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

Vol. V. No. 49

BEETON, ONT., MAR. 1, 1890.

WHOLE No. 257

11.00

# CANADIAN - BEE

Devoted exclusively to the interests of the Honey Producer.

Seventy-five Cents per annum in Advance.

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All advertisements will be inserted at the following rates

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#### Breeders' Illustrated Directory.

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

#### Condensed Directory.

Occupying one-half such space, THREE DOLLARS per

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to 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

#### Exchange and Mart.

Advertisements for this Department will be inserted Advertisements for this Department will be inserted at the uniform rate of 25 CENTS each insertionate occeed five lines—and 5 cents each additional line each insertion. If you desire your advt. in this column, be particular to mention the fact, else it will be inserted in our regular advertising columns. This column is specially intended for those who have poultry, eggs, bees, or other goods for exchange for something else and for the purpose of advertising bees, honey, poultry, etc., for sale Cash must accompany advt. Five insertions without change, \$1.

### STRICTLY CASH IN ADVANCE

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

THE D. A. JONES Co., LD., Beston, Publishers.

#### **PUBLISHERS'** NOTES.

We will always be glad to forward sample copies to

those desiring such.

The Journal will be continued to each address until
otherwise ordered and a larrears paid.

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Subscriptions are always acknowledged on the wrapper label as soon as possible after receipt American Currency, stamps, Post Office orders, and New York and Chicago (par) drafts accepted at par in payment of subscription and advertising accounts. Subscription Price, 75c. per Annum. Postage free for Canada and the United States, to England, Germany, etc. rocents per year extra; and to all countries not in the postal Union, 50c. extra per annum.

The number on each wrapper or address-label will show the expiring number of your subscription, andby comparing this with the Whole No. on the Journal you can as certain your exact standing.

Communications on any subject of interest to the

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

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

tentsheets of paper. Both may, however be enclosed in the same envelope.

Reports from subscribers are always welcome. 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 JOURMAL BRRORS.— 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 any way. Do not complain to any one else or let it pass. We want an early opportunity to make right any injustice we way. Do not complain to any one else or lot it pass. want an early opportunity to make right any injustice we

may do.

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

#### Clubbing Rates.

THE CANADIAN BELL JOURNAL and THE CANADIAN POLLIN JOURNAL and premium queen 100 Both JOURNAL and premium queen 1 25

#### Job Printing,

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

# Galvanized Twisted Wire

We can now furnish the best Poultry Netting at the following low prices for 2 in. mesh No. 19 wire, in the various widths, in full roll 1018 (150 feet to roll):

19 GAUGE. 36 in. 30 in 48 in. 72 in. 24 in 93 10 9 50 4 00 4 85 6 00

18 GAUGE 88 25 5 00 6 30 In less than full roll lots the price will be 11c sq.ft THE D. A. JONES CO., LTD.

Beeton, Ont.

# ecial Prices

In all lines of Bee Supplies, but will this month make a special run on

#### haff Hives

And Sections. Send at once for new price list, just out.

> W. A.CHRYSLER, Box 450, Chatham Ont.

### MOTICE

Our Supplies for 1890 will be the same as 1889. No CHANGE IN PRICES. No new Catalogues.

> M. RICHARDSON & SON, Port Colborne, Ont

# Muth's Honey Extractor.

Pertection Cold Blast Smokers, Square Glass Hone lars, etc. Send ten cents for Practical Hints to Bee Jara, etc. Send ten cents apply

CHAS. F. MUTH & SON.

Oor. Freeman & Central Avenues, Cuncinnat

# 250 ENVELOPES

FOR

Good paper, sent postpaid on receipt of Address all orders for Printing to the

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

# **HEDDON'S** PATFNT

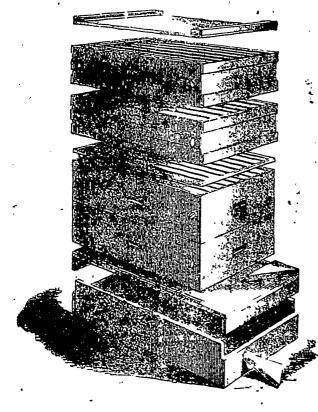
I desire to notify Canadian Bee Keepers that I have arranged with the D. A. JONES CO., of Beeton, Ont., for the exclusive sale of their Canadian Patent on the hive of my invention, so that all desiring

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 Beston. 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 Langstrath Cook. Hutchina : Taylor, Stiles, Bald ridge at 1 filany others ever spoker or written of any bee hive. For this testimony, full discription with illustrations and prices, address

JAMES REDDOM. DOWAGIAG, MOOR.



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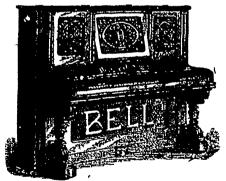
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# IMPORTED QUEENS.

la May and June, each	-		•	- 82	00
In July and August, each	•			٠ 1	80
In September and October, each	•		•		40
Money must be sent in advance.	No	gu	tran	tie	OII
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least), which die in transit will be re	pla	col	lfre	burn	ed
h a letter	•				

CHAS: BIANCONCII, Bolgna, Italy.

# BELL. PIANOS



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

UELPH, Ont

### PRICE'S CURRENT

Becton Feb. 19 1890

We pay 352 in trade for good pure Beeswax, delivered at Beeton, at this late, sediment, iff any), deducted. American customers must remember that there is a duty of B per cut on Wax-oming into Canada.

POUNDATION

erood Foundation, cut to any size per pound.......500 

### ACQUAINTED

BEE-KEEPERS' REVIEW.

The December issue has a process act showing the "Home of the ktwikw." as an accompanying article descriptive of "The Review, its Home, its Editor and his family This number shows more clearly, perhaps, the plan upon which the Review is one "oted, than does any single number that has preceded it. In its adverdaing columns will be found the description of a plan whereby all who wish, may secure the back numbers at a triffing cost. The special topic of this issue is "What will Bost Combine with Bac Keeping, and What shall Bost Keepers do Winters?" This number will be gladly safe free to all who apply, and with it will be sent two other numbers. W. Z. HUTCHINSON, Flint, Mich



# Bee-Keepers Guide

MANUAL OF THE APIARY.

This fitteenth thousand much enlarged and more richly illustrated than previous editions. It has been fully revised, and contains the very latest in respect to beokeeping. Price by mail 81.50. Liberal discount to dealkeeping. Price bers and for clubs

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

Tested Carniolan Queens.
We have just purchased all the Tested Carnolan Queens John Andrews, of the late firm of Andrews & Lockport, has now wintering in their roo colonies. These queens are to produce to beer showing yellow bands, and are to be shipped in May. Anyone in need of a fine breeding queen carry in the season should correspond with me, or anyone interested in the Carmolan bees should read our catalogue describing these bees. Address THE ADVANCE, Mechanic Falls, Me.

#### BARNES' FOOT-POWER MACHINERY



Read what J. J. PARENT, bariton, N. Y., says - "We cut s Read what J. J. PARENT, of Charlton, N. Y., says. "We cut with one of Your Combined Mashings last winter so chaff hives with Y not cap. Too howey racks, soo bread frames, 2,000 koney boxes and a great dual of other work. This winter we neve double the number of bechives, etc. to make, and we expect to do it all with this saw. It will do aff you say it will." Catalogue and Price List free. "Address W.F. & was Rubwest. Box Rofe of M. 21 JOHN BARNES, 144 Ruby St., Rockford, In

ORDER YOUR GOODS NOW AND GET THE

He is a wise man who orders his Supplies sheed. For these reasons:

WE CAN TURN IT OUT WITHOUT DELAY.

HE CAN GET ALL HIS FIXTURES READY BEFORE SPRING OPENS. HE CAN SAVE EXPRESS CHARGES, for he has time to wait on the along

footed Freight. And HE CAN SAVE MONEY by taking advantage of our ofters, viz.:

5 Per Cent on Hives and Sections during the month of March. You know what you need for next season and should order now.

make 'and offer for cale all the leading styles of Hives, including the Langstroth, Heddon Jones D. W. and S. W., but the one that we specially recommend is

## THE COMBINATION HIVE.

make in two sizee-to sid eight and nine frames asspectively, and we scontinend the latter as the nur and CHEAPEST in the market to-day.

