributes more to wards the honey crop, or successful bee-keeping than it usually gets credit for. In a few years the large number of basswoods that have been planted about the roads and streets of our village will replace much of our valuable basswood timber that is being continually removed.

* *

A full report of the bee and honey show at Detroit, will appear in next issue.

FOR THE CANADIAN BEE JOURNAL.

Granulation—Its Prevention.

TO the question in the Canadian Bee Journal of August 14 about preventing honey granulating, only the few answers which recommended sealing the honey while hot came any way near what I consider the secret of success: and even their method I have found by repeated disappointments to be unreliable.

Now it may be presumption for me to write, uninvited, upon this subject; but since the C. B. J.'s motto is "The greatest possible good to the greatest possible number" I risk criticism for breach of etiquette that I may add a little to our scanty store of apicultural knowledge.

It is all very well to liquify honey, as some answers suggested, and do it up nicely just before delivering it to the customer; but it is very annoying to find that the dealer, who admired it and gave it a prominent place when he first received it, has become disgusted with it and placed it out of sight, just because it granulated, and was, in public opinion, unfit for use; or to find that some dealer, more enterprising than his fellows, has taken the trouble to liquify his lot; but in doing so has either scorched it or so dirtied the labels and packages that they are not fit to look at. Suppose, though, that the plan of sealing while hot were reliable (it may never fail with some—it won't work with me) it is not always desirable to use packages which seal hermetically; we often want small cheap ones, and sometimes wish to keep our honey in large tins with or without gates, and which we cannot conveniently make air-tight. Honey which is sealed hot and allowed to cool slowly loses much of its flavor and much of that feeling of fullness so enjoyable in good ripe honey. For a long time I disbelieved this last statement; and when I accepted it, I supposed the injury was

caused by the heating; but now I know that the loss takes place when the honey is cooling, and in cooling contracting, for while contracting its globules, which have become somewhat flattened and thinned by the heating, do not return to their original form, and are incapable of absorbing the flavor which they had lost in the heating, and which is free among them. This flavor escapes, and the fullness of the globules which causes (or results in) an abnormal massiness of the honey spoils (or rather will not admit of) that delightful full feeling possessed by honey which has not granulated.

Very well then! Can granulation be prevented, and can granulated honey be liquified without injury, and kept so? I think it can. I prefer to allow it to granulate and then, as I require it for my customers, to liquify and prepare it to remain so. I proceed as follows:—Heat honey in water bath to 200° F., fill packages and chill honey as rapidly as possible. In winter this chilling is easily done by placing the filled packages on ice, and piling snow around and over them. In spring or fall place them in running cold water, but in summer, when the water is not cold enough, (in spring and fall, too, with large packages) place the packages in a freezing box, and pack with ice and salt as for ice cream. As soon as the honey receives the chill, a thin artificial skin forms all around it in each package, and in a short time the honey is cold throughout. This honey will not regranulate unless air be incorporated with it; so that all that is necessary to preserve this liquid state is care that the honey is not subjected to much agitation or change of temperature.

The theory or explanation of this process is simple enough when we reason from the following already well known principles:—

1. Honey, like all liquids is made up of minute globules.
2. These globules contain the flavor;
- and (3) the presence of air in honey causes granulation. Together with a few discoveries which I have made on my own account viz:—(1.) That honey when heated gives off what air it contains; (2) That the flavor is lost in cooling; and (3.) that air is again absorbed after the honey is cooled enough for the globules to regain their normal vigor and form. (We all know what wonderful absorbent power cold ripe honey possesses, and how it will absorb damp air and ferment—hence the necessity to keep it in dry places.)

Now, when honey which has had the air driven off by heating is suddenly chilled, so that an air-tight coating is formed around it, the loss of flavor is impossible, and impossible too the absorption of air. Although with the escape of air in the heating the globules have lost some of their flavor, this flavor is still present in the honey among its globules, and the sudden chill causes the globules to contract vigorously to their spherical form, and to either absorb or imprison among them what flavor is free. When the honey is cold again it cannot absorb air because of the skin which envelopes it

In time this skin dissolves into the general mass, but not until the absorptive tendency of the honey has ceased, for a time at any rate. I will have more to say about granulation shortly.
G. B. JONES.

Toronto.

For the CANADIAN BEE JOURNAL.

Does Light Injure Honey.

THIS is the caption of an article written by Mr. G. B. Jones and published in last issue of the C. B. J. I think Mr. Jones is right in discarding the theory that exposure to light hastens the chrystalization of honey. I do not pretend to explain or to fully understand the chemical process carried on in the granulation of honey but am sure that its free exposure to air hastens it. This may be verified by repeatedly pouring out honey in a small stream; by doing this honey may be made to granulate in a very short time the motion of its particles in running off may facilitate the work, but I am sure air is a more potent element in this work than motion, and that light has nothing whatever to do with it. This may be verified by heating honey up to near the boiling point and thus expelling the air with which it is permeated. If poured into a vessel while hot and comparatively free from air and then hermetically sealed it will not granulate for years no matter to what degree of light it is exposed. This is a clear enough evidence to me that light is not a factor in the granulation of honey but that air is.

I think the explanation of the bees removing the honey from the outer comb may be found in the fact that bees like to carry on their operations in the dark and in accordance with this desire they removed the stores to comparative darkness. They worked to store it where they liked best to have it.

R. McKNIGHT.

Benefits of Bee Culture.

I SEE by the British Bee Journal that a great deal of time and money is spent by the benevolent in teaching the science of bee-culture. Father Langstroth used to say that if he did not make any money out of his invention, he should be satisfied if poor people who were not able to keep a cow, and have milk and butter, could learn how to keep bees, so that their children could have honey on their bread. Father Langstroth may yet live to see his wish verified, at least in the British Isles. This fostering of the industry may cause the product to be very cheap and cause a loss to specialists, but the society no doubt has at

heart the greatest good of the greatest number. If our population was so thoroughly instructed in bee-culture as they are in Great Britain, honey would soon be as cheap as milk.

BENEFITS OF BEE-CULTURE.—People who look upon bee-culture only from a pecuniary standpoint take a very narrow view. A hive of bees represents a great deal more than the honey and wax it contains, it has a good system of government, and is the only one known to the world in which the executive and officers are females. All the members of this community work together for the common good, and with a purpose. Whoever saw a bee that was gathering pollen fly off to see if a bee gathering honey was idling? No; every inmate attends strictly to her own business, not looking to the right or left. Such order, neatness, and dispatch, is not discernable in any other community.

The British Bee-keepers' Society is not only assisting people in a pecuniary point of view but elevating them to a higher plane of thought and action; it cannot be otherwise. Bee-culture is an educator of a high power, all the senses are quickened, the eye notices plants and bloom which before were unnoticed as useless weeds; the ear quickly discerns the note of a swarm, the cry of the robber, the hum of plenty, or the mourning wail of the queenless. The sense of smell tells us of the blooming of the linden, buckwheat and other flowers.

THE SEASON OF 1889.—The past two seasons were nearly failures of the honey crop, and this season has been much better, though scarcely up to an average. It has been a great season for increase, enough honey was coming in to keep up brood-rearing. Bloom has been very abundant, while at times the sun was very hot there was a cool-breeze, and the flights at times were uncomfortably cool. The winds appear to have much to do with the secretion of nectar. I put back all swarms except the first whenever possible, and this made a deal of work I will have the rent of my hives, and in many instances I could not collect in any other way than by extracting the outside combs. In this climate bees are loath to build comb in the fall, yet if they have empty combs, will fill it with thick honey for winter stores. I have no fears but what these combs will be refilled before winter.

WOMEN & BEE-KEEPERS.—Judging from my own correspondence, and other sources, women as honey producers are on the increase. I see in a late Gleasings that a widow had the management of one of Mr. Manum's apiaries, and that one sea-

son she produced five tons of honey in one pound sections. The next season was a poor one, and the apiary only yielded two hundred and fifty pounds of an inferior article. It was evident from this that management alone cannot produce large yields.

I have done the work in our apiary (numbering seventy-six colonies) almost entirely alone during the busy season. Some days I hived nine swarms; only once did I call for a man's assistance. A swarm plustered in the topmost branches of a greenash tree. He put a ladder against it, and standing upon it could scarcely reach the cluster, with one of Mannm's hiving baskets he hit the cluster once and got about fifty bees in it, got stung on his hands, and thought that he was most killed. I had previously out the queen cells from which they issued, calculating to return them. I emptied the few bees he caught in the basket in front of the hive, saying never mind trying to get them down any more. I went into the house to rest as I did not want to see them leave; in about an hour I looked at the hive and it was full of bees; I supposed that the man got the queen, and the rest returned to their hive seeking her. The strain of bees that I have generally cluster low, but this was a virgin queen, an old one would not have been guilty of such indiscretion. Mrs. L. Harrison in B.B.J.

The Granulation of Honey.

It is practically easy to understand how honey from one kind of flower granulates sooner than that from another source, or again, how it is that honey from one district, or in another season, shows a greater readiness to crystalize; but when one is brought face with the problem, "How is it that one bee-keeper's honey, got in the same season, in the same district, candies sooner than his neighbors?" the matter cannot be so readily dismissed.

We must first think of nectar being simply a solution of cane sugar in water, the amount of sugar and chemical peculiarities varying, of course, with the kind of plant with the wetness of the season, and also with the humidity of the air at the time of the nectar flow (electrical influence is, for the moment, beside the question). The business of the bee is to gather the nectar, remove some of the water by the help of its own system, and by the help of a salivary ferment convert the cane into grape sugar, by adding formic acid to the honey regurgitated into the cell its further fermentation is arrested, and its keeping quality well assured after still more surplus water is allowed to evaporate before the bee seals it up in the cell.

