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THE



CANADIAN

Honey Producer.

Its Reading Columns for the advancement of Honey Producers exclusively.

Vol. 2.

BRANTFORD, APRIL, 1888.

No. 2.

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.

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.

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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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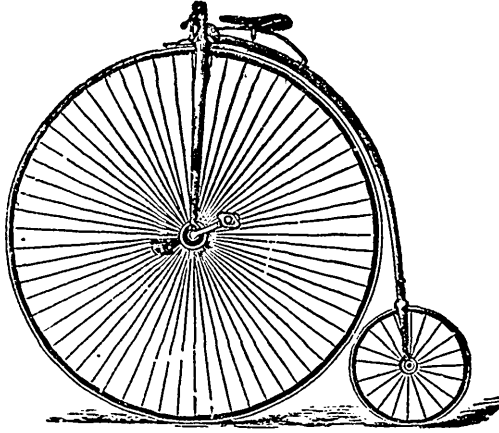
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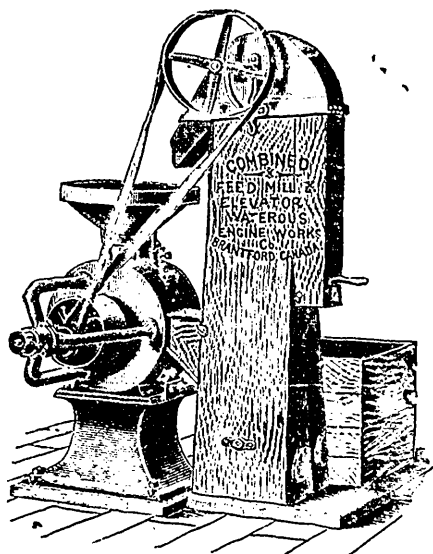
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Chapman Honey Plants.

We can furnish a limited number of these plants. The seeds were sown last year and are in proper condition to blossom this year.

Price per dozen, 40 cts.
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We have only a limited number for sale. Order early.

E. L. GOOLD & CO., Brantford, Ont.

Several errors in printing occur in our March issue. Sickness prevented the careful revision which should have been made. On page 5, when speaking of circulars received in the latter part of the clause "in part or" should read "in the past or."

In speaking of the Constitution and By-Laws on the same page "clause (8)" should read, "clause (7)."

Kindly see if your subscription has expired; the subscription expires with the month indicated on the wrapper. We have received a large number of new subscribers and many of the old have renewed, sending us two new subscribers. Every one with a little exertion can do the same and more than double our list in a short time.

Every true friend will upon reflection regret that an advertisement of a Bee-Paper may be found upon the last page of the Constitution and By-laws pamphlet of the Association, which have been printed by order of the Association and at its expense. Everything which would in the least hinder every Bee-Paper and every Bee-Keepers' Supply Business working to increase the membership of the Association should be carefully guarded against, and everything which would have the appearance of partyism should also be excluded. The rest of us must either lay aside our own interests favouring the Association, not support it, remaining neutral or work against it, neither course is pleasant.

The advertisement was put in without the instruction of the Association officers we are pleased to state, but when in they should never have been issued, but returned to the printers.

We feel assured that such a grave mistake will never be permitted to occur again and trust that it will not injure the heretofore bright prospects of the Ontario Bee-Keepers' Association.

Our readers will remember that

several are conducting an experiment in burying bees. Well, one of our number so far allowed his curiosity to get the better of his resolution not to unearth them until late in April he has brought them on top of the soil. They were all alive, but we have not had a detailed report.

For The Canadian Honey Producer.

MANIPULATING BEES IN THE SPRING.

G. W. DEMAREE.

It is well to know how to winter bees successfully, how to obtain increase of bees in the way of stocking up the apiary, &c. But if the apiarist lacks the necessary knowledge and experience in *Spring management* of his bees, he will discover after a while that the chances for the best results have been slipping through his willing fingers, and from under his faulty judgment without his knowing the true cause of his partial failures.

One of the important things to learn is, that what suits some other locality may not suit yours. This matter of "locality" is one of the things upon which no apiarist can depend on some one else who occupies some other locality, for definite information as to what is best for his particular case. Hence it is essentially necessary that each apiarist for himself, should study every feature of his own environments. His climate, honey producing flowers, at what time in the season they blossom, how long they continue to yield nectar, &c.

Let me illustrate here. Some years ago when I was just beginning to see the necessity of this sort of knowledge, I left home on Monday morning early in May. I had been with my bees almost daily for two weeks past, and they were living from "hand to mouth," just barely getting enough honey from late blooming trees, &c., to keep from actual want, in fact I was compelled to feed some of the weaker colonies. I attended court that week and did not see my bees till the following Saturday morning. The first hive I opened was one that I had been feeding and did not have one pound of stores when I left home just five days before. I found it full of honey from top to bottom, I hastened to another

hive, and to another, not willing to believe my own eyes: every hive in the apiary was jammed full of honey, and I never knew how much I lost by not being on hand to furnish what room the best colonies needed. The black locust had come into bloom and poured out nectar as free as water, outstripping the famous Linden, before the "Dark and bloody ground"—Kentucky—was denuded of her wonderful forests. How necessary then it is to be thoroughly posted in regard to these matters. Perhaps I have mentioned this incident before, whether or not it is to the point here. Some years ago a neighbor of mine took up bee-keeping, and on one occasion he met the writer and said, "It is about time to put on the surplus boxes, is it not?" *The Surplus boxes*! I replied, why sir I have taken a large honey crop, and the harvest is about over." You can put them on, but you have lost this year. He was perfectly astonished.

