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THE



CANADIAN

Honey Producer.

Its Reading Columns for the advancement of Honey Producers exclusively.

Vol. I.

BRANTFORD, MARCH, 1887.

No. 1.

The Canadian Honey Producer,

PUBLISHED BY

E. L. GOOLD & Co.,

BRANTFORD, - - - - ONTARIO.

Published Monthly, 40 cents per year.

TO CORRESPONDENTS.

The Subscription price of the Canadian Honey Producer is, 40 cents a year. 3 subscriptions at one time, \$1.00 to one or more addresses. For further particulars see our Premium List.

Remittances for fractions of a dollar may be made in Stamps, Canadian or American. The receipt for money sent will be given with the address in the next issue of the paper.

When writing to this Office on business, correspondents must not write anything for publication on the same paper, as this causes much confusion and unnecessary trouble. Only one side of the paper should be written upon.

If we fail to credit with a subscription kindly notify us of the fact. There must be a mistake somewhere if any number does not reach you whilst a subscriber; by informing us we will replace the number unless the edition is exhausted.

Always give both name and Post Office when referring to any change in subscription.

TO CONTRIBUTORS.

We will always be pleased to forward sample copies to any.

We will thankfully receive for publication items of interest to Bee-Keepers, and we would like to have every issue of the paper contain at least one good article bearing directly upon the management of the Apiary for the coming month.

The Canadian Honey Producer one year with the following Books:

Cook's Manual of the Apiary, cloth, \$1.25 \$1.50
A. B. C. in Bee Culture, by A. I. Root, cloth, \$1.25, 1.40

A. B. C. in Bee Culture, A. I. Root, paper, \$1.00, 1.25
Quimby's New Bee-Keeping, cloth, \$1.50 1.75
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The Canadian Honey Producer And Gleanings, semi-monthly, .. \$1.20
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" Bee-Keepers' Magazine, " .. 60
" Rays of Light, " .. 85
" British Bee Journal, weekly, .. 2.90

PREMIUMS.

Single subscriptions are 40 cents per year. Three subscriptions for one year at one time, \$1.00. In addition to the above, any one sending us 15 subscribers will receive one of Alley's Queen Traps; and to any one sending 25 subscribers we will send one of our No. 1 Smokers. Postage or express must be paid by the recipient of premium. All subscriptions must be for one year. Any one subscribing for two years will count as two subscribers. The largest number of subscriptions sent in by any one up to 1st May, '87, will receive in addition one complete Blackburne hive for comb and extracted honey. The number of subscriptions must exceed 35.

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10 cents per line each insertion, 5 cts. per line each following insertion.

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To all who are interested in Bees and Honey, send for our FREE and Illustrated Catalogue of Apiarian Supplies.

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JACOB SPENCE,

Handles Honey, wholesale, Comb and Extracted.

Largely supplied by Extensive Producers in Ontario.

Honey Glasses in great variety from Nova Scotia Glass Co., and is agent for

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SPENCES HONEY DEPOT,
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BEEKEEPERS' MAGAZINE.

32 Page monthly.

25 Cents per year.

Sample copy free.

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GIVEN AWAY!

THE AMERICAN APICULTURIST.
A 32-page magazine, published monthly
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Terms, \$1.00 per annum. To each new subscriber we will send FREE, by mail, one of our latest improved "Drone and Queen Traps," the regular price of which is 65 cents. Send for sample copy. Make Postal Notes and P. O. Money Orders payable at Salem, Mass., or enclose the \$1.00 at our risk.

J. R. HOWELL,

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Breeder of Brown Leghorn, and Plymouth Rocks, and Pekin Ducks.

Eggs of above Fowls, \$1.00 per doz.

Bronze Turkey eggs, \$2.00 per doz.

ITALIAN QUEENS for 1887,
FROM HENRY CUPPAGE,
ORILLIA, ONT.

Dealer in Italian Bees, Queens,
and Honey.

Agent for E. L. Goold & Co.'s
Bee-Keepers' Supplies.

H. CUPPAGE.

Champion's Buggy Tops.

PATENT PROPS.

This prop fills a long felt want. It is a device by which either the front or back joints of top may be separately worked from the inside. The driver can throw back the front of top, or lower the back and replace either from his seat—all done from the inside. Any one in habit of getting in or out of buggies will certainly appreciate this improvement.

My Tops have met with universal satisfaction by the carriage trade, and have taken first prizes and diplomas wherever exhibited.

TOPS.

No. 1—Is a first-class rubber Top with superior quality of heavy brown back rubber back and side curtains to match. Wrought rails and joints. Top prop nuts and rivets in either black, silver or oxide. Black T. P. nuts sent unless otherwise ordered.—Price \$12.50. With Patent top props and handles extra \$2.00.

No. 2—Is the same as No. 1, with best steel tubular bow sockets. Price \$13.50. With Patent top props and handles extra \$2.00.

No. 3 Is a first-class rubber Top, lined with blue brown or green cloth, steel tubular bow sockets, second growth ash bows, wrought rails and joints. Is a very neat and durable top and will answer all purposes where a rubber top is required

and is the very best top in the market for the money. Price \$16.00. With Patent top props and handles extra \$2.00.

No. 4—Is the same as No. 3 with solid wrought rails. Back balance and lined back curtain. Price \$17.00. With Patent top props and handles, extra \$2.00.

No. 5—Is a superior heavy rubber Top with back valance and lined throughout Solid wrought rails and joints. Hand sewed finish. The best rubber top that can be made. Price \$22.00. With Patent top props and handles, extra \$2.00.

No. 6—Is the same as No. 5 with leather side quarters and back stays, and has the appearance of a first-class leather Top. Price \$28.00. With Patent top props and handles, extra \$2.00.

No. 7—Is an all leather top, of the very best quality and workmanship. Price \$40.00. With Patent top props and handles, extra \$2.00.

TRIMMINGS.

Leather Cushion, Drop Back & Fall	plain	\$10.00
	sewed or leated	12.00
Corduroy	plain	8 00
Velveteen	plain	8.50

Now to ORDER TOPS. Send width of seat from out to out on the top of seat.

CHARLES CHAMPION,

Hardware and Carriage Goods, Brantford, Ont.

Patented in Canada and United States.

THE CANADIAN HONEY PRODUCER.

Vol. 1. March, 1887. No. 1.

We have decided to publish a monthly paper, "THE CANADIAN HONEY PRODUCER". In all, it contains 20 pages, unless for want of advertising space additions have to be made. Its reading columns will be edited by K. F. Holtermann, Brantford, and we pledge ourselves shall in the fullest sense be conducted in the interests of the bee-keeping public, and in order to secure for our readers the notice of any new invention we have given five prominent disinterested bee-keepers the privilege of informing us, to mention and describe any such invention as they may from time to time deem worthy of such description.

We have the support and promise of contributions from men well and favorably known to the bee-keepers not only of Canada but of America; known as independent men who when working publicly do so in the interests of the bee-keeping public. Apiaries from which we may expect to secure important and valuable hints will be visited.

QUOTATIONS FROM ENGLISH PAPERS,

ALSO, THE NEWEST AND MOST
INTERESTING ITEMS

From Germany, France and Norway, will be translated for our paper. The articles contributed will often have a direct bearing upon what will be of interest in the immediate future in the management of an apiary, sale of honey, &c. The beginner in bee-keeping can study our columns with profit. A question will be asked in one issue of the Journal and we solicit brief replies from any bee-keeper having had experience bearing upon the question, when these replies will be

published in our following issue. It takes but little to give the bee-keeper a gain of the subscription price of our paper and we solicit all to give us a trial. As our subscription list grows it is our intention to enlarge our paper. Our advertising columns we intend to use freely to draw attention to the goods we manufacture, but we reiterate such advertising will be excluded from the reading columns and they will not be encroached upon.

Our action in publishing this periodical has been commented upon by those known to take an active interest in another periodical upon bee-keeping. It is not our intention to enter into any controversy which is of no interest to our readers. We have many letters of congratulation expressive of pleasure and promise of support which show the want of the publication of a periodical such as we signified our intention of publishing. And these letters are from such as are known to have the welfare of bee-keepers at heart.

We have no desire to take from the subscription list of contemporaries, our subscription price is very low. We have no desire to work upon the sympathy of bee-keepers. We ask for a trial and if we do not give value for their money cheerfully relinquish all claim upon them in future. No pains will be spared to make our paper worth many times its subscription price. To avoid any plea for controversy we changed the name from "THE CANADA BEE-KEEPER" as first proposed to "THE CANADIAN HONEY PRODUCER."

The Canadian Bee-Keeper Law Suit.

The McIntosh-Harrison case, which has engaged the attention of bee-keepers has been decided against the bee-keeper, Harrison. When first prominently brought to notice in bee papers the case had been brought up for trial. The judge had received evidence for and against Harrison and judgment only had

been reserved to be given at Toronto. It appears so far as evidence was concerned the case had been closed until judgment had been given. When after such judgment should be given it could be taken to a higher court by appeal. All that could be done until such a time would be to prepare to take the case to a higher court if it should be decided adversely to their interests. The case has been decided adversely. From a letter received from the defendant it appears the injunction to restrain Harrison will be of little use in this individual case as bees and property have been swept away by fire—that of both parties. There remains, however, a dangerous precedent and it will rest with bee-keepers whether the case shall stand or be taken to a higher court. Many bee-keepers feel confident that frequently law suits and feuds generally can be avoided by a kind word or act. Bees are an inconvenience at times especially to those ignorant of their habits and those not aware of them, when they are attacking. They can never correctly be judged an nuisance.

For the Canadian Honey Producer.
SPRING MANAGEMENT.

W. COUSE.

About the first attention given to my bees in spring is after the weather becomes warm and affects the temperature in the cellar, the thermometer raising to about 60° above zero, the cellar door is opened in the evening for a time to allow the temperature to lower between 50 and 55°. Sometimes the night being warm the cellar door is left open all night and closed before the light in the morning would cause the bees to fly out of their hives in the cellar, this is done until the weather becomes quite warm and there is some flower from which the bees can gather pollen. This date is generally from the 5th to the 20th, of April in Ontario. When this date is reached and there being a fine warm morning, I get stands, etc., in order and wait until nine o'clock or later, as it sometimes occurs that a bright sunrise does not mean a bright noon and if the bees are out and it turns cold there are a great many lost. If the day be warm at nine o'clock I commence carrying the bees out of the cellar and placing them on their summer stands, the entrances being

contracted from an inch to one half inch. The hives should not be placed one after another in a row as they are carried out, they should be scattered over the yard as much as possible; as I have seen when there have been several hives set close together at the same time and opened up that a great many bees go in the wrong hives, but if you place the same number of hives two rods apart and allow the bees to fly for half an hour or so you can place another hive between these two with a great deal less danger of the bees going into the wrong hives and the queens being balled, and colonies greatly weakened.

After the hives are all on their stands and the bees become a little acquainted with the situation the colonies are all examined to find if there is plenty of honey, bees, a good queen, and a clean hive, if this be the condition the hive is contracted by a division board to as small a space as the bees can occupy well, there is some warm covering put on the bees, the lid put on and the hives left alone for about ten days, but if there are any weak colonies with plenty of honey, and a good queen, we take two or three weak queenless colonies, if there are such, and we generally find them and double up with this one, making the colony with the queen quite strong with bees. However we are not always benefited in this case as we often find this colony as weak as ever in ten days; a weak colony is not a very profitable thing to have.

In case colonies being short of stores we generally have some combs filled with honey stored away to supply such, and we place one or two in the hive as required or if we have any dark honey and we generally have, we can feed it to the colony by an entrance feeder.

Where a colony has a poor queen she is done away with as soon as possible and the colony doubled up with one that has a good queen. After the colonies have all been put in order and left undisturbed for ten days or so, they are examined for stores, queens, bees, etc., and if they are in good condition they are again closed for a time until they require honey or more room, if honey it is supplied, if room there is a comb or so given always keeping the space well occupied. The hives do not generally have the full number of combs until the first of the second week in June, and

then they are supposed to be ready for summer management.

P. S.—I might add that we equalize some after the middle of May, by taking a card of hatching brood from a strong colony and giving it to a weaker one.

Meadowvale, Ont.

Uses for Honey.

The Illustrated Biener Zeitung, under the heading Fruits Preserved without boiling gives as follows: Cut with a pair of scissors, the stems with adhering grapes, plums or cherries, place all carefully in vessels, now pour on honey until it almost reaches the edge of the vessel, pour upon the honey melted wax to fill the vessel, and cover top with paper or bladder. Thus packed fruit will remain good for years.

How about granulation?—Ed.

Another extract from the *Germania* gives an article, not by a honey producer wherein he gives an account briefly as follows: Being unable to rest at night and having tried many remedies, he inadvertently took several table-spoonfulls of honey. Upon returning to bed he fell into a refreshing sleep. He tried the honey upon similar occasions and always with a like result. Finally he never went to bed without have partaken of honey. He not only slept well but his general health very much improved.

Future Bee-Keeping.

L. C. ROOT.

Seasons like the one just past tend to discourage those of limited experience; and at present many are asking if it will pay to continue in the business. Let me say first that if one is to discontinue the business he should not do so at such a time as this. It would be far better to do so at the close of an extremely good season, for at such a time, we are very liable to find the next season an unfavourable one; while after a season like the one just passed we may expect an extremely good one. Let me advise those of moderate experience to bend every energy to a preparation for taking advantage of the favourable season, which we have reason to expect.

The great need of the time in connection with our pursuit, is the practice of closest economy. In our enthusiasm in the past we have been by far too extravagant in our own expenditures. I do not mean by this that we must not secure all needed fixtures and advantages, but we must secure all in the most economical way. What we need is to educate many away from the erroneous conclusion, so often formed that bee-keeping is a calling through which we may secure great gains with little application and labor. This is certainly a mistaken idea. I know of no business where such close application and extreme promptness are required to insure success as does this branch of agriculture. If we are to see the bee-keeping of the future made a successful calling, it must be with those who will give it earnest attention, and conduct it with the most rigid economy.

Mohawk, N. Y., Feb. 11th 1887.

Gathered on the Wing.

Bees outside have had one or more cleansing flights, particularly in the Western part of Canada, so far the winter has been favorable to bees.

Jacob Alpaugh, R. S. Howell, S. T. Pettit, Elias Mott, F. Malcolm and others report a greater number of dead bees upon cellar floors than usual, although the colonies appear to be in a healthy condition generally.

J. B. Hall of Woodstock, has his cellar in use for the second winter, it is to be hoped the water will not be troublesome this spring, as it proved the previous year.

Mr. Hall in his reply to the question, "shall we use separators or not?" stated, there are points for and against the use of them. When used the yield of honey would be somewhat lessened. It would, however, have a more even surface and a grocer not accustomed to the handling of comb honey would be less apt to damage the comb. The sections can be crated in any order.

If separators are not used, in crating they should be put in the same order as taken from the hive.

If the bees are not able to fill all the sec-

tions in a super they will be more liable to finish those in a part, leaving the remainder untouched. With separators they will be more equally worked upon by the bees. If the honey flow is good, the bees will build very even comb without separators, the colony being of a proper strength.

Mr. Hall uses a Quimby frame and for extracted honey uses supers with perforated metal between it and brood chamber. For taking comb honey no metal is used.

