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THE CANADIAN

Honey Producer.

Its Reading Columns for the advancement of Honey Producers exclusively.

Vol. I.

BRANTFORD, APRIL, 1887.

No. 2.

The Canadian Honey Producer,

PUBLISHED BY

E. L. GOULD & 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.

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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.

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A. B. C. in Bee Culture, A. I. Root, paper,	\$1.00,	1.25
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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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The Most Useful and Best

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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 the 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.

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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 ornide. Black T. P. nuts sent unless otherwise ordered.—Price \$12.50. With Patent top props and handles extra \$2.00.

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CHARLES CHAMPION,

Hardware and Carriage Goods, Brantford, Ont.

Patented in Canada and United States.

THE CANADIAN HONEY PRODUCER.

Vol. 1. April, 1887. No. 2.

April again brings us to the season wherein we have a fair idea of the extent of winter losses. The past winter has been from all report a favorable one, this combined with the rumor of a European market for honey will doubtless be the means of tempting more into bee-keeping. In spite of the tendency to lower prices for honey, season after season, some will again venture into the fascinating pursuit. Fascinating—probably to those entirely ignorant of the pleasures connected with an intimate study of the insect from which they hope to derive their profits. When we remember that he who thus ventures into bee-keeping has generally no definite idea of his profits, no knowledge as to whether he possesses the necessary qualifications or often whether he is in a proper position to conduct bee-keeping successfully; we cannot marvel that the fascinations of a lottery and bee-keeping are somewhat similar although the latter may justly be considered more legal. To the uninitiated it may not be out of place to clearly put before him what the position is into which he seeks to place himself. The days for a high price for honey either comb or extracted, when a few made small fortunes, has forever past. Honey which sold at 25 cents per lb., has come down to 8 and 10 cents per pound. We must not suppose that there has been this loss in price and no gain. The skilled apiarist has learned and doubtless will continue to learn how to produce more honey and at a less outlay per pound. Bee-keepers' supplies of all kinds too can be secured at a less cost and on the other hand many expenditures which have been made for supplies have been done away with, as

closest economy only could allow the apiarist to remain in the business.

The production of honey has been increased with greater effort than the finding of an outlet for it. The winter of, 84-85 proved too severe for many colonies and the following summer although an average season, generally produced honey in sufficient quantities to leave much on hand when the crop of '86 was placed on the market. The season of '86 proved generally a partial failure. Colonies not strong early, secured no clover or but little, and linden was almost a complete failure on account of the dry weather. This in conjunction with a considerable quantity of honey being taken to the Colonial Exhibition and the stir which this has occasioned in the general press in regard to this and increased sales in consequence, leaves a pretty fair clearing out of all honey and a fresh start for the coming season.

It must now be remembered, bees have wintered well, the number of colonies are far greater than the two previous seasons, the honey crop is not likely, generally to be less, in fact, we have some reason to anticipate it will be better. Under these circumstances there will be a much greater quantity of honey upon the market. Unless a markedly increased outlet is secured prices cannot advance.

There is the prospect of an outlet for honey in Britain and Germany if carefully managed, and should we succeed as we anticipate the supply must be sufficient to fill any demand or the opening promised will be closed or largely so. Even at this, the price of honey will not advance we anticipate, but at such prices we are safe in saying bee-keeping can by numbers and in many localities be conducted profitably;

What is the cry in every line especially agricultural? "it does not pay to pursue them;" yet wheat raising, stock raising, gardening, all go on and men live by them, bee-keeping has not escaped and there are many men who will continue to produce honey and live.

The greatest injury has been done by showing the bright side of bee-keeping too much, no occupation requires more close attention, observation, prompt action, and intelligence, especially and particularly as conducted at present, these exercised combined with a practical knowledge of the occupation into which one is about to embark, or if conducted upon a very small scale until this knowledge is secured, will give such occupant the opportunity to make a living as in any other employment.

HEDDON'S NEW HIVE.

JAMES HEDDON.

MR. EDITOR,

Please allow me to state that it is by your request that I proceed to give a brief description of the principle functions and the construction upon which they depend for their existence, possessed by the hive illustrated above.

I presume many of your readers are more or less familiar with, and appreciate the immense advantages gained by practicing the brood-chamber-contracting system, which I fully described in the *American Bee Journal* for 1885, page 437, and in my book pages 81 and page 2. On these pages the directions are for contracting the regular brood-chamber with suspended L frames by removing a part of their number, filling the room they vacate, with "dummies" or "fillers," as soon as the most profitable brooding season is past, and the rapid storing of the greatest amount of surplus honey is the order of the day. We have practiced this system five or six years and would never think of abandoning it so long as we produce comb honey.

No doubt most of your readers are conversant with the many recent discussions setting forth the advantages and disadvantages realized by the inversion of brood-combs. They are aware that the main object is to exchange places or locations occupied by brood and honey. Even our shallow Langstroth frames usually contain considerable honey in the upper half of their combs during most of the breeding season. Reversing these combs, throwing the brood at the top, and honey at

the bottom, if done at the right time of the year, causes the honey to be carried into the surplus receptacles and stimulates the queen to replace it with brood, thus giving us the greatest number of workers for the size of the brood-chamber, which renders the hive and colony in the best possible condition for profit. If we have a small or medium size brood-chamber, clear of honey and crowded full of brood, with shallow combs, and brood storing surface, with well bred bees, proper communication to the surplus receptacles, and nectar in the flowers, have we not got every condition most favorable to success, as far as the bees are concerned? Now the *apiarist* wants something: He wants a hive as nearly automatic in its action as possible; as perfection is not possible, he needs that construction which will enable him to keep every thing about the colony in the best possible shape for securing the largest amount of surplus honey in the nicest form, and with the least amount of time and labor and exposure to robber bees. In other words, he desires to accomplish all useful manipulation as sanctioned by modern Apiculture, with nearly as little labor in the Apiary and exposure to robber bees, as was required with the old box hive system. This is what we aim to accomplish in the invention of the above hive, and three years' experience with it demonstrates our success beyond our expectation. The reader will notice by the illustration, the novel and peculiar feature of a horizontally divisible brood-chamber, each half being perfectly interchangeable with the other. It has not a double brood-chamber, but one brood-chamber in two parts. These parts are not only interchangeable, but reversible at will. After we have reversed them once, which causes the bees to solidly and completely fill the frames with comb, we do not care to invert them again, because we find that before contraction, when the brood-chamber is all together, the alternating of its halves, accomplishes all, and better than inverting will do. After contraction, when one case or half of the brood-chamber is removed, the brooding apartment is then so shallow and small (3 in. comb depth and of the same capacity of 5 L. frames) that inverting is in no wise needed, nor could it accomplish any desirable results. During two years while reversible frames and hives were being

discussed and we were using several thousand reversible frames here, I was privately and secretly testing this new horizontally divisible and interchangeable brood chamber which is of the same size as the 10 L. frame brood-chamber, and we soon learned to greatly prefer interchanging to inverting. But this is not all, this divisible brood-chamber accomplishes two other highly important purposes; it admits of instantaneous contraction as mentioned above, and leaves the remaining brood apartment in much better shape than when brood-chambers are contracted vertically, before my invention. It does it so quickly that no robbing is incited, even were other conditions for it favorable.