SPRING WORK IN THE APIARY.

If the bees have stores to last them till the blossoms begin to open in the spring, they should be left undisturbed till they begin to gather pollen. Any warm day thereafter, each colony should be examined and all upward ventilation should be closed. To accomplish this I spread some news papers between the quilts, and cover warmly above the brood department. All very weak colonies are contracted on but few frames and they are made as comfortable as possible. If the colonies have plenty of stores, stimulative feeding is not resorted to, as I have received but very little benefit from my experiments in that direction. But if the bees are scarce of stores they will not breed up rapidly without feeding. After giving the matter a fair trial, no "spreading of brood" is practiced in my apiary. It is a positive injury to a colony of bees to break the nest *early* in the spring, as advised by some writers on bee culture. When colonies have been contracted on less than a full set of combs, the combs are restored to the bees as fast as they need them, but they are placed at the sides next to the brood, not between combs of brood as practiced by some apiarists. I am now speaking of the early spring. When warm weather has come in earnest, the empty combs may be placed between combs of brood without doing any harm.

APPROACHING THE HONEY HARVEST.

I keep a close watch over my bees and

supply them with food if any of the colonies run short by reason of rapid breeding. When I discover that a colony has begun to lengthen the cells near the tops of the brood combs, giving them the "gilt edge" appearance so pleasing to the eyes of the apiarist, being the first real sign of the approaching honey harvest, I proceed at once to adjust the surplus cases on the hives, and as others are ready the surplus cases are put on, till the whole apiary is equipped for the campaign. As soon as the surplus cases are about two-thirds filled with honey, they are raised and an empty case is adjusted under each one of them. Usually the top case will be ready to "take" by the time the lower one is two-thirds full, if not a third case is used.

After this I proceed cautiously, so as not to carry the "teering up system" too far, and thereby have too many unfinished sections at the close of the honey harvest. To guard against this, as soon as the facts appear that the main flow of nectar is past, I begin to tear downward, that is, I begin to concentrate the work in the surplus cases by sorting out such sections as have been advanced most, and grouping them together in fewer section cases in order to have them finished up instead of permitting the bees to neglect the partly filled sections and start new work to be left unfinished at the close of the honey harvest. By this management not many unfinished sections are left on hand at the close of the season.

Christianburg, Ky., U. S.

For The Canadian Honey Producer.

SPRING MANAGEMENT.

DR. DUNCAN.

Before going into summer management of bees, I have a few more precautions for beginners in spring management, as it will be necessary to feed some of your swarms. If feeding with honey, feed in the evening about dark as the bees outside will not be attracted by the smell, and those inside will have it stored away before morning, and keep your feeder well covered up with cushions both for heat and keeping the flavor confined within the hive, as the bees outside can scent honey for a great distance when there is none in the blossoms. If they get the least taste outside their own hives it will incite them to robbing, which is one of the troubles in spring that

almost every Bee-Keeper has to contend with, and also be very careful and not spill any honey around the apiary, or leave any comb with honey lying around.—If you find that any of your swarms are attacked by robbers. If they are entering without any resistance and a lot of them inside; shut up your hive for a few minutes, then open, they will rush out, keep off the outsiders with a brush when the most of them are out, shut up your hive again until near dark, then open and the robbers will go home, and the bees belonging to it return in; you will have to keep them shut up for a few days, and open every evening when the other bees are done flying; any robbers that comes sprinkle them with water scented with carbolic acid.

If the weather is warm the confined bees must be ventilated, remove part of the quilt over the frames and shade them from the sun or remove into the cellar for a few days. Then try, if they will fight the robbers off which is the best prevention of robbing, you can incite them to fight by mashing some of the robbers when they alight by a flat pointed stick; keep the doorway nearly closed so that only one bee can pass at a time, if they pitch on every robber that alights they will soon quit it. I have tried almost every plan recommended in the journals but they will only answer for a short time. Those that are attacked by robbers are often without a queen, if so, unite them at once to some other weak one. In building up weak swarms by taking a card of brood from a strong colony and and putting into the weak one which is recommended by good authority, requires good judgment to make it a success, there is danger in getting the brood chilled if it chances to come a cold spell after the operation, if there are not bees enough to cover the brood and put out the necessary heat. It is safer to take a card of brood with young bees newly hatched, shake in front of your weak swarm, the old bees will return home and the young bees will remain, return the card where it was and repeat until you think they have enough.—When the weather gets warm in June, the first plan will answer better, but still it is doubtful whether it is best not to interfere with your strong colonies at every manipulation of that kind, keep these back to a certain extent.