S. T. Pettit, is wintering for the first time in a cellar. Heretofore he has wintered out side putting a rough case about the bees with packing between it and the hive, during his absence, in England, and his subsequent illness, neither bees or cellar received the attention they otherwise would have had. The cellar has ample underground ventilation and in addition upward by means of a pipe which almost reaches the cellar floor, and passes up along side of a pipe which takes the smoke from a wood stove. In this stove a fire is lit twice a day and when very cold is kept in all day and by means of a good fire laid at bed time, remains in most of the night.

The ventilating pipe acts as follows: when no fire heats the adjoining pipe, a piece of paper placed upon the top of the ventilating pipe will just remain above the pipe, the current of air not being sufficiently strong to blow it away, after the fire has been lit and the hot air passes up the pipe, the same paper is swept away by the current of atmosphere. The ventilator reaching almost the cellar floor takes away the foulest atmosphere if there be any difference.

The temperature of the cellar can be discovered at any time by means of a thermometer suspended by a cord through the floor above. Upon entering the cellar the walls were very damp and plaster quite soft, it never having become quite dry since plastering. However the lower row of hives, showed only slight signs of dysentery, the upper without exception were apparently healthy. The temperature in mid cellar was and has been about 45° Fahr., and has been kept thus up to the present. Mr. Pettit has not used separators and a more even and nicer lot of sections could not be desired than were

secured last season. The flow was only an average, the width of section is 1½ in. Perforated metal is used both in securing comb and extracted honey. A deep frame has been used for some years but after careful experimenting a frame about 9 inch in depth has been adopted. In speaking of the value of perforated metal, Mr. Pettit remarked it was very important that a bee space be allowed on both sides of the metal; if this were not done the results would not be secured. Mr. Pettit has heretofore been very successful in wintering and unless some prove short of stores from present indications, this winter promises to be no exception.

Mr. J. A. Abbott of Southall, London, England, with whom we had interesting and to us profitable conversation while speeding along per train gave us an account of the first adoption of perforated metal. Mr. Abbott first experimented with perfectly round perforations but found it hindered the bees very much. They then secured the long perforations which was in use for threshing machines and proved just the right size. It came into very general use but has since been almost as generally discarded in England. We are indebted to Mr. D. A. Jones for bringing the invention before the bee-keepers of Canada upon his return from England.

Mr. Abbott stated he could see why the metal in England might be a failure but in Canada a success. In England the honey flow is gradual and never such flows as we appear to have in Canada. In England the metal was sufficient to retard greatly the bees storing, in Canada honey outflows were so great the bees rushed through the metal to the store combs.

We have received some valuable suggestions from F. Malcolm and S. T. Pettit in regard to breeding for honey gatherers in an apiary as practiced by them.

These as well as other suggestions of value will be given in future issues. It is our intention to visit at intervals some of our most successful bee-keepers; some of whom can rarely be induced to write, and through their courtesy give items of interest to the public.

For the Canadian Honey Producer.

ELIAS MOTTE.

Allow me to congratulate you on your pluck and enterpris in determining to publish at Brantford a monthly Journal in the interests of bee-keepers in connection with your extensive supply trade, to be known as "THE CANADIAN HONEY PRODUCER." It has been demonstrated time and again that a bee paper needs the support of a supply business in order to be successful, though this does not always insure success.

This state of things may not be the most desirable that could be wished, nevertheless the fact remains. I am not of those who believe that one such bee-paper is enough for the wants of the bee-keepers of Canada, nor do I think you are doing an injustice in thus helping to diffuse bee literature, but quite the reverse. Monopoly in this as in any other line of business is not desirable (at least I don't like it.) Competition will give us a clearer view of both sides of the questions of the day in our occupation. I hail with pleasure the advent of this new bee paper in Brantford and wish it success. The outlook for the intelligent bee-keeper is satisfactory and the prospects are good for an exceptionally abundant flow of honey for the season of 1887. The 135 stocks which I have in the cellar are wintering nicely so far with an average temperature of 48°

Norwich, 14th Feb., 1887.

THE HONEY MARKET FOR EUROPE.

As the convention of the Ontario Bee-Keepers' Association, held in Toronto, Jan'y 5th and 6th, of this year, the leading point of interest was the report which our Commissioners, Messrs. S. T. Pettit, Belmont; R. McKnight, Owen Sound; D. A. Jones, Beeton; S. Corneil, Lindsay; and J. B. Hall, Woodstock, gave; their experience in regard to the sale of honey in England, and the probable success of such an undertaking. Mr. J. B. Hall, Wood-

stock, had been unable to go. Mr Jones had not yet returned, thus leaving only three to report.

From what could be gleaned from private conversation and reports given to the members of the association it appears that both the comb and extracted honey was in good demand before the close of the exhibition. The extracted netted the exhibitors about 10 cents per lb. (clear of all expenses.)

Extracted honey was in far greater demand than the comb, and as under ordinary circumstances comb honey would be far more risky to ship; this superior demand for the extracted article is a fortunate one. The production of extracted honey too in Canada far exceeds that of comb, extracted honey too in its production probably requires less skill, experience, and prompt and constant attention, than the production of comb. So that in every respect the greater demand for extracted honey is of value to us.

The marks of distinction between our honey and that of Britain appears to be both as to color and flavor and more or less in texture. As to color no British honey, and none of that from any European country or British colony—if we except a few localities—can produce honey as bright and clear in color as we produce it in Canada. As to flavor, our Canadian honey, especially clover, of which nearly the entire shipment consisted, is very much milder than the British.

It was our good fortune to secure a number of samples of British honey. The heather in particular had a peculiar aromatic flavor which we must confess was pleasing to our taste; if we should prefer it to clover, if constantly used, would be a different question. In any case judging from the wide difference in color and flavor we should say there will be very little competition between the two. A peculiarity of heather honey is that the texture is such that it is not prac-

ticable to extract it; it can only be removed from the comb by gently heating. As to honey from British colonies there appears to be no danger of competition in any quantity.

As the matter now stands it appears on the one hand that the clearness and brightness of our best honey would be a trade mark in itself of Canadian honey, provided we send over no dark and by such means we would probably do away largely with other honey being thrust upon the British and European public as Canadian. On the other hand it appears also that at present our darker honey, such as golden rod, buckwheat, &c., would find as ready a sale in England as our light. The question should be, would the shipment of this latter, of which we produce comparatively little, not do away with that somewhat distinct trade mark as to clearness and brightness, and we throw ourselves open to being imposed upon by all kinds of honey being called Canadian and sold as such. Nothing should be done which would give us a slight temporary gain and yet injure our future prospects.

While much headway has been made in introducing Canadian honey in England and even Germany only by the most careful management can that footing be maintained, the President of the O. B. K. A., S. T. Pettit of Belmont, in his address gives the following: "The supply must be sure and constant and of the very best and brightest quality possible." He suggested that a committee be appointed "to assist the association in collecting and shipping honey to the European market." "One or more inspectors should be appointed whose duty it shall be to inspect all honey intended for the European markets."

The session of the association was entirely too short to transact all the business that required to be done and have a profitable discussion upon the management of the apiary. No doubt,

however, the directors will take the matter of the development of the European market in hand, and not permit any ground already gained to be lost. There is an annual grant to the association of about \$500.00; probably no better use could be made of this money than the further development of our markets.

In conclusion, we may say that the price obtained for honey can be no direct guide as to what we shall secure in the future. The freight was paid to England, no commission was charged for sales effected. The honey was sold largely in very small packages and a higher price per lb. was realized. On the other hand many thousand pounds of honey were distributed free. From what we could glean from all sources $7\frac{1}{2}$ cents to 8 cents per lb. wholesale, is the very highest price we can expect to realize after paying all expenses. This however is very encouraging and should a large honey crop be secured during the coming season would be a fortunate outlet for our honey.

Sundry Items.

Mr. Root is busy moving to his new home in Stamford, Conn. In consequence we have only a short article from him this issue. Mr. Root's reputation as a practical and successful bee-keeper is world wide, also as a writer, reviser and author of Quinby new bee-keeping, (Mr. Root is a son-in-law of the late Mr. Quinby.) Our readers will be pleased to learn that Mr. Root will from time to time give us contributions, and give our readers the benefit of his valuable experience.

J. M. Shuck, of Des Moines, Iowa, and Jas. Heddon, Dowagiac, Mich., have been invited to give a description of their reversible and invertable hives. The same quantity of space is granted to each in our next number.

S. T. Pettit, Pres., of the Ontario Bee-Keepers' Association for 1887 also President 1886, and chairman of the commissioners who visited England in charge of the exhibi-

tion of honey, of the O. B. A. at Kensington, will in the following numbers of "THE CANADIAN HONEY PRODUCER" give a number of articles upon "British market for Canadian Honey" of deep interest and importance to all honey producers.

On page 102 *American Bee Journal* a method is proposed for formation of a National Honey Company, by starting a Joint Stock Company.

Such a method has already been proposed in Canada with this exception. The writer Samuel Ran, Columbia, O., proposes that one share be taken for every 40 colonies owned.

The proposition in Canada was that these shares be taken up in any desired quantity by those having a large number of colonies and interested in the sale of honey. That shareholders' honey be sold first, and then honey be bought and sold as in any other business. The advantage would be, the honey producers could prevent any practices injurious to the permanent development of the honey market, which would cover all the evils which could be enumerated. Such a step would be particularly worthy of discussion at the stage at which Canadian honey producers have arrived in connection with the British Honey Market. Our columns are open to a discussion tending to the solution of this or any other subject of interest to bee keepers.

The Ontario Bee-Keepers' Association was never more prosperous than at the present, and deservedly too, for it has done much to aid in the development of a market for bee-keepers. The annual membership fee is one dollar which entitles a member to the *Rural Canadian* for one year also. Membership fees should be forwarded to Wm. Couse, Meadowvale, Sec'y-Tres. of the Association.

We contemplate giving our readers a number of portraits of individuals who have long been intimately associated with the production of honey. We hope to give a sketch and portrait of one in our next number, they will be under the heading "OUR PORTRAIT GALLERY."

Samuel Cushman, Pawtucket, R. I., has forwarded to us a pamphlet "Facts about Honey, interesting and valuable." We do not

know if they are for sale or only for free distribution, certain it is, a more valuable article to promote the sale of honey and develop a home market we have not seen. There is much to learn in it for the average bee-keeper as well as the public generally.

For the Canadian Honey Producer.

S. T. PETTIT.

BRITISH MARKETS FOR CANADIAN HONEY.—For the better development of the industry of bee-keeping in Canada, perhaps there is no question of more vital importance than a ready sale for our honey. We are slowly but surely mastering all other difficulties. Much was done last year to aid this and by making an exhibit at the Indian and Colonial exhibition, but the work is not yet fully accomplished. Just how to go about it for best results is a question of first importance and should engage the thoughts and co-operation of our best men. There are commission merchants in England who are anxious to handle and push our goods in all the markets of Great Britain at a very low percentage, but so far as I know bee-keepers, as a rule, do not like that way of doing business. Another way is for each producer to sell direct to the dealer in England; and still another way would be for some party or parties to become honey buyers and handle our goods much the same as cheese buyers handle our cheese. Of course there are other ways open to us that I will not mention here. The question as to which method will prove best for all concerned is open for discussion and for operation as well.

Another question that naturally arises is, shall we send indiscriminately all our surplus, good and indifferent,—light and dark? Now so far as I can understand the question in all its bearings it seems to me that it would be a grave mistake to send any to the British markets but the brightest and best. The brightest of our honey is so clear that many will doubt its purity and of course some difficulty will arise at first in pushing sales on that account, but the exquisitely fine flavor, and taking appearance of that class of honey will soon win for it a wide sale in any market, especially when placed side by side with the

floods of ill flavoured dark honey taken in mostly all warm countries. To illustrate, I may mention a case in point right here. Some few years ago a dealer in Toronto told me that our clearest honey did not sell as readily as that of a darker grade, because the people thought it "just too nice" to be all honey, and for that reason he bought dark honey and mixed a portion with his white honey. At the time I objected and gave my reasons. Well this present winter I visited the same gentleman, and he with a good deal of pride pointed to some white crystal honey in glass, and remarked that that was No. 1 and was selling at the best prices. Then pointing to darkish honey very like what he used to sell most readily, said that is No. 2, and sells for less money than the white article. I believe the most of us experienced the same difficulty when we first placed our best extracted honey on the markets, it is so unlike what the people were used to seeing, but at the present writing as you all know, bright well ripened honey is the fashionable thing and takes the lead in our markets everywhere.

Again, we are asked "but what about the demand, will it keep pace with the supply?" In answer, I will say that so far as I could learn while in England, the consumption is rapidly increasing, and so also is the supply, and when we reflect that or nearly all the inhabitable parts of God's footstool yields honey, and coupled with this fact we must not forget that the science of bee-keeping is being rapidly and I do not know but what time will bear me out in saying, unduly pushed to the ends of the earth, we may well pause and ponder this momentous question.

For the last twelve months I have given this part of the subject a good deal of thought, and have endeavoured to go impartially over the grounds and view the situation from different stand points, and my conclusions are, that if we are loyal to our best interests and deal promptly and fairly and export only clear well ripened honey, (and fortunately a very large proportion of our honey is of that class,) that we have nothing to fear—and that the superior qualities of the Canadian article will secure for itself a first place in the markets of the world and a sale against all comers.

Please note that I make no comparisons with British honey, the people over there, some of them at least, claim superiority for British honey. Well I am quite willing to leave the decision to time who is said to test and decide all things fairly. However be that as it may, there is one thing that seems clear to my mind and that is that there are enough people in the city of London to eat all the honey that England will ever produce.
Belmont, Ont., Canada, Feb. 12th, 1887.

In the British Bee-Keeper's Guide Book by Thos. Wm. Cowan, F. G. S. F. R. M. S., &c., we find the following on Metemorphoses of Bees:

	Queen days	Worker days	Drove days
1. Time of incubation of egg,	3	3	3
2. Time of feeding of larvæ,	5	5	6
3. Spinning cocoon by larvæ,	1	2	3
4. Period of rest,	2	3	4
5. Transformation of larvæ into nymphs,	1	1	1
6. Time in nymph state,	3	7	7
Total,	15	21	24
	Date	Date	Date.

1. The hatching of the egg takes place, and the grub emerges on the	4th	4th	4th
2. Cell is sealed over on the	9th	9th	9th
3. The bee leaves the cell as a perfect insect on the	16th	22nd	25th
4. The bee leaves the hive to fly on the	5th	24th	14th

The American Apiculturist volume I. August 1883, has the following extract from the journal of the Rev. L. L. Langstroth, after giving in detail time of depositing the egg and on the full development, the extract goes to say: "The experiments above detailed warrant the following conclusions:

1. Bees may begin to build a queen cell in less than four days after the egg was laid in a worker cell.

2. Queen and worker larvæ may have their cells capped over in at least seven days and fifteen hours after the eggs were laid.

3. A perfect queen may hatch in fifteen days and two hours from the time the egg was laid in a worker cell.

4. A perfect queen may hatch in three or four hours less than ten days after the removal of the old queen from the stock,

5. A perfect queen may not hatch, even under very favourable circumstances, until nearly sixteen days and a half after the egg could have been laid in a worker cell.

6. A worker may hatch in nineteen days and two hours from the egg; and there may be an interval of precisely four days between the time the first queen and the first worker will hatch.