The honey is still one-fifth of it water; two-fifths of the rest is dextrose, or crystallisable sugar, with two-fifths levulose, or non-crystallizable. Extracting honey before it is all ripe will, we know, throw out some bearing an undue proportion of water in it, this having a tendency to retard the candying, but we shall throw out nearly all the dextrose, which increases this tendency. If, however, one waits till all is sealed, good ripe stuff, when it is extracted a certain portion of the crystalline sugar remains in the cell, and thus gives out a greater share of levulose (non-crystallizable) sugar. Such honey naturally holds out longer in a clear, fluid state. If I had to decide between A and B in the same district, A having readily candying honey, whilst B's remained fluid, I should say B extracted from nothing but sealed comb, whilst his neighbor was not so particular. If this was not the case, my alternative would be that the bees of A had easier access to water, thus allowing the crystalline sugar to be readily slung out of the cells. I am presuming that A keeps his honey in as warm a place as B; if not, there is really no question at issue. R. A. H. GRIMSHAW, in the Bee-Keeper's Record.

New Methods of Queen-Rearing.

ZINC-EXCLUDERS, ETC.

An interesting question now before our leading apiarists is, Can young queens be fertilized from a hive where there is a laying queen in the brood-chamber, the queens being excluded from the brood-chamber and each other, and given separate entrances?

This matter has been considered in the American Bee Journal, see page 26, Vol. XXV., where a negative view is taken. That view is still held. While it may occasionally occur, as in a great honey-flow, or where there is a failing queen, still it is an exception to a great law in the nature of the honey-bee; and that law is, that, so long as a vigorous queen occupies the brood chamber, she reigns practically supreme as regards all rivals. But if for any cause she deserts the brood-chamber for another and remote part of the hive, and begins laying, or if she leads out a swarm, the conditions for queen-rearing are essentially changed. The bees of that brood chamber will then start queen-cells, and, with proper mechanism, the bee-keeper may get every one of them hatched, fertilized, and laying, all in the same hive; at the same time, the bees have access to all of the queens.

Thus we may rear and get young queens fertilized from a hive while the mother-queen is actively depositing eggs in the same hive; but

it is imperative that her operations be transferred to a part of the hive remote from the brood-chamber.

In storifying a lot of brood-chambers containing combs of honey upon a colony (without excluders to prevent the queens going up), I found shortly after that she had gone up to the third story, and the bees below in the first story had started queen-cells. The queen was laying vigorously, and her attending bees were flying from the first story and the only entrance.

This liability of the queen to leave the brood-nest will account for the probable fact that colonies of bees in caverns and other places in a wild state have many laying queens, although all of the bees are seen to issue from a common entrance. In no other way can we account for the large number of bees seen to fly from some of these wild colonies. In the instance above noted, of the queen deserting the brood-nest, I put her back in the first story; put on an excluder, and then the seven other brood-chambers I had on this hive. The bees then balled and killed the mother-queen, and raised a queen above and below the excluder.

In two other cases, where I had put swarms containing the mother-queen above the sections, the bees reared young queens below while the mother was laying above. So in this case, where the mother-queen had gone up to the third story, if I had left her there she would not have been disturbed, and there would have been two laying queens in a short time. But I have yet to record a single instance among many cases I have had in the last three years, of a young queen becoming fertilized from an upper story above an excluder, where there was a laying queen in the brood-chamber.

One of the many plans of using the new queen-rearing chamber is to take the old queen from a hive and put her in an upper story, above an excluder, or, wait till she leads a swarm, and hive in the usual manner; then place all above the excluder. Before the queen-cells are ready to hatch, set the combs over the new chambers, so that there will be one cell to each of the compartments, and all of the young queens that hatch will become fertilized, and begin laying in due time.

The many and highly successful uses to which queen-excluding zinc may be put, hails the advent of great changes in our methods and fixtures. My prediction on page 88 of *Gleanings*, Vol. XVI., see the three closing paragraphs, will speedily come to pass, and other much-needed changes with it, not the least of which will be the sacrifice of the present largely used Langstroth brood-frame for one of a smaller

size, or one about 7 x 17 inches. The new conditions and requirements brought about will compel these changes, which are destined to place bee-keeping upon a more successful and profitable basis. It will be soon made to appear, if it is not already apparent, that bee-keeping, as a pursuit apart from other business, is not a profitable one (barring a few exceptions in favored localities), with our old methods and fixtures for handling bees. The new system, with its larger returns, and financial success, will work its own way to popular favor. G. L. TINKER. New Philadelphia, in *Gleanings*.

To Prevent Robbing, Etc.

SEVERAL THINGS TO BE CONSIDERED IN GETTING READY FOR WINTER.

A CORRESPONDENT asks if musk will prevent robbing, if placed in a hive which is being robbed. Musk, spirits of turpentine, kerosene oil, etc., have all been recommended to stop robbing; but I do not believe that, after robbing, is well under way, any of them will do any good. When robbers first attack a hive, a few drops of kerosene oil or spirits of turpentine sprinkled against the hive and on the alighting board, a few inches from the entrance, will often cause robbers to leave in disgust. However, I find that the best way is to contract the entrance at all times when robbing is likely to occur, so that but few bees can pass at a time. I have also tried leaving a pane of glass up before the entrance, as recommended by some of our English friends across the water, where robbers seem determined to enter any hive, but I do not see that it is in any way superior to contracting the entrance, while it seems to bother the bees of the hive much more. If robbers have really got possession of the hive, throw a sheet over it, so that those on the outside can not get in; and if the colony is good for any thing, they will soon drive out those already in, when the sheet is to be turned so as to get rid of them. Leave the sheet on till near sunset, when it is to be taken off so as to allow the few bees out to get into their hives. Fix the entrance so that but one or two bees can pass at a time, and the next morning they will take care of themselves. Something much better than the sheet for stopping robbers is a bee-tent, to be set over the whole hive; and where the apiarist has such a tent, it is hardly necessary for me to tell him to use it in place of the sheet.

FEEDING SUGAR

Another correspondent wishes to know how to feed his bees on sugar. There are two ways

of feeding sugar to bees; one of which is, to make the sugar into candy by kneading a little honey in with it, till it forms a stiff dough, as it were, or it can be made into large cakes of soft candy by boiling it just right in a little water, when it is laid over the frames for winter stores. During winter, the moisture arising from the bees collects on the candy, which moistens it to such an extent that the bees can lick it up, thus giving them a supply of food. However, during a cold spell it often happens that the bees fail to cluster on the candy, and the severe cold keeps them from leaving the cluster to reach it, so that starvation occurs, which is not satisfactory to the apiarist, hence this plan of feeding is not practised, only as the bees have been neglected till cold weather prevents any other way of feeding. When a colony has a few pounds of honey in the hive to "bridge" over these cold spells, this way of feeding is very satisfactory for the purpose intended. The second plan and by far the preferable one, is to make the sugar into a syrup, which is fed to bees in feeders during the warm days of September or October, so that they can store it in their comb, and cap it over the same as honey. As I have so many letters asking how I make this syrup, I think the editor will publish the matter again, even if he has already published the formula twice before.

Put 15 pounds of water in a vessel that will hold about 25 quarts, and bring the water to a boil. When boiling, slowly stir in 30 pounds of granulated sugar, so that it will dissolve, instead of settling to the bottom and burning. Now bring to a boil again, when it is to be set from the fire, and 5 pounds of good honey stirred in. This gives about 50 pounds of feed, of about the consistency of honey, the same being the best for winter feeding of any I know of.

BEES DROWNING IN FEED.

Still another correspondent wishes to know how he can feed his bees syrup without their sticking fast and drowning in it. To obviate this a very narrow feeder must be used so that the bees can cling to the feeder on each side; or a float must be provided for the wide feeder. A feeder which is more than $\frac{1}{2}$ of an inch wide will always drown bees unless the float is used. One of that width and under, needs no float, for the bees are never out of the reach of one side or the other of the feeder. As the larger part of those feeding bees use any thing that they come across for this purpose, the common six quart milk pan is probably more largely used than anything else. I will tell the readers how I used this successfully. To use such a pan as a feeder, however, the hive must have a

cover of depth enough to go over the pan, otherwise the bees from the outside would get at the feed and cause trouble. Set the pan on the top of the hive, and fill it with syrup, after which pull up two or three handfuls of the short grass about the hives, and scatter over the syrup for a float. Set up a piece of a section or chip against the side of the pan, so the bees can easily climb over to the feed, when a hole is to be opened to the hive below, by turning up one corner of the quilt, or removing a slat in the honey-board, for the bees to come up through. I now scatter a few drops of the feed down through the hole and over the chip, and put on the cover, seeing that all is tight about the joints, so that no bees can get in from the outside. As these pans hold about 20 pounds of feed this once feeding is all that most colonies require.

UNITING BEES.

Another correspondent wishes to know how it would do to unite two weak colonies of bees for winter. This is the proper thing to do; for two weak colonies, kept separate, will consume nearly twice the stores which both would united, and very likely perish before spring, while if put together they would winter as well as any large colony. The way I would proceed in such a case would be as follows: If one of the queens is known to be feeble or inferior, she is killed so that the best one may survive, when both colonies are smoked freely, I pounding on top of the hive as I smoke them, so that the bees may fill themselves with honey, after which one is carried to the stand of the other, and both hives opened. I now select out of both hives the combs containing the most honey, setting them in one of the hives alternately, so as to mix the bees as much as possible, thus causing them not to fight, and also to mark their location anew upon their first flight afterward, so few if any return to their former home. After the hive is filled with comb, close the same; and after putting a wide board in front of the hive, reaching from the ground to the entrance, shake the bees off the remaining frames, taking one from one hive and the next from the other, thus mixing the bees as before. Take everything, which would look like home, from the old stand, storing combs, hives, etc. away for another year and the work is done.—G. M. DOOLITTLE in *Gleanings*.