The inside dimensions are :

Mine frame	Longth	· Width	Depth 191 in.
Nine frame	. 106 "	188 in.	121 in.
Bight frame		188 "	121 "
The frame measure		198 "	101 "

#### NINE FRAME HIVES.

	7. 7.
Price each in lots of 1 5	
No. 88-For extracted honey-	-Brood chamber,
cover, 9 brood frames, se	cond story and 9
extensing frames (same siz	
made up   1 50   1 40	1 85   1 80   1 90
No. 84-No. 88 in flat   1 15	1 10 1 05 95
No. 85-For Comb Honey-	Brood Chamber
cover, & brood frames, and t	
for Reversible Honey Boo	
Amenda names AlmAlmil on	produce made an
twenty-seven 4jx4jx1j se	CHOES, ESSOS UP
1 19 1 10	T 00   T 00   20
No. 36-No. 35 in flat   87	
No. 87-For comb honey-	
eover, 9 brood frames, and s	
to take either L rests or ske	
zesta tako 27 42x42x12 s	ections; skeleton
crates take 27 4jzijzlj sect	ions) specify which
-made up.   1 12   1 10	1 2 05 T 1 00 1 95
No. 38-No. 87 in flat   87	
No. 38—No. 87 in flat   87   No. 41—Brood chamber, inc	83 80 75
No. 41—Brood chamber, inc	88   80   75 luding frames and
No. 41—Brood chamber, inc. cover, made up 85   88	88   90   75 luding frames and   80   78   75
No. 41—Brood chamber, inc cover, made up 85   88   No. 42—No. 41 in flat   65	88   90   75   luding frames and   80   78   75   62   60   55
No. 41—Brood chamber, inc. cover, made up 85   88   No. 42—No. 41 in flat   65   No. 48—Becond stories, include	88   80   75 luding frames and   80   78   75   62   60   55 ding frames only,
No. 41—Brood chamber, inc cover, made up 95   85 No. 42—No. 41 in flat   65 No. 42—Second stories, inclu- made up   80   75	88   90   75   luding frames and   80   78   75   62   60   55

#### EIGHT FRAME HIVES

No. 45-Same	No.	88, but	holding	only 8
frames,made t	ip 1 85	1 25   1	90   1 1	0   1 00
No. 46-No. 45				
No. 47 Same in bro				
four \$\x4\x1\				

eral Catalogue mailed on application.

No. 48-No. 47 in flat	75	70	64	62
No. 49—Same as No.	87, but	holdi	ng onl	7 8
frames, made up 1:00	95	90	87	85
No. 50-No. 49 in flat	75	70	65	4
No. 51—Bame as No.	41, but	hold	ing or	aly 8
frames, madelup .75	1 72 F	70 [	67	65
No. 52-No. 51 in tat	55	58	50	45
No. 58-Same as No.	48. but	hold	ing\ or	ılv 8
frames, made up 65	62 (	60		
No. 54-No. 53 in flat	45.	42	40	26
		,		

Please order by case and number.

REVERBIBLE HUNEY BOARDS AND REVERSERS FOR COMBINATION HIVES.

The prices for these are the same for either eight or nine frame hives. Price each in lots of ..... 10 20 No. 55-Without perforated metal, made up......25 No. 56—No. 55 in flat ..... 22 No. 57—With peri'd metal 19 21 20 ......80 29 28 made up.. 24 23 22 14 18 12 12 11 Please order by case and number.

#### Combination Eives arranged with Beversible Money Board and Beverser.

NINE FRAME MIVES. Price each in lots of 1 

### BIGHT FRAME HIVES.

No. 68, includes Nos. 47, 57 and 59, all made For full description of this hive, write us for

special extract from "Practical Bee-keeping." Special sizes of hives at special prices write for estimates. received at once. See trade discount for orders

The D. A. Jones Co., Ld. BERTON, ONT.



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

Vol. V. No. 49

BEETON, ONT., MAR. 1, 1890.

WHOLE No. 257

# THE CANADIAN BEE JOURNAL.

ISSUED 1ST AND 15TH OF EACH MONTH.

D. A. Jones,

EDITOR-IN-CHIEF.

F. H. MACPHERSON,

ASSOCIATE EDITOR.

#### EDITORIAL.

The Canadian Bee Journal.

FITH this issue we present ourselves to our readers in a somewhat altered but improved form, with a feeling that the changes We have made are really in the best interests of all concerned, and the many expressions we have had from the readers of the Journal indicate that our ideas meet with popular approval. We desire here to apologise for an ap-Parent lack of interest in the editorial management of the BEE JOURNAL during the year past, caused by our attention being directed into other channels. These attentions will hereafter be directed towards the BEE JOURNAL, and With the increased time for editorial Work at our disposal, we hope to make the JOURNAL of such value to the beekeeper-professional or amateur-that it cannot well be got along without.

To do this it will be necessary that we receive the assistance of every reader, and to this end we invite all to lend a helping hand in the discussion of any subject which arises, and which is of interest to the profession. Every contribution where space will permit, which deals with a subject in the public interest, will find a place in the columns of the JOURNAL. As has been our usual practice, articles containing personalities will be excluded, or the aspersions of personal character will, at least, be eliminated, if the remainder of the article is of public value. We want to keep the JOURNAL up to the times, and we want our readers to help us.

We desire their assistance, as indicated above, and also in a practical way, by each one endeavoring to secure us an additional subscriber, or more. The great majority of the subscriptions will soon expire, and we want each one, in renewing his own, to send us at the same time a new name, together with the subscription fee of 75 cents. you cannot take time to do this, then please jot down the names of all beekeepers in your vicinity, who do not take the JOURNAL, and enclose the list of names along with your own subscription, and we will forward sample copies.

The object of THE CANADIAN BER JOURNAL, in a few words, is the elevation of the pursuit of bee keeping to its place among the standard industries of the present day, and it will require the combined assistance of every lover of the "busy bee" to lift it to the position. Come, therefore, and help.

### GENERAL.

FOR THE CANADIAN BER JOURNAL.

Killing Surplus Bees.

HE ethics of the killing or preservation of bees is a matter that must be left to the individual interested. The question has two sides with good men on both. But the question has an economical side too. Is fall killing of bees the best disposition we can make of our property? It can hardly be said that it is in our present circumstances. For granted that there is no market for them in the fall. the case is different in the spring. I know that there is a considerable spring trade in bees between Canada and the United States. They are brought north in pound lots, in nuclei and in full colonies. And the price in Canada for colonies in May and June ranges from hive to ten dollars. Now it will pay to keep our stocks over the winter even should we sell them at four dollars each. And at this price who can doubt that a market can be had for all our surplus stock. There are thousands of farmers in Canada who have not a single stock on their farms and who would be induced to buy at the lower rates.

J. R. BLACK.

Barrie, Feb. 15, 1890.

There is force in what our triend Black says regarding the purchase of " bees by the pound." Why, if we are to have surplus bees, for purposes of destruction in the fall, will it not pay to keep them over till spring, even if you sell them "by the bound" in April and May. There will be money in it, to keep them over thus, and sell them even at the low prices asked in the South.

For The Canadian Bee Journal.

Destroying Surplus Bees.

HE article by Geo. Wood under the above 6 caption, in the C. B. J. for January 29, touches upon a subject which has interested me for some time, and I well know that the views expressed there are not generally popular, and to such an extent is this true, that a beekeeper entertaining them may almost be considered to lose care. I believe in destroying bees in a humane manner, when that serves our best interest, just as I believe in killing animals fit for food when that serves our best interest. The killing of the animal does apply I hold, so far as humanity is concerned, especially calves, in dairy districts. I have, for a considerable time,

advecated that there is nothing to be gained by "doubling-up" colonies in the fall, if either colony is of average strength, and has a good queen. A colony for some time queenless, and requeened after the most of the breeding season is over, is one dangerous to winter may be done towards successful wintering by destroying doubtful colonies. A good judge of bees, and an experienced hand should, if he has 150 colonies, and destroys thirty, have the advantage over another bee keeper with the same number, and of which he has destroyed none. He can dispose of colonies not liable to wintersuccessfully. By so doing he saves the honey go en to the colony which will not winter. It ours then to destroy bees, if we cannot dispose of them to advantage. As a bee keeper, it does not pay me to raise up competition (I am not one of those who would, by giving others the dark side of bee keeping, prevent them from keeping bees), in my line of business, yet am I not courting it by giving my bees away to my neighbors, if it pays them to take them. Right here, I claim it does not pay any man to take bees, without hive or combs after the bulk of the honey flow is over. A fall flow of honey is one to be depended on less than any other, and although in rare instances more, very much more may be secured, yet on an average not more, and not even so much, as would be required for winter, can be secured. hive has to be purchased, foundation purchased. and the risk run of food for winter having to be pourhased, to say nothing of expenses on bees, freight and packing, I maintain that it is unwise for any one, and especially for a beginner to take bees in that shape at that time of the year, It will generally pay better to purchase colonies in good condition in the May and June following at \$8 00 or oven \$10.00 each, he then has lost no honey. From these latter colonies first class swarms may be anticipated, which is a very important item in securing a large average yield. in an apiary. HOW TO DESTROY.

Yes, bees consume much stores after the close of the honey season, and right here it would be well to say, be sure you know when the honey season closes. When you are certain there is no source from which you can secure any more honey, take the colonies you are going to destroy, and remove all combs without brood. Put the balance with as few colonies as you can, putting on one or two upper stories to contain them, and put the brood further, advanced together, facilitate removal when hatched. Then brimstone or chlorotorm the bees which have been shaken from the combs. This is "easy." As soon as possible again, reduce the colonies by taking out empty combs, and the problem is solved.

R. F. HOLTERMANN.

Romney, Feb. 6, 1890.

We think the method given by Mr. Alpaugh, in another column, is much ahead of the one you suggest, or do you speak from experience.

For the CANADIAN BEE JOURNAL.

Killin' Surplus Bees.