7. While most of the worker eggs may hatch in less than twenty one days from the egg, some may not hatch before twenty two days and three hours.

8. The eggs of the queen bee do not necessarily hatch at precise intervals from the time they were laid, any more than all the eggs placed at once under a hen hatch simultaneously."

From the above a very practical knowledge can be obtained of the time required during the different stages of development of the bee. This knowledge assists us in preparing for our honey flow, by being acquainted with our flora we know this, thus worker eggs deposited twenty one and fourteen (35) days before clover honey flow we know all the bees can take advantage of the flow, and a colony fairly populous and with combs filled with brood in all stages at that time, we have reason to expect will give good results. For the same reason there may be no great use in a large quantity of brood, which we know will mature at a time when there is no honey flow.

Query Department.

Unlike others, our queries will be published in the issue previous to the one in which they are answered. We solicit replies from any who have had practical experience, and can reply from that. All replies should be in at latest by the 15th of the month if possible. The query will be republished in the following issue with replies. This gives opportunity for a greater practical scope in answers. The following issue will contain answers to these.

No. 1. For the production of comb honey and in order to obtain the best financial results, is it an advantage or otherwise to use separators?

No. 2. Can you advance a theory why honey extracted when refed to bees, being stored and sealed should granulate in the comb, whilst honey not refed will not so granulate?

No. 3. For the production of comb honey and in order to obtain the best financial results, is it an advantage or otherwise to use perforated metal to exclude the queen from the surplus department?

FOREIGN.

From the Bienvenu Vairer

We learn that foul-brood was a disease known to German bee-keepers long before the movable frame hive and other modern inventions in bee-keeping came into use. The disease appeared to spread and abate naturally. A number of poor honey seasons following would cause the spread of the disease, a number of good seasons appeared not only to check its developments but cause the disease to almost or entirely disappear.

The danger of spreading the disease owing to manipulation as at present was not great however.

In conclusion it gives a number of experiments which had been made by the use of ground burnt coffee beans, the powder being shaken in affected cells, the results were highly satisfactory; the method is simple and easily applied as also the remedy is inexpensive.

It appears the coffee powder had been used in the army for some time, being applied in cases of amputation and wounds; and finally experiments were tried with blood and other perishable matter to prevent putrefaction, and also to arrest putrefaction after having commenced, and in every instance its powers as a disinfectant and antiseptic were very pronounced. This led a scientist interested in bee-keeping to apply the powder in cases of foul brood. Doubtless to obtain the best results in all cases the coffee bean should be freshly ground.

Page 580, *British Bee Journal*, under the heading, "An Italian Apiary:" The editor

gives an interesting experiment conducted by Dr. Bianchette, whose apiary the editor was visiting. The experiment consisted of a colony containing nothing but drone comb. The queen, however, laid worker eggs. At the time of inspection, there were no drones present, nor was there any marked difference in the size of the bees. The queen had shown reluctance at first to lay in the drone cells but at last gave in to the inevitable.

From the *Deutsche Illustrierte Bienenzeitung*. A good deal of attention has been paid to the matter of supplying bees with pure water. In an article by E. J. H. Gravenhurst, the writer speaks of the tendency bees have early in the spring to seek for water to assist in brood rearing, when the weather is inclement they often have to go long distances and on account of taking up chilly water, &c., perish. A vessel under glass but accessible to the bees is recommended, as the water is warmed by the sun's rays passing through the glass. The bees soon learn where to find the water. In the hot summer the glass should be removed. The vessel should be constructed to prevent bees drowning.

As this number goes to press we have word from G. W. Demaree, of Christianburg, Ky. We can promise our readers some valuable articles from his pen in future numbers.

Henry Alley, *Editor American Apiculturist*, Wenham, Mass., Feb. 19th, writes: Weather very mild, bees had a flight a few days ago, and I think they will have another flight to-day.

SPRING MANAGEMENT.

F. MALCOLM.

Bee-Keepers as a class meet with many disappointments. Their experience is as a general thing a fluctuation between success and failure. Even the most experienced and careful, are not exempt from severe losses at times. Still, to many there is a fascination about beekeeping that urges the disappointed to further effort. There is a hope that the next move will be crowned with success. At this season of the year, we look forward, and see in imagination, fine sunny days. We feel on our cheek the warm breezes of spring

laden with the aroma of vernal flowers. We see the pollen laden bees alighting at the entrances of populous hives. Then we see clusters of swarming bees, and hives filled with beautiful white comb. We see our shelves loaded with cans and jars labelled *pure honey*. All this has been, and will be in the future, but those who will realize to the fullest extent will be those who best understand bee culture, and most carefully perform the many little attentions required. In the meantime every one should see that he is supplied with the necessities of the coming season, hives, supers, foundation, section boxes, &c., &c. It is also a good time for reading and studying what the hands will have to perform in a short time.

What to do with bees in the spring when put on the summer stands will depend very much on circumstances and conditions. A colony may be injured by too much meddling, and it may be lost by want of attention. A strong colony with plenty of food will take care of itself, but there are generally a good many that are not strong and may be assisted by understanding what is most needed. And I may here say that, that which is of first importance is *food*. At this time stores are being used up very fast, and if nothing is coming in, a good colony may soon starve. I have discovered this condition by simply looking into the entrance, and seeing an unusual number of dead bees on the bottom board. Another effect of a scarcity is that brooding will not go on as it should. Next in importance to food is *heat*. Their ability to maintain the necessary heat is often destroyed by raising the cover which the bees had made air tight with propolis the previous summer. There would be less of this done if bee-keepers understood the reason why the bees plaster every crack and cranny of their hive. They should know that this is their method of keeping warm in cold weather. If the air escapes at the top as fast as the bees heat it, their ability to keep up heat is destroyed. Let anyone imagine what the effect would be in trying to heat a room, if there was an opening six inches square at the top, and another at the bottom.

Now if this important condition is destroy-

ed by tearing up the cover in the fall or early spring, the bees are not in their natural condition, and are not able to keep up the necessary heat to favor breeding, consequently dwindling takes place and the colony dies. In addition to being air tight, a sawdust cushion on top will do much to help keep up heat.

Great care should be taken to prevent robbing. As soon as let out of winter quarters, entrance blocks should be closed to a space only necessary, according to the strength of the colony. As robbing is generally done by one colony or another, an effort should be made to find out the robbers. This may be done by sprinkling flour on the trees as they come out of the colony being robbed, and watching where they enter; if discovered, change places, putting one in the place of the other, if it cannot be discovered it may be necessary to put the weak colony in a dark cellar for a few days.

A good deal has been said about helping the weak, by taking brood from the strong. My experience goes to show that it is of very little use, especially at an early date. It should be borne in mind that every colony has all the brood that it can cover, and if any is added before the weather is warm both night and day, it must perish, one half frame of capped brood lost in this way, is a greater loss than if the weak colony had died. I would therefore advise the inexperienced to let this kind of work alone, as the chances are ten to one that they will loose by it.

Neatness and order are important elements in the Apiary, and when the bees are out, and the busy season not yet begun, it is a good time to "fix up." Every hive should be tried with a spirit level, and placed in a proper position. A little paint will improve appearances, and if a cover is leaky, a piece of factory cotton laid upon the weak spot, and painted on, will be effectual in stopping the leak. But there are many little things that will not be seen except by those who are in love with bee-keeping.

Innerkip, Feb. 2nd, 1887.

CONVENTION NOTICE.—The Guelph Central Bee-Keepers' Association will meet Wednesday, March 23rd, 1 p. m., at the New Western Hotel, Guelph. Topics of interest will be discussed. A. GILCHRIST, Sec'y, Guelph.

Comb Foundation.

WILL ELLIS.

About this season of the year, practical bee-keepers have an eye open for wax, that is if any of their neighbors are "box hivers" I wish to say a few words in advance of the title as I have had considerable experience in the manufacture of comb foundation. There is a great deal of our wax adulterated and none but an expert can detect it, when you purchase wax which is generally in small cakes weighing only a few lbs., do not take it home and melt it all together, for if one cake contained tallow it would spoil the whole lot, but send it as it is, as any adulterated cakes can be returned. Some time ago I went to a store to purchase some wax, the proprietor showed me a box that contained the wax, and I began picking up cake after cake and examining it, "the proprietor telling me that it was all pure," I kept on examining and soon handed him a cake that contained a large percentage of tallow; this man could not detect it until I explained it to him.

RENDERING COMBS.

I have seen considerable wax that was ruined in rendering comb into wax by boiling it. If you use a wax extractor do not put it through more than twice, to make it more clear. Take a piece of wax and chew it and you will find in a minute or two it will become mealy, "boiling acts the same," boiling also darkens the wax.

ST. DAVIDS, ONT., FEB. 1st, 1887.

AN ESSAY

Given at the Annual Meeting of the Ontario Agricultural and Experimental Union, held at the Ontario Agricultural College, Guelph, Feb. 24th and 25th.

APICULTURE ITS RELATION TO AGRICULTURE AND ITS DEVELOPMENT.

A great deal of attention has been directed by the general press of our country and England during the past season to apiculture. The seasons for this are various but chiefly owing to the display of comb and extracted honey made at the Colonial and Indian Ex-

hibition by the Ontario Bee-Keepers' Association. This exhibit was the largest display of honey ever made in any country and was organized by bee-keepers of Ontario. The freight expenses were paid by the Dominion Government, the Ontario Government granted \$1000 00 to assist in defraying further expenses and those sending honey met the balance of expenditure by paying a tax of so much per lb., upon the respective quantities sent. Messrs. S. T. Pettit, S. Corneil, J. B. Hall, R. McKnight and D. A. Jones were the commissioners selected to attend the exhibition, Mr. Hall finally found it impossible to attend, leaving the four. These commissioners succeeded in selling all the honey put in their charge at a satisfactory price being about 10 cts. per lb. net., for extracted. They also succeeded in placing their honey in the hands of the very highest classes in England and our commissioners returned with the honest conviction that our Canadian honey has no equal in the world, that is, it cannot be produced in any quantities to compete with Canadian honey in the markets of the world. We now only require to have a constant supply and of the best quality to retain and increase the foothold we have in the market.

The price is not likely to increase, in fact $7\frac{1}{2}$ to 8 cts. per lb. net, is all we can expect when we remember the time when honey was 25 cts the uninitiated may marvel and wonder how we still make it worth while to produce honey. The solution to the problem is: we have learned how to produce more honey and at a less expense and this still continues to be the problem and step by step, the movable frame hive, the honey extractor, also comb foundation, and many minor inventions with discoveries as to the best use to be made of them, all these have and are assisting to enable us to produce honey for less than heretofore. True we have had reverses but all in all, progress has been rapid and sweeping. This progress many attribute to the fact that as a class, bee-keepers read more than perhaps any others who labour with their hands; they are communicative and fairly enthusiastic all; *exercised*, means progress. This progress is all the more credible when we remember that if we except an ex-

perimental station established for the advancement of bee-keeping by the American Government and apicultural departments in two or three of their agricultural colleges and some steps taken by the German and Australian Governments to promote bee-keeping all of recent date, this progress is due to the efforts and *unaided* efforts of the bee-keepers themselves.

One of the troubles of the present day is in extreme we have allowed ourselves to drift into and it is *over manipulation* from the old box hive or straw skep which we all know when receiving an ordinary amount of attention had the swarm shaken into it when planted and when the honey harvest came the swarm was smothered, from this by means of the movable frame hive, we have got into fussing and fixing in season and out of season with our bees and over manipulation, losing time and retarding their work; and now this is being done by the wholesale, namely, whole hives are being reversed and inverted. If not done carefully and by one understanding the condition of the brood and surplus chamber and the effect of reversing and inverting, this system may prove an even greater pest than the manipulations of individual frames.

Let it be understood I do not here condemn the judicious use of these modern hives, far from it. Some of them may be a great advantage but reiterate, we must be very careful in the use of such hives, and a novice may ruin his apiary. Our most successful Canadian bee-keepers are getting back to disturbing the brood of their colony but little, contracting it not at all during winter and spring unless in exceptional cases and the sooner we all learn this and how to work them successfully on this principle the better, the less danger will there be of this much dreaded foul brood, it will be both a preventative and when existing be of some assistance, or at least not aid in spreading the disease.

And then as to its relation it is a beautiful study to find how the honey bee is an instrument in assisting the fruit grower, the clover seed producer and all those whose crops depend upon the fertilization in the largest quantity possible the flowers which eventually produce their crop. The honey bee cannot

rifle the flower of its store of nectar without passing the centre of the flower which contains the pollen which latter requires to be distributed to the stigma, when the nectar is secreted by the flowers the anther which contains the pollen is bursting and showering from it the pollen, and the stigma will have a rough moist surface, or in short be in the most favorable condition to enable some of the pollen to attach itself to the stigma, but their conditions are not always favorable, often days pass and much opportunity is given and our fruit crop proportionately large, but we know during the spring of the year how uncertain our atmospheric conditions are, and a drenching rain or such like may have given but little opportunity for fertilization and we find with regret our fruit crop is but scant, then again, the core of an apple is divided into segments and each segment has to be individually fertilized, failure in part of this results in a part of the apple being dwarfed, or wind falls a result we have frequently seen without knowing the cause but the flower being in a proper condition for fertilization, the nectar is being secreted and the Creator of all things in His infinite wisdom has provided for us an agent which is attracted by the fragrance of this flower. Who has not seen the busy bee amongst the parts of a flower and who can doubt after seeing it covered with pollen—acting as a transmitter of the pollen from anther to stigma—and and who can then fail to see the beneficial results secured in this way by means of bees. Of late some attention has been paid to injuries done by bees to fruit, convincing experiments by means of placing fruit, of all kinds with bees in all stages of starvation show that the mandibles of bees are powerless to puncture fruit, if the covering of the fruit is damaged ever so slightly they will readily avail themselves of this opening to extract the juice, but such action cannot be considered ground for prohibiting bee keeping.

In conclusion, I would say, honey permitted to be well ripened by the bees has few equals as a food, especially for the young. It is a sweet which has already undergone the first stages of digestion by the bee, and is almost ready for assimilation by the system. It has medical properties from the formic

acid, which it receives from the bee, and properties transmitted to it from the plant the flower of which has secreted the nectar. Honey should not be eaten in large quantities. Many when first eating honey are inclined to take it in immoderate quantities, and the results are injurious and sometimes create a repugnance for this sweet, temporary or lasting. When a family has become accustomed to honey, there is no danger of this. Therefore, bee-keepers, do not attempt to sell a novice too much honey at the start.

Properly treated he may become a lasting customer to your own and his benefit. If he tires of honey and knows not the reason he may become a bad advertisement. Again, I would say do not over manipulate your apiary. Judicious treatment of a weak colony is beneficial no doubt, but better than to overdo it with an entire apiary, is to let them all alone.

R. F. HOLTERMANN, PRINS.

Honey Markets.

BRANTFORD.

There is little or no first class comb honey on the market. The supply has not been equal to the demand. In large lots comb honey has sold from 14c. to 16c. per lb. Sections should not weigh over one lb. each, retail price 16c. to 20c. First class extracted honey is selling in lots of 500 and over, at 9c. per lb. Small quantities wholesale 9½c. per lb.; retail 10c. to 15c. per lb. Very light demand for the darker grades of honey.