Embro, Mar. 15th, 1888.

For The Canadian Honey Producer.

The Spring Management of Bees.

W. COUSE.

The spring management of bees may commence before they are taken off winter quarters. As usually bees that are wintered inside in Ontario get uneasy about the first of April, and if the temperature in the cellar or bee house raises much above the usual height the ventilators should be opened to keep the place cool, or if that is not sufficient the door could be left open at night and closed early in the morning.

It is usually better not to be in too great a hurry to set the bees out in spring. The weather should be fine and some source from which pollen could be gathered.

This date is usually from the first to the third week in April with us. When the proper time has arrived the stands should all be placed in order, and it is not advisable to set the bees out early in the morning. I think it better to wait until about ten o'clock if the weather be fine, then there is not usually a great change for a few hours. When carrying the hives out they should be carried out as quietly as possible; and set the hives so that you will not need to set two near each other for a time, as when setting a number of hives together in a short time there is danger of the bees getting out of one hive into another and balling and killing the queens.

After the hives are all set out they should be examined to see whether there is plenty of honey, a queen, and if the hives need cleaning. If anything is required it should be done as soon as possible. Crowd the bees on as few frames as possible, cover them with some warm covering and let them alone for two or three weeks, as too much disturbing seems to be injurious. After this length of time, if you find the bees are crowded for room put in a worker comb or two when required, but do not spread the brood so that it will get chilled, as there is great danger of this happening as there is a time when the old ones all seem to disappear and leave nothing but crawling youngsters to look after the business of the hive.

In regard to doubling up weak stocks they very often never amount to anything, if queens are required either buy one from some reliable breeder or take one out of some weak

stock in the apiary and introduce her into the queenless colony. All entrances should be kept small so that the bees do not get robbing and if there is not a convenient place for the bees to get water, it should be supplied as they consume more than is known
Streetsville.

For The Canadian Honey Producer.

STIMULATIVE FEEDING.

J. E. POND.

The theory of stimulative feeding is correct in principle, and where there is lack of stores in spring will most surely cause good results.

The theory is based on the well proved fact that comb building and brood rearing ceases with the stoppage of honey gathering during the summer and fall, and stimulative feeding at this time has been a success with myself, even when the hives were well stored with honey. In the early spring, however, when stores in plenty are contained in the hive, I do not find that such feeding has any appreciable effect. The reason, I argue, is this: it is not only natural but absolutely necessary for the life of the colony that early brood rearing should be carried on, and if food sufficient for the purpose remains over it will in any case be so utilized.

To this argument there can be no answer. That it is a fact has been proved time and time again, and cannot be controverted. Whether or not stimulative feeding in spring, when ample stores remain in the hive is of value or not, is an open question; whether it is of any real value to discuss it or not is an open question also. From many inquiries received by me, however, I judge that considerable interest is felt in this matter, and will give my opinion for what it is worth.

As I stated in the beginning I have not found any satisfactory results from spring feeding when the colony is well supplied with stores, and for the season as I suppose, that nature works in harmony with its own laws and one of those laws is that spring production of brood is an actual necessity. For myself I cannot see that the rule which works well late in the season, should apply with any force in early spring, for certainly the conditions are far different. Nature is ever economical when there is a necessity therefore but when no such

necessity exists she is exceeding lavish, and expends her forces to the greatest extent possible.

This, is proved (by the fact that in early spring brood rearing goes forward to the extent of using up every drop of honey in the work; while in the fall no brood is reared unless stores are coming in, in considerable quantity.

Of one thing I am sure however, spring stimulation does no harm, if any wish to spend the time in feeding at this time they have the satisfaction that no injury is being done, and if I am wrong they will be on the right side of the question.

No. Attleboro, Mass, U. S.

March 13th, 1888.

For the Canadian Honey Producer.

SPRING FEEDING.

Should we or should we not feed our bees in spring? If we understand by spring feeding merely stimulative feeding I would say, no. As if they have sufficient stores to supply them till the new honey comes, they will in this climate breed up as fast as is good for them without any such coaxing. Besides if the season is late they will be better without such aid as the hive will be full of bees by the time the honey flow commences and in any season so many things are likely to interfere with the daily feeding necessary in stimulative feeding that it will be likely to cause more loss than gain. I would not however allow bees to take their chance and live or die as the case might be. I prefer to feed them in the fall when it is necessary to feed at all. For this purpose I would take out some combs of sealed honey if possible and keep till spring, replacing with sugar syrup. By this means two gains are made. First, it is less trouble to feed in the fall, and second there is less danger of getting sugar syrup mixed with the next seasons crop of honey.

Where bees are wintered out of doors I would have to learn how to manage to feed them in spring before I could tell others; but if they are kept in a cellar or repository and so placed as to render each hive easily removed without disturbing any other, it will be comparatively easy to pass along the rows daily about the 1st of March and note those which appear uneasy and attend to their wants.