Send five cents for samples of our lithographed and other honey labels. It pays to have your packages bear your name and address. Honey tastily labelled finds ready sale.

Preserving Empty Combs.

AMONG the earliest works on bee-keeping that fell into my hands was Quinby's *Mysteries*. The author gave me but little hope of saving empty combs from the war-moth: by enclosing them in tight receptacles. Indeed, I think the writer said he had sealed up comb in air-tight vessels and yet had them infested with moth. The impression left upon my mind was that the price of spare comb was like the price of liberty, eternal vigilance. For years I sulphured my spare combs occasionally, and hung them where the air was so free about them that, except in hot weather, it could not rise in temperature to the hatching point: so that any eggs laid upon them remained inert. In 1887 I experienced a bad year and had combs remain without any swarms upon them, and as I was looking for a new location, and was expecting to break up my apiary here, I left them in empty hives, merely seeing that the entrances were well closed. Last year was a worse one; and I moved to where I had no honey-house or any conveniences for bee-keeping. More bees had died during the winter and they continued to starve out during the summer of '88. The prospect was so bad on account of drouth, last spring, that I paid little attention to my empty hives, or rather empty combs until the rains set in about the middle of May. I supposed from the little I had accidentally seen that my combs were all destroyed, but when I came to overhauling my hives, to have them ready for swarms, what was my surprise to find oomb in hives, two stories high, that had been tenantless for two years, quite intact, and with the exception of some mold, ready for bees to put honey in. Fully half my combs, kept in this careless, slipshod manner were so little damaged by moth and mold that bees filled them up in a day, or two after there were put upon them.

Many hives were telescopes, and for some reason that I cannot satisfactorily explain, most of the combs in these hives were wholly destroyed by moth or so moldy that bees cut them out, but in some permanently double-walled hives two stories high, they were as nicely preserved as one could wish. The single-walled hives did the best, though no better made or cared for than the others. Some of the telescope hives, that had the entrance in the cap only fastened up, had the half-inch space about the brood-chamber so full of cocoons that the hives were with difficulty gotten out of the caps, and they present a scarred and sorry sight to-day. Of course combs from the extractor that had been put away with honey on them were all right and ants had gotten into only one or two hives. My

hives are well made, better, perhaps, than the average, and after careful examination I am at a loss to account for the preservation of the combs in some, and their loss in others, all equally tight. In one hive containing 20 combs, I found a colony of large black ants but no moths. Here the combs were smeared with honey from the extractor two years before when put away. Wherever the hive had been cracked or shifted accidentally on the stand, so as to leave an opening large enough to permit the entrance of a moth, the combs were destroyed, unless it was one that contained no pollen and had not been bred in.

I have exposed such combs, in sections for years without having them damaged, and should not expect any trouble in keeping such: but in a large apiary there are but few such combs used in frames. I use the same above that I do below, because I find it best in the spring to transfer all drone combs, or combs that are too largely drone ceiled, to the upper story for store comb, and most of these are either bred in before they are lifted, or the queen goes up and lays in them after they are lifted. Except there is a very late honey flow, too, most of the upper story combs are put back on the hives till time to remove supers for winter and are not covered with honey as a protection from either moth or mold till the time comes to use them again. Here, let it be noticed in passing, is an argument in favor of tiering up for extracted honey, that is of using frame of half the depth of those in the brood-chamber and as soon as one is filled, without waiting for it to be sealed, put another super, filled with half frames, underneath the first, and so on until the season is closed, as advised by Dadant, in the revision of *Langstroth*. You are not only clear of brood but you can get out of a set of half frames two thirds as much honey as you could out of a set of full ones; you can handle them easier, and faster; they do not melt down so readily, nor the combs break in lipping; while the season being closed you put your combs away from the slinger, guarded with honey till needed again, and then, being covered with sweets they are very attractive to the bees.

Has any one tried putting empty combs away in a light trough, or box, painted with coal tar? WM. CAMM in *Beekeepers Guide*.

PEA-VINE CLOVER.

H. F. HURT.—Can you say if Pea-vine clover is a perennial? or will it last as long as the common red clover at least?

Villa Mastai, Que. Sept. 6, 89.

Will some of our readers please answer this question.

Toronto Industrial Winners.

We republish in full the prize list of the above fair and apologise for the stupid blunders, which mixed the list so badly:

Extracted granulated honey in glass.—1st, R. McKnight, 2nd, R. H. Smith.

Liquid extracted honey.—1st, R. McKnight, 2nd, J. Alpaugh, 3rd, Wm. Goodger, 4th, R. H. Smith.

Comb honey in sections, 500 lbs.—1st, Jacob Alpaugh, 2nd, J. L. Davidson, 3rd, R. McKnight, 4th, Wm. Goodger.

Comb honey in sections, 20 lbs.—1st, J. L. Davidson, 2nd, Jacob Alpaugh, 3rd, Walter Hartman.

Extracted Liquid Linden Honey.—1st, R. McKnight, 2nd, Geo. Lang, 3rd, J. L. Davidson.

Extracted liquid clover.—1st, Jacob Alpaugh, 2nd, Wm. Goodger, 3rd, R. McKnight.

Beeswax.—1st, Jacob Alpaugh, 2nd, Isa Smith, 3rd, George Lang.

Style and assortment of tins for retailing extracted.—1st, R. McKnight, 2nd, R. H. Smith.

Style and assortment of glass for retailing extracted.—1st, R. H. Smith, 2d, R. McKnight.

Section super for top story and system of manipulating.—1st, J. Alpaugh, 2nd R. McKnight, 3rd, George Lang.

Most practical new invention for the Apiarist.—1st prize divided evenly between J. Alpaugh and R. McKnight, 2nd, Isa Smith.

Assortment of Fruit preserved in Honey.—1st, Jacob Alpaugh, 2nd, George Lang, 3rd, Jacob Spence.

Cake or Pastry made with honey.—1st, R. McKnight, 2nd, Isa Smith, 3rd, Jacob Alpaugh.

Honey Vinegar.—1st, G. A. Deadman, 2nd, John Wilson, 3rd, R. McKnight.

Most useful Queen nursery cage.—1st, Jacob Alpaugh.

Most tasty, attractive and neatly arranged exhibit of Honey.—1st, R. McKnight, 2nd, J. Alpaugh, 3rd, R. H. Smith.

Winners at Hamilton.

200 lbs honey, Jacob Alpaugh, St. Thomas ; Geo. Lang, Milton ; Jos Barlow, Tyneside. 200 lbs. extracted basswood honey, Geo. Lang ; Jacob Alpaugh. 200 lbs. clover honey, Jacob Alpaugh ; Geo. Lang. 10lbs. comb honey, Jos Barlow ; Geo. Lang ; Jacob Alpaugh. 10 lbs. extracted clover honey, R. L. Patterson, Lyn-den ; John Cox, Tyneside ; Jacob Alpaugh. 10 lbs. extracted basswood honey, G. M. Hill, Stony Creek ; Wm. McCoy, Hamilton ; Wm. Atkinson, Cheapside. 10 lbs. white beeswax. Jos Barlow ; John Cox ; J. H. Burkholder. 10 lbs. yellow beeswax, Wm. Atkinson ; Jos. Barlow ; J. H. Burkholder. Bee hive, Geo. Lang ; D. A. Jones, Beston.

SUNDRY SELECTIONS.

SNOW ON HIVES.

PETER BRENNAN.—Will bees receive any injury from being drifted over with snow in the winter, the hives being chaff packed ?

Lakeside, Sept. 21st.

No. We would prefer to have the snow drift over them 10 feet deep and remain there until fine weather in the spring. Every colony that is in proper condition when the snow drifts over it, we think is sure to winter splendidly.

CONVENTION NOTICES

The Lambton Bee-keepers Association will meet in the town of Forest on Monday 21st Oct. Our last convention was a failure on account of very wet weather but Bro. Bee-keepers come right along and let us have a rousing meeting. J. R. KITCHEN, Weidman.

The International Bee-Keepers Association will meet in the court-house, at Brantford, Ont. on Dec. 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member and receiving the last annual report bound, may do so by forwarding \$1. to the secretary.—R. F. HOLTERMANN, Sec. Romney, Ont. Canada.

BUSINESS DEPARTMENT.

12 CENTS PER POUND FOR EXTRACTED.

For No. 1 extracted honey, put up and shipped us in 60 pound tins—we will pay 12c. per lb, delivered at Beeton, payment to be made in any kind of supplies wanted at prices marked in our catalogue. This is the most we have offered for honey in a wholesale way for years.

DISCOUNTS FOR GOODS WANTED FOR NEXT SEASON.

We will allow a discount off the prices of all goods as found in our catalogue, when it is stated that they are for next season's use, to the extent of 10 per cent. This, of course will not apply to tins, labels and such goods as may yet be used this season. We have a large stock of most everything on hand, and we can ship with promptness all orders. The object in giving this discount is to encourage winter trade, and it will last only during our pleasure.

60 POUND TINS AND STRONG HANDLES.

We find that our tinsmith, without our knowledge has been making the handles of these tins too light, much too slender for the weight which each one has to carry. One or two complaints reached us during the Fair at Toronto, and we have at once removed the defect. The handle as it has been put on, will lift all right if it is not wrenched or jerked, but it will not stand rough handling. We shall not likely have any more complaints from this date.

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.

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.

The attention of all our readers is called to the unique and unparalleled offer which we make on page 661. Please go right to work, and see that each one of you, does your own share,—our list will then be doubled. Watch for our grand array of premiums in next issue.

The Benefit of Exhibitions.