TORONTO

Demand is moderate and price little or no variation during past two or three months. Finest extracted in 70 lb. tins in lots, of 2 to 3000 lb., 8½ to 9c.; might be quoted. Supplied to retail stores chiefly put up in glass jars at several prices by the dozen. Comb sections first class by the crate, 16c. to 18c. Stocks of this rather low will be scarce before new comes in and so tendency upwards.

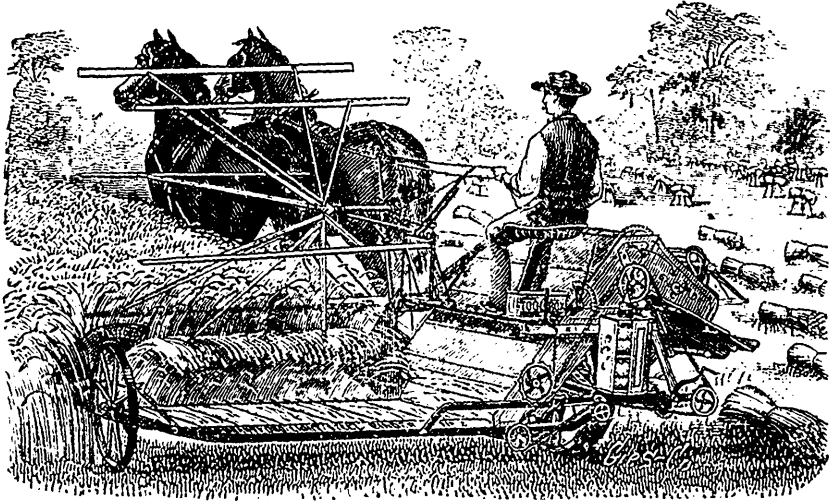
JACOB SPENCE.

The Meteorological Station, Ontario Agricultural College, Guelph, reports as follows for Jan'y, 1887:

Highest Temp. Jan. 21st. 44.2°

Lowest Temp. Jan'y. 8th. 4.1° below zero.

Average for month, 15.2°



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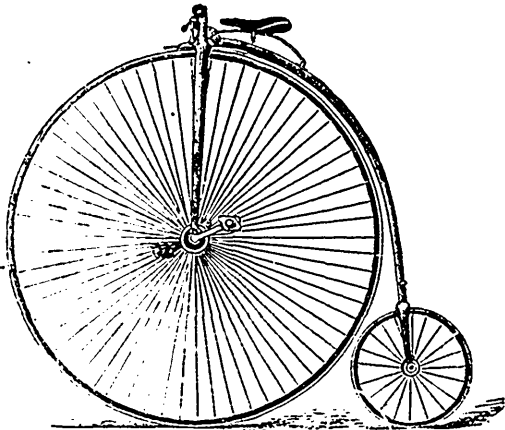
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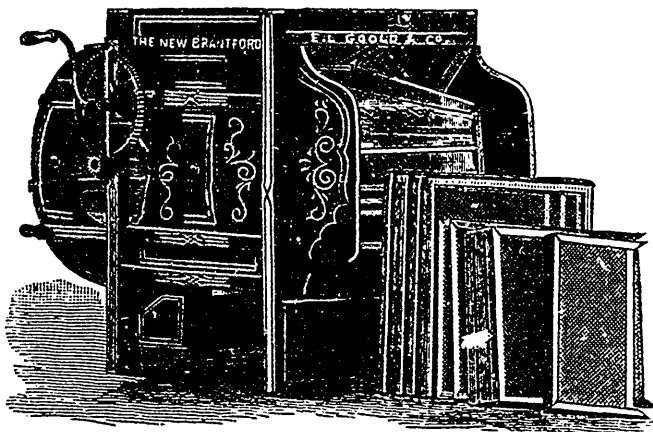
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SPECIAL.

SUFFOLK LODGE, OAKVILLE, Jan. 2, 1886.

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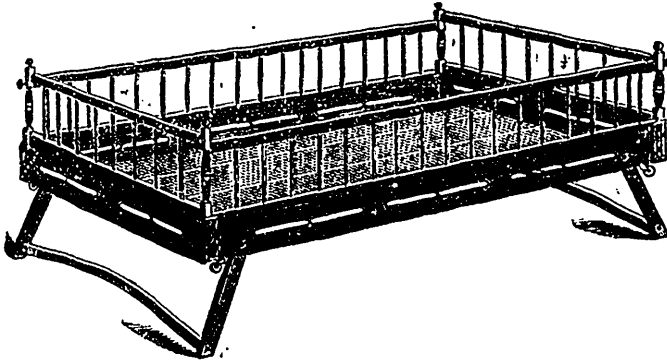
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Powder Co.

We desire to call the special attention of the Lady readers of the BEE-KEEPERS' JOURNAL to a few important particulars concerning the goods which we manufacture. As the natural guardians of the health and happiness of the family, you wish to use only the BEST.

And it is our interest to furnish you the Best, which we most positively do. All Spices put up by us in Tins, and labelled, are strictly PURE. To this statement, we make no exception. Moreover, our Snow Drift Baking Powder is worthy of your most unhesitating confidence.

It is more extensively manufactured and used, than all others in the Dominion; and it is justly so, for not only is it absolutely pure, it is also possessed of properties, known to be superior to all others for lightening purposes, and for purposes of health as well. These qualities have placed the Snow Drift Baking Powder in advance of all others in the Canadian market; and, if directions are carefully studied and followed, a single trial, we are persuaded, will convince you of its unequalled merits. Buy it, and try it, and so put our words to the proof.

LONG BROS., Brantford, Ont.,



MANUFACTURERS OF

Woven Wire

Mattresses,

Children's Folding
Cribs,
Woven Cots,
Upholstered Cots,
and Parlor Folding
Beds, etc.



All purchasers will find them of the best grades in the market.

Also manufacturers of the
Brant Creamer,

Used with or without ice, for both summer and winter use. Will positively save their price in one season. Our market Butter carries is the delight of all who use them, will hold from 36 to 100 lbs. according to size. Send for price.

E. SIMS.

J. J. SIMS.

E. SIMS & SON,

Bankers, Conveyancers and Real Estate Agents.

Money Loaners on Real Estate at Lowest Current Rates.

MORTGAGES BOUGHT AND SOLD.

MONEYS RECEIVED ON DEPOSIT.

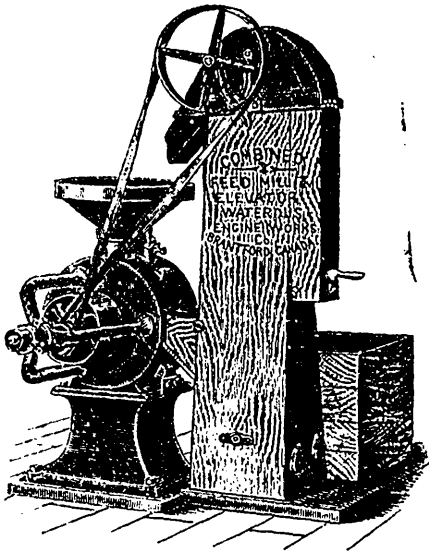
Lists of Farms and City Properties for Sale sent Free on application.

Real Estate sold on Lowest Commission.

GEORGE STREET, - BRANTFORD, ONT.

<p>Carpets, Oil Cloth, Matting, Curtains.</p>	<p>Manufactured on the Premises, COSTUMES, MANTLES, MILLINERY.</p>	<p>Walking Sticks, Umbrellas, Carpet Bags, Valises.</p>
<p>SPECIAL : Black & Colored Silks, Satins, Velvets, Brocades. — Fine Wool, Dress Fabrics, French Cashmeres. — Gloves, Hosiery, Laces Ribbons, Corsets, Scarfs. — Jerseys, Shawls, Travelling Wraps. — Parasols, Fans, Bags, Waterproof Cloaks.</p>	<p>WILLIAM GRANT, Direct Importer OF <i>British & Foreign</i> DRY GOODS, Fine Woolens, Gentlemen's Furnishings, &c. —○— MANUFACTURER OF MILLINERY, MANTLES, COSTUMES, Ready-made and Custom Clothing, SHIRTS, COLLARS, &c. — COLBORNE STREET, BRANTFORD, CANADA.</p>	<p>SPECIAL : Fine Custom Tailoring. Shirts of all kinds made to Measure. Collars and Cuffs made to Measure. Constantly in Stock Fine Underwear in Silk, Cashmere, Merino, Balbriggau, Lamb's Wool. Gloves In Kid, Dog, Napa, Buck and Lisle. Handkerchiefs, Braces Scarfs, Bows, Socks in Endless Variety. Lawn Tennis, Criketing, Boating, Bathing Suits.</p>
<p>Cottons, Linens, Sheetings, Damasks Napery Cretones.</p>	<p style="text-align: center;">FAMILY MOURNING.</p>	<p>Hats in Felt, Silk and Tweed, Pith Helmets, Caps in Cloth, Silk and Lustre.</p>

STANDARD CHOPPING MILLS WITH ELEVATORS



As shown, are now fitted with a Shaking Screen to take out all Straws, Stones, Nails, Cyl. Teeth, etc.

SAVING WEAR ON STONES.

These Mills use the very finest

FRENCH BUHR STONES

Acknowledged by all the best grain grinders in the world.

12-inch Mill can be run by a 2 to 10-horse power.

20-inch Mill, 6 to 12 H. P.

Capacity, 2 to 30 bush. per hour.

Mill Picks and Proof Staff Given Free.

Send for full particulars.

154 St. James St., Montreal.

30 St. Paul Street, Quebec.

WATEROUS ENGINE WORKS Co.,

Brantford, Canada.

St. Paul, Minn., U. S. A.

Brantford Soap Works.

USE

A. WATTS & Co.'s

IVORY BAR

SOAP.

The Grand Central Land Agency,
Brantford, Ont.

S. G. READ, Proprietor.

This Agency has been established for 16 years past, the proprietor having commenced business in Brantford on the 23rd day of November, 1870. The business transacted in the above agency is the largest of the kind in the country and one of the largest in the Province.

A land Journal for the advertising of Farms and other Properties,

In the interest of Real Estate buyers and sellers is published monthly and is circulated in many parts of the Dominion and portions of the United States and England. The Journal contains

A large list of Choice Farms,

Situated in the very best counties of Ontario, also description of

City Properties in Brantford and other

Cities in the Province, and Business Chances such as, Stores, Factories, Foundries, Hotels, &c.

A copy of the Circular will be mailed free on application.

At any time strangers visiting the city will always be welcome at the Grand Central, were all information regarding Real Estate can be obtained.

The proprietor of Grand Central also attends Auction Sales of Real Estate, Household Furniture, Merchandise, etc., any where in the province, where his service may be required.

He also deals in first class makes of

Organs and Sewing Machines.

P. O. Address,

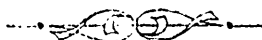
S. G. READ,

Box 575,

BRANTFORD, ONT.

Some of our Prizes

FOR 1886.



At Toronto Industrial ; Provincial Guelph, and Western Fair, London, Largest and Best display of Apiarian supplies,—Silver and Bronze Medals. Best Style and Assortment of Tin for retailing extracted honey,—Bronze Medal.

- Best mode of marketing extracted honey,— 1st Prize.
- Best mode of securing the Largest yield of } Two 1st Prizes
- best extracted honey,..... }
- Best Hive for all purposes in the Apiary..... 1st Prize.
- Best Honey Extractor,..... 1st Prize.
- Best Wax Extractor,..... 1st Prize.
- Best Smoker,..... 1st Prize.
- Best and most practical invention for the Apiary } Diploma.
- (The Pettit Swarm Taker.) }

NOTE—Our Improved Honey Extractor, Invertable Hives, Two sizes of Perforated Metal, Chapman Honey Plant Seed, Comb Foundation, Sections, Abbotts Comb Honey Shipping Crates.

For particulars, see Contents.



TO THE BEE-KEEPERS AND PROSPECTIVE BEE-KEEPERS OF CANADA :—

Owing to the promise of a European market for Canadian Honey, Bee-keeping has received a new impetus in Canada. The downward tendency in the process of honey has been checked by the increased demand for the article, both in at home and abroad, and whilst the prices for comb and extracted will in all probability not be much higher, we can also as confidently predict that they will not be materially Lower.

A novice may ask, what are the profits to be derived from Beekeeping?

To such we would say:—An intelligent experienced and careful Apiarist can in an average season make a very handsome profit with a small capital. And, as to keeping bees for pleasure, there are many who have done so for years, and certainly there is no more interesting study, and one which becomes more interesting as knowledge increases ; so that bee-keeping is both pleasureable and profitable. At the same time we would say Bee-Keeping extensively pursued requires skill, constant application and genuine hard work during the busy season. A few colonies require but little attention, but that little must be given, and promptly : thus pursued the results will be satisfactory, and bee-keeping not more hazardous than many other less remunerative pursuits. Before embarking extensively in bee-keeping, one should have gained at least one seasons practical experience, or have some one with that experience to superintend. Any one interested in bee-keeping, can, by proper attention commence with a

few colonies and by taking one or more of the standard works on apiculture, and a bee-journal, gain experience and gradually increase his apiary if desired. This was the commencement with some of our foremost Apiarists in Canada.

In ordering an outfit we would recommend a bee-journal of which there are a number, and one of the books upon bee-culture given in our circular, bee-hives according to number of colonies, a No. 1 smoker plain, and brood foundation should also be purchased. Further purchases will now depend upon what the bee-keeper intends to take. If comb honey, about one hundred sections for each colony, spring count and section comb foundation, if his object is to take extracted honey (and this latter requires less skill and attention) a honey extractor and knife should be purchased. As to tins, labels, &c., we must leave it with the individual. What has been enumerated is *absolutely* necessary. There are other articles the necessity of which vary somewhat in individual cases.

If for profit, economy must be taken into consideration, if for pleasure there are many conveniences which would add to the pleasure of bee-keeping.

For further information see contents of Circular.



To our Patrons:

It will be greatly to your interest as well as ours that you order your goods some time before you require to use them. It will give us time to get everything ready and in nice shape, and you time to arrange everything without that disagreeable and money-losing rush consequent upon a delayed order. This is especially the case when goods are ordered in the flat.

Hives purchased in the flat should be ordered in the winter, and painting and nailing should be done at that season. We offer a discount of 5% from the total value of goods ordered before the 19th of February after that, the same as other reliable dealers give. Orders coming in late often have to wait till several others have been filled and disappointment is the usual result. As the full payment is not expected until the goods are to be shipped, a customer is not out of his money by ordering early, and has the satisfaction of knowing that all will be ready when wanted.

A made up sample should accompany the first lot of any article, so that you can see just how to join the rest.

-----:o:-----

TERMS:

We expect One Quarter Cash with order; balance Cash Before Shipment of Goods, unless other arrangements are made. Money may be sent by Post Office Order, Draft or Registered Letter, addressed to

E. L. GOOLD & CO.

BRANTFORD, ONTARIO.

The receipt of which will be acknowledged by return of mail. If by any mistake we fail in this please write for an explanation. Please write **name** and **address** very plainly. If your post office has one name, and your express and freight office another, state so distinctly, and say whether we are to ship by freight or express.

Each Bee-keeper can do something in our interest in his locality. If you are satisfied with our goods, you will confer a favor by letting others know it. If you are not satisfied with goods, or there has been delay, or exorbitant charges in transit, you will confer a favor by writing and letting us know all about it. Our aim is to satisfy everyone and have justice done to all.