The next important advantage in the divisible brood-chamber, is, that although it is $1\frac{1}{2}$ in. deeper than the Langstroth chamber, by its divisibility, containing as it does two series of shallow frames, this construction in combination with constructing the frames and cases so that the former snugly and neatly fit the latter, in combination with inverting, which leaves no lodging place for a bee, we are enabled to shake 19 20 of the bees out of any case with three movements in as many seconds time, and we have demonstrated that we can find as many queens in this style of hive in one hour, as would require four hours time, with other hives. When running for extracted honey, we use additional brood cases with queen excluding honey-board, in proper position. And we find we can remove our combs and rid them of bees for extraction not only without any exposure to robbers, but in less than quarter the time we can remove an equal capacity of L. combs, by removing ours by cases, instead of by frames. We pick off a case knowing there is no queen or brood within. One puff of smoke and three quick jerks divests it of nearly all the bees. After setting on end in our screen house for 30 minutes, with light shining through the combs, all remaining stragglers desert, when the case is ready to take to the honey table, invert and turn the screws which tightly press the frames, lift off the case and all stand on the table ready to be uncapped. These shallow frames contain less sunken spots, and are much more quickly and easily uncapped than deeper ones.

The frames rest on inwardly projecting tin strips at the bottom edges of the case, which

serve to hold them in true position when the screws are loosened for purpose of removing them. It will be seen that the screws alone, will hold the frames in any desired position in the case, and when we invert it, we reverse the bee space by placing the inverted case across the cleats on the bottom board or another case, loosening the screws, letting the frames drop down even with the lower side of the case, when they are again tightened, and the bee space is perfect.

We devised and used for one year, half bee-spaces on each side of the brood and surplus cases. But for reasons fully given in my circular and too long to explain here, we returned to the original full beespace system and much prefer it at this time. The cases adjust themselves to the bottom board, honey board, cover and each other, with a very light thin bearing, which greatly facilitates rapid handling with least danger of crushing bees. Liability to bad results from propolizing, are about the same as with L. suspended frames, and while it is a fact that L. frames can be handled faster and with less labor, a few days after the swarm has been hived it is also true that the new hive is best for this same manipulation after the bees have been hived long enough to put propolis and brace combs where their instincts lead. I have not intended to give a mechanical description of the hive, for the reason that it is patented both in Canada and the U. S., and that no one should attempt to make any hive of new design without a complete made up pattern to direct them.

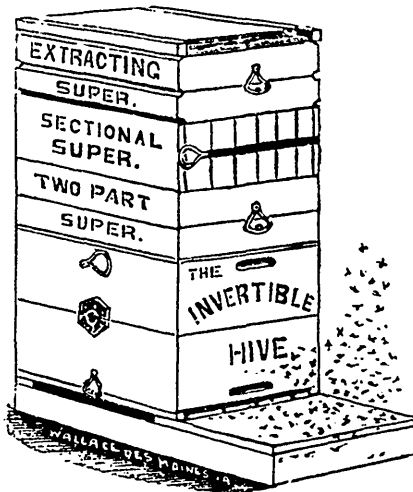
But you may ask, "what are its faults. it must have some!" It has, and they are not the least in the world. While I consider it nearly perfection after it is properly made, it is one of the most difficult hives to manufacture properly; to construct in such a manner, that it will always quickly carry out the valuable functions claimed for it.

We have used it and altered and perfected its construction until we are enabled to produce it so that it is always ready to do all that is ever claimed for it. It still requires more care and pains in the construction, than other hives, and also costs more than the whole brood-chambers, but we consider that all of this is many times ballanced by its numerous important advantages, when completed as it should be. Very much more might be said

but space forbids, at present. All controversy regarding its merits are cheerfully solicited.

We have been much annoyed by proposed improvements, and that too, coming from earnest and well meaning friends. Out of more than twenty of these proposed changes, every one would damage the hive, if adopted; I say this without prejudice, for every one would come under the patent. There is no clamping device equal to the screws, and no material equal to wood out of which to construct them.

Dowagiac, Mich.



THE INVERTIBLE HIVE.

JAS. SHUCK.

Prof. Cook says that inversion has come to remain. A somewhat extended correspondence shows that the drift of thought among bee-keepers is in that direction. There is no doubt but that as a principle in the production of honey, the complete inversion of the brood nest is a valuable and economic feature in manipulation.

Mr. Hutchinson has, I think, somewhere set out this feature as an interference with the *present condition* of the colony; he may not use these words, but the expression of the main thought is his, and the idea is this, that the colony may be in a certain condition within the hive, and if not interfered with, it may remain in *statu quo* or nearly so for an indefinite length of time, but if the position of the hive is changed or if we remove combs and change their position in the hive, the

bees at once begin to set matters right according to the rules of bee house-keeping, and as a result a different condition obtains. All bee keepers know that bees store thin honey in the upper half of the comb, and if the comb is a long one from front to rear or from side to side, in the ends also, in general terms the lower central, part of the combs are reserved for the use of the queen and the balance for storage of food for the bees. Now if the hive is so constructed that the combs can be *inverted*, this place which is reserved for brood may take position in the top of the hive; this is an interference with "present condition" and alarmed workers immediately begin to correct and make their new lines conform to old ideas, as it were; honey must be removed, increased activity results, with the handling of honey and pollen follows the preparation of food for larvae, the queen is incited by the general vigor of the colony and the brood space swells within, and thus the change in present condition tends to increase the energy of the workers and the productivity of the queen. If the hive and frames are so constructed that all may be turned on *end* as well as upside down, this brood space may be enlarged into the ends of the combs as well as the tops and bottoms of the combs, so that by the time honey bearing flowers open the combs in the hive may all be full of brood. This condition of the hive insures storing in the surplus cases, simply because there is no storage room in the brood nest.