HOW few of those who visit the many excellent exhibitions bestow a thought on any other subject than their own personal enjoyment, unless they happen to be exhibitors, and in that case their interest (very often) only extends to the class of exhibits they are most interested in. But these grand Fall Shows have a far higher motive than that of merely affording "Brown, Jones and Robinson" a chance to exhibit their manufactures, their proficiency in arts, or classes of useful industry. They are intended and promulgated for educational purposes; and they fall far short of their aim, if their object is not accomplished. They afford equal chances to all classes of making known the progress that is being made in manufacture, agriculture, art, science, and domestic economy. They do all this on such an elaborate scale, that individual effort could not approach it, no matter what money might be

spent for advertising, it could not reach such a host of people in such a thoroughly practical manner. If we read a good advertisement (which is always a costly one) we are impressed to a certain extent by the excellence of the article to which it refers, but if we see the article how much deeper an impression it makes upon our minds. And so these industrial exhibitions are intended to educate, and every visitor ought to attend them with a desire to be informed on the many subjects he feels interested in. None but those who have had experience in such matters can imagine the vast amount of work that falls to the share of the managers and directors of these vast, educative concerns. Here the farmer can inform himself of the advance made in the manufacture of labor-saving machinery, dairy utensils etc.. he is a thousand times better informed by seeing them in operation than he would be by the most elaborate descriptive circular. In fact the information to be obtained in the machinery and manufacturing departments is so valuable to the masses that it is a shame for visitors to neglect them, for the trifling amusements with which so many beguile the time. Coming to our own especial line, what a lesson the shows teach, not only to amateurs but to the old-timers in chicken work. But they teach such a valuable lesson, to the people generally of this once neglected industry, that we cannot estimate the results to poultry culture of even one exhibition! The visitors no longer walk mechanically through the poultry houses, but there is an air of business and importance, in the sight-seeing, that is very encouraging, and the immense amount of interest shown, is largely due to the means of education in poultry matters, afford-

ed by our many excellent exhibitions, and not least to the entire poultry press of Canada and America, which occupies a worthy and prominent position among the literature of the present day. We trust our readers will consider that the end of these Agricultural Fairs is intended to be instruction and amusement combined, in the most attractive and practical form and by taking advantage of both in a reasonable way, reap a store of knowledge, and have heaps of fun besides.

Detroit's Great Fair.

THE first Annual International Exhibition has proved an unqualified success, and certainly it is no more than is justly due to such efforts as have been made to bring all things in connection with it, as nearly to perfection as possible. It is very rare in the history of exhibitions that the first year finds every department and detail so complete as was the case at Detroit's great fair. The buildings are magnificent and imposing in style, and the grounds in excellent condition.

There is no doubt that this first success is but an earnest of future triumphs. And next year will afford ample proof of the opinion excited by this year's success and when the knowledge of what has been accomplished is freely disseminated. The promises made by the directors have been completely fulfilled, everything in connection with this great fair was done on a princely and generous scale, and we bespeak for their second year even a greater measure of success. The grand city, and the delightful trips by water makes Detroit a most enjoyable spot to hold one of the greatest fairs that the future has in store for us.

Best Breeds for Eggs.

G. MITCHEL.—Will you please let me know through the Poultry Weekly, soon, if there is such a thing as a hinge for hen house doors inside as will let the door open both ways when walking against them with pails, or wheel barrow, in cleaning out. I have put up a house 60 feet long by 12 wide, all double boarded with cedar lumber and tar paper also shingled. The foundation is drained all round with a 2 1/2 feet ditch and filled with small stone within 6 inches of top. The high side facing west forms part of the barn yard. So I had to put the windows in the lowest side. This is not the way it is

done on paper but I hope to get eggs all the same as I count more on coal oil and the white wash brush. 4 windows 12 panes each 10x12. I can have 4 rooms 15 feet each; have I made any mistakes? I could have one large window in south end yet if needed. Please give us a little more discussion on the hen, for the most eggs. We can hardly sell our five Brahma eggs at 25 cents a dozen, while we paid \$2.00 last year. (Farmers want eggs.)
Molesworth

You will do better to have one window in your house at least facing south to catch the warmest and longest part of the sunlight. You will never sell your eggs round home to the best satisfaction, try an advertisement; say a breeders card for the year. Let me acquaint you of a fact on advertising some two years ago. Mr. J. W. Bell of Banda, paid a very high price for one of the best pairs of Bronze turkeys I ever saw. He could not sell eggs from these or young stock round home for anything like the price he knew they were worth; and was getting discouraged we advised him to exhibit and to advertise; but being a modest fellow, did not make up his mind till last year, and showed at Toronto two birds, winning with them a first and a third prize; thus encouraged he advertised, and now cannot fill orders.

MORAL.—Let the public know what you have to sell by advertising. We must beg friend Bell's indulgence for this and are sure we shall get it.

Our correspondent wishes us to enlarge on THE BEST BREED FOR EGGS. While we do not claim that any one is the best, there is, as every honest breeder will allow, a very great difference in the way of egg production, in the several varieties. In some breeds there is no inherent extra laying qualities; the Cochins for instance must be bred for layers by careful selection, they are not, (as a family) great layers. In the hand of careful poultrymen the Brahma is a good layer; but if neglected develops too much fatty tissue, and thus we hear of poor layers among that majestic race. Coming down to the middle weight breeds some of which are easily disposed to lay on fat, to the destruction of their egg producing power, yet if given plenty of exercise and hard scratching, for their living, they are good egg producers the year round. So you will understand that so much depends

upon the conditions the birds are living under, as upon the breed. Our neighbor Mr. Barrett, has kept a register of his hens laying, acting upon our own plan; although we have been so pressed with business we have not kept it the last year or so. Mr. Barrett has found the S. grey Dorking, and silver laced Wyandottes nearly equal, and fancies that for the entire year the Dorkings may do as well as the Wyandottes; but at present the Wyandottes are a little ahead, and we feel inclined to bet on them keeping there. When we were keeping our own register the Wyandottes were far ahead every year for (nearly) five years we kept it, as Mr. Barrett well knows. Always remember that in the winter when prices are highest they are the birds to depend upon for eggs and you'll never 'get left' Friend Donovan in the "Review" has also some excellent testimony as to their merits. In the report of the Government Experimental Farm, managed by Mr. A. G. Gilbert, the record of eggs for a given time in midwinter was carried off with flying colors by the Wyandottes, no other breed approached near them. With us the rose comb Leghorns are next in favor, but then our house is warm, if it were very cold the Plymouth Rocks would beat them, as they used to do before we employed any heat. We give the Leghorns the warmest quarters too; but please understand by heat it is only on account of the size of the house we employ it because it is lofty and large and we employ but just enough heat to prevent moisture rendering the house clammy and cold, and it enables Mrs. Peter to care for the stock with more comfort. The down stair pens are eleven feet high so you may imagine the need for a trifle of heat on the below zero days. Our experience says for general use the breeds that will stand the cold of ordinary poultry quarters, and give best returns are as follows and as in order named—Wyandottes, Plymouth Rocks, Langshans, Brahmas, all these will give you good results in eggs if not allowed to get too fat to lay. Wyandottes, Dorkings and Langshans are not so quick to put on fat inside as P. Rocks and Brahmas; but tend more to outside flesh, so that P. Rocks and Brahmas or any other fowl liable to an

excess of fatty tissue has to be kept sparingly, and given plenty of exercise hunting for what they do obtain, also be careful to feed such breeds the foods that have a small percentage of fat forming material. You can feed corn to Leghorns in winter with profit, but not to Brahmas or Rocks. These are better without corn except an occasional feed on very cold days, and then let them scratch for it. P. Rocks are very hearty in appetite, and they will scratch like—like—well "blazes" is about the word, if you will only provide litter and bury their grain in it. Leghorns are naturally so active that they will consume more feed and not get fat on it, because they are of a more nervous temperament. So are all the varieties of Hamburgs; these last are very good layers, but no better than Leghorns, and their eggs not so large as Leghorn eggs. The Houdan is a splendid layer of large eggs and one of the best breeds for table use, but we never had them under our personal care, so cannot speak positively as to their egg production in winter, but we have heard excellent reports from breeders, as to their general laying capacity. This question of egg production is a difficult problem to solve, and when any person favors one breed without sufficient opportunities with others for just comparison, the opinion formed is not very reliable. It is so very easy to affirm that "my hens laid an egg every day of the year." In fact egg stories beat fish stories altogether; it used to be a race between the angler and the poultryman, but the chicken man came out ahead, and it seems likely he will stay there. We will look up a good food table so our readers may know better how to feed for eggs. We have made enquiries re-hinges, and find you can procure double action hinges for poultry house doors at a very reasonable price. They would need to be kept oiled to work well, as you may know the dust in poultry houses from the scratching would soon clog them, and your birds would get mixed in a moment, if you were keeping different breeds, but they would be very handy indeed because the attendant need not put down whatever he was carrying to open and shut the door.

Poultry Exhibit at Barrie.

THE new poultry house in the above town called out many fanciers of fine stock and made the exhibit a most excellent one in all varieties. Many Toronto winners were shown and made many fresh conquests in their respective classes. Barrie has always had a good class to fill in the poultry department, and this year is above all others owing to the increased accommodation provided. Messrs. Barber & Co., of Toronto, of course carried all in their varieties, and won the Kempenfeldt Association silver cup for sweepstakes breeding pen, with a fine pen of Barred Plymouth Rocks. Mr. P Love, Barrie, was the fortunate possessor of the S C B Leghorn pen of chicks, which were awarded the silver medal offered by the same association for sweepstakes B. pen of chicks, and a fine pen they are, but ran very close with a good pen of handsome Silver Grey Dorkings belonging to Mr. Barrett, of Angus. The medal for best collection of pigeons offered by ye editor was won by the firm of Carley & Greenwood, Barrie. Though Mr Hughes would have run very close with any single exhibitor.

Dark Brahmās.—The 1st and 2nd Toronto Dark Brahmās were shown in that class and took the honors. Toronto 1st cockerel and 2nd pullet coming in again, in good class.

Light Brahma.—A grand lot as usual in Barrie and in fine shape.