BEES FOR SALE.

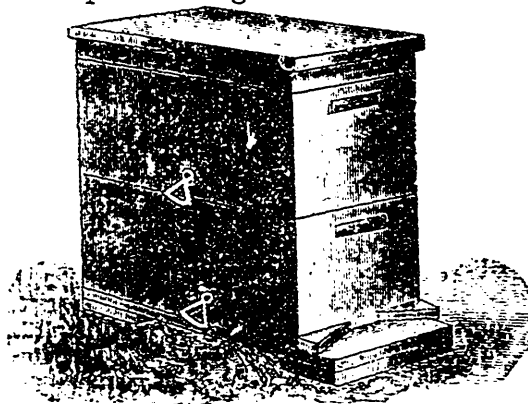
We always have for sale Bees and Queens, at ordinary prices. For actual business, we find many strains of Italians with a slight mixture of black or German, are equal if not superior to any other. We can supply Italians equally well, or other races.

Italian Queens, mated (generally with Italian Drones) post paid.	\$1 00
Tested	\$2 00
Selected Tested	2 50
Prices of Italian Colonies	\$8 00 to \$10 00

Further prices and particulars on application. We can also supply all other strains of Bees. Customers having Colonies for sale can quote their prices to us,—we are prepared to purchase.

The Blackburne Hive.

Combine the best points of the Leading shallow Framed Hives. It is arranged for the **Improved Langstroth Frame** and the **Simplicity** ($4\frac{1}{4} \times 4\frac{1}{4}$) Sections.



(SEVEN FIRST PRIZES)

The Hive consists simply of a **brood chamber** and **surplus department**. The former contains eight frames, and the latter may be arranged for section or extracted honey, and may be made up of a number of full or half stories, which may be placed upon the brood chamber or upon each other, and may be tiered up as high as required. The size of the entrance is controlled by a pair of triangular sliding blocks. The bottom board is free, but is held to its place by a pair of "Van Deusen" hive clamps, so that it may be removed in an instant for manipulation, and when in its place is as firm as ever required. It may be nailed solid. The edges are so arranged that the full upper and half stories

are all interchangeable, and the lid will fit on any, so any required number can be tiered up. The cover is flat making it convenient in every way. The pieces of the stories are rebated together. The stories are clamped together as are the bottom and body, so that all can be carried by the handles of the parts. A handle is cut in each end of every story. For extracted honey alone, a full upper story is used containing eight brood frames. Section honey may also be raised in this by means of the old partitioned section frames (see fig. 1). The best way of storing section honey, however, in this Hive, is the half story arrangement on the tiering up plan, and for this purpose half stories are provided (see fig. 2) which hold four lots of $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{5}{8}$ sections; or the size may be varied a little blocking up at one side of the compartment. Each partition may be removed, thus leaving the half story for full feeding, or a cushion in winter and spring.



Fig. 2. FIRST PRIZE.

These half stories have the same rebats and hold the frames as the full stories and bodies, and two half stories together will form a full story for extracted or section honey in frames. This is the best arrangement of our Hive—No. 1.

For convenience, simplicity, strength and durability, combined with lightness and neatness, our Hives are undoubtedly unsurpassed. They are also cheap

In the following prices we give that of the different parts, so that if a half story be desired instead of a full one there will be no difficulty in determining the actual amount of this or any other arrangement. We use 15 $\frac{3}{8}$ sections,—a change may however be made in the width of sections; any of the following may be taken if desired: 1 $\frac{1}{2}$, 1 $\frac{5}{8}$, 1 $\frac{3}{4}$, 1 $\frac{7}{8}$.

No 1.—For Section Honey, without Separators, and for Extracted Honey. Cover contains one Quilt. Half stories contain eight all wood Brood Frames, six Partitions and fifty-six One-pound Sections. Body contains eight all wood Brood Frames, one solid Division Board; with bottom go two Entrance Blocks.

	MADE UP COMPLETE.	IN THE FLAT COMPLETE.
From 1 to 5 at one time, each,	\$2 60.	\$2 15
“ 6 to 10 “ “ “	2 50.	2 10
“ 11 to 20 “ “ “	2 40.	2 05
“ 21 up “ “ “	2 35.	2 00

If Painted, add for each Hive per coat 15 cents.

No. 2. For Extracted Honey.—Cover contains one Quilt; full upper story contains eight all wood Brood Frames and one solid Division Board. With bottom go two Entrance Blocks.

	MADE UP COMPLETE.	IN THE FLAT COMPLETE.
From 1 to 5 at one time, each,	\$1 75.	\$1 40
“ 6 to 10 “ “ “	1 65.	1 35
“ 11 to 20 “ “ “	1 55.	1 25
“ 21 up “ “ “	1 45.	1 20

If Painted, add for each Hive per coat 15 cents.

No. 3. For Section Honey.—Cover contains one Quilt; half story contains 28 1-lb. sections. Body contains 8 all wood Brood Frames and one solid Division Board. With bottom go two Entrance Blocks.

	MADE UP COMPLETE.	IN THE FLAT COMPLETE.
From 1 to 5 at one one time, each	\$1 85.	\$1 45
“ 6 to 10 “ “ “	1 80.	1 40
“ 11 to 20 “ “ “	1 75.	1 35
“ 21 up “ “ “	1 55.	1 25

If painted, add for each hive per coat 15 cents

EXTRA STORIES OR HALF STORIES WITH SECTIONS.



Fig 3.

Joined and Painted.

From 1 to 5 at one time, each,	60 cts.
From 6 to 10 “ “	55 cts.
From 11 to 20 “ “	50 cts.
From 21 up “ “	45 cts.

If unpainted, 5 cts less throughout from above prices. Neither Joined or Painted 15 cts. less.

FRAMES.

As in our Hives we keep only the improved Langstroth Frames. At the last meeting of the Ontario Bee-Keepers' Association, nearly all our prominent bee-keepers were in favor of a frame with comb 8 $\frac{1}{2}$ to 9 inches deep, and most advocated the Langstroth Frame. We have advocated it for years.

The Frame measures 17 $\frac{5}{8}$ x 9 $\frac{1}{8}$ x 7 $\frac{3}{8}$ ins outside. Of these the top bars are $\frac{3}{4}$ inches thick and extends $\frac{3}{4}$ inch beyond the bar. The thickness of the end and bottom bars are $\frac{1}{4}$ inch.

Made up per dozen	30 cts.	Made up per hundred	\$2.00.
In the flat, per dozen	20 cts.	In the flat per hundred	1.50.

Wide Section Frames (see fig. 3) made to hang in the upper story, with or without separators, which latter are for the purpose of securing even surfaces of comb. Made up, per dozen, with Separators. \$1 00 | In the flat, per 100, with Separator \$7 00
 " " without " 50 | " " " without " 3 00

Division Boards.

Solid.—They are used for contracting (by taking out frames) the hives, where for any reason the colony is not in a position to occupy the entire hive to advantage.

	EACH.	PER DOZEN.	PER HUNDRED.
In the flat.....	Sc.	90c.	\$7 00
Made up.....	10c.	\$1 15.	8 50

Perforated We have two sizes. The majority prefer the larger, as few queens pass through it, and the bees can pass through it more readily. The small, just got out by us, is the same size as made by other firms. State which you desire when ordering). A sheet of the perforated queen metal of the proper size, set into a comfortably fitting tin frame, serves to exclude the queen from any portion of the hive beyond it. The worker may pass freely through the holes which are too small to admit the queen.

	EACH.	PER DOZEN.	PER HUNDRED.
Perforated.....	25c.	\$2.75.	\$22.00.

Honey Boards.

The only honey board for the Blackburne Hive, is one made of perforated queen metal. (in ordering state size) to be placed upon the brood chamber.

	EACH.	PER DOZEN.	PER HUNDRED.
In a tin frame.....	30c.	\$3.50.	\$25.00.

Quilts.—These are better than the close wooden honey boards, because they allow the moisture to escape, while they retain the heat and are more easily removed. Cotton duck hemmed all round, each, 10c. per hundred, \$9.00. Cotton Duck per yd. 20c

Shucks' Invertable Hive.

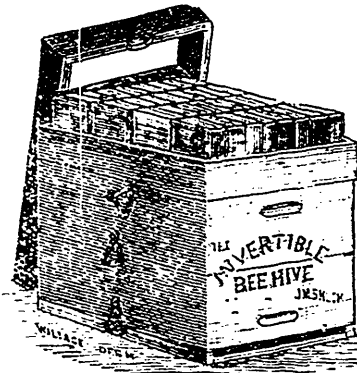


Fig. 4.

held in place when the upper half of case is clamped upon them. When so clamped as in fig. 6, the hive can be reversed, either by hand, or by a hive lifter as in fig. 7.

Fig. 5 consists of the top and bottom board, which are alike, body of the hive and nine brood frames. It will be seen that the entrance is at the bottom, and the lid has a bevel on the front, the board placed as at the bottom leaves an entrance space, reversed, or placed on top it leaves none.

It is claimed that the Invertable and Reversible bee-hive ushers in a new aera in bee keeping. We have made arrangements with J. M. Shucks who was the first in the field with this design of hive, and have secured sole right in Canada to manufacture and sell these goods, which are patented.

The various cuts will fully illustrate the hive and its construction. It takes the same dimensions of frame as our Blackburne Hive.

The hive is so arranged that the outside case of the body of the hive is cut in two (see. fig 4.) and the projecting end of frame (see fig. 5.) rests on the lower half of case, and the frames are

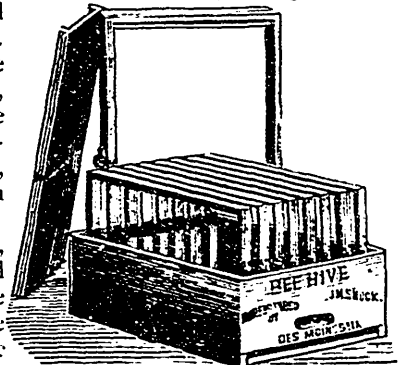


Fig. 5.

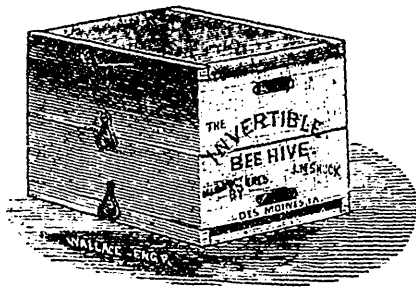


Fig. 6.

Some have objections to turning comb upside down for brood rearing there is practically none.

We would however state that the chief advantage in inverting and reversing the brood chamber is, in building up a colony in the spring (this must be done carefully) and at times to force bees into the surplus department in the hive. Use eight frames until the honey flow comes on, and your colony is in good condition, then put in the ninth which gives you more room below, and at the same time contracts the hive in the brood chamber. If this does not have the effect of forcing the bees into the surplus department, reverse the hive and you will succeed.

In some localities there is a surplus gathered from a fruit bloom and stored above the brood in the body of the hive, and if such a chamber were reversed, the darker, poorer honey would be stored above to the injury of white clover honey. We can only suggest one remedy in these instances: Put on a few combs to catch the dark and extract as soon as carried up, when you gain an advantage over the old way, for the lower side only was occupied with brood, when reversed the honey is carried up and all used for brood rearing and all danger of spoiling in part the surplus class by mixing it with the darker honey, obviated by extracting. The bees will then at once store the choice clover honey above in the surplus compartment, and thus leave the brood nest to the queen. If desired the hive can at any time be reversed by stripping it off the surplus case and honey board, reversing the lid and then the hive, and replacing the surplus arrangement. But as the bees commence to fill up the brood nest it is often so far advanced in the season that young bees in large numbers are of no use and the honey will be required for winter stores.

Surplus Case.—The surplus case for extracted honey is the same as the brood chamber. At most only eight frames should be used, and of course to give ample room

Fig. 4 shows the hive with one surplus case on the top, holding $32 \frac{1}{4} \times 4 \frac{1}{4} \times 1 \frac{1}{2}$ in. sections. Fig. 8. A skeleton board is placed between the brood nest and the surplus case. This skeleton board is solid in the centre, and distributes the bees more evenly through the sections, and is a great advantage. If desired we can make them open in the centre.

Now as to when to reverse, If the hive is filled with foundation to be built out into the nicest comb possible,—change daily.

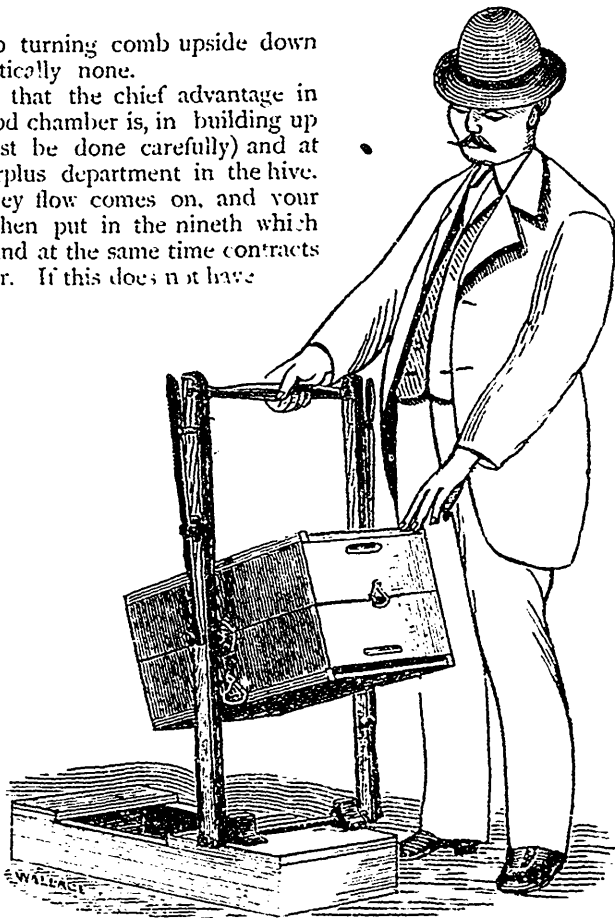


Fig. 7.

for ripening and storing honey. The surplus case for comb honey (see fig. 4.) is made in two parts. There is a quarter inch space between the skeleton board and the bottom of the sections. The cut shows the sections in place, the two halves of the surplus case are made precisely alike, so that when the upper or unfilled half is slipped on over the sections and then locked to the other half with the Van Deusen clamp, they (the sections) are held close and tight and true and cannot get out of shape.

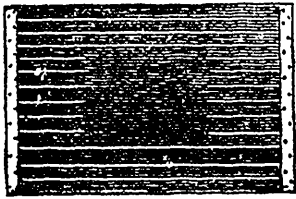


Fig. 8.

Before putting the sections in the case, lay first in the bottom of the case a series of thin strips just like the tops and bottoms of the sections, for the sections to rest on, then put the sections in place, and at the end of each row a separator is placed to protect the case from propolis, and to completely close the ends of the rows of the sections; then the other half of the case is just started on the sections, and another series of strips, or false tops and bottoms is laid upon the sections. Then the case is shoved together and securely clamped. Some may insist this is a deal of trouble, but the work is thorough and painstaking on that account. The work can mostly be done before the honey season and extra time spent in putting up these cases is more than saved, because the sections are as neat and clean as they come from the saw, being protected on all sides. After the case has been filled, and you wish to remove the sections therefrom, grasp the mating edge of the crate, and place your thumbs upon the sections, remove half the crate, then put a bottom board on top of the uncovered sections, and turn the whole upside down, and remove the remaining half of the crate as before. The sections can then be crated just as they come from the case.