In a locality where the honey harvest is of only a few days duration, some may wish to resort to some sort of contraction in the brood nest, so as to prevent the rearing of bees for which there may be no use and at the same time save the food which such growing bees would consume. If the colony has not swarmed, contraction may be made by removing frames from which the young bees have emerged, and placing a like number of dummies in the hive, these dummies are simply brood frames with thin boards nailed on the sides so that they take the place of a full comb, the brood nest may thus be reduced to a minimum, and storage in the surplus kept up as long as the flow of nectar lasts.

If the colony swarms another plan may be pursued, thus—hive the swarm in empty frames, that is frames with starts of foundation fastened to the top bar of about half an

inch wide, give this swarm the surplus cases off the hive from which they swarmed at once, using a queen excluder, these bees are now beginning *anew* they have plenty of storage room and while the brood chamber of the hive is not contracted, the breeding space as to comb is very much contracted. We get the identical result here that we would get with a very small brood chamber.

If the honey season is a long one as it is in some places, a better method of contracting is by putting into the hive an additional comb, say nine combs into an eight frame hive, the spare space is decreased and the brood space increased so that the hive through inversion may be kept overflowing with bees at a profit all summer.

As it is probable that I have the honor of offering to the public the first practical hive and surplus case built distinctively upon the invertible principle, it may not be uninteresting in the light of the foregoing to enumerate some of its points of excellence.

1st, It is made of narrow lumber and can thus combine the very best material with the minimum cost as to price.

2nd, It is a light weight hive and easily handled by one person.

3rd, It is easily opened and manipulated if necessary, frames can be examined, and handled with all the ease and rapidity of any other hive.

4th, In the arrangement of frames relative to each other, and to the case, the Langstroth principle has been adhered to, bee space between the frames throughout, and bee space between the frames and the case throughout.

5th, The bottom and cover boards are just alike and interchangeable, put them on one way and they form an entrance to the hive, invert them and the hive is closed.

6th, The hive body or brood nest is invertible, without any special fixing or adjusting or shifting of parts afterwards, thus furnishing the means of developing a colony into strength for the harvest without exposing the brood to chilly atmosphere or the combs to the attacks of robber bees.

7th, It can be placed in four different positions on the stand, relatively, bottom or top or either end up; by placing the hive in these different positions at different times, the brood is spread throughout the combs in all directions.

8th, The hive is closed at top and bottom, leaving an entrance only open, and the crushing of bees by placing the hive on the bottom board is thus avoided.

9th, The surplus honey cases are wholly invertible, without change or adjustment of parts, the sections are held true and square in the cases, and are protected from propolis, and on account of their cleanliness command a better price in market than do those from other cases.

10th, The sections come easily from the cases not being daubed and stuck up with propolis. More sections can be taken from these cases and crated in marketable shape within a given time than can be crated from any other style of case after they have been removed from the case, fine marketable condition considered.

11th, The hives are interchangeable, that is they may be tiered up to any desired height and the bottom or cover that fits one fits all.

12th, The surplus cases are all alike and interchangeable, and may be tiered up to any desired height, the two part case, and the separated case, and the case for extracting, may all be used in the same hive at once and the one cover board fits all alike.

13th, It succeeds in the hands of the practical honey producer, and enables him to attend to five times as many colonies as he could with any of the old style hives.

14th, The hives and cases made up, pack in the least possible space for shipment and the material in the flat also packs compactly and conveniently for shipping.

Des Moines, Iowa.

Messrs. Heddon & Shuck have been requested to give a description of their hives and use thereof. We leave our readers to judge how faithfully the work has been carried out. Mr. Heddon's cut of hive has not reached us. Ed.

The Meteorological Station, Ontario Agricultural College, Guelph, reports as follows for Feb. 1887:
 Highest Temp. Feb. 8th, 47.0 °
 Lowest Temp. Feb. 5th, 3.5 °
 Monthly Mean, 15.2 °

L. C. Root, now of Stamford, Conn. writes: "I am very busy getting settled in my new location. I shall hope to do you better service later."

OUR PORTRAIT GALLERY.



THE DRONE.

The idea is all too prevalent that the individual illustrated above has altogether too much to do with the consumption of honey and too little with the production. This holds true with other individuals who appear in these galleries. And in case his merits and importance might be underrated it has been decided to give a brief outline of the position which he occupies. The drone being invited to give an account of himself firmly declined, he stated if he were a poet laurette of bee-keeping he might be delighted with this opportunity, under the circumstances the very best course that could be pursued would be to call upon some of his friends. It was found after persistent and fruitless search that the poor drone evidently had no friends. Contra testimony was therefore not difficult to secure, if therefore his good qualities are left somewhat in the shade, it must be placed to the credit of extreme modesty and reticence.

From the earliest moment after emerging from the egg to the end of the longest span of life that the drone is permitted to enjoy, he is a creature ready to be sacrificed to the necessities or whims of his fellow creatures. If for any reason before emerging from the cell it is considered—however wrongfully—that his existence would add one jot to the burthen of the commonwealth his life is sacrificed for the good of all. In the spring of the year when the bees commence drone rearing owing to fine weather and abundance of stores they nurture the embryo drone or the full fledged insect with the greatest of care and tenderness; but should their interest in their estimation demand it, all are ruthlessly destroyed. And this work is not only confined to the bees but how many bee-keepers pursue the same, nor is this pursued in the most humane manner, however tender his instincts in similar circumstances the drones are pulled out from amongst the bees on the comb,

swiftly and persistently and nipped sufficiently to prevent his ever returning to the hive regardless of the suffering of his mangled frame. True the nervous system of the drone is less highly developed than our own and in proportion its powers to enjoy or suffer are lessened, but he does suffer and doubtless enjoy. Then again when the honey season has passed, if he has survived until then, the drone is driven from his home and allowed to suffer a lingering death upon the threshold of his home.