R.Geo. Wood writes a long piece advocatin killin bees when folks gets too many hives, then wants others to discuss and ventilate this new subject of

his in the C. B. J. Well, George, I've cussed it and its now hanging out doors ventilati'n, and if it ever gets sose it don't smell, I'll see what can be done for you. Meanwhile, just for the present, so's to keep you from hing run over with bees, I'de suggest a momentary relief which can be used now or any time in the future when your surplus bees seem dangerously multiplied, and the multiplication seems griveous or threatening. You say, George, that you want an "easy, cheep, quick and clean way" of distroying your bees when you have too many. Easy, cheep, quick, and clean; humph! yes. Well, how would it do to get some help some night and pile the hives up in one huge pile and pour oil over um and set am a fire. That's "cheep," cos dil ain't no great account. it's only 6 cents a gallon here; and fire makes um "clean," and does it "quick." George, don't let your bees run over ye, and I'll study out sumthin fore long to help ye, if it ain't more than blow um up with dynamite. Here, I've been ploddin along, fool like, and keepin my bees from swarmin, cos I had enuff hives, when I might have gained more by drowning or shooting them. I stand here to say, George, I no your right. It's all in gittin rid of your bees. That's where the money lies. And as ye say it's the livest question that's cum up in the present generation, and people ma laf now, but it'le make other topticks look sick yet. you bet. Gettin red of the bees, thats the checker; and how to do it, would suit us better. Taint meny folks as can kill bees now-a-days, specially to find an "easy, cheep, quick, and clean; way" of doin it. Taint much hunney what was raised. round here last year, and I could have been just like um, but I had to up and keep my bees from swarmin, and as a result got a big yield of come honey. George, tell me how I can get rid

of my honey in a "easy, cheep, quick, and clean way."

JOHN F. GATES:

Ovid, Erie Co., Feb. 7, 1890.

Uncle John never opens his mouth but he says something, and it's most generally good common sense too, but in this instance he forgets that the hives and comb may be of some use after the bees have been destroyed.

For the CANADIAN BEE' JOURNAL.

Surplus Bees-Swarming Etc.

CORRESPONDENT in the C.B.J. says he fears he may be overstocked. I think that I would resort to primstone, rather than press bees as a present on any one, thus creating a slipshod competition, with no thanks for it, besides losing valuable combs, hives, racks, honey-boards, sections, and perhaps throwing in an extra quilt to induce your friend to carry them off. But I am not a philanthropist. Ten years has not yet overstocked me, and I have bought a good many colonies.

The "catch-em-alive," as some one calls Mr. Alley's patent is out, I have used a similar invention in my apiary for the last two years. All the difference I see is that I used a 11 inch tin pipe, eight inches long, with wire cone on one end, and reaching from a box covered on two sides, with perforated metal, to a similar box placed on the empty hive. But on hive ` gninago the The result was ' not quite satisfactory. The queen certainly went into the empty have. I found only a few bees with her. To remedy this I took the old hive off its stand, and put the new one in its place, because the returning swarm had gone into the old hive in some cases. It worked well. Three of the swarms thus hived came out next day, and rising high in the air were gone, despite my exertions with the spraying pump. And let me say just here, that the pump I got of you is a grand thing to bring down a swarm. I mean to try the "catch-em-alive" again this season, I had no idea any one but myself ever used this self-hiver, till I saw Mr. Alley's notice and diagrams.! I wrote him at once telling him of my discovery and its results. I wil try the perforated metal tube next time, it may do better.

I hope the Ontario Bee Keepers Association will make the C. B. J. its official organ, and I wish it every success.

I have 50 colonies, seemingly all doing well, in my cellar.

ROB'T KENNEDY, SR. Bethany, Ont., Feb. 16, 1890.

You seem to have misunderstood what was said with reference to giving the sur-

plus bees away. The hives, etc., were not included, but the recipient of the present was to furnish the necessary hives and whatever else was needed.

It is likely that the self-swarmer you use, would work a great deal better with the periorated metal tube. The experiments we tried here were with devices of perforated metal. The foreman pronounced it a success, but had not got the experiment down fine

enough to make it public.

We thank you for your kindly reference to the Canadian Ber Journal, but we do not understand your remarks regarding its becoming the organ of the O. B. K. A. The latter body does not stand in any special need of an "organ," and the C. B. J. would respectfully decline any such offer, were one made, as we prefer to be independent of any and all corporations.

FOR THE CANADIAN BEE JOURNAL.

Jottings.

OT a bad idea.—I find in The Bee Keepers' Record and Advertiser a very sensible plan communicated to that paper by a Russian, to feed flour as a substitute for pollen: "Take," he says, "a frame of empty comb, fill the cells on one side about three parts full with ordinary wheaten flour, then add a layer of fine grain sugar till the cells are nearly full, and gently pour thin syrup over this till all the sugar becomes moist. It is well to pour some syrup into the cells on the opposite side of the comb, but the side containing flour must be set in the hive next to the cluster of bees."

Another change in the Journal eh? and all for our good. Tell me—suppose you give me two meals a day for a consideration, and then you change your treatment, by putting the two into one. Is my appetite likely to be better satisfied and my digestive organs improved thereby?

"Where, oh where has the King Bee gone, Oh where, oh, where is he?"

Is he dead or hibernating? Are "the blades of the grave grass quivering" o'er his resting place? or has he rolled up his talents in a napkin, and taken a seat on the shelf? He who boomed the bee business so long, should stand by the helm till the craft so successfully launched can be manned by better men. Come out of your shell D. A.

"We miss thee from, meetings, we miss thee,

Let it be an inducement to hear;
That the old and the young in the calling

Are saying I wish he were here."

This leads me to note, that the first love of many of the pioneers in bee keeping on the other side of the line, appears to be waning. When the International met at Toronto six years ago. we had many of them with us. "The flowers of that flock" were conspicuous by their absence at'the last meeting in Brantford. Langstroth," Muth, A. I. Root and Miller were "bright and shining lights in the Toronto Assembly." "Where, oh, where are they gone." Not -"to the bourne from whence no traveller returns"not elbowed out of the ranks by stronger and abler men. Not less appreciated, or their pres. ence and counsel loss highly valued by the traternity. True, (the weight of years bears heavily on some. Kish, fruit, and vegetables have supplanted bees in the affections of others. The race after riches may engross the attention and employ the time of more. Whatever the cause of your withdrawal, gentlemen, the fact remains, "we miss you." While we regret your absence from our meetings, we hail with pleasure the appearance of those over whose shoulders you have cast your mantles. Ernest Root was a good substitute for his father, his amiable wife, his sister and her husband, were warmly welcomed triends among Canadian bee keepers. Dr. Mason filled the chair literally, ably, and acceptably. Professor Cook delighted his many friends by his presence. He whose name is a household word in hee keeping circles everywhere-is the American whom Canadian beekeepers are most anxious to meet. He came. they saw, and he conquered. The discreet, silent, big-brained editor of the Review, Hutchinson, lost nothing in the estimation of his Canadian brethren by his taciturnity. In him they discovered the force of the adage that "2 close mouth keeps a wise head." The younger Dadant whom everybody knows, but few had seen, not only filed an appearance himself, but added grace to the meeting by bringing his wife with him. He was no drone in that hive, but contributed his full quota to its interest and success. Newman's absence is excusable. He was laid up with the grippe, poor fellow. The polished, able editor of the A. B. J. would have met many warm friends and patrons had he been present. "We missed you," Newman, and let this suffice to assure you that we recognize your worth in the world of Apiculture.

NUMBER Two. 2

The "King Bee," as "Number

Two," dubs me, has been very much taken up with other matters the past year, and hence have not been able to be present at the various bee conventions though my heart was with those who were present. I hope, however, to give things apiarian more of my time from this out, so that "Number Two" may not have occasion to call on me again.—D. A. J.

For the Canadian BER JOURNAL.

Horizontal Divisible Brood Chamber Hives.

HAVE read Mr. Heddon's article on page 327. July 3, with amazement. I had no idea until I read it, that he was so "wrapped up" in American notions, was so totally innocent of a knowledge of British hives and systems.

Here is a choice sample; "Perhaps he (i.e. myself) does not know that in England and Scotland these storifying hives of which he speaks, had gone out of use, Simplicities and other American patterns having taken their place. These, however, are the facts and the divisible brood-chamber hives never existed in that country. They simply had divisible nives and so did we when we had two apartment They had what was called Stewarton's storifying hives, but they had no well defined division between the broad chamber." Then he ends up with: "I hope I have made this matter sufficiently clear so that those reading such misleading statements as the one quoted above will not be led astray by them."

He also quotes Messrs. Geo. Neighbor & Sons, so that no doubt he has had several of their Catalogues, if so, he will have seen "Stewarton," which is a development, through long usage, of Stuart Town, also "Renfrewshire Stewarton" hives, the illustrations of which, have always shown a number of horizontally divisable brood-chambers, also supers, called "honey boxes," as they are made shallower than the brood boxes.

The "Stewarton" hive is worked with bars only, fixed in an octagon box, with five eighth walls and about 14 inches wide inside, by six or nine incl.es deep; these are for brood only and are worked with two nine or three six inch boxes at least. The honey boxes are four inches deep, every one of which will fit exactly on the top of each other. This is the hive that is in such extensive use in Scotland to carry out migratory bee keeping, to get in the heather harvest; in fact no hive has yet been able to come up to it for this purpose. The "Ren-

frewshire" Stewarton, is exactly the same, but it is fitted with movable frames, instead of bars only, and is nine inches deep. When the clover harvest ends the top brood box is mostly full of honey and some of the supers are unfinished; the practice is to put the top brood box under the other, and as the instinct of bees is to keep the brood nest in one solid globe, they carry up the honey to finish the supers and fill the emptied cells in this box, with brood, which when hatched comes in to gather the heather harvest. The Stewarton hive has always been a comb honey hive and the amount of comb honey to be got has always depended on the depth of the brood nest. Heddon teaches that the shallower it is, the better, if a large harvest is wanted. As to it having "gone out of use," it is a fact which cannot be disputed, that there are more Stewarton hives in use to day than ever before. More are made every year, while for his other assertion, I have never seen or heard tell of an American "Simplicity" hive in use on this side. nor do I think one is in use. There are a few "Heddon" hives being tried, but none are being made now; and as to "other American patterns," ne one in his senses uses them, as no American pattern hive is suitable for this climate.