It may be that they only want water and a small piece of ice or snow will satisfy them and render them quiet; but if they crawl out with wings extended they should be examined at once, when it will probably be found that their stores of honey is exhausted or nearly so. If one has frames of sealed or even unsealed honey (not granulated) to insert in the place of some of the outside empty combs, it will not always be necessary to break the cluster; though we do sometimes place the combs of honey between those containing the bees, and if they are far gone confine and place them by the kitchen stove till they are warm, they will do very well, especially if some of the caps on the honey are broken.

Once they are of doors I would exercise the same care and if no frames of honey were at hand I would give them at once sufficient melted honey or sugar syrup to supply them for a week or more, and be careful that it is all used up before the honey flow commences. As I regard it of the utmost importance that all our honey be kept perfectly pure. I have said nothing about feeding substitutes for pollen, though if I could procure no other I would feed that if necessary, but I prefer to keep over some from the past season.

Whitby.

ORVIS.

For the Canadian Honey Producer.

STIMULATIVE FEEDING.

MARTIN EMIGH.

In feeding in early spring to stimulate brood rearing, no doubt different sections require different management. With me it will not pay if the colonies have plenty of stores in the hive except it be later on, between fruit bloom and clover. In this section we have a very scant honey flow at that season for about two weeks; and it is very important that the queen should do her level best at this season, as the bees from these eggs are the chaps that devote their whole life time in gathering our surplus honey. I sometimes break caps on combs filled with honey, sometimes fill empty combs with a very thin feed made of honey and water, or a cheap sugar and water and put one of these combs in brood nest of each hive, if they are strong with bees, if they are not I would not spread the brood nest even at this warm season. I sometimes change ends with the combs, bring-

ing the end with the honey in between or next to the brood and *vice versa*. Shaving off caps on honey when required. Care should be taken not to tamper with weak colonies or black bees too much as it is a bad season for robbing with us.

Holbrook, Ont., March 15th

For the Canadian Honey Producer.

SPRING FEEDING.

As soon as it gets warm enough, I take chopped oats and lay them in shallow boxes or trays and let the bees at them as soon as they will work on it. I see that they have plenty of honey in the hive, this is the only way I stimulate.

WILL ELLIS,
St. Davids.

BY LAWS O. B. K. A.

To the Editor of Canadian Honey Producer.
SIR :

In your editorial remarks in last issue, you refer to clause 8 in the By-Laws as being illegal and assert that it was struck out at the meeting, (your comments show it is clause 7 you mean.) It certainly was *not* struck out at the meeting. Evidently you have in your mind another clause that was in the draft and that was struck out as being contrary to the provisions not of the "Agriculture and Arts Act" but in conflict with the letter of our own Act of Incorporation. This eliminated clause provided that District Directors should be elected by the members of their own Districts, where such Districts had a local organization affiliated. This is certainly the way in which the Directors ought to be selected, and does not clash with the provisions of the Agriculture and Arts Act but is in accord with it. In fact it is the way the elective members of the council are chosen and I hope to see one Act of incorporation so amended as to enable the respective Districts to elect their own member to the Board you say, "In order to be qualified for voting upon such questions as may be brought before the Association it is necessary to pay the membership fee \$1.00 and we cannot form any By-Laws that will clash with the Agriculture and Art," my answer is none of the By-Laws clash with the Act. You evidently refer to the two delegates that each affiliated society are entitled

to send to the meetings of the Ontario under clause 7 and you think because they have not paid the membership fee they are and ought to be debarred membership privileges. Does it affect their *status* as members because some one other than themselves pay the fees? The membership fees of these delegates are paid by the local society as soon as the \$5.00 is received by the Secretary and their names are entered upon the Roll as soon as the Annual Report of the local society is received, thereafter their right to membership privileges cannot be questioned. To the casual reader this may seem an unbusiness like way of securing members and an unnecessary tax on the local societies, but when it is borne in mind that 50 is the minimum membership that entitles the Ontario to the annual grant it will be conceded that it was a wise thing to secure at least seven members through each affiliation. It will probably be found some year that this very provision in the By-Laws will save the Association its grant of \$500. Clause 7, Mr. Editor, is not an "error" and it is not illegal nor does it clash with the "Agriculture and Arts." Opinions differ you see.

R. McKNIGHT.

Clause 7 was referred to. It may be as Mr. McKnight states, and the clause not struck off. If the membership fee is paid by the association as explained above, a view which we had not taken of the matter, it does appear to be in harmony with the Act of Incorporation, if such be the case would it not be equally legal to make up any further deficiency in membership (50) as required by the same act and pay the fees of a sufficient number to make up that deficiency. We may say here we think it extremely improbable that the deficiency Mr. McKnight speaks of as "probable" will ever occur.

As to the election of directors for each district, it may be expedient to have the director elected by the District Association, but every one paying the membership fee \$1.00 is entitled to vote at the election of officers. Then another difficulty will come in when County not Districts Associations are affiliated, which latter we predict will never be popular. We did not wish to

find fault, and when the short time at the disposal of the O. B. K. A. to pass the Constitution and By-Laws is considered, it would not be surprising to find that errors may have crept in.—ED.

Statistics of the Honey Crop.