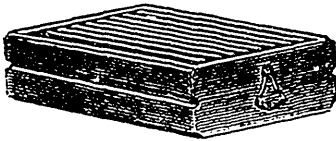


Fig. 9.

Fig. 9 represents a divided brood nest.

The frame (see fig. 10.) is just half the depth,

The frame (see fig. 11.) is the full depth.

The advantage is only in case you desire to contract the brood nest for a swarm, or they may be used as surplus arrangements. We do not recommend it, but can supply them.

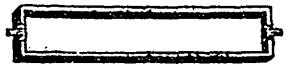


Fig. 10.

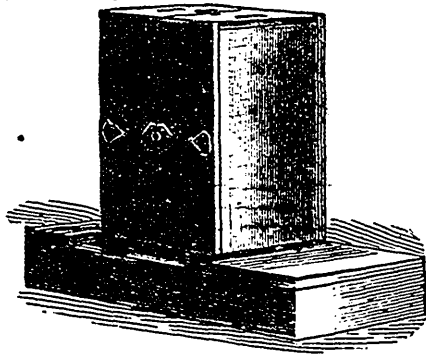


Fig. 12.

Fig. 12 illustrates the hive on end, making a deep frame out of it. It may also be used thus to receive side storing, if particularly



Fig. 11.

desired. The advantages claimed above all other hives are: 1st, The depth of the frame. 2nd, The hive can be totally inverted, or each frame separately, and they can also be spaced, thus by crowding the combs the bees will be forced to the surplus department. 3rd, The surplus compartment frees the sections from all propolis, saving time and adding to the beauty of the sections. 4th, A

deep or shallow frame may be used for wintering, if deep frame is desired, the change should be made at the close of the honey season. We have a great many high testimonials from men who have practically tested the hive, and some who strongly favored other hives previously. We append a few.

Eugene Secor, writes:—"Now I'll say this for your hive, after having posted myself pretty thoroughly as to all the new candidates for public favor, for originality of design, for ingenuity displayed in adopting means to ends, for thoroughness of construction, your hive is without an equal. I believe the more one uses it and the better he gets acquaint-

ed with the inventors idea and methods, the better he will like it. It is adopted to top storing, side storing and bottom storing. By a simple manipulation, it can be used as a shallow frame for cellar wintering, or as a deep frame for out-door wintering, and changed in a twinkling from one to the other. It is an aggregation of ingeneous ideas."—*Forest City, Iowa, Dec. 11th, 1886.*

J. E. HASTINGS, writes.—“After seeing the cut of your Hive I was, probably what a good many are now,. They think it is too much complicated; but after using it and thoroughly testing it I find I never was more mistaken. I find it the most simple in handling, and fills the requirements of the beekeeper easier and better than any hive I ever used. Your surplus case is as good as the Hive for the purpose it is used, and is what every beekeeper needs for comb honey.”—*Carlisle, Iowa, Dec. 13th, 1886.*

L. HARPER, writes.—“In my thirty years experience as beekeeper and honey producer, I have never met with appliances that so thoroughly pleased me. Your implements combine great simplicity and effectiveness. Their use lessens the labor of the beekeepers nearly, if not quite, one-half, and the product from your cases is in better shape for the market than any from any other case I know of; and I have tried the best that is going. The sections come from your cases in a body, clean, ready for the shipping crate. In fact they can be crated and the covers nailed on in less time than any other crate I ever emptied. No scraping of propolis is required. All my new goods from this out shall be of your invertable pattern.”—*Des Moines, Iowa, Dec. 14th, 1886.*

Canadian judges awarded a Diploma at London, and a First at Toronto, upon these goods.—A complete hive for extracted honey consists of a bottom and top board, body of the hive with nine frames, honey board; surplus chamber same as body with 8 frames and duck sheet. A complete hive for comb honey consists of stand, top and bottom board; body of hive with nine frames and two section crates filled, a honey board and duck sheet.

For Comb Honey Made up, Unpainted,	\$2.95 each,	\$2.80 five each,	\$2.70 ten each.
“ “ In the Flat “	“	2.30 “	2.70 “
For Extracted Honey, Made up “	2.25 “	2.15 “	2.10 “
“ “ In the Flat “	“	1.70 “	1.65 “

Surplus Cases Extra.—For comb honey crates filled with section or extracted honey with eight frames.—JOINED, EACH. 65 cts., per ten 60 cts., per twenty-five 55 cts. FLAT, EACH, 55 cts., per ten 50 cts., per twenty-five 45 cts.

Half Crates as per fig. 9 Each complete with 9 frames, same price as extra surplus cases.

SECTIONS.—We have made a vast improvement in our sections. With our improved machinery, we can make a section second to none in the country. We were the first to manufacture one piece sections in Canada. We do not manufacture the “double slotted sections” unless specially ordered. They have been tried by a number of our leading beekeepers and discarded. We make two sizes, $4\frac{1}{4} \times 4\frac{1}{4}$ Langstroth, and $4\frac{1}{4} \times 3\frac{1}{2}$, $1\frac{1}{2}$, $1\frac{5}{8}$, and $1\frac{3}{4}$ and 1 and 15-16ths. All other sizes an advance of 10 per cent. will be charged, no order for less than 500 will be taken. Orders for 5000 and over, ordinary rates.



Fig. 13.

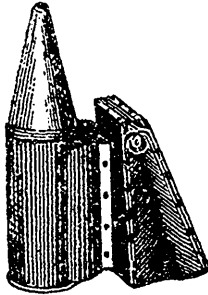
The sections are packed in boxes of 500 each, and the whole may be wet by pouring a stream along the grooves where they are to be bent. As they lie on their edges in the box, when they can be bent and joined at their ends. We keep the square Joint in stock.—

Per 100,	Per 500,	Per 1000,	Per 5000,	Per 10,000	
Either One Piece or Dovetailed,	60 cts.	\$2.75,	\$5.00,	\$23.50.	\$45.00

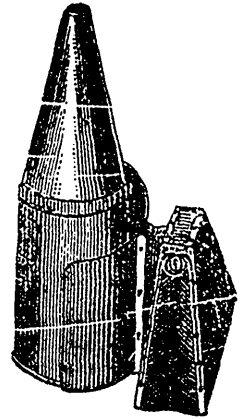
We generally have of the sizes we keep in stock, sections inferior in appearance which, until exhausted, we will sell at a reduction of 25 per cent on the above prices.

SMOKERS.

Fig. 14.



No. 2.



No. 1.

These are an improvement upon any we have seen, and we have from time to time been improving still further. The universal and unsolicited testimony is **it has no equal** for durability, simplicity and method of working. The spring is placed outside, and therefore it is not necessary to tear open a bellows to repair a weak or broken spring, which is so arranged that it cannot get out of order, being simply a copper wire curled. The bellows are fire proof, and so constructed as to give the greatest possible draught with the least motion. The barrel is made of sheet

iron, and the nozzle is made in two pieces and overlaps the lower portion $\frac{3}{4}$ of an inch tightening as it is adjusted, thus giving a strong, tight, and easily adjusted joint.

The grating in nozzle which prevents the escape of embers is bound about with a rim of tin and is moveable. The rear of barrel has a slide from which the fuel may be lighted if desired. We have discarded all but the plain style, others are more expensive, will not last as long, and are unsatisfactory to the purchaser. Our plain smoker looks very nice, and requires no more finish.

No. 1, 3 x 8 inch barrel, \$1.25.

No. 2 2½ x 7 inch barrel, \$1.00.

We make still a larger size than No. 1, (No. 1 however is just right.) \$1.50.

If three be taken at one time by the same person, deduct from No. 1, each, 15¢ from No. 2, each, 10¢ postage, each, extra, 30¢. We have some of the tin barrel No. 1 and 2, which until exhausted we will sell at 20 per cent. reduction.



Fig. 15

steel, and well finished, and will take a very keen edge. It is light as well as strong. We consider it the very best knife made, and numerous customers send us unsolicited testimonials as to the excellence of the material. The long bevel at the back causes the knife to be held at such an angle when used, that the capping falls clean off the comb.

Ebony handle and fine finish each, \$1.25. A knife not so well finished, same design 85¢.

Honey Extractors.—No Bee-Keeper with two or more colonies can afford to be without an extractor. By its use the amount of honey produced may be doubled, and that of the finest quality. It is also of great use just before the commencement of the surplus honey harvest, and for winter preparation of the bees, even when comb honey is the sole production.

Stanley's Automatic Honey Extractor.—The only self reversing, as well as the most perfect, complete and durable Honey Extractor known, it reverses the combs all at once, and by simply reversing the motion. No time is lost in handling or danger of breaking in reversing combs. These machines have taken first prizes wherever shown throughout the United States for the past two years, and we have made arrangements with the patentee and manufacturer, Mr. Geo. W. Stanley, of Wyoming, N. Y. so that we have sole control in Canada, and can ship them from our establishment at his prices. Every machine is warranted to work perfectly, and to do more than double the work of other honey extractors, taking the same number of frames. These extractors are made

to take 2, 3, 4, 6, 8, and 10 frames. The greatest demand is for the four frame machine, and is sufficient for a very large Apiary.

In writing us, state how many frames you want your machine to carry. In ordering, unless you want the Improved Langstroth frame, send sample of frame you use. We have sold a number of Extractors in Canada this season, and have secured a large number of prospective customers. It has been thoroughly tested by many leading and well-known bee-keepers. The following is our list of prices for machines, taking the Langstroth frame, $9\frac{1}{2} \times 17\frac{3}{4}$ outside measure :

Two frames \$15.00, three frames \$18.00, four frames \$22.00, six frames \$30.00, eight frames \$40.00, ten frames \$50.00.

When other frames are used send us sample and number of frames you wish your machine to carry, and we will quote you prices by return of mail. The following are a few testimonials :

PROF. A. J. COOK, LANSING, MICH.; L. C. ROOT, MOHAWK, N. Y.; A. I. ROOT, MEDINA, OHIO; S. T. PETTIT, BELMONT, ONT; D. A. JONES, BEETON, ONT.; PHIDIAS SAMPSON, OSHAWA, ONT.; R. F. HOLTERMANN, BRANTFORD, ONT.

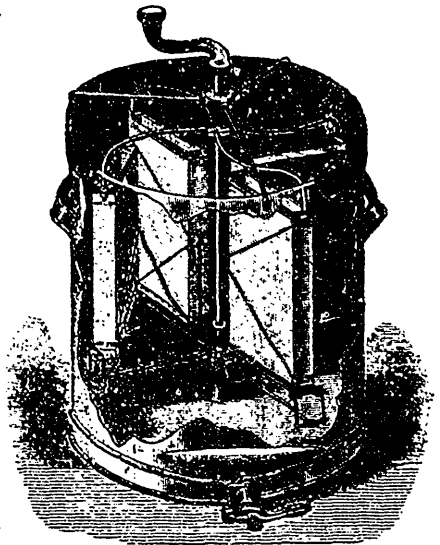


Fig. 16.



Our new non-reversible honey extractor has been pronounced by judges at the leading exhibitions as second to none. It is very simple in construction, the top bar can be removed in two seconds, and the basket or reel taken out at will. The cross bar acts as a brace to the can, which being made of the very best material throughout, will last a lifetime with care. The can will hold from 75 to 125 lb of honey below the basket. This space when partially filled keeps the can from "dancing," even should the combs which are being extracted, not be equal in weight, this latter should however always be avoided. We make the reel to hold either two or four frames at a time, and the improvements over all other extractors is that

each may be reversed without removal from the reel. It will be seen at a glance how much is saved while working this machine.

Goold's new design for four frames..... \$9.00.
 " " two 8.00.

Blackburne.—This our patrons will readily recognize as our former leading Extractor. The gearing is as before, the material used, and in fact otherwise it is exactly the same as our Goold's New design.

Blackburne, 2 frame \$7.00.
 " 4 " 8.00,

Ripening and Storing Cans.—These are extractor bodies, holding 400 lbs.
 Each, \$4.50, two, \$8.50; three or more, \$12.50.

Lighter material at lowest prices, also any capacity. Send for quotations.

Comb Baskets.—For holding pieces of comb and sections from which the honey is being extracted. It is specially useful in transferring. Put the pieces into the basket, place this into the extractor as an ordinary frame and extract. We make them in two sizes, a large one for sections as well as the pieces of comb, and a small one for the comb only.—Either size, 80 cents.

Wax Extractor.—This is a valuable implement to the bee-keeper, by it old and mouldy combs may be rendered so as to yield the purest wax, free from dirt. Our new machine arranged on the principle of the steam cookers, are registered. It requires less fuel to work it, and will get up steam in quarter the time and extract the wax in about half the time. It is constructed upon an entirely new principle, there is never more than half an inch of water at a time to be boiled, and this is constantly supplied from its own reservoir. It is no trouble to see when more water is required, and the adding of it does not chill the steam or check the boiling as **all others** do. The wax can escape from the whole surface of the cage which is perforated below as well as at the sides. It is only necessary to test it side by side with any other to prove its vast superiority as doing thorough and rapid work economically.

Directions.—Fill the lower pan, or reservoir with water, then the cage with the material to be rendered, let it stand five minutes for the water to settle upon the true bottom, and then place the machine upon the fire, put the extra link upon the spout and keep the cover on and the reservoir supplied with water. Let the wax run into a little warm water in a vessel whose inner sides have been greased slightly to prevent the wax adhering to them. Be sure and keep those four little holes in the false bottom of the reservoir open. Wax extractors as above, each, \$3.25.

Solar Wax Extractor.—We can supply them at same price as the above. They are highly recommended.

Comb Foundation.—This has now become an essential to success, it saves time labor and honey to the bees, and is the means of procuring straight and even combs. and avoids all surplus drone brood.

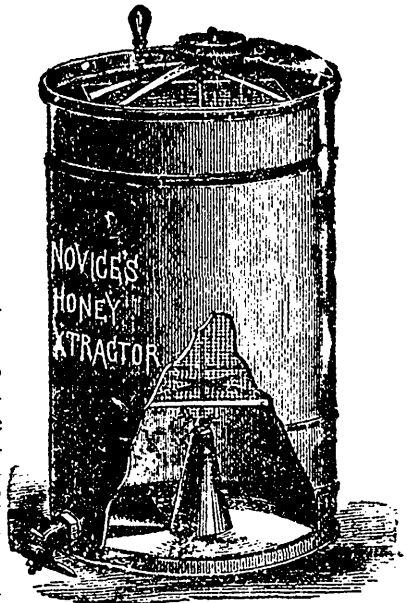


Fig. 18.

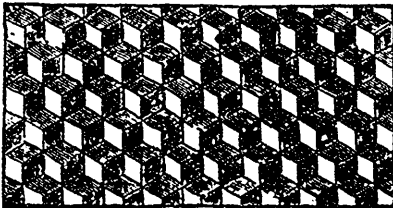


Fig. 20.

As the price of wax fluctuates, we give prices upon application, and guarantee them as low (material and workmanship being taken into consideration) as can be secured from any dealers.