The reason the Stewarton hives are not more in use is the difficulty of making them, no one that is not trained being able to make them. Robert Kerr was a cabinet maker, and to this day no one but a cabinet maker or one who has served an apprenticeship to learn the art can make them properly. Then they are expensive, and they are old, which fact is not without its influence, when one is looking for a novelty. No other hive has been so much discussed in British literature. If one will turn to the British Bee Journal for Dec. 1st, 1880, they will see a paper published that was read by the Rev. E. Bartrum, M. A., before the British Bee Keepers Association on this hive, also in every number forward until, and including the issue for June 1st, 1881, they will see a long controversy on it, between Thos. Wm. Cowan, Esq., who is now the editor, and a "Renfrewshire Bee Keeper." The paper and the controversy will give any one a good insight into the manner of working a storifying horizontal divisible brood chamber hive, and set at rest the question, if such a hive ever existed or not. in fact I have shown that such a hive was patented in April, 1675, only four years after bees were first landed in America, read A. B. I. for May 25th 1885, page 739, and if Mr. Heddon does not know of such hives ever being in use, well, he has no one but himself to blame.

Now a few words on the U. S Patent Law, and

his right to a patent on every form of such a hive. I am not questioning his title to the particular way he makes his hive nor as a combination, what I question is his claim to having invented for the first time, a horizontal divisible brood-chamber hive. I don't dispute what he thinks is an inventor's or patentee's rights as I agree with him in everything. But no country grants patents on things that are old and well known, tho' I think they should, if not much in use. In Great Britain any person can get a valid patent on any foreign invention, that is not known of in the country, whether he is the inventor or not and no matter how old it is. In the U.S. of America he must be the first and true inventor, and he must take out his patent within two years of first publication in the country. It is also the law that if publication or, use in the U. S., previously cannot be proved a foreign inventor can get a valid patent any time, so it was thought that if previously patented abroad the foreign inventor could anytime get a valid patent, but this theory was blown in pieces by the U. S. Supreme Court, in the case of the Siemen's. Martin Steel Patent; which held "that as there were specifications of British patents in the Patent Library, accessable to the public, the British Government presents copies free to twelve U. S. and three Canadian public libraries -the patent had, in the eyes of the law, been published in the U.S., and a valid patent could not be obtained after two years of such publication. If one British Patent specification, filed in a public library, will invalidate a patent, I fail to see how Mr. Heddon can for a moment make good his claims, besides, he must have been the first man who invented and put in use such a hive, against which we have Gedde, Galt & Nowells patent on such a hive in 1675; but even here, it is proved that the Rev. Wm. Mewe, of Eastlington, Gloucestershire used and recommended such a hive in 1652. Then there is Robt. Kerr's improved form of nearly a century ago, as well as the back numbers of the journal of Horticulture and the British Bee Journal which were widely circulated in the U.S. soon after publication here. Am I right in believing that it is considered the correct thing to do in the U.S. to ignore everything British and put forward as facts, things they either know are not so, or have only imagined them? We get a very many choice extracts cut from American papers, given in our papers, in fact nothing is too "tall," for them to assert when the occasion suits. They boast about "running the fastest train in the world," which is less than half the speed-even their fastest train-than the majority of the cheap trains on most of our railways, even our

slowest trains run faster than their fastest: but when over here, they don't forget to growl at their slowness even when going at 70 miles per hour; fact is, they will have it that we are too. slow or a century behind them. I did once see a Yankee's face light up when I told him to notice a postman put some bags of mail and receive some in the same spot, on and off a train going at 75 milis per hour; the train came rushing along, the bags were picked up and others dropped in their places at the postman's feet. When he had seen it done, of course he would have it that it was an American who had invented the thing, like most things always are; when in fact it was George Stephenson-whose bones'lie in a Hallamashire Church Yard-who invented and developed the American system of railroad construction; by which alone were railways possible in that country. On this side we all carefully take note of every idea originating on the American continent, which is care. fully examined and often discarded long before its faults are discovered on the other side, and while many useful things have undoubtedly had birth in the new world, the vast majority of all the good things, including all the great inventions. have originated over here. So it is in the bee Exclude-the moveable frame of Langstroth, which Heddon and some others, as well as many Scotch friends, question as a useful article, what have they to show beyond a lot of useless notions? Everything they use of any real value came from the old world, and there are lots more good things, if their conceit would allow them to use them.

In conclusion, let me inform Mr. Heddon and all who like to know, that the word "Stewarton Hive," means here, in general language, a storifying horizontal divisible brood chamber hive. We have the "Carr-Stewartor.," which is longer one way than the other, in fact practically Heddon's hive, "Round Stewartons," in wood or straw "Square Stewartons," while a "Stewarton," without any other designating word means one of octagon form with bars only, and which is, and always has been, since it was perfected by Kerr a century ago, practically a movable comb hive, in fact, a more practical moveable comb hive than the "Heddon Stewarton" hive.

#### A HALLAMSHIRE BEE KEEPER.

We are all wrapped-up too much in our own ideas, British bee-keepers included, so that it is only natural for a person to be enthusiastic over his own inventions or ideas. There is no doubt many things have been used in Britain

similiar to those in America, but the slight difference in the working has very much to do with the success or There have been shallow hives used in this country, and we do not think friend Heddon claims the idea of simply the shallow hives, neither two shallow brood chambers, the one on the top of the other, but it is the Combination which makes it the workable shallow hive, and the simplicity of its workableness as he handles it, that has features about :t that are not if we are correctly informed, found in the have you speak of.

I don't think anybody claims to have a patent for putting one brood chamber on the top of another, irrespective of the depth of the frame in the brood cham-It has been a very common practice with some to use shallow frames, and for brooding chambers placing two or more on top of each other, but the peculiar construction of the shallow brood chambers, may make all the difference in their manipulation. For instance we never claimed that we originated the idea of supers, but we have invented and constructed a super which with its attachments, can be used to reverse sections, and while it is not patented we know of no other that is constructed in any way similar to it. Some reverse the section in the crates using thumb screws or wedge, to tighten them We are convinced that many of the misunderstandings in reference to the various subjects are due to not thoroughly understanding all the particulars or claims. No doubt many of the arti cles in use in America, have been or are in use in Europe, and from what we know of British bee keeping we believe that their knowledge of the subject is very much underated by some America. A person has only to visit the various English apiaries to find many very clever and simple devices in use. We think Americans are willing to give credit to those entitled to it. when they are aware of the fact, and we believe nobody in America attempts to claim the invention of the honey extractor from Major Yon Elurscha, of Germany, yet the construction has been so much changed that we think the inventor would hardly recognize the original invention, were he alive to do so.

For The Canadian Bee Journal. Extracting Honey From Cappings.

BY USING THE SOLAR WAX BYTRACTOR.

THE following is my method of taking honey from cappings: I uncap the combs over a large tin box, with a screen up a few inches from the bottom, for the cappings to drop on. At the side of the box (under the screen) I have a large tap, through which I draw off the honey as it runs down, but the honey will not all run out of the cappings in this way, but by the next process I get them clean. I have a Solar wax extractor with a wire screen basket inside of it, into which I now throw the cappings. The wire screen has a fine mesh, which retains all the dross, the honey and wax run down into the dish, and the wax cakes on top of the honey, when you can lift it off, and the honey is as good as ever. When melting cappings with honey in them, I keep the dish covered from the sun. cappings to melt up late in the fall, when I cannot do it by the sun, I fill my wire screen basket and shove it in the oven of my cookstove, and place the dish under the screen, and keep on a moderate fire, when the honey and wax will run down just lovely. I think I am first and foremost with a wire screen basket in a solar wax extractor, and one without it is not complete.

DESTROYING SURPLYS BEES.

Regarding Mr. Wood's article on destroying surplus bees, on page 1016, C. B. J., I think he does quite right in killing his surplus bees, but he did not go about it rightly. Smoking them in death, or leaving the job until cold weather sets in are both wrong. If he will go to his haves some nice warm day quet after the brood is all hatched out; and sweep his bees off into the hives, put on the covers, sen ove the combs to the honey house, in 10 or 17 days the bees will all be dead in the hive, when he can dump them out and stack up his hives. he can sell his bees all right, if not then I say kill them. You must remember, Mr. Editor, that there are all kinds of people in the world, and I am one of them. I do not believe in putting myself in a position where I am liable to lose something for nothing.

Јасов Алраген. St. Thomas, Ont., Feb. 10, '90

Here we have exactly the information desired by Mr. Wood as asked for in the last issue of the Journal (page As we purpose making solar 1062.. wax extractors the coming season, we shall have to get a sample one from Mr Alpaugh.—Though he does not say so,

yet we presume he means that the entrances to the hives, where the bees are left to starve, are to be closed up tightly so that no bees could escape. By the way it is surprising how many there are who advocate the destroying of surplus bees, but from one reason and another have all kept "dark" about it. In conversation with a gentleman from Huron county a day or two ago, he told us of a bee keeper near him who destroyed 56 colonies last fall, another prominent apiarist informs us he has been practicing this same thing for three years past, but said nothing of it, for fear he might be called an old "fogy." Yet the idea was new to us until now.