Buff Cochins.—Are good but we have in our eye some of those A-1 birds seen in Toronto, and it makes us judge hard. Still we must say these are very good and better than ever seen here. The first chicks a very fine pair.

White Cochins.—A small class but good birds T Barret of Angus shows 1st chicks a very fine shape, and in perfect condition, will make up extra well we should say.

Partridge Cochins.—We have a larger class than usual and as good quality. W. Patterson, of Barrie wins 1st with a choice pair.

Dorkings.—Are extra well filled classes, and chicks very forward, Mr. Barrett, winning all in S. G. with his fine exhibit.

Games.—In Games as before noted, Barber & Co., of Toronto, have to own no rival, their exhibit is as usual of excellent quality, and the admired of all beholders. They show largely in Game Bantams with a choice collection, and ought to be satisfied with the result to judge from the reds and blues displayed on their coops.

Langshan.—This lordly bird has some fine stock to represent his noble race, T. Barrett's fine pairs winning 1st in old and young, with W. H. Barnes a good 2nd.

S. C. W. Leghorns.—Are out in force. We

wish our London boys could see them,—a splendid exhibit, both in quality and number. Several Toronto winners were in this class and shown by Mr. Wright, of Richmond Hill. 1st pair old and young really choice specimens, 2d chicks, A. Adams, Allandale; perfect beauties, and will soon be up to 1st.

R. C. W. Leghorns.—Are a first rate class all through and look beautiful.

S. C. B. Leghorns.—Are another large and good class. Mr. Wilson of Oro takes 1st on a good pair of old birds, 1st and 2nd chicks taken by two extra pretty pairs shown by P. Love, and others good still left it the ranks.

R. C. B. Leghorns.—All good, and old birds in fine condition, chicks rich in color and good style. Mr. Wilson, of Oro, makes a very long list of his winners in Houdans, S. Hamburgs, S. and G. Polands, Plymouth Rocks etc., making quite a choice exhibit in the ornamental classes.

Barred Rocks.—A large and excellent class. Wright shows fine stock in these, winners all good.

Silver Laced Wyandottes.—Are not out in large numbers this year, some part of our fanciers not showing. The general verdict of the visitors to Barrie poultry house is that it is one of the greatest attractions they have ever had at their exhibitions, indeed few would give a town of its size credit for such a fine exhibit of choice specimens as are to be seen in the poultry house at Barrie. We must not forget the beautiful White Plymouth Rocks shown by Dr. Bennett, of Barrie, winning 1st in their class.

PIGEONS.

Pigeons were a really excellent display about 150 birds. The largest exhibit being in Fantails, Pouters, Jacobins and Antwerps. In Jacobins the blacks took the lead. 1st cock a fine one; yellows won 2nd place on a very nice pair, but just getting into moult. One pretty pair of reds could not be seen to advantage, being too near the floor, and thus in a bad light. The Fans were well shown, good classes all around, and a great credit to the boys. Among the rest we noticed some pretty black carriers, tumblers red and black barbs. Owls were a fine class, 1st and 2nd going to the Blues.

Turbits.—The best classes were the blue and silver winged, and in other classes birds of extra merit were by no means scarce. The whole exhibit is a great improvement on former years and reflects much credit on the pigeon boys of Barrie and vicinity. We will if possible get out the prize list this week, but are a little doubtful as yet. Mr. Hughes made a serious mistake by

placing his pretty exhibit of pigeons on the floor, making it impossible for them to be seen to the best advantage, they should always be raised a little. We suppose though that the lesson is already taken to heart, to be useful experience for another time. We must say a few words in praise of the new poultry house. After a practical test we find it all that could be desired, and notwithstanding the idea that it would be too large, there were only two empty coops. We can prophesy pretty truly when it comes to friend Bothwell knowing what is wanted in fitting up a poultry exhibition room. It is simply all that we anticipated. The only thing it needs now is banking up all around; the floor is too cold.

The Exhibit at Detroit.

THE exhibit of poultry at Detroit was not so large as at Buffalo and confined to the exhibits of a few breeders. Principal among these were the Franklin poultry yards, Franklin, Pa. The Eureka Poultry yards, Port Huron, Mich.; Burns & Moffat, Tilsenburgh. The Maple Lawn Poultry Yards, Dearborn, Mich, Tracey Bros. of Detroit; H H Wallace, Woodstock and a few others.

In some classes the exhibits were extra fine, notably Games, Light Brahmas, Partridge Cochins, Brown Leghorns, Black Minorcas, Barred Rocks, Langshans and an extra good class of fine Black Javas.

The building is a fine one for the poultry exhibit, but the plan of noting awards by numbers and classes and blue and red ribbon tied on the coop without any sign of what it is there for, is not much of an educator to the general visitor as to the excellence of the winning bird and he must be quite a fancier who by looking in casually, could place the winners. The system of management is excellent and the stock in A 1 condition after four weeks of showing, for a great many here were at Buffalo for two weeks before, and great credit is due to all the attendants for the excellent condition the stock is in.

Light Brahmas.—In this grand class Akerley takes all, with a fine exhibit of his favorites.

Buff Cochins.—Were a small class, the Eureka yards winning most of the ribbons. Burns & Moffat showed one fine hen, good Cochin shape and large but out of condition. Chicks fine.

White Cochins.—1st goes to Akerley the cock showing better condition notwithstanding four weeks in the show room. One grand pair chicks.

Partridge Cochins.—Are out in a very large class and of extra quality old birds in unusually good condition for the season. 1st on hens falls to a magnificent specimen belonging to B D Sarr, Marcellas Falls, N. Y. Tracey Bros. of Detroit winning 1st on cockerel and pullet with a pair that are simply superb. 2nd pullet rich in color but not so beautifully pencilled. Eureka and Maple Lawn yards also show well in hens. The whole class reflecting great credit on the exhibitors of this grand variety. No Blacks on exhibition.

Langshans.—Are a fine exhibit, the Maple Yards again to the front. 1st B. Pen a grand one. 1st cock a majestic fellow and very lustrous black and in fine shape. All the winners earn their places well and some good ones yet left.

American Dominiques.—Are a far larger class than is usually seen of this variety. Mr. A. Clark, of Penn. taking most of the prizes with a fine exhibit. 1st cockerel should make something extra when matured. The ever popular.

Barred Plymouth Rocks.—Are a large class of great merit. 1st cock appears rather light but examination shows him to be barred to the skin with fine color. In head he is extra good when through molt will look splendid 2nd cock good color and fine shape but badly off on comb and wattles. We noticed one very handsome pullet (Hang's) outside the grand B pen shown by Eureka Poultry yards. This pen though four weeks cooped look magnificent. There is every probability that they will become the property of a Canadian fancier.

White Plymouth Rocks.—Are a fine class H. H Wallace, Woodstock, 1st on cock with a choice bird he and 2nd hen a fine pair, 2nd a massive fellow but out of condition just now. Winning chicks all good and others worth a place left, these are sure to be a popular variety since size and shape shows so much improvement since last year. A very small class.

Silver Laced Wyandottes.—The prizes are well placed but here as at Buffalo the birds are not in feather to do themselves justice; in old feather or partly in moult they took dull in color. Coops are very good shape, broad and deep in body. 1st and 2nd hens nice shape and good size. Not so large a class here.

White Wyandottes.—Old birds in poor condition some getting into moult look shabby. Chicks a very promising lot, nice blocky shape, especially pullets.

Black Wyandottes.—Chicks show much improvement. But old birds lack decided type as yet which we must expect.

Black Javas.—A large and good exhibit. 1st cock and hen a really magnificent pair in prime shape. 2nd good but out of condition. A fine class all through, and we may say the same of

Mottled Javas.—These last are a larger class than we usually see.

Black Spanish.—A very small exhibit and old birds out of shape just now. Prizes placed well. Chicks neat and good.

S C B Leghorns.—We have a well filled class of very pretty birds well shown by Maple and Eureka yards. J A Behn, 1st B pen chicks, a very stylish pen of well advanced birds. 2nd, cockerel and 1st pullet a beautiful pair, 2nd cockerel will make up an exceedingly rich colored bird, the pullets shown are very fine, stylish and good color, all winners well deserve their places. A worthy exhibit.

R C B Leghorns.—Old birds want better combs, all cocks show coarse in this respect. 1st cockerel nice color comb and lobe, and bids fair to be something extra when matured. Pullet a well shaped pretty lot neat in comb generally. The chicks show improvement on old stock all through this class which is well filled.

S C W Leghorns.—We had in Detroit the wonder of all wonders with regard to this class, viz., not one bird to represent this dainty race,

the first time in our experience of exhibitions that they failed to find a representative. But the

R C W Leghorns.—Were there with a fair class, cocks heavy in comb, 1st hen a very pretty one, solid white, and very neat in comb. Cockerels give better promise, have good neat heads and combs, 1st cockerel the best in every point and all chicks show improvement in this class, on old birds as shown.

Black Minorcas.—One of the largest and very best classes in the room. Old birds a grand lot. 1st B pen and 1st cock, extra good typical birds. 1st cockerel a very stylish, handsome specimen and well grown. The whole class good and distinct in type. The classes for

Polish & Hamburgs.—were well filled and the exhibit good. Most of the winners at Buffalo being present and adding fresh laurels to their wreath of victory. These highly ornamental varieties attracted universal admiration, as they always do.

Houdans.—Are a large class of good birds. G S Button of Chittenango taking all prizes offered in this variety. His birds are fine, large in size and well up in quality. A very nice exhibit.

Games.—John E Gill, of the Franklin Poultry yards, Franklin, Pa. make a grand exhibit in this class with birds in prime shape generally, evidencing great care in their management and filling one of the largest and best classes in the show.

In the Dorking classes we missed many of the extra fine birds shown at Buffalo and the classes are small, most of the winners in old birds not in good shape. Winning chicks well advanced especially 1st S G cockerel. Prizes well placed all round.