The unrelenting workers forming often a solid breastwork to prevent their entrance until death steps in. The only defence the drone has is his unweildiness. The proverbial gentleness, tenderness and unselfishness of the gentler sex does not shine out with brilliant lustre in the female of the bee as the above amply proves. Is the drone such a superfluity? are his habits so extravagant? let us see. He is credited with being of no use but to impregnate the queen, is this a slight function—which costs him his life—surely not when the prepotency is supposed to be on his side, a statement which though generally indisputably admitted, there is grave reason to doubt is always the case. In the higher animals unless distinct characteristics have been sought—or secured without seeking—for generations the physical markings are more liable to transmission from the female and more especially the internal organs such as respiratory and organs of digestion, the nervous system are more liable to be transmitted by the male. We know that the stinging qualities and irritability show forth the nervous system of the bee. And the above point is worthy of consideration in selecting for breeding purposes. The disposition of the worker upon which the success of the apiary depends, other things being equal, depending more largely upon the drone, it would perhaps be well to endeavor to secure the drones we desire to use, and with the highest capabilities of transmitting other qualities. To secure this as has been found by the breeders of cattle, sheep and all animals of the farm, a distinct race and of long lineage is best, so doubtless we will find and have found the drone unmixed with any other race is best able to transmit this, if we leave this line, on the male side especially the progeny is uncertain, we are

liable on every hand to find worthless sports which require persistent and careful culling with such an amount of care and observation that the apiarist is apt to suffer loss before making the discoveries. What should be of additional assistance would be to crowd the colony wherein the drones are reared, to enable them at all stages until he emerge a perfect insect to develop under the most favorable circumstances as to temperature, food, &c. Next we come to the number which should be kept. Nature has doubtless provided a large number in a colony for such as are isolated, also to lessen the danger of the queen being captured by birds when on her bridal flight, but have we not another principle the survival of the fittest. In forests in the large herds of deer, we find this principle, there are many stags but the strongest, the one naturally the best qualified of them all, only becomes the sire. Now were many of the young male to be slaughtered, those best adapted to propagate their species would often doubtless perish. The same principle holds good with the drone.

We find with rare—probably no exception—that the animal once fully developed requires nourishment in proportion to its activity, that is if in its natural or normal condition. It is highly improbable that the drone with its life of inactivity should consume such large quantities of honey. That the stomach of the drone can always be found full of honey is no proof to the contrary. He may be so constituted that in order to exist in the most favorable condition he should have this store with him, or that like the mariner who expects every moment a shipwreck, he prepares himself in the best manner to be driven out from his home and intends to be prepared to stand the siege as best he can.

REPORT.

IRA ORVIS.

Bees seem to be wintering quite as well as usual so far; there is no greater number of bees on the cellar bottom than in previous years. I tried feeding one colony on 20 lbs. sugar syrup and found them just starving on the 1st of March.

I have 170 colonies. Temperature of cellar about 48°. If I kept the door closed it

would be about 60° now. I do not agree with S. T. Pettit that the bees need no water. I carry in snow and place a little at the entrances and as it melts the bees use it and are always more quiet afterwards.

Whitby, Ont., March 11th, 1887.

For The Canadian Honey Producer.

British Markets for Canadian Honey.

S. T. PETTIT.

Before I crossed the briny deep and visited old England I thought it would be all right to sell our honey in bulk to any one in Great Britain that might chose to buy. But from what I learned while there and upon more mature deliberation, I come to the conclusion that such a course at the present undeveloped and confused state of the honey trade in England, would be ruinous to our future prospects and trade.

There are elsewhere unfortunately those who for paltry gain will dupe their customers by selling an inferior foreign article under the name of British honey. The people are loyal to the Colonies and prejudiced in favor of our products, but if they be deceived and imposed upon through our carelessness or otherwise with our goods, until their suspicions become aroused and their judgements convinced that there is a fraud being practiced upon them, this fraternal sentiment or principle will be endangered and they will resent it as only an Englishman can resent an imposition.

A grocer related to me an amusing incident of how an old man who keeps some bees just outside a country town, peddles and sells all through the place foreign honey under the name of *good British honey* assuring the people all the time that "you see I keep the bees and know just what I am selling you." The grocer added that his customers would not buy the same article of him (for he supplied the old man,) they preferred to purchase where they were sure of getting *good British honey*. Of course he said, I did not spoil the old man's occupation.

A good deal of honey is sold there to the trade in earthen or stoneware vessels and the grocer sells it "loose," that is the customer furnishes the vessel to carry it home in,

and if all goods were sold under their true name it would be an excellent plan, the consumer would have the honey only, to pay for. It works admirably here since the people have become familiar with the white appearance and solid character of our best honey in its pleasing granulated form.

The British bee-keeper is alive to his own interests and active measures are being taken through their Honey Company now in successful working order to place his honey upon the markets in the best possible manner to push sales and to prevent frauds in his line of business.

Hence the absolute necessity for us to start right and use every means in our power through our Association to weave so complete a network of safety round about our goods as to make it next to impossible for any one to impose upon the people by selling an inferior foreign article under the name of *Ontario honey*.

To map out my plan without troubling the reader with details: I would say that we should first decide upon glass honey containers of suitable form, of two sizes, pounds and half pounds (many things are sold in small quantities over there) and these should have the trade mark of our Association placed on them to prevent any one outside the O. B. K. A. using them.

Please remember that our Association will have all it can attend to, of its own affairs without meddling with the affairs of the other Canadian Provinces, and indeed I doubt if they would care to have us do so in any way.

We cheerfully assisted them largely by making Exhibition at South Kensington and our duty in that line is done. Second, Inspectors should be appointed to inspect all honey intended for exportation. Then we must place our honey in the hands of some distributing party in England, for the trade there as in all countries, I believe, generally buy in small quantities, but if any one objects that all this will cost money, I answer so also will it cost money no matter who undertakes to export our goods, and beside that, certainly a respectable margin over and above all costs, will be retained that might go to the producer. In this connection allow me to remind you that the Ontario Legislature has promised us \$500 a year for this very purpose to assist in opening a market, and very like-

ly if we need more and ask for more another year, we may get more.

One more point, if we purchase our glass and other necessaries together we will get all at wholesale rates, and this will be quite an item of saving. Purchasing in England is done largely from brand, and if customers are pleased with an article no matter whether the brand be a bull's head, a cock, a fish, a strawberry or a bee, they will look for the same brand again, and it would be useless to offer them any thing else, you will readily understand the care we should use in having our goods selected, inspected and branded.

And now, in conclusion, I wish to say in regard to one style of honey container for all Canada, that if such be offered on sale to the public that all, indiscriminately, may purchase and use without careful supervision, that all will be confusion, disappointment, disaster and ruin.

Belmont Ont. March 11th, 1887.