For the Canadian BEE JOURNAL.
Extracting Honey From Cappings.

N answer to Mr. Wood's enquiry as to the method of separating honey from cappings I would say that I have been using the solar wax extractor for the past two years for that purpose, with perfect satisfaction. With proper care I am enabled to get the greater part of the honey separated without injuring either the color or flavor. Care must be taken not not to let the honey become too hot, as this would give it a decided waxy flavor, but this may be prevented by keeping the dripping pans shaded and by exchanging the pans frequently. setting them in a cool place for a short time. when the honey should be poured off, leaving the pure wax in the pan until cool.

CALVIN BOYD.

Petrolis, Feb. 14, 1890.

#### Wintering Bees by Artificial Heat.

ASTOR Weygandt, in Flacht, a small town in the Saumus (hills), published last summer a pamplilet which, among other things, recommends bee-keepers to heat their bee houses during the cold months in winter and chilly nights in the autumn and early spring. The advantages he claims are numerous—the mare striking, at first sight, being perhaps, the saving of food, for instead of 25 to 30 lbs., he gives his colonies 5 lbs. only, and contends that, with this quantity, he carries them safely through the cold season.

With so small a consumption dysentery is not likely to show itself; indeed he assures us that his bees require no cleansing flights at all, nor do they make any attempt at leaving the hive in unsuitable weather, in spite of a temperature of 75° F. and more in his bee house.

The 5 lbs. of winter stores are composed of ten parts of honey to five of water, to which is added one part of wheat flour; and it is worth noting he has observed that the bees when thus treated (with food and warmth) evacuate in the hive a small dry and odourless substance, thus showing that the liquid excrements are probably a sign of more or less derangement.

In the early spring colonies are built up to the requisite strength with ease. Nuclei are carried through the winter without more difficulty than populous stocks. Queens and drones of any special breed can be forced by this process, and be on the wing before others not so treated.

The brood nest can be spread without risk of chilling.

A queen may be introduced in such a manner that there is absolutely no risk of her not being accepted, namely, by placing her in a hive stocked with comb of capped brood only, the warmth of the house being kept sufficiently high to ensure the safety of hatching.

For the purpose of heating any stove will do-Hot water or hot air pipes will also do, but care must be taken that the air be dry.

With respect to the hives, single walls are to be preferred, and, if impervious quilts are used a slight upward ventilation should be given. The flight holes communicate through the wall of the house, with the open, and are closed at night only in case of frost.

A correspondent in the British Bee Journal writes the above from Germany, where the experiment has apparently been tried, though the article does not say so, but surely no sane person would publish a book recommending such things without having actually tried them. Neither does the article say whether the repository is to be kept dark or not. Does anyone know of a similar experiment on this side the Atlantic?

Thos. H. Mills, an old-time student of Berton takes charge of the apiary for Judge Terral, Cameron, Texas.

The Apicutural Rundschan is the t tle of a new publication in German from Weixelburg. Laibach, Austria. Besides bees, horticulture and farming also receive some attention.

The Western Ontario Bee keepers' Association holds its annual convention at Essex Centre March 12th and 13th. We have an invitation to be present, but we regret that prior engagements for those dates will not permit it. We shall have a report from the secretary however.

#### CAPPINGS.

CUT FROM A VARIETY OF COMBS.

TO WHITEN BEESWAY.

HE British Bee Journal gives the following recipe:

it is strained, for an hour in plenty of water, to which a few drops of chloride of soda have been added. When the wax is quite cold remove it into the open air to dry and whiten."

There is nothing to be gained by whitening wax for any purpose, unless for an exhibition, and if we had our way the color of the wax, beyond a bright yellow, would have very little to do in the judging.

#### A CURE FOR SCIATICA.

Though the following does not relate to bees, still it is a remedy which is given in the B. B. J., and it may perhaps answer even where bee stings are no use:

"Furing the s-venty-four years of my life I have had sundry attacks of sciatica. The last time I had it I sured it by applying chloroform blisters on the place of pain."

A correspondent in the B.B.], desires to know whether ripe apricots, plums, etc., can be preserved in their raw state for winter enjag by immercing them in extracted honey.

#### A USE FOR PROPOLIS.

The "Australasian Bee Journal" gives a use for propolis, as practised in Russia; 12., in the varnishing of wooden ware:

"It is purchased by the hucksters, who pay about one halfpenny for permission to scrape or plane the hive that has lest its bees. The shavings covered with propolis are heated, put into a wax press and subjected to the treatment used in the extraction of becawax; the propolis is then purified in hor water, to which sulphuric acid is acided. About 50 per cent of propolis is thus obtained, which sells at 40 cents perpond. The propolis is poured into hot linseed if and because in the following proportions: I ropolis 1, beeswax, \( \frac{1}{2}, \text{ oil, 2.} \) Previously the oil should remain bot on the stove for 15 to 20 days without boiling to give it the property of drying.

The wooden were is dipped into the above monitored programmer, and must remain in it for 10 or 15 minutes, after which it is cooled, and rubbed and polished with woolen rags. Propolis is 50 plentifully collected by bees in some parts of this country, that I should imagine it would repay the bee-keeper to save it.

#### A USEFUL SÁLVE.

The following recipe is given by the American Bee Journal, and it says that with it are made plasters equal, and perhaps superior, to any obtained from druggists, and at an expense so trifling that one can be afforded for every pain. They have been used upon the chest and between shoulder blades, when there was, a soreness of the lungs, with tendency to pneumonia, and also to relieve backache, which is woman's almost universal complaint. The salve is indeed so valuable that no household should be without it:

"Two pounds of resin, 3 ounces of beeswax, 4 ounces of mutton tallow, and one gill of whisky, put into a kettle sufficiently large that it may not boil over, and stew until dissolved Make it into sticks like molesses candy. Place a tin upon the stove, and upon the tin a piece of fine wrapping paper, a little larger than the required plaster, and rub the wax upon it."

#### . LEAVE THE MARKINGS OUT.

We find that there are more folks than ourselves, who want "bees for honey more than they want "bees for color or style." The gifted editor of the British Bee Journal says on the point:

"Let us get the working qualities first, and leave the markings out of calculation until the more necessary points have been permanently fixed. The reason we have dwelt upon this at some length is not so much for the professional queen breeder, who, we can quite an estand, must to a very great extent be governed by the whims of his customers, as for the average bee-keeper. We wish to educate him to a better state of things, so that by raising the standard required, the careful, conscientious queen breeder may must with his due recard."

# FULL SHEETS OF FOUNDATION FOR SECTIONS.

We have always advocated the use of full sheets of foundation for sections, but we have perhaps never explained the reason so tersaly, as has our friend Heddon in the paragraph which follows:

"When the brood chamber is full of worker comb unless you fill the sections full of worker comb also, nearly all drone-comb will be built in the sections. It is conceded that drone-comb is not as handsome for surplus honey as the worker size. It certainly is not as strong for shipping, but all that amounts to but little compared to the point that if there is any drone comb in the surplus sections it will be filled with drone-brood unless a queen-excluding honey-board is used; and then, if it is only possible for the queen to pull and squeeze herself through the narrow passage-ways sur-

rounded with metal, she will do so. The bees must urge her up, or convey to her the knowledge that there is drone-comb above. true of all hives, of all shapes or depths, and as plainly possible with one depth as another, provided, as stated, there is no drone-comb in the , brood chamber.'

#### PURE RACES VS. CROSSES.

A correspondent in Mr. Cowan's paper suggests a match between native vs. foreign bees. Why not make it pure races vs. crosses? The editor thinks the idea a laudable one, worked on these

"I would suggest that we first get, say, i wentyfive or fifty, or even more, of the best beekeepers to agree to enter into a friendly contest. these s-lect a certain number to represent the native bee and an equal number to represent the foreigners. Then get half of each side to work for comb honey, and half of each side to work for extracted honey. A few simple rules would be necessary, permitting the spreading of brood but forbidding the addition of brood from other Any sort of hive, &c., to be used. Permission to be given for sections to be piled up as high on the working stocks as the bee-keeper may desire, even supposing he has to use a pair of steps to reach the topmost ones, Of course every competitor should honestly record the nett weight of the honey taken."

#### WINTER SPACE UNDER FRAMES.

#### W. Woodley in the B. B. J. says:

"I fail to see any advantage to be derived by the bees from a deep space below the frames except the almost impossibility of blocking the entrances with the dead, and with apiaries situated some distance from home this I admit would be worth considering; but how an extra few cubic inches if air can conduce to the preservation of the inmates of a hive, or tend to the quietude of the same, is beyond my ken "

#### A CONUNDRUM.

Why is a boot black like a bee? ' He improves each shining hour.

#### A QUEEN RESTRICTOR.

C. W. Dayton, of Iowa, is out with a new device which he calls a queen restrictor. The inventor claims for it the following advantages:

To confine the queen to an apartment and not retard the rearing of brood.

2 "To prevent swarming and causing the bees to destroy the queen cells soon after they are built.

"The queen's wings do not require clipping, owing to her confinement in the hive.

"It is reversion, exclusion and contraction

combined in a single arrangement."