The Game and Ornamental Bantams.—Were out in force and some exceedingly beautiful birds were shown. We noticed one nice pair of Black Cochins extra fine shape and solid lustrous color but to go into detail in these classes requires more time than we could give to it this year. The names of the prize winners are however a sufficient guide to the merit of the specimens in this most attractive section of the poultry exhibit.

TURKEYS, DUCKS AND GESE.

Were an extra large exhibit of A 1 quality. G S Burton, Chittenango; H H Wallace, Woodstock and the Eureka Poultry yards, Port Huron sharing the honors. After all prizes were placed there were yet left many prime specimens, the whole exhibit good. Aylesbury and Pekin ducks and Embden geese were among the best and largest classes shown. A curiosity of the exhibit is a Spanish cock shown by E Croft, Mich., having eight distinct spurs.

PIGEONS.

W J Oninks elegant collection of Fantails attracted crowds of admirers. The exhibit comprises English, Scotch, and French Fantails. They are shown in fine style, this exhibit alone being valued at \$500.00. Besides these the exhibit is immense in all varieties and made doubly interesting to the visiting public from the fact of all varieties having their name writ-

ten plainly above them. Mr. A Samuels, of Buffalo makes an extraordinary exhibit of the choicest specimens, a complete show in itself and worth going to Detroit to see. W C F Wagner also makes a fine exhibit in show Antwerp, Mottled German Trumpeters, Silver and Red Pied Pouters &c. Two rich blue pied winning 1st and 2nd. For all prizes won see full prize list of awards at Detroit on another page. The show of Homing pigeons was large, and unusually interesting. Tracey Bros. exhibit of beautiful lop eared, Angora and Himalayan Rabbits were another attractive feature, and drew crowds of admirers to their cages. And thus we come to the end of the Detroit poultry Dep. and while we do not consider the show as strictly representative of American exhibits as a whole it was a great success.

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, 90 St. John St. Montreal.

Awards at Detroit.

BELOW we give the list of winners at the City of the Straits, taken from the Fancier's Journal. When attending the fair we were unable to procure a correct list and have waited for the publication of the Journal knowing that the lists it gives are always to be relied upon.

Brahmas.—Light, pen 1st, 2nd; cock, 1st, hen, 1st 2nd; cockerel, 1st; pullet, 1st, 2nd, C A Ackerly, Tonawanda, N Y cock, 2nd, C A Hammersmidt, South Buffalo.

Cochins.—Buff, pen, 1st; cock, 1st, Eureka Poultry Company, Port Huron, Mich. cock, 2nd; hens 1st, Burns & Moffat, Tillsonburg, Ont., coc-erel, 1st; pullet, 1st. Akerley, Part-ridge, pen, 1st, Edmund Hang, Detroit; 2nd, B D Sarr, Marcellus Falls, N. Y., cock, 1st, Hang; 2nd, Eureka Poultry Co. Hen, 1st, Sarr. Cockerel, 1st Tracy Bros., Detroit. Pullet, 1st, 2nd, Hang. White, cock, 1st; hen, 1st, Burns & Moffat.

Plymouth Rocks.—White, pen, 1st; cock, 1st; hen, 1st; cockerel, 2nd, pullet, 2nd, H H Wallace, Woodstock Cock, 2nd, G S Button, Chittenango, N. Y. Cockerel, 1st; pullet, 1st, F W Pike Detroit. Barred, pen, 1st; cockerel, 1st; pullet, 1st, Eureka Poultry Co. Pen, 2nd; cock, 1st, pullet, 2nd; cock, 2nd, Burns & Moffat.

Wyandottes.—Silver, pen, 1st; cock, 1st, hen, 1st, 2nd, Hammersmidt. White, pen, 1st, cockerel, 1st; pullet, 1st, 2nd; hen, 1st, Eureka poultry Co. Black, 1st for each pen, cock, hen, cockerel and pullet, to Isaac Haun.

Javas.—Black, pen, 1st; cockerel 1st; pullet, 1st, 2nd, Henry Turck, Elmwood Place, O. Pen, 2nd; cock, 1st, hen, 1st, 2nd, Hammersmidt. Mottled, pen, 1st; cock, 1st; hen, 1st, 2nd, Hammersmidt. Cockerel, 1st, pullet, 1st, F W Pike.

Leghorns.—Brown, S C Pen, 1st; cockerel,

1st, pullet, 2nd, Eureka Poultry Company. Pen, 2nd, cock, 1st, Hang. Cock, 2nd; John Behn, Buffalo. Hen, 2nd, Hammersmidt. R. C., pen, 1st; pullet; 2nd, Button. Pen, 2nd; cock, 1st, 2nd; hen, 1st, 2nd, cockerel, 1st; pullet, 1st, Wallace. Cockerel, 2nd, W Rodgers. White, R C All awards to B R Knapp, Cortland, N. Y.

Mitorcas.—Black, pen, 1st, 2nd; cock, 1st; hen, 1st, 2nd; cockerel, 1st 2nd; pullet, 1st, 2nd, Willard Knapp, Fabius, N Y; cock, 2nd, C R Kroosz; cockerel, 1st, E O Grosvenor.

Polish.—Golden, cock, 1st; hen, 1st; cockerel, 1st, pullet, 1st, Burns & Moffet; Bearded golden, pen, 1st; cock, 1st, hen, 1st; cockerel, 1st; pullet, 1st, Burns & Moffet; cqqk, 2nd; hen, 2nd; Z A Hartsuft Bearded silver, pen, 1st, hen 1st; pullet 1st., Burns & Moffet. White, pen, 1st, Burns & Moffet. W C black cock, 1st, Burns & Moffet.

Hamburgs.—Gold spangled, hen, 1st; pullet, 1st, W H Walrath. Silver spangled, cock, 1st, John Bird; 2nd, Hartsuft; hen, 1st, Eureka Poultry Company; cockerel, 1st, Burns & Moffet. Gold pencilled cock, 1st; hen, 1st; E Hamilton. Silver pencilled, cock, 1st; hen, 1st, cockerel, 1st; pullet, 1st; Burns & Moffet; cock, 2nd, Bird. Black, pen, 1st; cock 1st hen, 2nd; pullet, 1st, Burns & Moffet; cock, 2nd; hen, 1st, W H Walrath.

Games.—Black red, pen, 1st; cock, 1st; hen 1st; pullet 1st, John E Gill, Franklin, Pa. Pen 2nd; hen, 2nd; C. Gillam. Cock, 2nd, Burns & Moffet; pullet, 2d, Eli Haley. Brown red, cock, 1st; hen 1st, John E. Gill. Hen 2d; pullet 2d, E. Hamilton. Silver duckwing, cock 1st; hen 1st, cockerel, 1st; pullet, 2nd, Burns & Moffet. Hen 2d; pullet 1st, Gillam. Golden duckwing, cock, 1st; hen 1st; cockerel 1st; pullet 1st, Gill. Cock 2d, Hamilton. Hen, 2d, Gillam. Red pile, pen, 1st; cock, 1st; hen, 1st; cockerel, 1st; pullet, 1st Gill. Pen, 2nd; cock, 2nd; pullet, 2nd, Burns & Moffet. Hen, 2nd, Eli Holey. White, cock, 1st, hen, 1st, J. Northup. Black, hen, 1st; pullet, 1st, Gillam. Cockerel, 1st; pullet, 2nd, Hamilton. Black Sumatra, all to Northup. Pit, all to Gillam.

Bantams.—Black red, pen, 1st; cock, 1st; hen, 1st, cockerel, 1st; pullet, 1st, Gill. Cock, 2nd; hen, 2nd, Gillam. Cockerel, 2nd; pullet, 2nd, Eli Haley. Brown-red, cock, 1st, hen, 1st, Gill. Red-pile, pen, 1st; cock, 1st; hen 1st; cockerel, 1st; pullet, 1st, Gill. Hen, 2d, Gillam. Cockerel 2d, Hamilton. White, cock, 1st; hen, 1st, Hartsuft. Silver duckwing, cockerel, 1st, pullet 1st, Gill. Hen, 1st, Gillam. Golden duckwing, all awards (five firsts) to Gill. Golden Sebright, cock 1st, hen 1st, Hartsuft. Silver Sebrights, cock 1st, hen 1st, Burns & Moffet. Black rose-comb, cock 1st; hen 1st, Gill. White Rose Comb cock, 1st; hen 1st, Gill. Cochir, pen, 1st, J. F. Knox, Buffalo. Cock, 1st, Burns & Moffet. Buff Pekin, hen 1st Burns & Moffet. Black Pekin, hen 1st, cock, 1st; pullet 1st, 2d, Knox. W C White Polish, cockerel, 1st, C. Stillman. Burmese, all awards (three 1st, one 2d) Stillman.

Dorkings.—Colored, pen, 1st; cock, 1st; hen, 1st, cockerel, 1st; pullet, 1st, Tracey Brothers. Cock, 2nd, W. H. Walrath. Silver Grey, pen, 1st, hen, 2nd; cockerel, 1st; pullet 1st, Burns & Moffet. Pen, 2nd; cock 2d, hen 1st; pullet 2nd, Tracy Bros. White. All awards (five 1st) Burns & Moffet.

Other Varieties.—Houdans, all awards (five 1sts, three 2ds) Button. Black Spanish, cock, 1st; hen 1st, Burns & Moffet. Dominiques, pen, cock, 1st; hen, 2nd; cockerel 1st; pullet, 1st, A. E. Clark & Co. Hen, 1st; cockerel 2nd, Hamilton. Langshan, pen, 1st; cock, 2nd; pullet, 1st, 2d, Hang.