P. S. Our friends who produce dark honey will be largely benefited by finding an outlet for clear bright honey. Relieving the market here will secure for them a ready sale and better prices. Should the O. B. K. A. fail to take hold of this matter energetically, then I think a honey Company is the next best thing in order, if a company; then it could handle all the best honey in Canada.

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. Questions are solicited. 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.

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?

All things considered think it an advantage to use separators. The extra honey produced will not pay for the trouble of having to open up hives every day or two.—Robt. H. Shipman, Cannington, Ont.

Have not yet tried separators and hence I cannot say.—D. P. Niven. Dromore, Ont.

I prefer separators; when a person is rushed they must be used. I cannot take

time to level up during the swarming season, and when we use separators. I know they are all right.—Will Ellis, St. Davids, Ont.

I have not had as good success with separators as without.—Ira Orvis, Whitby, Ont.

I have not used them and do not wish to.—W. Couse, Meadowvale, Ont.

If the crop is to be glassed for market separators must be used. If the honey is to be sold without glass, separators are a useless expense.—Jas. Shuck, Des Moines, Iowa.

They might be of advantage sometimes, at other times a disadvantage.—Martin Emigh, Holbrook, Ont.

I am an earnest advocate of the use of separators.—L. C. Root, Stamford, Ct.

I think there would be more honey obtained without separators.—Dr. Duncan, Embro, Ont.

While a few of our best and most expert honey producers succeed well without separators, for the most separators will be found indispensibly necessary. Even with narrow sections many fail to secure straight even combs, those suitable to ship.—A. J. Cook, Lansing, Mich.

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?

I cannot advance any theory with certainty, but it might be from the loss of Formic acid in old honey.—Dr. Duncan, Embro, Ont.

No. It has not so proven in my experience.—L. C. Root, Stamford, Ct.

Find out what makes it granulate when stored in anything else, then you have got it.—Martin Emigh.

The weather being generally cool when fed the honey is exposed to the air and causes granulation, as I have noticed honey when dipped from cappings granulate in a few days.—W. Couse.

There is quite a wind when extracting and the air comes to every particle of honey much more than when the bees store it without its having been extracted.—Ira Orvis, Whitby.

To high for Will.—Will Ellis, St. Davids.

No. Unless when the honey was extracted it was unripe, being unsealed, and therefore can't be restored to its former ripened condition.—D. P. Niven.

I do not find that honey fed back and

stored in the comb does granulate more than that which is stored in the usual way.—Jas. Shuck, Des Moines, Iowa.

Probably the extracted honey refed is in the first stages of granulation before being given to the bees. Think that honey extracted from sealed combs and immediately fed to the bees would not granulate.—Robt. H. Shipman, Cannington.

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?

Have never used perforated metal in taking comb honey. If as I have done we can keep the queen down with double bee space slotted honey board, we will get more honey than with the perforated metal.—D. P. Niven.

With the simplicity Langstroth arrangement for surplus, perforated metal would be of no advantage. In an experience of six years have only found two or three sections with brood.—Robt. H. Shipman, Cannington.

I do not know.—Ira Orvis, Whitby.

Going to thoroughly test it this summer when the bees get to business.—Will Ellis, St. Davids.

I do not expect to use it.—W. Couse.

It is no advantage with me. Martin Emigh.

I am opposed to the use of any thing to exclude the queens and drones from the surplus boxes. The gain is little and the disadvantage great.—L. C. Root, Stamford, Ct.

All the advantage in using perforated metal for excluding the queen would be in using drone comb in sections when put on, if there was no drone comb in the brood-chamber the queen would be sure to lay drone eggs on the sections, otherwise they are a hindrance to the bees in passing when loaded with honey.—Dr. Duncan, Embro, Ont.

It is a decided advantage. Then we can crowd the bees so as to secure the maximum amount of comb honey and yet not drive the queen into the sections.—A. J. Cook.

Skeleton boards of some sort should be used. There should be two bee spaces between the brood nest and the sections, for many reasons. If a new swarm is cased, at once a queen excluder must be used. I prefer wood to metal.—Jas. Shuck, Des Moines, Iowa.

I use perforated metal on taking comb honey when the sections are not filled with foundation or when the brood chamber is not filled with comb, but when these are both full I find no use for perforated metal in taking comb honey. I had quite a lot on last year for the sake of an experiment.—S. T. Pettit.

ADDRESS.

To the members of the Mount Forest Bee-Keepers' Association by Rev. D. P. Niven, President.

LADIES AND GENTLEMEN,

In addressing you at this our Annual Meeting it is not my purpose to occupy your time with any lengthy remarks. It would be a mistake were I to delay the important business of this meeting by expatiating upon the science of bee-keeping as an object worthy of pursuit, and in the rehearsal of established facts which you have heard repeated over and over again. All progressive bee-keepers at the present day are supposed to take a Bee Journal and to have read books on the subject; hence we take it for granted that you are somewhat posted in the theory of the science, and that what we wish to do at our conventions is to discuss practical points which immediately bear upon the advancement and profitableness of our industry. The day has gone by for long and prosy speeches at public gatherings of this kind, and it is generally found that the persons who do the business and have the most weight are those who speak the shortest time, keep to the point, and say what they have to say in as few words as possible. This then I shall endeavour to do in opening the way to a free and easy interchange of opinion on the different topics which may come before us for discussion. I do not require to tell you that the past two years have been full of discouragement to bee-keepers, failure in wintering and cold and dry summers have been against us; but since we must expect drawbacks in this as in other pursuits, why think of abandoning bee-keeping any more than other employments which have alike their times of success and failure. But where we may ask is the bee-keeper who has once become enthused in this, perhaps the most interesting and fascinating of all pursuits, who will ever say give up? The danger is