At the Chicago Convention Dr. Mason, Prof. Cook, and the Editor of the AMERICAN BEE JOURNAL were appointed a committee to correspond with the Department of Agriculture relative to securing reliable statistics concerning honey and beeswax production, the number of colonies of bees, etc., in the United States. Dr. Mason has received the following from the United States Statistician, which will be read with interest:

U. S. DEPARTMENT OF AGRICULTURE,
WASHINGTON, D. C., Feb. 21, 1888.

Dr. A. B. Mason, President of the North American Bee-Keepers' Society, Auburndale, Toledo, Ohio.

SIR: Your favor of the 15th inst., addressed to the Commissioner of Agriculture, and by him referred to me, is received.

After correspondence with Mr. Eugene Secor, of the Iowa Horticultural Society, Mr. Geo. E. Hilton, President of the Michigan Bee-Keepers' Association, Mr. Frankland Wilcox, Secretary of the Wisconsin Bee-Keepers' Society, and other prominent apiculturists, I have decided to make an effort to gather statistics relative to bee-keeping, to be published in our regular crop report at least once a year, provided those engaged in the industry take sufficient interest in the matter to furnish us with the necessary data. In the first place it will be necessary to have a special corps of correspondents made up entirely from those actually engaged in bee-keeping. To secure such a list of reliable men, we should have to depend upon the officers of various Bee-Keepers' Associations. Our regular correspondents who furnish us with monthly crop reports are made up in the main of ordinary farmers, and but few would be able to give reliable information relative to the present condition of apiculture; therefore, what we desire, and must have if a reliable report is to be made, is a list of intelligent bee-keepers one in every country where the industry is of any comparatively importance. So far we have

been able to secure such a list from the State of Iowa only, with the promise of a list from Wisconsin. Can you, from among the members of your society, furnish me such a corps, or give me the names of prominent men in each State who could do so?

I would also be under obligations if you and the fellow-members of your committee would kindly give me the points, which in your opinion, such an investigation should cover, and the queries which you would consider it advisable to put.

Trusting that you will give me all the assistance in your power in order that a full and correct report on the progress of this growing industry may be made, I am,

Very respectfully,

J. R. DODGE, *Statistician.*

This committee, as representatives of the "North American Bee-Keepers' Society," are now corresponding with one another for the purpose of formulating a plan to be followed by the different societies.

Now, we request any who may have suggestions to offer, to send such to Dr. A. B. Mason, Auburndale, Toledo, O., *at once* to aid the committee to finish the work in the most complete and perfect manner. Give the committee your best thoughts and most mature plan of operation—and do it NOW.

Mr. Newman in an Editorial says, the plan which we deem to be both feasible and easily introduced, is briefly outlined as follows:

Have "bees and their products" included in the blanks prepared for the use of the assessor in each township of each county in the United States. At the head of one column place the words, "number of colonies;" another with "pounds of comb honey;" one with "pounds of extracted honey;" and still another with, "pounds of beeswax."

PERSECUTED AND IN JAIL.

Under the above heading page 148, *American Bee Journal*, we learn that Mr. Z. A. Clark of Arkadelphia has been fined and imprisoned for refusing to move his bees in accordance with an ordinance passed by the town council. Mr. Clark is hopeful of winning the case if funds for defending can only be secured—\$250.00 is required. The best legal authority in the state is confident that the case can be

won. This is a very necessary triumph to be secured in the interests of bee-keepers. Mr. T. G. Newman, manager of the Bee-Keepers' Union and editor of the *American Bee Journal*, has received two letters (one from England,) each containing \$5.00 to help the Union. He has also sent \$50.00 to help defend the case, and it is urged that every bee-keeper assist in defending the case by financial aid. All money should be sent to T. G. Newman, Manager Bee-Keepers' Union, Chicago, Ill., U. S.

FOREIGN.

The Central Vereins a Bee Keeper's Association which met at Berlin, Germany, some time ago had a membership at that time of 1,029.

In parts of France reversing the brood chamber has been practiced for several hundred years. Swarms are purchased before the honey flow in particular localities comes on, they are put into these straw hives, and brood chamber is supposed to be nicely filled by the time the honey flow comes on. The hive is then reversed and an empty straw hive placed on top which is filled with comb honey; when full this latter is removed and another put in its place, season permitting. The colony at the close of the season is considered worthless.

A writer in the *Illustrierte Bienen Zeitung* says: Probably the most Bee-Keepers make a point of painting their hives. I used to paint them with a coating of white lead, but found that in time the paint would loosen from the wood and crumble away. The weaker the colony the more quickly this occurs, on account of the greater moisture retained in the hive and being absorbed by the wood. I now paint them with oil only, and sufficiently to thoroughly soak into the wood.

QUERIES FOR MARCH.

No. 31. How many pounds of honey will a colony consume in a year, if they do not swarm?—R. Shipman.

Don't know, and don't believe any one else knows.—Ira Orvis, Whitby, Ont.

Do not know.—Wm. Couse, Streetsville, Ont.

Not less than 100 lbs.—J. M. Shuck.