Turkeys.—Chicks, bronze, 1st, W. Rodger. Buff, 1st, E. Hamilton. Black, 1st, Hamilton. Ducks, Rouen, old, 1st, H. H. Wallace; 2nd, G. S. Button. Chicks, 1st, Wallace. Aylesbury, old and young, each 1st, Burns & Moffet. White and colored Muscovy, old and young, each 1st, Hartsuft. Pekin, old and young, each 1st, Wallace, 2d Burns & Moffet. Cayuga, 1st, Eureka Poultry Co.

Geese.—Emden, 1st, Button. Brown China 1st, Hartsuft. Canada, 1st, Bird.

English Pheasants.—1st, Burys & Moffet

PIGEONS.

Pouters.—Blue, 1st, 2nd; red, 1st; silver, 2nd; Christopher Wagner, Detroit, Mich.

Barbs.—Black, 1st; white, 2nd, Wagner.

Jacobins.—White, 1st, Wagner.

Dragoons.—White, 1st, Wagner.

Turbits.—Black, 1st, A. P. Mack, Rochester, N. Y.; 2d, John A. Behn, Buffalo, N. Y. Red, 1st, Mack; 2nd, Behn. Blue, 1st, Mack; 2nd, Behn. Yellow, 1st, Mack; 2d Behn. Silver, 1st, Mack; 2nd, A. Samuels, Buffalo, N. Y.

Owls.—English, 1st, Samuels; 2nd, Wagner. African, 1st, Samuels.

Tumblers.—Long-face, 1st, Samuels. Bald-heads, 2nd, Samuels. Parlor, 1st, 2d, Samuels. Fantails.—Scotch, 1st, 2d, W. J. Onink, Buffalo, N. Y. White English, 1st, 2d, Onink. French silky, 1st, 2nd, Onink. Booted and crested, 1st and 2nd, Onink. Blue English, 1st, Onink; 2nd, John E. Gill, Franklin, Pa. Black English, Onink. Yellow English, 1st, Gill.

Antwerps.—Short-faced, 2nd, A. Wagner. Long-faced; 1st, 2d, A. Samuels.

OTHER VARIETIES.

Swallows; 2nd, magpies 2nd; priests 2nd, A. Samuels. Archangels, 1st, 2d, J. A. Behn. Solid Turbits. 1st, 2nd; priests, 1st, helmets, 1st, mooréheads, 1st; starlings, 2d; snips, 2d, A. Samuels. German rollers, 1st, Samuels; 2d, Wagner. German trumpeters, 2d, Wagner. Oriental rollers and Dutch highfliers, W. W. Wright, Buffalo. Yorkshire tiplers, 1st, J. A. Behn. Chinese diols, 1st, A. Samuels. Ice pigeons, plain and Ural, each 1st, Samuels. Swiss crescents, 1st. Silver hen checkers, 2nd, A. Samuels. Frillbacks, 1st, white barred turbits, 2nd, Samuels.

Specials.—For best pouter, Wagner, best fantails, Onin; best turbit, Mack. largest number of varieties, Samuels; largest number of entries, Samuels largest number of awards, Samuels.

There were 103 entries, 65 varieties and 249 birds in show.

The Canadian Poultry Weekly is doing a good work among the northern poultry men, and is deserving of their hearty support.—Hamilton's Weekly.

For the Poultry Weekly.

Ontario Poultry Association

M EETING of the Poultry Association of Ontario was held at Toronto during the Exhibition on September 18th. J. C. Rykert, M. P. President in the chair and the following directors present. John Cole, Hamilton; Wm. Barber, Toronto; T. H. Smelt, Guelph; A. Bogue and Wm. McNeil, London; J. Lawrence, W. H. Crowie, A. Pay and R. Hammell (Secy) St. Catharines.

Messrs. Butterfield, Jarvis and Smelt were appointed judges on poultry to take the same classes as last year with the exception that Butterfield takes Leghorns and Jarvis Cochins.

The following changes in list were made. Pit Games to read Games non Standard; the word black left out before Javas and read Javas any color and Creve-cours added to the list. Cayuga ducks cut off they to compete in A O V class.

Date of show was fixed for Jan. 7th, 8th, 9th and 10th, 1890 and the closing of the entries Jan. 3rd after which no entries will be taken without an extra fee of 25c. Entry fees same as last year. Mr. A. Pay resigned as director and Wm. Chase, St. Catharines, appointed in his place.

Communication from F. Wixson requesting single classes be allowed to compete in the breeding pens was moved to be laid on table.

The silver pitcher for the largest and best collection of poultry to be put the same as last year.

A vote of thanks was tendered Industrial Exhibition Board for new poultry building.

✦ QUERY DEPARTMENT ✦

POULTRY IN LARGE FLOCKS.

J. FOOT.—In connection with my bees I have concluded to try poultry. Have started with a few birds. By increasing the size of hen house can I not keep 100 or 150 fowls profitably without building runs for them but instead let them have the range of my whole place, two acres, most of it in clover. Who says hens in flocks of more than thirty don't pay?
Halifax, N. S. Sept. 26, 1889.

Certainly you can keep the birds with profit if you increase the size of your house according to the requirements of the extra number of fowls, and they will do better to have the large run of the clover field. We do not remember any one saying that hens in flocks of more than thirty don't pay; we think you refer to the fact often stated by practical

poultry men that they pay better when kept in flocks of 30 or so, when in close confinement in the winter season, and we do not hesitate to say that your profits through the winter will be much larger if you divide the pens and keep your hens in smaller flocks of say 30 or 40 to each pen. You need only put a male in in breeding season.

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.

ADVERTISEMENTS.

EXCHANGE AND MART

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

POULTRY

FOR SALE—Black Spanish cockerels, \$1 00 each; one pen Langshans, (4 hens & 1 cock) \$6 00; three Partridge Cochins hens, \$2 00; Brown Leghorn cockerel \$1.50, also Antwerps, Carriers. N. & G. GUNN, Kingston, Ont.

FOR SALE, single comb Brown Leghorn chicks and four pair Black Spanish chicks, choice birds and from good layers. Per pair \$2.00. Cockerel and 3 pullets \$3.00. Will ship in light crates. Geo. A. GUMMER, Colborne, Ont.

WHITE Wyandotte Cockerels bred from high scoring stock—\$1 00, \$2 00 and \$3 00 each. All birds up to the Standard and pure Wyandotte blood. J. F. DUNN, Ridgeway, Ont.

200 CHICKS for sale at a great reduction during the months of Aug., Sept. and Oct. Wyandottes chiefly, also Black and Brown Leghorns and a few of other varieties. Write for particulars and prices. W. T. T. TAPSCOTT, Brampton.

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

J. W. BARTLETT, Lambeth, Ont. breeder of high class White and Silver faced Wyandottes, will exchange a few pairs of young birds, of either variety, for extracted honey. Birds are superior layers and guaranteed satisfactory in every respect.

LEGHORNS, single comb brown and white cockerels for sale; one dollar apiece. They are from 1st prize, high-scoring breeding pens of Wilson's stock. None short of "perfect dandies" will be shipped you. W. A. LANE, Wabash, Ont.

SHIPPING COOPS

For Exhibition And Sale Purposes.

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

We keep in stock one size, only, 20 in x 13 in. 25 in. for pairs or light trios.

PRICES MADE UP.

	Each	10	25	100
Skeletons, only,	30	1.75	6.25	22.50
With Canvas,	49	3.75	8.50	30.00

PRICE IN FLAT.

Skeletons, only,	2½	2.50	5.00	18.00
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 5c 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 of water: Price,	each	10	25	100
	15c.	1.40	3.25	12.00

The water cannot slop out or become dirty.

Larger sizes made to order—ask for prices.

The D. A. JONES CO., Ltd.

Beeton, Ont.

BEES

25 COLONIES of Italian Bees for sale Cheap. In fine shape for winter. L. WADE, August, Ont.

3000 POUNDS of well ripened Extracted Honey for sale. Correspondence solicited. State price that can be given, quantity and in what shape desired. Also a few colonies of bees. THOS. STOKES, Minesing, Ont.

WANT TO SELL a fine residence with all out-buildings, and 200 colonies of Italian Bees with the fall honey crop if bought at once, with 8½ acres of land in a never failing locality. Address, LOUIS WERNER, Edwardsville, Ills.

FOR SALE—46 colonies, nearly all Italians and working appliances in best of order and strong. Also a Farm, 18 acres choicest black loam, suitable for fruit farm; good frame house, story and half; good outbuildings; 2 acres in chestnuts, a grapeery, 6 acres in grass, 11 acres being ploughed for fall wheat, good board fencing; 2½ miles from market, just off the Stone Road, good locality for an apiary. Apply to H. C. FITZGERALD, Box 206, St. Catharines.

CARNIOLIAN QUEENS FOR SALE—Untested or tested; 6 for \$1.00—Tested, \$1.50; Selected Testees \$2.50. Mismatched 50c each. I. LANGSTROTH, Seaforth Ont.

SECOND HAND Foundation Mill wanted, must be at least 10 in., in exchange for either honey or cash. Address, E. O. YOUNG, Hamdon, P. O., Ont.

WANTED—To sell or exchange Pelham & Root Foundation Mills for extracted or comb honey or offers. Mills are of latest pattern and everything complete, and I will give good bargains on them. F. W. JONES, Bedford, P. Que.

WANTED—To exchange bees, queens or extracted honey for a good Fdn. Mill for making Fdn for sections, or I will pay cash for one. JAS. ARMSTRONG, Cheatside, Ont.

WANTED—Situation for 1890, by an apiarist, 5 years experience, best of references; correspondence solicited. Have worked 100 colonies for comb honey two past seasons for A. E. Marum, Vermont's largest beekeeper. H. W. Scott, Williamstown, Vt.

35 SWARMS of Italian bees for one hundred dollars, all good fine queens to breed from; all in Excelsior hives, with 8 Frames. This is a bargain. Who speaks first for the lot. Also one Fdn. Mill, 1 foot, 10 inch. Now for sale. R. E. SMITH, Tilbury Centre.