rather that we acquire too great a liking for our bees and bee fixtures so that the average progressive bee-keeper can hardly think or talk about anything else and even clericals may have this failing. As was hinted at the Detroit convention, the bee-keeping fraternity have perhaps gone too fast in securing all the varied manipulating appliances so that the cost has been more than the gain. And let me state just here as my first point, that with amateurs in bee-keeping there is danger of too much handling or over manipulations of their bees, they are continually at them and often to no purpose but to do harm. It is natural to suppose that bees which are being ever tampered with, will come to feel that they are but tenants at will, become inactive and do but little for themselves or for their owner. Thus while the old time bee-keeper went to the one extreme of never looking at his bees at all; many it is to be feared, go the opposite extreme and worry the life out of them by their multiform experiments and excessive manipulations. Such is the case I venture to say when the extractor is applied to the brood chamber towards the close of the honey season, robbing them of all their winter stores which nature has provided and then attempting to pacify their enraged spirits with sugar syrup. Not to speak of the pandemonium created in the bee yard by robbing. Are they compensated for their loss by feeding, and do you get them into the same heart and happy conditions as before? I think not, we eagerly take away all their ripe sealed honey and then turn to feeding! too sparingly given, at unseasonable times, and cut short when half consumed at the approach of winter, consequently when spring comes the results of your experience is more easily described than endured. My advice then to the members of this Association is to stop this sugar business in connection with your bee-keeping entirely; if possible throw it clean over-board have no more to do with it. Even for stimulating your bees, as it is said, for brood rearing in the spring, if they have sufficient natural stores they are far better without it; I am not alone when I say that this sugar feeding craze that has taken possession of bee-keepers of late is going to ruin our industry in every shape and manner. Not only are we demoralizing and killing our bees with its feeding

operations, but we are destroying the honey market and building up a sugar one at its expense. It must be now generally conceded that bees winter best on natural stores and that our honey trade is ruined by the substitution of sugar for winter stores, those of you who read the Bee Journals cannot deny. There is one consolation however that this sugar business will soon work its own cure, for honey will soon be cheaper than sugar and then it will be seen whether some of our best bee-keepers have wintered on sugar instead of honey as a matter of conscience or speculation. That honey has become a drag in the market will be seen by such questions as these which were raised at the National Convention: "Will bee-keeping pay when honey is sold at such ruinously low prices? If such be the question when the average honey crop for the past year was less than one half, what shall we say of our prospects for the future? How should we advise beginners, or shall we advise them to begin at all?" Let us seek then to remove this depression by opening up both a home and Foreign market and by offering only the first quality of honey in best possible shape. Let us feed our inferior grades back again to the bees rather than sugar syrup. Allow your honey to be entirely ripened by the bees in being all sealed over before extracting and thus avoid granulation as long as we can. I have proved that honey can be kept for two years without granulation which was all sealed before extracting, hence no granulated honey would be seen before the stock is consumed if bee-keepers only took the proper precautions, whatever may be said of granulation as a test of pure honey it is by no means desirable to have it in that shape. It has that sugary look about it that do what we may it will be a hard matter to disabuse the public mind of the idea that it is impure. Ask yourselves the question, "is honey unsealed and hence unripened by the bees *really pure* in the strict sense of the word though labelled such." I for one contend that it bears a lie on the face of it, for there is a vast difference between ripe and unripe honey which must be apparent to all who have paid the least attention to it. Before concluding then I wish to emphasize most strongly my dislike to this whole sugar business in connection with bee-keeping. We should never be seen handling sugar in any shape or manner. I believe candidly it lies at the bottom of many of our failures. Only drop the sugar business entirely and extract not honey before sealed and ripened by the bees and there will be no necessity for that ever recurring label of '*Pure Honey*' on all our packages since few would then be led to look for what that label outwardly and perhaps inwardly implies. I trust that I shall not be considered as belonging to the old school when I say that there has been too much artificial work in connection with bees. Let them be handled as little as possible as long as we know they are all right. Let them have their natural stores for wintering though the season should allow them to make no more than keep themselves. Let them ripen their honey in their own way and then the market will not be over stocked. Let us never be found tampering with the instinct which nature has given to the bee in seeking to improve upon its works.

Gathered on the Wing.

FIRE.—We regret to learn from Wm. Couse, Sec'y Tres., of the Ontario Bee-Keepers' Association Meadowvale, that on the 15th ultimo his entire stock of bees were destroyed by fire being 120 colonies in good condition and apiarian appliances. Mr. Couse has been a successful and extensive bee-keeper for about ten years, laterly for himself, previously as manager of a large apiary for another. We do not know what Mr. Couse intends doing any one having colonies for sale might communicate with him.

The directors of the Ontario Bee-Keepers' Association met at the Albion Hotel, Toronto, on Wednesday, March 16th, to consider the method of placing our honey upon the British Market and to consider other questions of interest to the association, the directors with the exception of W. F. Clarke, Guelph, were present. The president S. T. Pettit in the chair, he stated if the field was open it was a well known fact that under these conditions it must be occupied if not the ground would be lost. The best package was first brought up for consideration, J. B. Hall, vice president of the association, thought glass would be best. Mr. Pettit thought mostly glass, a little tin perhaps would do well, the size of

glass 1 lb., the design somewhat the same as the "Muth" only the neck shorter making it more compact for shipping. S. Corneil thought 1 lb., glass, a few smaller packages might be sold. Mr. Pettit stated he had been of the opinion that by taking 500 gross of the 1 lb. glasses they could the first season pack their honey in Canada, then as opportunity opened and with increased sales, other arrangements more satisfactory might be made. The trouble was the increased freight rate and before the close of the meeting its decision appeared to be unanimous that it would have to be supplied in bulk, wood packages would not do on account of granulation, the 60 lb. can, was the best package and it was no advantage to have only 56 lbs. in them they might as well be full. A distinct trade mark would be an advantage, more a necessity, either by label and glass also. Mr. Corneil stated when first in England he had come to the conclusion that honey must be packed in small packages in Canada, glass could be secured from Belgium or France cheaply entered to Canada free of duty by giving a bond that the packages were for the shipment of Canada products to other countries and this would save duty, &c. samples had been secured but his plans had been abandoned, the honey thus packed would be rated at a much higher class, and in addition, goods are charged by the space they occupy which would again add to the cost of freightage. Mr. Corneil's statements were very clear and strongly against the feasibility of shipping in small packages.

Mr. Corneil stated how that Mr. Pettit had desired not to retail honey but take orders from dealers and deliver at the close of the exhibition, a different policy had been resorted to until the close of the exhibition and retailing resorted to, Mr. Pettit explained he had advocated both wholesaling and retailing and taking orders for future delivery if the exhibit was getting too small, in this way they could come in contact with the retailers. men who they expected would handle their products in the future. Mr. Pettit read a letter from James Grant, 63 Corn Hill, London, England, who would handle their honey at 5 per cent, he had promised to push it constantly enlarging his sphere of work in accordance with the supply Ontario could give him, he had thought that at present they

would not do better than pack here in glass, that it be collected under the auspices of the Ont., Bee-Keepers Association. One party had made the statement that he could sell large quantities if honey could be sold at 8 or 9 cents per lb. in shops, the packages and labels would be 2 cents, the commission freight and other expenses would have to be deducted. M. Corneil stated they had wholesaled 1 lb. packages at 7s. 6d., per doz., which sold at 15s. per doz.