I should say about 50 lbs.—Rev. D. P. Niven, Dromore, Ont.

It will be very various. We find it difficult to say just what amount is necessary for the winter months, which is more important than an estimate for the year.—F. Malcolm, Innerkip, Ont.

Don't know.—Dr. A. B. Mason, Auburndale, Ohio, U. S.

About 60 lbs.—Dr. Duncan, Embro, Ont.

This cannot be answered. It mostly depends on amount of brood reared. This varies so much with queen and season that no definite answer is possible.—Prof. A. J. Cook, Agricultural College, Mich.

This is a very difficult and important question, I can only guess, 100 lbs.—A. D. Allen, Tamworth, Ont.

I doubt whether a colony that does not swarm will consume more honey in a year than one that does. In the summer when they are bringing it in every day you cannot tell how much they consume then, but in the winter there will be no difference in my opinion. Last season colonies that did not swarm stored much more than those that did, and their increase and were better supplied with honey for wintering on. The honey flow being very short gave those that were strongest the best chance to make the most of it, so even if they did consume more the apiarist did not miss it.—Miss H. F. Buller, Campbellford.

I do not know. Perhaps 50 lbs.—Will M. Barnum, Angelica, N. Y.

I don't know.—Will Ellis, St. Davids, Ont.

I think Doolittle estimates about 60 lbs. and I should think that certainly low enough.—Dr. C. C. Miller, Marengo, Ills.

From some observations I have made, I would say not less than 100 lbs probably more.—G. W. Demaree, Christianburg, Ky.

I should think so. Try it, and report.—G. W. Demaree, Christianburg, Ky.

A correct answer to this question can hardly be given, as too many points must be taken into consideration. I don't know of any way by which an average even could be calculated. Queens differ swarms differ, amount of brood differs in fact there are so many differences that if I am a Yankee I don't dare guess.—J. E. Pond, North Attleboro.

Can't say without guessing, but think about 90 lbs. viz., 30 lbs. for winter, 30 lbs. for sum-

mer and 30 lbs. for raising brood.—John Yoder, Springville, Ont.

Do not know, if strong in the spring and a very prolific queen, should say fully 120 lbs.—Ed.

No. 32. Is a spring running through a bee cellar sufficient ventilation?

Don't know; it would depend on other circumstances not mentioned in the question.—Ira Orvis, Whitby, Ont.

I never saw bees that had been wintered in a cellar with a spring running through it, but would not be afraid to try it.—Wm. Couse, Streetsville, Ont.

Yes, if it is large enough. A mere trickling stream would do little if any good.—J. M. Shuck.

Have had no experience.—Rev. D. P. Niven, Dromore, Ont.

I should think so.—F. Malcolm, Innerkip, Ont.

Yes.—Dr. A. B. Mason, Auburndale, Ohio.

Not by any means.—Dr. Duncan, Embro.

It would do for a few colonies but not for a hundred or more.—A. D. Allen, Tamworth, Ont.

Yes, if other conditions are favorable. This question could undoubtedly be answered to better advantage by the querist, himself.—Will M. Barnum, Angelica, N. Y.

No experience.—Will Ellis, St. Davids, Ont.

The question is too indefinite for answer. It might be ample, once at all events it so equalizes temperature that the bees are kept quiet, and so need less air.—Prof. A. J. Cook,

I am inclined to believe it is.—Dr. C. C. Miller, Maringo, Ills.

I should think so. Try it and report.—G. W. Demaree.

I think a spring would be a good thing but would not be sufficient of itself.—John Yoder, Springville, Ont.

I for one do not consider that an ordinary cellar needs more ventilation than is naturally provided in its construction.—J. E. Pond,

Yes, if worthy of the name of spring and the very best means of purifying the atmosphere.—Ed.

No. 33. Does honey fed back to the bees granulate in the comb?

Yes.—Wm. Couse, Streetsville, Ont.

Sometimes it does and sometimes it does not. If sealed air tight I don't think it will.—J. M. Shuck.

Cannot say, not having tried it.—Rev. D. P. Niven, Dromore, Ont.

Yes. Except it is mixed with sugar syrup.—F. Malcolm, Innerkip, Ont.

Sometimes, especially if candied and melted to feed back.—Dr. A. B. Mason, Auburn-dale, Ohio, U. S.

No. Never seen honey granulate except in swarms that died leaving a quantity of honey.—Dr. Duncan, Embro, Ont.

Yes. I have fed honey back when the honey gathered directly by the bees, from the flowers, remained liquid, while that fed back granulated; leaving part of the honey in a cell in one form and part in the other; and it remained so all winter.—Ira. Orvis, Whitby, Ont.

I have heard that it does but I never tried it.—A. D. Allen, Tamworth, Ont.

I cannot speak from experience on this point as on the supposition that it did. I have always mixed some sugar syrup with the honey when feeding back for winter stores. Another season I will feed honey without any admixture of syrup to one colony and note the result.—Miss H. F. Buller, Campbellford.

Yes, sometimes. Does wax ever become honey?—Will M. Barnum, Angelica, N. Y.