WANTED—By a young married man, a situation as Apiarist to take charge of an apiary in summer and make hives or do anything else in winter months. Five years' experience in bee business; wages moderate, permanent situation being the object. Can come at once. For references write the D. A. Jones Co. Beeton. Apply to W. J. SMITH, Monticello, Ont.

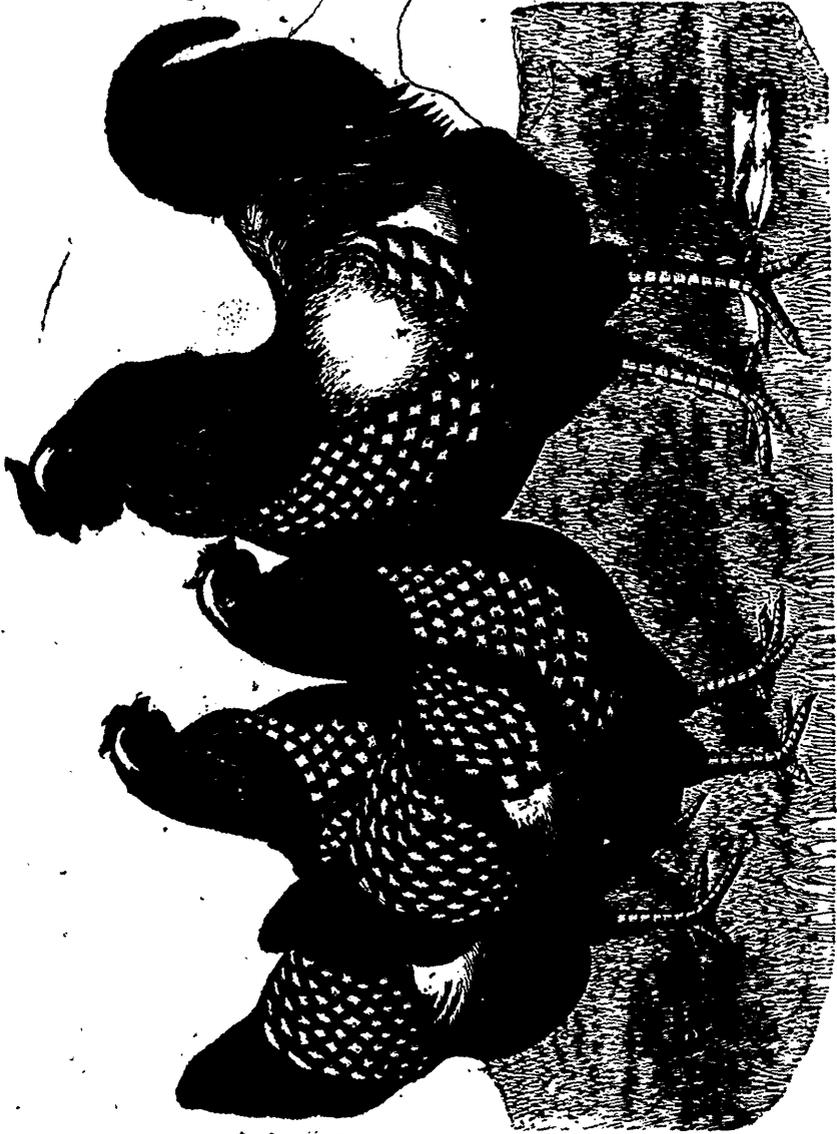
MISCELLANEOUS

BIRDS, PARROTS, DOGS, FERRETS, CATS, MONKEYS, RABBITS, BIRD EYES, GOLDFISH, SONG RESTORER, TRAP CAGES, DISTEMPER AND MANGE CURE. Wilson's Big Bird Store, Cleveland, Ohio.

NICKLE Plated Pen and Pencil Stamp—your name on this useful article for marking books, cards &c. 25c, club of five \$1.00; name on wood handle 15c; club of eight \$1.00. Ink-powder for stamps, per package, 10c, 3 for 25c No duty. GEM STAMP CO. Malackoff, Ont.

FOR SALE OR EXCHANGE.—Thoroughbred English mastiff and St. Bernard dogs, pedigreed; one Swiss 14 karat gold watch, good time keeper; One amethyst gold ring; antwerp-pouters; tumbler, barb, archangel pigeons, pure bred. H. M. CHURCHILL, Owen Sound, Ont.

FOR SALE—Greyhound dog pup, 2 months old. From pedigreed stock. Price reasonable. R. A. WATSON, Beeton.



W. T. TAPSCOTT, BRAMPTON.

W. T. Tapscott

Importer and Breeder of

SILVER LACED WYANDOTTES

BLACK, WHITE AND BROWN LEGHORNS,
PLYMOUTH ROCKS, MINORCAS AND
OTHER VARIETIES.

A fine lot of high scoring chicks for sale now; offered at
great reduction until Nov. 1st.

Address, BRAMPTON, ONT.



J. L. CORCORAN,
BREEDER OF
Silver Grey & Colored Dorkings

Barrèd Plymouth Rocks and Pekin Ducks.
BIRDS FOR SALE.

Winner of Vice President's prize at the Buffalo International Fair '89
Eggs \$3.00 Per Setting. **STRATFORD, ONT.**

GLEN VILLA POULTRY YARDS.

A. R. MCKINLAY,

Breeder and Importer of High-Class

POULTRY.

The Renowned Autoerat Strain of Light Brahmas, Langshans, Pea-Comb Barrèd 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. L. SOULES.

IMPORTER AND BREEDER OF

SILVER LACED

—AND—

WHITE WYANDOTTES.

ADDRESS :

HIGHGATE, ONT.



BEE-KEEPERS' SUPPLIES

Quality and Workmanship unsurpassed. We are prepared to furnish Bee-keepers with Supplies promptly, and with goods of uniform excellence as heretofore. Our hives all take the Simplicity Frame. The "FALCON" chaff hive and the "CHATAUQUA" Hive, with DEAD AIR SPACES are both giving universal satisfaction. We manufacture a full line of Bee-keepers' Supplies, including

"FALCON" BRAND FOUNDATION.

We gladly furnish Estimates and solicit Correspondence. Send for Illustrated Price List for 1889, free

THE W. T. FALCONER MFG. CO.,
Jamestown, N.Y. SUCCESSORS TO
W. T. Falconer.

BARNES' FOOT-POWER MACHINERY



Read what J. J. PARENT, of Champlain, N. Y. says: "We got with one of your Combined Machines last winter 50 chaff hives with 7 inch cap, 100 honey racks, 500 broad frames, 2,000 honey boxes and a great deal of other work. This winter we have double the number of beehives, 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, 544 Buby St., Rockford, Ill. 21

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 J. L. Gould & Co., Brantford Ontario OHAS. DADANT & SON, Hamilton Hancock Co. Illinois.

MALTON POULTRY YARD

NEVER BEEN BEATEN.

WILLIAM MILNER, Malton, Ont.

—Breeder of—

Silver Penciled and Spangled Hamburgs, Buff

Cochins, Brown China Geese, and 12 other kinds Poultry.

Prizes on Silver Pencilled Hamburgs: At Milton 1888, 1st on Cockerel, 1st and 2nd on Pullets. At Bowmanville, 1888, 2nd on Cockerel, 1st and 2nd on Pullets. At Buffalo International '89, 1st on Cockerel, 1st and 2nd on Pullets, 1st and 2nd on Breeding Pen.

Prices on application.

Bee-Keepers Guide

—OR—

MANUAL OF THE APIARY.

This fifteenth thousand much enlarged and more richly illustrated than previous editions, it has been fully revised, and contains the very latest in respect to bee-keeping. Price by mail \$1.50. Liberal discount to dealers and for clubs.

A. J. COOK, Author & Publisher,
STATE AGRICULTURAL COLLEGE,
LANSING, MICH.

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 (right of loss), which die in transit will be replaced if returned in a letter

CHAS. BIANCONCI I, Bolgna, Italy.



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

STANFORDVILLE, P. O., May 2, 1888.

DR. R. J. KENDALL CO., Knoxville Falls, Va.

Gentlemen—I have used Kendall's Spavin Cure for Spavins and also in a case of lameness and Stiff Joints and found it a sure cure in every respect. I cordially recommend it to all horsemen.

Very respectfully yours,

CHARLES J. BLACKALL.

KENDALL'S SPAVIN CURE.

ST. THOMAS, P. O., April 22, 1888.

DR. R. J. KENDALL CO., Knoxville Falls, Va.

Gentlemen—I have used a few bottles of your Kendall's Spavin Cure on my colt, which was suffering from lameness in a very bad form, and can say that your Kendall's Spavin Cure made complete and rapid cure. I can recommend it as the best and most effective liniment I have ever handled. Kindly send me one of your valuable books entitled "A Treatise on the Horse." Yours respectfully,

L. F. WILKINSON.

KENDALL'S SPAVIN CURE.

FORT ELLEN, MAR., May 11, 1888.

DR. R. J. KENDALL CO., Knoxville Falls, Va.

Gentlemen—I always keep your Kendall's Spavin Cure and Blisters on hand and they have never failed me. I have cured a bad case of Spavin and also two cases of Ringbone of yearling standing on mares which I bought to breed from, and have not seen any signs of disease in their offspring. Yours truly,

J. O'CONNOR.

Price \$1 per bottle, or six bottles for \$5. All druggists have it or can get it for you, or it will be sent to any address on receipt of price by the proprietors.

DR. R. J. KENDALL CO., Knoxville Falls, Va.

SOLD BY ALL DRUGGISTS.

STILL TO THE FRONT

WITH PURE

ITALIAN QUEENS IN

Tested or Untested, Nuclei or full Colonies at very low price. Address

R. HEAL, St. Thomas, Ont.