Mr. Corneil thought all the light honey such as clover, linden and this should be mixed so as to have a more uniform flavor, &c. Mr. Pettit agreed with Mr. Corneil but stated care would have to be taken in this, clover and linden mixed would separate and after granulation the two layers could be distinctly separated, the flavor would however be uniform. It was stated by Mr. Corneil that nice glasses holding 14 oz. 20s. per gross, the same size in tin $\frac{3}{4}$ cents each had been secured.

The commissioners appeared to think that there would be a difficulty in shipping comb honey. Mr. Corneil stated there should not be more than six sections in a crate and ten crates in a case, straw packing between cases had answered as well as anything, glass should be covered as there was a danger of it being pressed in. The packages should have on every side of it stensiled honey in comb, handle with great care. It was decided that the association could not undertake the work of shipping honey as an association, and the matter be left to individual enterprise.

Mr. Corneil's bees owing to his absence at the Colonial Exhibition with Ontario honey, and inability to prepare them for winter, have suffered somewhat, especially outside. His bees in cellar showed signs of dysentery, the temperature was 40 to 45°. He put a coal oil stove in having a vent to carry off gasses from flame, the temperature is now at about 50° and dysentery apparently broken.

Martin Emigh stated he found raising the temperature above 50° broke up all disposition to dysentery.

J. B. Hall visited lately a cellar which pleased him very much, the atmosphere was clean and sweet temperature of cellar 56° a few inches from cellar floor, bees bright and in good condition and quiet.

J. B. Hall's bees are apparently wintering well, water came in only a few hours one day, and the greatest danger has now passed. This is owing to the more settled condition of the soil and provisions made.

Clover in some localities has lately been somewhat damaged by frosts.

KIND NOTICES FROM

American Bee Journal, Chicago, Ill.
Toronto Weekly Mail, Toronto, Ont.
American Apiculturist, Wenham, Mass.
Bee-Keepers' Magazine, Barrytown, N. Y.
The Guelph Daily Mercury, Guelph, Ont.

A CORRECTION for page 6 C. P. H.—Come now Mr. Ed. two thirds of my outside cases are plained and painted, and you call them rough cases. The width of the section I use is $1\frac{1}{2}$ inches not $1\frac{1}{2}$ in.

We are in receipt of two diplomas and two medals given by the Colonial and Indian Exhibition committee. They are very beautiful.

The Canadian Live Stock Journal, Hamilton, Ont., is welcomed as an exchange. The editor, Thos. Shaw, is an extensive farmer, his aim is to have a first class Journal, valuable to his readers and not merely matter to please the general reader. His success is acknowledged by the best agriculturists in the land, and the good wishes of such are a proof of the value of the paper it is monthly, \$1.00 per year.

Guelph Central Bee-Keepers' Association in Convention.

The Guelph Central Bee-Keepers' Association met at 2 p. m., March 23rd, space will not permit of a lengthy report. The questions of opening the British markets for honey were taken up and a resolution passed as follows: Moved by R. L. Meade, seconded by A. Gilchrist.

Resolved, That the association is of the opinion that in order to render permanent the good results of last year's Honey Exhibit in England it is desirable that Canadian bee-keepers' co-operate in making as large a consignment as possible the coming year, and that Ontario Bee-Keepers' Association appoint a commissioner to go ahead of the consignment and make sales, it being understood that the government grant be a guarantee fund for the commissioners as it was for the four, last years and that after deducting such expenses as the grant does not cover, there be a divided share and share alike among consigners also in case this is done the members of this association engage, season permitting,

to supply at least ten thousand pounds of honey, all honey to be duly inspected before acceptance of consignments. Carried.

Moved by R. Knechtel, seconded by Thos. Simpson.

Resolved, That we consider the directors of the Ontario Bee-Keepers' Association are in duty bound to lay before the bee-keepers of this country a financial statement relative to the Canadian Honey Exhibition in England last year. Carried.

Members present thought one of the four commissioners who went last year should go this year. A. Gilchrist, the Secy., thought arrangements could be made to an advantage to co-operate with the fruit-growers in many ways, who sent over fruit. R. F. Holtermann read a paper on "Manipulation and Mutilation".

Space forbids a more lengthy report this issue, more will be said in the May number regarding the meeting.

Queries for May Number.

No. 4. Is it an advantage or otherwise to remove part of the combs in the hive in the fall, replacing them gradually in the spring and spreading brood?

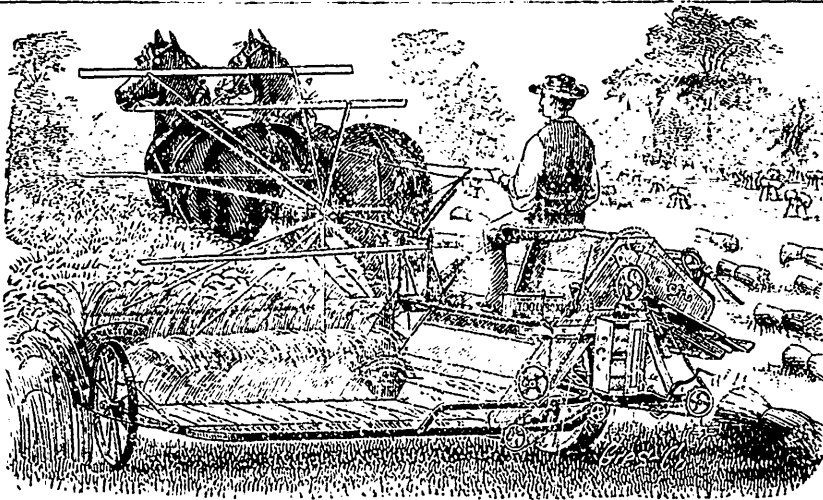
No. 5. For the beginner in bee-keeping should artificial or natural swarming be resorted to as a mode of increase, if the former, how?

No. 6. The question is asked what can be classed as a honey plant in a display at exhibitions under that head.

It will be regreted by many that for the present the Ontario Bee-Keepers' Association has decided not to take steps to ship honey as an association to the Colonial. The action taken by the Guelph Central in promising support, as found elsewhere, we hope may have a good effect. There is a grant of \$500 which would go far to pay the expenses of sending a man to England to make sales. It will be a great loss to Ontario Bee-Keepers' if this matter is allowed to drop. We would suggest that all associations who can, take a step similar to the Guelph Central, also individual members communicate with the President of the association, S. T. Pettit, if they are willing to contribute, and the probable amount.