He then says that it originates so radical a system of management that a book is necessary to explain it. We are I

not advised whether the queen restrict. or is to sell the book, or the book the queen restrictor, but we shall see later. The idea, instead of guarding apart. ments from the queen, is to restrain the queen from the apartments, and it is apparently done by the use of perforated metal fastened to and extending all round and lying flat on the outside of the bars composing the frames, and in such position as to bring the perforations op. posite the bee spaces usually allowed between the frames for the passage of worker bees and the restriction of the We have not been let into the secret of the whole affair yet so cannot predict either success or failure, but more anon.

#### POOR INVESTMENTS.

In a paper read before the Maine Bee. keepers Association, F. O. Addison, says:

"I think such things as reversible frames metal corners, separators and honey-boards, and wired frames are expensive investments for the average bee-keeper and add to the cost of production.

Leave out the honey hoards and he talks good sound sense. Perhaps specialists may work along as well or better without honey-boards, but for the general bee-keeper, they have come to stay—at least for a good long time.

#### MORE TRUTH THAN POETRY.

The same writer goes on to say:

"In order to make the most from bee keeping, we must first produce our honey as cheaply as possible. In order to do this we must to away with those things that are not of practical benefit in the apiary. We must go slow in investing in everything that we see advertised in our bee journals. It has been a great failing among our most prominem bee-keepers to jump at conclusions, hoping by so doing to get ahead in the matter of improvements, and thus they put on the market and sanction a thing which when it comes to be tested proves worse than useless. Now all these things add to the cost of produc-What the tion, and are a trig to the business. average bee-keeper wants is simplicity in every-He wants a good movable frame hive. This is important, with such appliances as are necessary to obtain the most honey."

#### A.POINTER REGARDING PRIZE LISTS.

Mrs. Harrison seems to know a thing or two about the prize list business, and she states rightly when she says that a many "howl" and have only good themselves to blame for it:

Bee-keepers complain that fairs do not give our industry the encouragement that it demands. On the other hand, the officers of these associations retaliate by saying. "It's their own fault." This is no doubt true. We wait till the premium lists are printed, or the fair is in session; and then set up a "howl." The time nod the "barking" is now; and "bark up the right tree," if we expect to catch the "coon." Make out a good premium list, and send them to the Superintendent of Farm Products, together with a respectful letter, and request him to bring it before the Beard at their meeting. Proceed in this way, and show that we are not shamed of our calling, and demand justice at State, county or district fairs."

#### NO PROGRESS IN MAINE.

L. F. Abbott, in an address before the Maine bee-keepers' remarks:

"Within the past five years there has been no increase in number of those who make a specialty of apiculture. Numbers have commenced in a small way, but poor seasons for two or three years in succession have discouraged them. So that it is fair to presume that beeteeping in Maine is about where it was five rears ago, in point of numbers engaged in the bisiness and stocks of bees kept."

#### GRANULATING HONEY.

A correspondent in Gleanings does not believe in educating the public—or rather he does not think that they can be educated to understand that the candying propensity of honey is a guarantee of its purity. There is force in his argument. He says:

We bee keepers must solve one problem more before we consider ourselves masters of the situation. We must discover what treatment, or what may be added to liquid honey, that will retain it, when we desire, in this form. Just so long as the honey we sell, either to grocers or consumers, candies on their hands, there will be complaints and suspicion of purity. Talk about educating the public to know that this candying propensity of honey is the only guarantee of its purity is all a waste of time. Better add something to the honey that will retain it in the liquid state and have no talk about its "going back to sugar," and "sugar fed bee."

#### BOTTOM BOARDS AND TEMPERATURE.

Talking of the use and non-use of bottom boards in wintering, Ernest Root says:

"It will be evident that the internal temperature of the hive whose bottom is covered will be higher than that of a nive without a bottomboard. Hence if hives have bottom-boards, the temperature must be kept lower in the cellar than in a cellar where hives have no bottomboards.

Our experience has been that in practice, a temperature that will winter bees well when the hives have no bottom boards, will do equally well for hives

having the bottom boards attached. If there is any difference we have never seen it.

A NICE PLAN FOR KEEPING-THE HOTTOM-BOARD CLEAN IN WINTER.

Where movable bottom boards are used the plan of F H Cyrenius, Oswego, N. Y., as given in Gleanings, is good:

"Before the bees are stored in the cellar, each hive has a stiff paper spread upon the bottom board, and the bees are closed in for the winter. How we enjoy moving the bees into the cellar and out again, and none of them allowed to come outside! Three or four times during the winter we take a basket to the bee-room, open the end, draw out the paper, shake all the dead bees and other refuse off into the basket, replace the papers and we are rid of all bad smell and the trouble of sweeping the dead bees from the cellar. And, besides, we save a great many bees which wander out of their comfortable quarters in carrying out the dead."

#### THB BEST SIZE OF BROOD NEST.

In reply to an article in Gleanings as to the best size of brood nest some twenty correspondents reply. A dozen of these prefer a brood nest of 1200 to 1400 cubic inches; four others run about 1600; and the balance about 2000. The brood nest of the nineframe Combination hive is 1300 cubic inches, and of the Jones' twelve-frame, 1500 inches.

TAKING BEES FROM CELLAR IN JANUARY.

On the 3est of Jan., R. L. Taylor, of Lapeer, Mich., carried his bees out of the cellar. Speaking it of he says:

"Two facts have moved me to take this new departure, viz: The almost unprecedented mildness of the season, and the uneasiness of the bees. There was, as yet, no appearance of disease, but it seemed impossible to get a temperature such as to prevent the bees of many of the colonies from unduly wasting. It was easy to see, from the eagerness with which the bees took wing, and from the spotting of the covers of the hives in their flight, that they ar least thought it a good thing. Were they right?

But I mention the matter more particularly to point a lesson. We must not forget that general advice is given, and rules are laid down to meet ordinary circumstances; when extraordinary circumstances come in, common sense must be given free play to formulate new rules, if necessary. In beekeeping, circumstances alter cases so frequently that, to be a successful apiarist, one must be full of resources to adequately meet new contingencies. Unthinking stolidity, at least is sure to fail.

The engraving representing those who were photographed at the International, appears in Gleanings for Feb. 15th. It is very good, and the publishers deserve credit for the work.

### **Queries and Replies**

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

#### Superfor Biggest Yield.

Query 253.—What kind of a super will the bees produce the most section honey in?

- A. B. MASON, AUBURNDALE, O.—Get one of each kind and experiment. I like the Heddon pretty well.
- G. M. DOOLITTLE, BORDDING, N. Y.—I use wide frames and one arisined with the results obtained.

EUGENE SECOR, FOREST CITY, IOWA.—That's just what I would like to know myself.

- J. ALPAUGH, St. Thomas.—I have used only one kind (the Heddon) therefore cannot speak from experience,
- J.F.DONN RIDGEWAY, ON r. -- The 1 super used over the slatted honey board gives me as good results as any ? have used.
- R. McKnight. Owen Sound, Ont.—Ask Heddon and other hive makers. If their answers leave you in doubt some disinterested party may tell you that the super that fits your hive best willedo fre work.

ALLEN PRINGLE, SELBY, ONT.—The one they will enter most readily and work best in, and that you may ascertain by testing fall the so called best ones.

DR. MILIER, MARINGO, ILL. i den't think it makes much difference what kind, although one kind may be better than another for the convenience of the bee-keeper.

- J. K. DARLING, ALMONTE, ONT.—Well, the one that is handled the best I guess. I have come to the conclusion that more depends on the man and the season than on the style of hive used.
- G. A. DEADMAN, BRUSSELS, ONT.—So long as you do not 50 to extremes by having the sections unnecessarily far from the brood, and always giving plenty of room, I cannot see that there can be any difference in the yield.

Prof. A. J. Cook, Lansing, Mich.—It makes little difference. The super is to secure nice honey in the most marketable form. I like the Heddon, and the L super.

JAS. HEDDON, DOWAGIAC, MICH.—Bees will not produce any more section honey in one kind of

a super than another provided that each, as all supers should be made, gives free access to the sections. The reason for the preference in supers is based upon their cheapness, lightness, solidity, durability, and above all the ease and speed with which they can be manipulated.

- H. D. CUTTING, CLINTON, MICH.—The one you like the best. The one that is best adapted to your hive. I use the L super, also five other different kinds of supers for experimental work and find no difference in the quantity of hone, Yet for the L. hive I prefer the L super. It is a great bother to have more than one kind of super in anyapiary.
- J. E. Pond, North Aveleboro, Mass.—Who can tell? I don't know. I would give much to know. Nearly, if not all the supers in use give good results. Different parties claim that their super is the best. Any super recommended by good apiarians is safe to use and will, if properly managed yield a fair surplus in a good sea.

WM. McEvoy, Woodburn, Ont — In the one you can keep them longest to work in without swarming. If you have the time to work the crate system right and will do everything at just the right time. You will get more comb honey that way than any other and it will be very choice. But if your other business crowds you so that you cannot give your bees the attention they should get, then you had better put on the top supers full of sections so as to make more room above and have less crowding below. By doing that you will put a great check on the swarming fever and you will have more finished sections at the close of the seaso, than you would from crates if you had not the time to attend to the crates.