Working Wax into Foundation.—We are prepared to make Bees-wax into Comb Foundation, either Brood or Section. Charges must be paid by the owner of wax both ways.—Brood Foundation under 20 lbs., 12 cts. per lb. under 50 lbs., 10c. over 50 lbs 9c

per lb. Section, in sheets or strips, under 10 lbs., 20 cts. per lb. Over 20 lbs., 18 cts. When wax is sent us, the **name of the owner and weight of wax** should be marked on the outside of package to avoid confusion. We would also ask our patrons to be sure and weigh their wax carefully and accurately, and also as far as expedient to have it free from residue, for which we must in every case deduct the proper amount. We have made the very best arrangements for wax, and will now be able to supply any quantity of first class wax made into comb foundation.

FOUNDATION FASTNERS.—Parker's, (kown to all), 25 cts.

Cut No. 20 is a little Oil Stove with a double chambered cup to hold wax. **Cut No. 22**, is a Spatula, or Knife, for dipping the melted wax and putting it just to the right place. The corner of the blade reaches across the section to the foundation, and you can pour a little stream against the foundation, and holding the section on an incline, the wax will follow clear down to the lower side,—a puff of breath from your lips and you turn the section and do the other side and all is made fast. You require a block of proper thickness to hold foundation in the centre, your knife is in the melted wax, incline the section, lift your knife edgewise so but little wax will adhere, then turn it so one of the corners nearly touches the foundation where it stands against the top of the section, drop the wax and let it run. The foundation is best cold.



Fig. 21.



Fig. 22.

We can supply coal oil stoves, useful to bee-keepers in many ways, at each.
 Doubled chambered tin cups..... 60c. "
 Spatula or knife 25c. "

Bee Veils.—These are manufactured of silk, or cotton net, each has a rubber which draws the top together, it is placed over the head and drawn down until the rubber is just above the band. The rim of any ordinary hat will keep the veil at a proper distance from the face.—Made of Brussels net, 50c. Made of cotton Brussels net, 25c. Made of common net, 15c.



Fig. 21

Bee Guards.—This is a devise placed at the entrance of the hive to prevent drones and queens from flying, at the same time allowing workers to pass in and out as usual. Every bee-keeper should have such, or an Alleys queen trap which is better.

For any hive, each, 7c. per ten, 60c. per one hundred, \$5.00.
 By mail, 13c, " 84c.

Drone Excluders.—This is placed at the entrance, allows the drones to pass out, but will not allow them to return. At night they will be found clustered at the entrance. It offers no obstruction to the workers.

Drone excluders, each 25c. per dozen, \$2.50. per 100, \$20.00.

Alleys' Queen Trap.—This is the invention of Mr. Henry Alley, Saleem, Mass. of of queen rearing fame, and who has a world wide reputation as a practical bee-keeper.

Place it over the entrance of any hive, from which you expect a first swarm. When the swarm issues, the queen will be caught, and there is no danger of the swarm leaving. If you are away and upon returning find the queen in the trap, you will know what has occurred, let her run into the hive, and be ready next day, and when they come out put your queen into the new hive, in small cage on top of bars, and place the new hive on the old stand to which the bees will return, when you can release the queen, and place the hive wherever desired, if you are present the first day this may be done at once. A virgin queen may pass through, and the trap in such a case must not be depended upon. It is also a drone trap. If for any purpose you wish to catch drones from a colony place the trap over the entrance of their hive in the morning, and at night they will be found in it. It does not retard the workers.

The above trap, each. . . 50c. per dozen. . . \$5.50. per 100. . . \$40.00.

Perforated Metal, Two Sizes.—This is now indispensable for, conducting an apiary successfully. It serves many valuable and important purposes, such as, preventing swarming, preventing drones from flying, (by the use of the bee guard), procuring surplus honey in the lower story of the hive, (by using the perforated metal division boards), and confining the queen below, (by use of the honey board), for this latter it is quite indispensable, some of our most successful and extensive bee-keepers, use it to prevent the queen from going into the upper story, thus keeping it free from brood. We have had some complaints on account of queens going through the metal. We are making a metal this season a trifle smaller, being same size as manufactured by other dealers, we can therefore supply either size, those having found the larger to answer will find it preferable.—Price per foot, . . 12c. per 100 ft, . . 10c. per foot.

Queen Cages.—we manufacture all the latest and most improved queen cages, they combine cheapness, simplicity, and safety of carriage.

Price each, 10c. per dozen, \$1.00. per 100, \$8.00.

Queen Introducing Cages.—These are made of tinned wire cloth in a metal frame, and sufficiently large to contain a whole card with bees, brood and honey. To introduce queens, double colonies, such a card as above with bees may be inclosed in a cage, and she out of danger and able to go on laying, having bees sufficient to care for her and brood. It is an excellent method of introducing. With order the size of frame should be given.—Langstroth, Richardson or Jones frame each, \$1.00. three or more, 90c.

Queen Nurseries.—A queen nursery consists of a number of cages contained in a suitable frame, whose outside dimensions are same as those of the brood frame. It is indispensable when queen rearing is gone into, the cell or young queen can be placed in the cage also very convenient in holding queens ready for immediate sale, the same cages will do for shipping.—For Langstroth frame, 24 cages, \$2.25.

Bee Feeders.—We have a variety suitable for all purposes. **Perforated.**—A good feeder is a gem fruit jar with perforated tin cover, have one rubber on jar, and one on flange or feeder. After you fill the jar with syrup or honey, put on the tin cover put on the screw cap tight, invert the jar over cluster or behind division board.

Price each, 8c. per dozen, 75c. By mail 1c. extra for each.

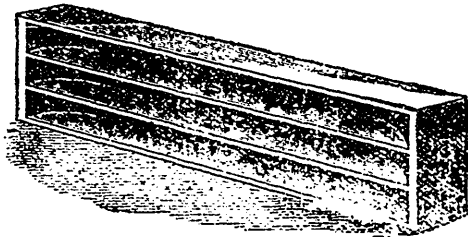


Fig. 24.

Simplicity.—This is simply a little trough with two long partitions which divide it into three spaces, of such size that the bees can comfortably crawl down to the syrup without falling in. It is excellent for inside feeding.

Each. Per Dozen. Per 100.
Simplicity . . 6c. . . . 60c. . . . \$4.50.

Shucks'.—This is an entrance feeder, and an excellent place to feed from. Bees are accustomed to take their stores in at the entrance. Its inner construction is much the same as the Simplicity, and they are an excellent feeder for stimulating brood rearing. The bees from the inside of the hive only can reach the feed, which is poured in from the outside.

Shucks', as above, each, by express, 25 cts.

each by mail, 30cts. per doz. by express, . . \$2.50.

Shucks' Top Feeder.—These are to be placed on top of the frames. They are about 15 inches long, 7 inches wide, and 3 inches deep, outside measure. They have passage ways both at sides and ends of the feeder block, with a $\frac{3}{8}$ inch shallow chamber under the feeder block. To feed,—cut out a hole in a piece of muslin or cotton, a little less than the feeder, spread it evenly over the frames of the hive and set the feeder over this hole, then put packing around the feeder on the hive to retain warmth. This is an excellent feeder, and holds about 3 pounds. Top Feeders each, 30 cts., per doz., \$3.00



Fig. 25.

Shucks' Large Feeder.—Fig. No.26 exhibits the Large Feeder, with top removed ready to be placed on the bottom board under the hive. The feeder projects at the rear of the hive, three inches, for filling, and the bees pass in through the regular entrance through the feeder into the hive. Three passage ways are provided, one at each side and one in the middle, and also round the ends of the feeder blocks. They are not only useful as passage ways, but they enable the bees to get at all parts of the feeder inside and clear up any feed that may have soaked through the pours of the wood. It fits the hive equally well on top or on the bottom, and hold about 15 pounds. If pleasant weather bees will take up feed more rapidly from the bottom.

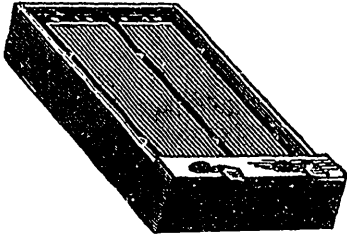


Fig. 26.

Large Feeder, each, . . . 75 cts. Per six. . . . \$4.00.

Bee Candy.—As it is often necessary to feed bees in winter or very early in spring and liquid feed given at that time would be injurious. We keep in stock a pure candy, made from granulated sugar, for the purpose. It is soft and porous, but will not become sticky and run. It is in the shape of sticks 8 inches long and about 1 inch thick, to be placed upon the top bars of the frames over the cluster. With this, bees can be fed at any time without disturbance. A little candy early in March stimulates breeding without injury, and prevents restlessness. Price liable to change per lb. with that of sugar. At present 15 cents per lb., 25 lbs. at 13½ cts., 50 and over at 12 cts.

Comb Buckets.—These are made to carry 6 frames, and are of great service in carrying comb to and from the hives while extracting. Our bucket will save its cost in once going over a yard of 50 colonies.

The cut represents Mr. A. I. Root's style. We also have Mr. J. B. Hill's design and consider it well worth the extra money.

- A. I. Root's, for the Langstroth, Richardson and Jones' frame. \$1.50.
- J. B. Hill's. \$2.00.

We also make a bucket holding 8 frames or a full set for upper story, without handles, to put upon a wheel barrow,—one to contain empty combs when leaving the honer house, the other, then empty, for the full combs about to be taken out of the super, and replaced by the empty. Price according to size. For 8 frame Langstroth each \$1.50

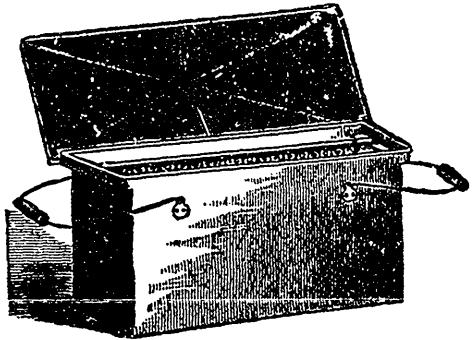


Fig 27,

Wheel Barrows.—These are essential in an Apiary of any extent. We sell a neat strong barrow, sides and ends of box movable.—Price each, \$4.00

Transferring Board and Sticks.—The board holds the comb while being cut and fitted, and allows of the one stick being placed beneath it in the grooves in board while the other lies upon it. These stick are then wired at their free ends, and hold the comb enclosed in its new frame into its place securely. As may as are needed may be used. The sticks are then done up in bundles of 25 pairs, for the Langstroth frames.

Transfer boards each, 20c. Sticks, per bundle, 35 cts. Per dozen, \$3.50

Comb Hangers.—Once used they become a necessity, while working at a colony. One or two of the above hangers may be attached to the ends of the hive, and the cards being on them while being handled, without injury or needlessly disturbing the bees.



Fig 28.

A comb thus suspended is in a convenient position for cutting out or inserting queen cells. The queen and young bees are also less liable to be lost.

Price, for any Frame, each, 30 cts. Per half doz. \$1.50. Per doz. \$3.50.

Bee Tents.—We have a variety, one we recommend, the frame work and sides fold together, and at the close of the season the whole can readily be taken apart. The cover netting stretches over the frame, but is detached. They are indispensable for fall or spring manipulation of bees.—Frame work in flat, 75c. Complete with covering, \$2.00

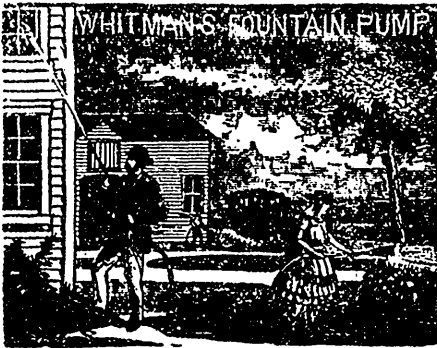


Fig. 29.

Fountain Pumps.—We have a very excellent, and cheap fountain pump. Often the most successful beekeepers lose a swarm which might be saved by its use, it is useful in many other ways about the house and apiary. It is worked with a back and forth motion of the hand. So light that any child can use it, and may be worked while running with a pail of water on one's arm.—Price each, \$5.00.

Registering Slates.—These slates are excellent for keeping a record of age of queens quantity of honey secured, when swarmed, etc, Size 3 x 4 inches with a hole in the centre of the top for hanging them on the hive.

Price each, 2c. Per dozen, 18c. Per 25, 30c.

Hive Joiners Tools, of all kinds, prices on application.

Wire Nails.—These are undoubtedly the best and cheapest nails for joining hives, and are just coming into general use for all work. We have a special lot of nails for our work, and we are satisfied they have no superior on the market.

3/8	Inch long, wire, No. 20	7 lb,	\$.30	1	Inch long, wire, No. 17	7 lb	\$10- .90.
1/2	"	" 19	".25	1 1/4	"	" 16	" 9- .85.
5/8	"	" 18	".20-1.80.	1 1/2	"	" 16	" 8- .75.
3/4	"	" 18	15-1.40.	2	"	" 15	" 8- .75.
7/8	"	" 17	15-1.40.	2 1/2	"	" 12	" 8- .70.

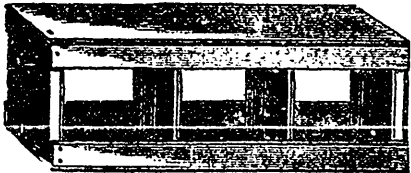


Fig. 30.

Shipping Crates.—These are for comb honey, which can be shipped in them to any distance. They are convenient to dealers, and attractive to customers. We make two styles one like figure, the other flanged on one side only, and presenting only two sections to the glass. State if you have any preference, and size of sections you want them for. These crates are light but not

fimsy and unpracticable for shipments. We keep in stock crates to hold 4 1/4 x 4 1/4 x 1 5/8 or 1 1/2 and 3 1/2 x 4 1/4 x 1 5/8 or 1 1/2, holding 12 to 18 sections in a crate,

Sample crates made up, each, 20c. Per 10, \$1.65. In flat holding 12 sections without glass, per 10, \$1.00. Per 25, \$2.25. Per 50, \$4.25. In flat holding 18 sections without glass, per 10, \$1.25. Per 25, \$2.75. Per 50, \$5.00. Glass if for both sides 5c. per crate extra, one side only glazed, 2 1/2c.

We have secured from Mr. J. A. Abbott, Southall, England, the sole right to manufacture their crate for shipping honey, it has received already a silver medal. It consists of an ordinary honey crate, with a light slatted crate around it, and springs between the bottom of the latter and the former which breaks effectually all concussion in transit.

Crates each,	made up,	30c.	In flat,
"	per 10, "	27c.	" 23c.
"	" 25, "	25c.	" 21c.
"	" 50, "	23c.	" 20c.

"They fill a long felt want."—*The Bee-Keeper.*

Honey Cans.—We have all the latest improvements in honey cans and can say without doubt our honey cans for wholesale and retail have no equal upon the market. As

a proof of this we have not only taken the leading prizes, but we have received a very large patronage the past season. A very large number of our 60 lb. cans and retail packages were shipped to the Colonial Exhibition, where they were acknowledged by competent judges to be by far the best. A very excellent Can is the Ross Self Sealer. This Can serves well for preserving and canning fruit, being perfectly air tight, and a safer can for shipping could not be procured. To put on the lid, get a board that will cover the entire lid, and after placing the cover upon can, strike board with a mallet or hammer. When you wish to remove the cover, pry off with a knife, raising the lid all around first with the knife. They can be used many times for fruit or honey. Price for any quantity per 100 or less.