It would be a reflection upon our push and enterprise, aside from financial loss, to let this work drop here. Individual members however willing cannot carry on this work to the same advantage. Let us act and promptly.

"Foreign Department," has been crowded out this issue.



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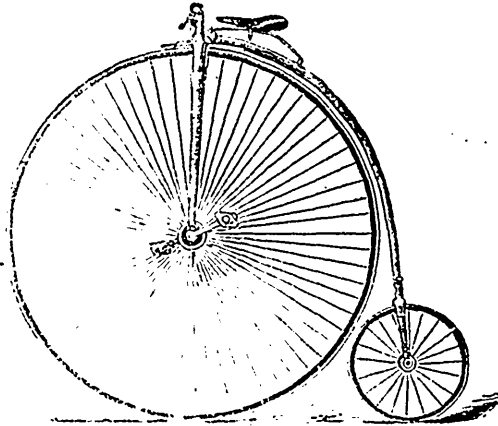
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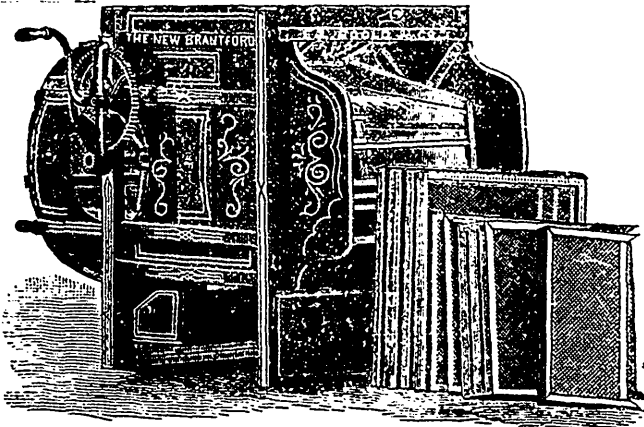
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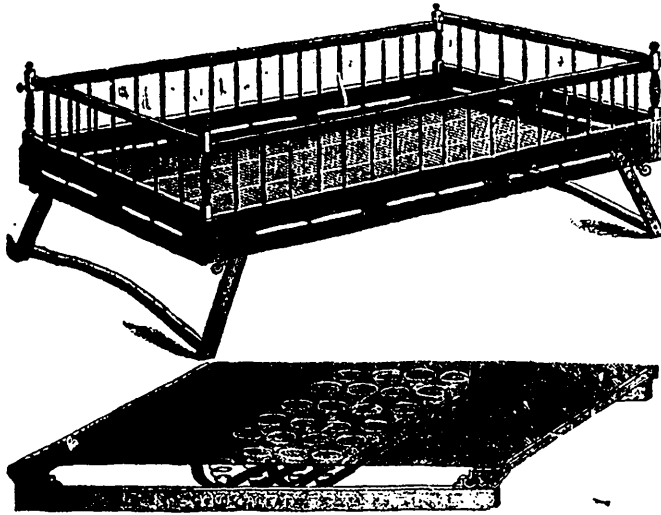
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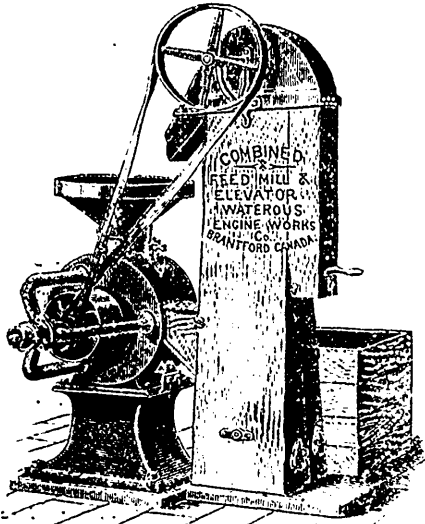
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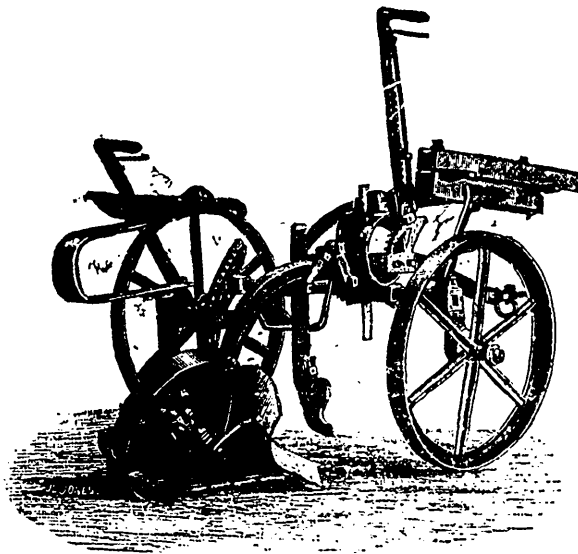
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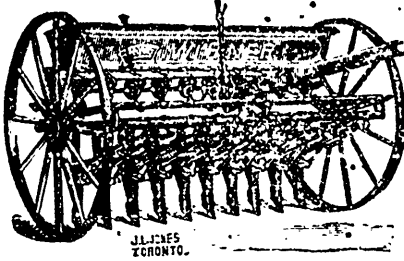
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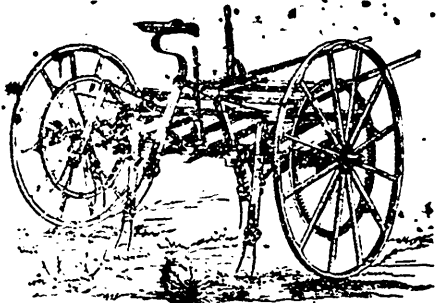
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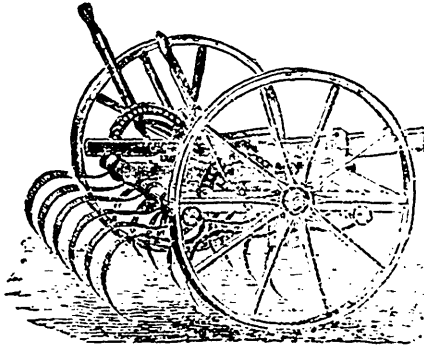
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