I have been troubled with it doing so.—Will Ellis, St. Davids, Ont.

Not usually. Like honey stored direct from the flowers. It will sometimes crystallize. It depends doubtless on the character of the honey. I have honey in our Museum sent from California and from New Orleans that has never shown any tendency to granulate, and yet it seems very nice.—Prof. A. J. Cook.

I think it does oftener than other honey.—Dr. C. C. Miller, Maringo, Ills.

The rehandling of honey out of the comb, late in the season after cold weather sets in, has a tendency to hasten granulation. When I feed honey in the liquid state I warm it, and add a little water to thin it down a little, after which it never granulates in the combs after it is stored by the bees.—G. W. Demaree, Christianburg, Ky.

It depends upon the source of your honey in part and if granulated before feeding back, the result would appear to be somewhat uncertain.—Ed.

Yes, all honey granulates after being exposed to the air.—John Yoder, Springville, Ont.

Yes, it does with myself. In feeding back, I always dilute it a trifle, and then I find it works all right, as the bees drive out the excess of water and ripen it thoroughly. I speak however only for myself and my own locality.—J. E. Pond.

CORRESPONDENCE.

Kossuth, March 14th.

DEAR SIR:

Bees around this part are wintering well so far as I know. Those outside in clamps having had a good fly on the 9th, the day being warm and the sun shining, since then the weather has been changeable, having rain and snow, the last few days being very stormy and cold. Cannot tell how bees will come out, will have to wait six weeks yet.

Yours,

A. B. SNYDER.

Kingsmill, Feb'y 25th, 1888.

Bees wintering fine. I look forward to a very good season.

J. H. GRIFFITH.

My bees are all doing well but one colony which has the dysentery. What shall I do for it?—H. N.

You do not state if in cellar or outside; If in cellar, the very best way would be to raise the temperature and dry the inside of the hive and bees. If you can put a very dry and warm chaff cushion over the bees and change as it becomes moist, this is a good plan; a warm brick might be placed over the cushion. If you cannot get at this colony without disturbing others, let it take its chances. If you let it have a cleansing flight outside upon a warm day it is questionable if it would be well to return it to the cellar. Disturb the bees as little as possible.—Ed.

St. Marys, March 9th, 1888.

Bees flew a little Feb'y 1st, and to-day.
L. S.

Belmont, March 8th, 1888.

My bees are all alive so far and quiet and but few dead on cellar floor; mercury from 39° to 40° for some time back.

S. T. PETTIT.

Campbellford, Aug. 13th, 1887.

DEAR SIRS:

You have been more fortunate than me, in

having been favoured with a good rain on the 6th. We had only an $\frac{1}{2}$ of an inch yesterday, Aug. 12th, and since the 1st of May I judge there has not been an inch and a half of rain, so with a naturally dry, rather poor soil you may imagine the state of the country, meadow lands generally are as innocent of a second growth now, as the day after they were mown. I have averaged about 50 lbs. per colony, spring count mostly extracted.

MISS H. F. BULLER.

Mr. J. K. Darling, Almonte, in writing to a friend Dec. 30th, 1887, says, I have 191 in the cellar, very nice to-day. Expect to loose some this winter as some boys took from one to three cards out of each of 20 colonies after they were weighed and prepared for winter, taking some of them out of the brood nest and allowing the bees to chill, and then they disturbed about as many more, so I think there will be a good supply of empty hives in the Spring.

My cellar is about 14 x 22 feet inside, 7 feet deep, clay bank, dry enough to sweep any time in the year, top of wall level with surface outside, use it for vegetables as well. Last year had about 40 bushel of mangols, 20 bush. potatoes, 5 bush. turnips, several hundred cabbage, 3 or 4 bush. beets, 4 or 5 bush. carrots, over 100 colery, and two barrels pickles, and barrel of pork, beside the 151 colonies, so you see they were pretty well packed.

Temperature 42° to 48°, other seasons, have not put the thermometer down yet this season. I find that the temperature rises slightly each season as the number of colonies increase. Put my bees in the last week of Nov., this year, and they did not see zero weather; the only season it has not been below zero before they were put in, last year it was about the 20th, the other two about the 16th. Below I give my winter losses. I put away in

Fall of '82,	4 colonies,	followingspring	2 put out.
" '83,	34 "	" "	" 34 "
" '84,	59 "	" "	" 58 "
" '85,	110 "	" "	" 108 "
" '86,	151 "	" "	" 149 "

If I do anything near as well this season, I will have my hands full another summer. I might say that out of the 34 put out I went into the honey season with 33, the next season

I have just forgotten the number, think I lost none after they were put out, out of the 108 I went into honey flow with 97, and last spring with about 115 working colonies.

We have rather a poor locality for honey, never being able to get near some of you fellows up West; still I think I make it pay, but there are others about here that are loosing money every year or have fiddled out altogether. Perhaps just here is the plac for me to say a most emphatic, *No* to the question; "Should every body keep bees?" Do you ask why I would say, "read the above and tell me if it is for their benefit," and then there are two other reasons rather more selfish, 1st, The more that keep bees the smaller will each Bee-Keeper's share of the honey flow be, and might make all the difference between a paying crop for one or two, and an actual loss to every Bee-Keeper in that locality. 2nd, Should some of the aforesaid everybodies secure more than they could consume at home, the probability is, they would shove it off at about $\frac{2}{3}$ its value and so demoralize the market for that whole season. I have had this trouble to contend with, and know.