½ lb., per 100 or less	\$2.75.	5 lb., per 100 or less.....	\$7.50.
1 lb., " " "	3.75.	8 lb., " " "	10.30.
2 lb., " " "	5.00.	10 lb., " " "	10.40.
4 lb., " " "	7.00.

Crates at cost, neat and strong to hold these packages, ready for shipping with honey.

Case holding 1 doz. 10 lb. Cans,	20c.	} Case holding 1 doz. 5 lb. Cans,	12c.	
" " ½ doz. " " "	12c.		" " " 4 lb. "	11c.
" " 1 doz. 8 lb. "	17c.		" " " 2 lb. "

Our 60 lb. Honey Cans have a superiority over all others at present made. They have a large and small screw top. The smaller instead of being only inch is 1½ inch. The large is 4½ inches in diameter. These Cans are taking the place of kegs entirely, and the demand has been very great. They are neatly encased in wood, as are also our 30 lb cans.

Price, each, 50c. For 10, \$4.05. Per 25, \$11.00. Per 100, \$42.00.

30 pound cans have only the 1½ inch screw top.

Price, each, 32c. Per 10, \$3.00. Per 25, \$7.00. Per 100, \$25.00.

15 pound cans have no case, screw top same as on 30 lb. cans. Price each, 15c.; price, per 25, \$3.50.

Screw Top Cans.—In these the entire lid screws off. Cans holding 5 lbs.. each 7¼ cents; per 100, \$6.90; 2½ lbs. each, 6 cents; per 100, \$5.40.

Honey Glasses.—Our new Honey Glass, handsome, strong and neat, is made of first-class pressed glass, making every package of the same size and very strong. The screw top is retained after turning so there is no danger of it straining the honey. Over 200 gross have been sold since their issue the last season. They hold one pound.

Price each, 7c. Per dozen, 80c. Per half gross, \$9.00.

Ordinary Honey Glasses.—Price, each, 6 cts.; per doz., 60 cts.; per half gross \$3.40.

Old Oaken Buckets.—They are neat and have small bails, and of white glass, holding 1 pound.—Each, 8 cts.; per doz., 85 cts.; per half gross, \$5.00.

Gem Jars.—Crown Brand, 1 pint per gross, \$14.75, per half gross \$7.50; 1 quart per gross, \$15.75, per half gross \$8.00; 1 gallon per gross, \$19.00, per half gross \$9.75.

Labels.—For some time beekeepers have felt the want of a good Honey Label. We have now an entirely new design, which has been "highly commended" by a great number of beekeepers in Canada, the United States and England, who say it is far in advance of anything upon the market. The label educates the public as to how extracted honey is secured, and the excellence of it as a food, having the effect of overcoming some of the ignorance and prejudice which still lingers in the mind of the public about this, the most wholesome, the most nutritious and concentrated of foods. Aside from utility, the label is the handsomest on the market.—Prices of Labels, Varnished:

2 and 3, Ross' Pressed Top, per 100,	65 cts.;
5..... " " " "	90 cts.
8 and 10 " " " "	\$1.50
1 lb. Screw Top,	50 cts.

A small label for 1 lb. Glass and Gem Jars, per 100, 40 cts.; per 1000 \$3.00. Send 5 cents for labels. For printing name and address on above per 100, 30c., each additional 100, 10c.

We make no labels for comb honey. Nothing looks as well as the section about the nice white comb, and it is a worse than useless expense.

Wire Cloth.—Beekeepers require wire cloth for various purposes, such as making screens to cover hives of bees during shipment; making boxes for shipping bees by the swarm or pound; making cheap queen cages; covering hive entrances and ventilators; for straining honey, and for covering honey room and house windows.

For covering windows, we have a special style, which is ornamental. Instead of being painted plain green or drab, it has landscape views painted on it by hand. When on the window it looks like a beautiful picture, and prevents outsiders seeing in while from the inside the view is unobstructed. For straining honey we have a fine wire cloth, which instead of being painted is tinned, and so will not rust and there is no paint to come off and discolor the honey. It is also the best for queen cages. For honey extractor we have a coarse tinned wire cloth. For the other purposes the common painted wire cloth is good enough.

Landscape, 2 1/2 inches wide, per square foot	\$0 20
“ “ “ “ “ “ per square yard,	1 70
Tinned Wire, fine mesh, up to 72 inches wide, per square yard . . .	60
“ “ Cloth, for honey extractors, 30 in. wide, per sq foot . .	11
“ “ “ “ “ “ 30 in. wide, per sq. yard . .	85
Common painted, 18 to 42 in. wide, per square yard	50

Castings.—The Van Deusen hive clamps are specially useful for keeping the loose bottom boards in place.—Price, per doz. (6 prs.), 25c.; per 100 (50 prs.), \$1.75; per 250 (125 prs.), \$4.25; per 500 and over, per 100, \$1.50

Screws for clamps, 3 to each clamp, per clamp 1c. Blackburne honey extractor Castings, as on our \$7 extractor, per set, \$1.25. Goold's Improved Extractor Castings, as on our \$8 extractor, per set, \$2.00. Sets of 3 and over, 10 per cent. off list price.

Honey Extractor Gates each, 50 cts. Half dozen \$2.40.

Seeds for Honey Plants.—We have secured a quantity of the celebrated Echirops Spherocephalus, commonly known as Chapman Honey Plant seed. The flower of this has attracted a great deal of attention, and a committee who were appointed by the North American Beekeepers' Association to report on the flower, visited it whilst it was in blossom, and spoke very highly of it. For further particulars we refer our patrons to the leading Bee Journals. We offer the seed at a much lower price than elsewhere.

Price per half oz., 40c., per oz., 80c.; per two ozs., \$1.50. Larger quantities, prices on application.

Bokhara Clover, per lb. 30c.	Rape, per oz. 2c. per lb. \$0.10
Alsike Clover, per lb. 25c.	Simson honey plant, per oz. 25c. per lb. 2.50
Silver Hull Buckwheat, 70 pe. bush. \$2.00	Spider Plant, . . . per oz. 15c. . . . per lb. 1.25
Large Russian Sunflower, per oz. 5c., per lb. 25c.	Barage, per oz. 15c. per lb. 1.50

Books.—A great many books have been written,—those on our list we particularly recommend:—“Quimby's New Beekeeping,” by L. C. Root, in cloth, \$1.50
 “COOK'S MANUAL OF THE APIARY” by Prof. A. J. Cook, in cloth. 1.25
 “A, B, C, IN BEE CULTURE,” by A. I. Root, in paper, \$1.00. In cloth. 1.25

If two or more are ordered at one time, 10 per cent off list prices.

“LANGSTROTH ON THE HIVE AND HONEY BEE,” in cloth,	2.00
“BEES AND HONEY,” “or <i>The Successful Management of the Apiary for Pleasure and Profit</i> ,” by Thomas G. Newman, in cloth,	75
“EXTRACTED HONEY,” “ <i>Härvesting, Handling and Marketing</i> ,” by C. & C. Dadant, in paper,	15

DZIERZONE'S RATIONAL BEE-KEEPING," (no thorough beekeeper can be without it, but not the best for a beginner) in cloth,..... 2.00

DZIERZONE'S THEORY,"..... 15

" FOUL BROOD," "*Its Origin, Development and Cure*," by A. R. Konkie,..... 25

" BLESSED BEES," A very interesting romance of beekeeping ; of no practical value however.—Price,..... 75

" QUEEN REARING," or *The Beekeeper's Handy Book*, by Henry Alley. A very exhaustive work upon queen rearing, and by one whose experience has been very extensive, covering 22 years.—Price, in cloth,..... 1.00

Rubber Stamps.—The demand amongst the beekeepers for rubber stamps is so great that we have decided to meet it. We can supply every device for stamping, at lowest prices, but recommend the following :—The "Achme" fluid stamp is made of German Silver, and will last a number of years with care, and always keeps its color, being highly finished. It has an ink distributor, ink reservoir, rubber die, sponge and a place for surplus of ink and supply sponge.

- No. 1 Stamp, Giving name only, \$1.00 No. 2 stamp, $\frac{1}{3}$ size larger, name only, \$1.25.
 No. 1 " giving business and address, \$1.50. No. 2 " giving business and address, 2.00.
 Tom Thumb self-inker, takes a die $\frac{1}{8}$ x $\frac{3}{8}$ inches, Price \$2.00

COMB FOUNDATION MILLS.

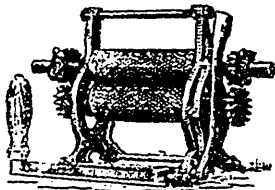


Fig. 31.

Fig. 31 is the Pelham, which we can supply from Brantford at the following prices :

10 inch Mill,.....	\$19 25
6 inch Mill,.....	11 75

All other make of Mills, prices on application.

The Pettit Swarm Taker.—This consists of a light Table and Frame work, so constructed that it will hold three frames with comb. A stand for the table to rest upon, without crushing bees when removing comb with adhering bees. Two poles, one for elevating the table with comb, the other having two projections at the top to admit any limb between them, is for shaking the limb the cluster may hang upon. And lastly a platform to place before the entrance of the hive upon which the table with adhering bees, reversed and sloping towards the entrance is placed after the combs have been put in the hives.

When the swarm has settled upon a limb or its equivalent, raise, by means of the pole and directly under the cluster, the table with combs you wish to put the new swarm upon ; now shake the limb with the other pole until nearly all the bees have settled upon the swarm taker, then place the latter upon the stand constructed for its reception. The frames with adhering bees can be placed in the hive, and the table reversed upon the platform. Those suitable for Improved Langstroth and Jones Frame, in stock. Others prices on application. Price, complete, \$1.75 ; without the Poles, \$1.60 ; without the Poles and Platform, \$1.40.

A FEW HINTS.

—o—

We do not require to enlarge upon the advantage of a two story hive, such is now universally admitted, and in our suggestions, which are for beginners in particular, we shall confine ourselves to remarks upon such hives, What bee-keepers are aiming for at the present day, is : to produce the greatest amount of first class honey, with the least labor, and expense. The bee-keeper should aim at leaving the broodchamber undisturbed, almost throughout the entire year, his honey should all be taken above to insure the best results, we, as many of our most successful bee-keepers are averse to spreading combs for winter, but leave the entire number in the hive. If it is desired to winter outside, winter passages should be cut in every comb, about the centre of the upper half of the comb, narrow strips of wood may also be placed over the top bars in such a manner as to allow the bees to pass over the combs. In packing the objects to be kept in view, are : warmth, and whilst retaining the heat, permit moisture to be absorbed by the packing above the frames. The entrance should be so prepared as to prevent choking up by packing, dead bees etc. To do the above most effectually, and at the least expense, we recommend wintering in clamps, particulars as to the construction of which will be found in bee-journals and standard works. If in spring the bee-keeper is in any doubt as to the bees having sufficient stores, or if his experience is so limited that he is unable to tell by exterior appearances, that the colony is vigorous and prospering, it should be examined, and condition noted, and any deficiencies remedied if possible. Disturbing the bees should be avoided, frequent examinations are injurious, if all the combs are left in the hive the brood chambers can be enlarged as desired by the bees. We condemn the practice of building up weak colonies at the expense of the stronger. The average yield per colony in an apiary, is generally lessened thereby, and therefore a worse than useless expenditure of time. If stimulative feeding is resorted to, it should be done in very small quantities, by means of our Shuck's feeder at the entrance at night. We have seen apparently good results from such feeding, but care must be taken to contract entrances at night, and cold days without fail. Such feeding can be done with the best results where the bees are packed in clamps, when they may be fed from the top of brood chamber. Outside packing should not be removed until settled warm weather.

When bees are strong, and honey coming in, the upper stories may be placed upon the brood chamber with a honey board between. In taking comb honey, two half stories are indispensable to obtain good results, and the second half story should be slipped under the first, when the bees in the latter are commencing to cap the sections, towards the close of the honey flow, care should be taken to manage to prevent having too many partially filled sections. Many slip a second upper story under the first, for extracted honey, as in comb honey. In all cases, honey should not be extracted before being ripe. When thus, the surface of the cells in the comb have a glazed appearance, and the comb is generally partially capped,

A few combs of first class sealed honey should be set away early in the season, to feed colonies which may be short of stores for winter, they replacing the lightest in the body of the hive, the latter part of September, or early in October. It will be found with the two story hives that generally there is sufficient honey in the brood chamber for winter. This is especially the case if the colony has been run for comb honey. Every colony should have 20 to 30 pounds of honey for winter.

Double walled hives are expensive, too heavy for comfort. They rot easily. We repeat for outside wintering we prefer a clamp ; and unless the cellar or repository is such that it will retain a uniform temperature, not less than about ten degrees above frost, we prefer bees should remain outside, carefully packed.

Thanking our patrons for past favors, and for the increased interest taken in our goods, and feeling satisfied that our facilities for turning out first class work in large quantities will meet with your ready response, we remain

Yours respectfully,

E. L. GOULD & CO.

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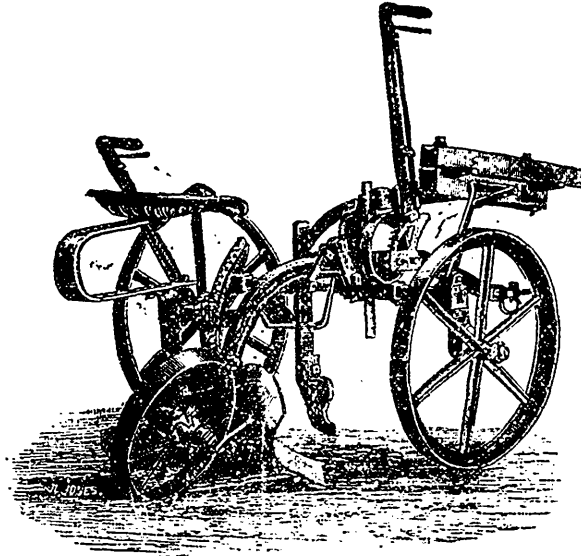
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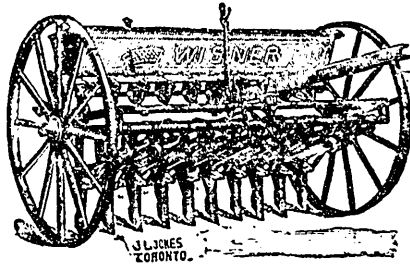
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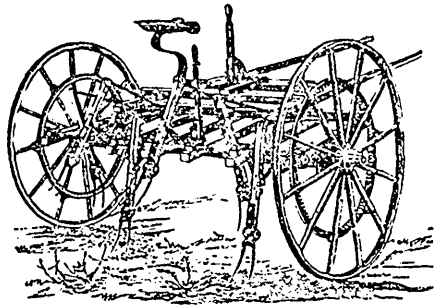
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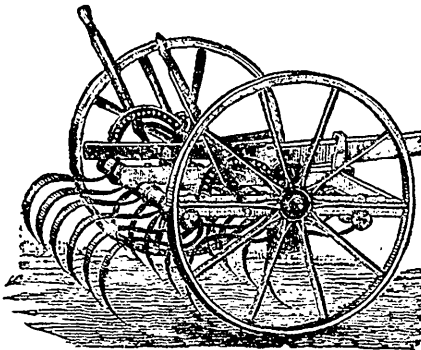
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