G W. DEMAREE, CHRISTIANBURG, KY .- I don't that the kind of super has as much to do with the quantity of honey gathered as does some other factors connected with the matter. Good management, however, is always awarded say There is no arrangement that will give better success than a section onse just the size of the top of the brood chambers, and just be The sections space deeper than the sections. may be adjusted by means of tin flynged wood partitions or on tin 1 supports, all so arranged that the section cases will tier on each other to any necessary height. With this arrangement properly arranged if you have good strong colonies, a good honey season when there is plenty of bee forage, you are sure to get a paying quantity of honey in nice shape. Put starten in all the sections and when the honey season commences put on one section case and when the sections are all about two thirds full, lift the case and put another one under it. Keep the bees supplied with room, removing the top. cases as fast as the honey is finished and nicely ∷er led.

One that sets nearest the broad chamber and gives the bees the freest access from the broad chamber to the super

#### Filling for Cracked Gum.

Query 254.-My brother found a beetree last spring; it was in a cedar close by the creek; there was a large hole where they went in about four inches. and the tree has a crack above and When we felled it this helow the hole. crack opened about half an inch. sawed it off about two feet below the hole and three feet above making a hive about five feet long. The hollow was one toot in diameter. After we carried it home and set it up on end, placing a hoard over the top, a little honey leaked out, but they have thrived well, and last summer swarmed three times. How should I fill the crack up with packing, and if so what kind or will they live all winter leaving the crack open? It is too heavy to carry into the The bees seem quite strong, in fact we can look in and see them and their combs; or how should I protect them? They are standing in a sheltered place facing the south east.

- G. M. DooLITTLE, N. Y.—Cork the crack up with old rags or carpeting.
- H. D. CUTTING, CLINTON, MICH.—Fill the crack with clay made like putty, or common mortar until do.
- J. F. Dunn, RIDGEWAY, ONT.—Leave the hive just as it is and transfer them in the spring by the Heddon method.

DR. MILLER, MARENGO, ILL.—Without knowing more about it I should be inclined to leave them as they are till warm weather and then get them in a movable comb hive.

J ALPAUGH, ST. THOMAS.—I think I would leave it just as it is, I have known hives under similar conditions to winter well.

EUGENE SECOR, FOREST CITY, IOWA.—Stop the crack with rags or a mortar made of clay—craft and ashes. If I owned that log I would next spring split it entirely open and put the bes in a hive where I could handle them.

ALLEN PRINGLE, SELBY, ONT.—If you can look in and see the bees and combs through that track and there is much winter in your part of the country that crack ought undoubtedly to be the topsed up with something, even to "Cassar's day" to keep the wind away.

WM. McEvoy, Woodburn, Ont.—Stuff the crack with rags. Make a box over the log with a hillow wall all around it of four inches, Put a pipe with an inch and a half hole in from the bole in the log to the outside so the bees can go out and in when they like. Then fill the hollow wall with either chaff or sawdust and put a good ocver over it.

- G. W. Demares, Christiansburg.—You can fill the crack with some soft rags, stuffing them tightly so as to exclude the air. If the bees have a supply of honey they ought to winter all right. But why don't you split open he log and transfer the combs and bees to a good frame hive. Having neglected to do it ast summer, you can but winter them the best you can as they are and transfer them next spring during apple blossom.
- J. E. POND, NORTH ATTLEBORO, MASS—The crack can be filled up in the same way boats are caulked, viz., by driving in oakum or tarred lamp wicking or something of the kind. Bees live on summer stands and die on them also. You don't state the conditions of your climate so no one can tell much about the matter. I always keep my bees on summer stands, thermometer going as low at times as 20° below zero and I don't lose two per cent.
- J. K. DARLING, ALMONTE, ONT.—Would prefer having the crack closed up. Old cotton, soft paper, or any other substance that would fill up the opening, of course you would use some non-conductor of heat.
- A. B. MASON, AUBURNDALE, OHIO.—You are certainly not a woman bee keeper or you would not need to ask that question. I've seen strips of cloth pushed into cracks to keep the cold out. If you live in Florida the bees will probably make a live of it if the crack is left open, but if you live in Greenland—well you'll know better what to do than I do.

R. McKnight, Owen Sound, Ont.—Remove the bark as far as the crack extends. Push some ravelled rope or oaklim into the crack press the oaklim back, then fill up the outer part of the crack with putty and give the surface two or three coats of lineed oil.

G. A. DEADMAN, BRUSARLES, ONT.—I would fill up the crack with straw. If the temperature in your locality is frequently below zero, I would make a easing of old boards and fill in a six inch space with straw likewise.

PROF. A. J. COOK, LANSING, MICH.—It would be easy to wrap with straw and cover from storms. Nothing more would be necessary. If the winter continues as it has thus far—te Jan. 23—they would doubtless live with no protection.

JAMES HEDDON, DOWAGIAC, MICH.—Wedge some manilla paper into the crack tightly and tack a cleat over all, or if the comb is too uneven, tack on a piece of tin and paint on a strip of cloth. They will winter with the crack wide open, but they will winter with it closed, and they will summer better and protect themselves from robbers better also.

By The Ed.—Leaving the crack open below the hole you might shove a thin strip of wood in the crack above, and prevent a too free escape of heat. We have known bees to winter splendidly in log gums, in which were large knot holes.

### SELECTIONS.

HOW TO COUNT THE HONEY YIELD

OHN WALKER .- I wish to thank you for the queen I received from you last sum-mer. I had a weak colony that came in August, 1888, and I introduced her to it. had seven other colonies spring count, and from these and their increase I got 1200 lbs of honey, averaging 70 lbs per colony. I put 18 colonies in the cellar all in good shape. Honey sold at 121 to 15 cents per pound. Moorefield, Ont, Feby 10, 1890.

We observe that in estimating the yield of honey which you had per colony, that you strike the average from the number of colonies you had in the fall. While it is all right to do it in this way, providing you always give all the particulars, yet the common practice is to declare the average yield from the spring count in which case your's would That sounds a be 150 lbs per colony. good deal better, doesn't it? Perhaps you've often wondered why you couldn't get as big yields as some of your neighbors who have reported from time to time, but this will account for it. And its fair enough to count it in this way, The number of colonies of bees you have in spring represents your capital, and from these you get so much honey and so much increase. True the swarms have given you a good deal of the honey but then they had their origin in the colonies you started out with and therefore the credit belongs to the last named.

#### AVERAGED 75 LBS COMB HONEY.

JOHN REED. - My bees gave me an average of 75 lbs of comb honey per colony, but some of my neighbors report a much greater yield. East Lynan, Mo. Jan 15, 1890.

#### A THREE YEARS REPORT AND A GOOD ONE.

C. W. FORD.—I notice the results obtained by some amateur bee keepers of our Province and I thought I would send you an account of my own experience and success. I took A.I. Root's advice and started with one colony, (blacks) and placed it, like a new beginner, under the plum tree in the front yard, in the spring of 1887. This colony was in an old box hive. first swarm issued I put it into a ten frame Simplicity hive; also did the same with second swarm; and about four days after second swarm came I transferred the old colony to a Simplicity hive. I was all this time studying A. I. Root's A.B.C. on Bee Culture and clipped what I could from the newspapers. About this time I fancied myself quite a bee man. In the fall of the same year I put my three colonies in the

cellar; the place was rather damp, so honey in hives soon moulded and I lost one during win-In the spring of 1888 I brought out my two lives apparently in good shape, with excention of combs being mouldy, but as soon as been had a chance they were nicely cleaned up, Thinking now that I could handle more than two colonies, I bought two more from a neigh-bor in old boxes. I transferred them after first swarm had issued and the four during summer During said sum. .1888 increased to fourteen. mer I introduced some Italian queens and did it fine for a greenhorn. I now began to think of some other way of wintering so I built a house for the purpose and after seiling one colony for \$8. I put the balance (being 13) into my house, along with eight more belonging to my neighbor. The whole lot came out in spring. 1889 in grand shape excepting one colony having lost its queen. But having now in my poss. ession the Canadian Ber Journal shape to do mostly anything with bees, so I supplied the queenless colony with a comb of brood from a strong colony and in a short time they were supplied with a queen of their own. During past two summers I did not try to prevent increase so did not get any surplus honey. During 1898 I used only Simplicity hive, but for 1889 Lthought I would try Jones' eight frame Combination hive for increase, and my increase was no small affair as it ran from 13 to 38 colonies. You will see from this that the increase in bees was about 200 per cent., but when I tell you how much honey I took from top boxes during the summer, you may think I am only blowing but I have proof for it. took from thirteen colonies, spring count, 900 lbs extracted honey, and 632 sections finely completed, (size 4\frac{1}{2} \times 1\frac{1}{2}) and 110 sections also nicely filled (size 4\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{1}{2}). I sold my extracted honey at 12\frac{1}{2}, and comb honey at 10 and 124c. per section which was equal to about 16c. per lb. I must tell you of a couple which I kept an account of. One colony in ten frame Simplicity hive, after my putting on two more empty hives (with exception of frames and fdn.) in order to give them room to work, gave me just 152 lbs of extracted honey during season. Another swarm which I will mention came on the 10th of July. I put them into a Jones eight frame Combination hive, and they went to work with a vengeance. I at once supplied them with sections filled with foundation and up to first September I took off 171 nicely finished sections and a few that were not com-plete. I never remove any honey from brood chamber and my 38 colonies were put into winter quarters with more boney than in any season past. Morewood, Ont. Feb 3rd, 1890.

Your report for 1889 is an excellent one, and speaks well for the style of hive—or the man, which? We guess the latter had a big lot to do with it.

#### GRASS FOR PACKING.

JAMES ELLIOT.—I have been a reader of the C. B. J. since last July and have taken considerable interest in it, as I have been doing a little in the bee business. I started last spring

sith four colonies which I increased to 13-and 300 lbs of extracted honey, and all the colonies kh in good condition for winter. I have winkred lately out doors, packed in fine dry grass, which with me has answered well,

Wilton Grove; Ont. Feb 3, 1890.

Your report is very creditable. We presume you use a clamp for packing purposes, or are the hives double walled, and filled with straw?

#### A VAST TUND OF INFORMATION.

ARTHUR MURPHY .- I herewith renew my subscription to the Canadian Bee Journal. . There is a vast fund of information to be obtained from it. Bees did fairly well in this section the past season. I had two colonies to commence the season with; increasing to eight, and took 120 lbs extracted honey. I could have taken more but have about 50 lbs in comb, in reserve against a late spring. Am wintering on summer stands with hives packed in oat hulls. The weather is very mild, with almost no snow up to this time; bees lively every mild spell, too much so I am alraid for wintering well. Bluevale, Jan., 16, 1890.

A BAD YEAR IN 1889.

DANIEL STUART .- I renew for the CANADIAN Bre Journal with pleasure and I cannot see Now so many that keep bees do not take it or some other journal. I would feel very much disappointed to miss one copy during the year. This has been a tough year with farmers in this locality Crops were poor and prices low, and bees did not give much surplus so the dollars are scarce, but I hope the coming year will be better, if it be God's will. We may do all we can, but we are stictly dependent on Him for all we get, and it is well that it is so. I began the spring of 1889 with 56 colonies; increased to 95; smothered four of them by an oversight in leaving the entrance blocks on tight when putting them into champ, and I felt very guilty about it when I found the poor little pets dead. I don't think I would tell this, but perhaps it may warn some one clse. The season opened here with grand prospects, with bees in fairly good condition in April, and we were building big, but it turned cold and kept the bees in so that they could not get out, even to get pollen or water, but it cleared up and turned nice and warm during the time of fruit bloom and the little fellows had a splendid time for about ten days, and that saved half the bees in this locality for it turned wet and 'cold, the wettest I think I ever saw, until alsike clover was ready to cut. Some days we would have a little sunshine and the little workers would sally forth but they got very little, and I suppose they would come back disappointed, but they were at it again the very next time. Old Sol would come out, and so it went on until it cleared up. and it went to the other extreme, and was too Our main supplies was from thistles and white clover, which was late in coming into bloom. I got 1000 lbs., 600 lbs comb, 400 lbs extracted. Sold comb at 14c.; extracted at 9c. wholesale.

. Comber, Ont., Jan., 23, 1890.

HARD LUCK TURNING.

D. M. High—In 1885 I bought a first swarm of bees in a Jones hive; paid \$5 for them in the fall; I pa ked them on their summer stand and they wintered all right; swarmed twice. The first swarm worked three days, then swarmed out and went to the woods; took 32 lbs of honey from the remaining two; packed them on their summer stands again spring of 1887 they were both dead. In June I bought another first swarm for \$2—Hybrids. Took 211 lbs honey. In September a span of horses and wagon ran over them, and knocked them to pieces during the night. I got up and went out, and picked them up as best I could, and put them in another hive and fed them what I could gather and gave them back the 211 They wintered well. 1888 was a very poor honey year with us. My colony swarmed once, did not gather more honey than to keep up brooding. In the fall I fed them \$4 worth of sugar and wintered them all right. in the spring of 1889 with two and increased to six, and took 100 lbs of extra tall erroy. I hope I can give a better report in the year. South Caynga, Ont.

Well, truly, you did have a hard time of it up till the last season, when your report is very good. You apparently believe in the old adage: "If at first you don't succeed, try, try, again.

# THE CANADIAN BEE JOURNAL.

ISSUED 1ST AND 15TH OF EACH MONTH

D. A. Jones, F. H. Macriffuson,

PRITOR-IN-CHIEF: Asserting Elaron.

BEETON, ONTARIO, MARCH I, 1890.

We are going to convinue our discount on hives and sections during March, viz., 5% til April 1st; all other goods will charged at catalogue prices.

#### NOTICE.

John Andrews of Patten's Mills, New York, desires to say: "In the advertisement of J. B. Mason & Sons, in your issue of Feb. 12, he does not make the exception I made to him of orders previously received, and booked by me from other parties for some of those queens, when he says: "All of the tested queens J. A. has now wintering" He asked for queens for his customers. I wrote him that he could have them at prices named in my circular: He, accepted that, and sent in his order which could only be for what were left after filling previous orders. I immediately sent South for queens to supply May orders for my customers, but his manner of putting his advertisement, ropes in all chances of orders to me for May queens, while he only asked for queens for his customers. In justice to myself I feel it my duty and privilege to have this correction made.—Advt.

Messra. Geo. Vair, R. McKnight, Martin Emigh, and E. J. Otter, are the committee on honey and apiarian supplies appointed by the directorate of the Industrial.

We had, a few days since, the pleasure of a friendly call from Mr. W. Couse, the secretary of the Ontario Bee-keepers' Associations. Mr. C. reports that memberships for 1890 are coming in very well, and why shouldn't they, when every member makes \$1.25 out of his investment of \$1.00.

The American Bec Journal, in speaking of the change in the C. B. J., says:—"We are glad to see the two papers separated. Experience proves that the papers devoted to two pursuits, and published in one, are not satisfactory.

\* \* We wish our Canadian cotemporary success in the new departure." Thanks, Brother Newman.

#### MISSING NUMBERS.

To complete their fyle, a number or two of the BEE JOURNAL is often wanting—perhaps they have been loaned or lost. We shall always be glad to replace these while our own stock lasts. Do not therefore be afraid to ask.

#### NOTE TO ADVERTISERS.

Do you know our advertisers tell us that it pays to place an advertisement in the columns of the Canadian Bee Journal. There are occasionally times when we are told that it hasn't paid, but there is nearly always a reason behind the scenes—either theigoods advertised are out of season or the price asked is prohibitory. If you advertise something that nobody wants, don't wonder if they don't receive you with open arms the moment you tell them what you have to sell.

#### CIRCULARS RECEIVED.

Goshen Bee Supply Co., Goshen, Ind,—6 page folder—supplies, seed sowers, Fencing, etc.

John Andrews, Patten's Mills, N. Y.—4 pages —Carniolan bees and queens.

#### CONVENTIONS.

March 12, 13, 1890—Western Ontario, at Essex Centre—Geo. Morris, Secy, Stony Point,

May 3, 1890—Susquehanna, at Hop Bottom, Pa; H. M. Seeley, Sec., Hartford, Pa.

May 19, 1890—Northern Illinois at Rockford, 111., D. A. Fuller, Cherry Valley, Ill.

Jany 9,-ro, 1891—Ontario Beekeepers Association, at St. Catherines; W. Couse, Sec., Streetsville, Ont.

May 1st, 1830.—S. W. Wisconsin, at Boscobel, Wis., B. E. Rice, Boscobel, Wis.

# **GOOD BOOKS**

-FOR THE-

# Farm, Garden a Household.

THE FOLLOWING VALUABLE BOOKS WILL BE SUPPLIED FROM THE OFFICE OF THE CANADIAN BEE JOURNAL. ANY ONE OR MORE OF THESE BOOKS WILL BE SENT POST-PAID DIRECT TO ANY OF OUR READERS ON RECEIPT OF THE REGULAR PRICE, WHICH IS NAMED AGAINST EACH BOOK.

#### POULTRY AND BEES.

	FOODING AND DULL	•
τ	Burnham's New Poultry, Book	1 50
7	Cooper's Game Fowls	5 00
Ş	Selch's Poultry Culture	1 50
. ‡	Johnson's Practical Poultry Keeper	50
٩	Onnson's Practical Touring Reeding.	
Ŧ	Poultry: Breeding, Rearing, Feeding,	. 50
_	etcBoards	• • •
]	Profits in Poultry and their Profitable	1 00.
	Management	1 00.
1	A Year Among the Bees, by Dr. C. C.	πE
1	MillerA.B.C. in Bee Culture by A. I. Root.	75
١,	A.B.C. in Bee Culture by A. I. Root.	1 00
1	alath	1 25
۱	Oninhy's New Res. Keeping, by U. U.	
1	Root, Price in clothBee-keepers' Handy Book, by Henry	1 50
ŀ	Bee-keepers' Handy Book, by Henry	
1	' Allow Price in Ciolillanda and a service a	1 50
١	Decimation of Comb Honey, by W. 4.	
ı	Allon's (R L.&L. F.) NewAm.Farm Book	\$2 50
ł	Poul's Grasses of North America	2 50
1	Denobatt's Farm Talk, Paner, 500, Cloud	75
١	Brill's Farm Gardening and Seed-	
1	Awarming	1.00
ı	Barry's Fruit Garden. New and revised	2 00
١	Farm Appliances	1 00
١	Farm Conveniences	1 50
١	Farming for Profit	3 75
ŀ	Hutchinson. Paper,	25
١	Hutchinson, Paper, Boo by Rev. L.	
1	The Hive and Honey Bee, by Rev. L. L. Langstroth. Price, in cloth	2 00
۱	L. Langstroth. Frice, in clothing by	, <b>-</b>
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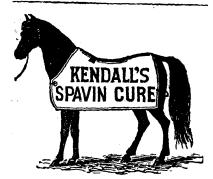
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