SUNDRY ITEMS.

A Subscriber in January number of the Bee-Keepers' Magazine asks if the tin cans with wooden jackets are thrown in with the honey in selling it or returned, if so at whose expense. We ship all our honey in these cans, (60lbs.) by the hundred, they are 45cts. each, if the empties make 100lbs. the purchaser of honey re-ships them at his expense and they are again used by us. If the purchaser wish it he may have cans at 35cts. each.—Of course as in many transactions there are at times other arrangements, but our railways compel payment of empties and so we are generally safe.

As a result of the exhibition of Honey Cured Hams made at the Toronto Industrial Exhibition last fall, one of the best firms in Toronto, dealing in such goods and curing hams, &c., are doing an extensive business in honey cured hams. These goods are giving great satisfaction and are admitted superior to the sugar cured.

A large tobacco firm in Ontario are ex-

perimenting with honey in the preparation of tobacco, for consumption use, or abuse which ever may be the proper term. They say if it proves satisfactory they will require a ton of honey per week to supply their demand.

We have several very fine Norway Spruce hedges in and about Brantford. They look well and would afford excellent shelter in an apiary. Any one in want of such we can heartily recommend to send for the circular of our friend A. Gilchrist of Guelph. He is an extensive Bee-Keeper as well as an experienced horticulturist and can be relied upon.

Mr. Thos. W. M. Cowan, under date, Feb'y 29th, writes from Switzerland :

I am very much obliged to the Ontario Bee-Keepers' Society for electing me an Hon. member, as I see by your report. But I have not had any official intimation, so do not yet know to whom to write to return my thanks.

Unsolicited Testimonials.

I like the Honey Producer very well, it is a very welcome visitor. May success attend your publication.

THOS. RAMAGE,
Richview, Ont.

Feb. 9th, 1888.

Three copies of the C. H. P. to hand. I am well pleased with it; it contains the best articles on spring management that I have seen, and I wish you success.

D. R. FARQUHARSON,
Walton, Ont.

March 11th, 1888.

I like your Journal and send you two more subscriptions.

HENRY NEAR.

Queries for April.

No. 34. I have a small Apiary, two colonies are pure Italians, the balance are Hybrids and Blacks. I want to Italianize. How can I prevent queens from mating with impure drones? there are no other black bees in the neighbourhood.

No. 35. (a) Is it possible to have the honey all capped before extracting, and keep the different varieties separate? (b) If not which is most desirable,—to extract some before it is entirely sealed, or to leave it to be entirely sealed, and have it more or less mixed?

No. 36. I use full sheets of foundation in the brood chamber, Langstroth Frame. What thickness of foundation shall I use?

ONTARIO BEE-KEEPERS' ASSOCIATION.

Albion Hotel, Toronto, Mar. 28th, 1888.

Meeting of the Board of Directors of the O. B. K. A called by the President to decide what amount would be allowed to affiliated societies, and to take into consideration what this years members are to receive.

1.30 p. m.—President Emigh in the chair, Meeting called to order. Members present : McKnight, Hall, Gemmel, Pringle, Smith, Darling, Picket, Macpherson, the President and Secretary.

Minutes of the last meeting of the board read and adopted.

The Secretary read a letter from Mr. E. Schultz of Kilworthy, wishing to resign his office of a Director.

Moved by J. B. Hall, seconded by A. Picket, That, we accept Mr. Schultz's resignation.—Carried.

Moved by Mr. Gemmel, seconded by A. Picket, That, Mr. Macpherson be Director for District No. 12, in Mr. Schultz's place.—Elected.

Mr. McKnight read a letter from Mr. Dadant in regard to securing the book for the Association, "Langstroth on the honey bee." The matter was left without any particular conclusion.

Moved by J. B. Hall, seconded by R. C. Smith, That we give each affiliated society \$40.00 this year.

Moved in amendment by Mr. Pringle, seconded by Mr. Picket, That, each affiliated society receive \$35.00.—Amendment carried.

Moved by A. Pringle, seconded by R. McKnight, That, all duly qualified local societies that have applied for affiliation, on or before the first of August of this year, receive the appropriation named.—Carried.

Moved by J. B. Hall, seconded by J. K. Darling, That, each member of the Association for 1888, receive an Italian Queen, supposed to be purely mated and laying, for the purpose of introducing new blood into their stock, and that she be received on or before the 1st of July.—Carried.

Moved by Mr. Macpherson, seconded by Mr. Pringle, That the President, Secretary, and Mr. McKnight be a committee for the purpose of arranging for the supply of queens to the members and that the same be of Canadian production.—Carried.

Mr. Emigh vacated the chair, and Mr. Hall, Vice President, took the chair.

Moved by R. McKnight, seconded by Mr. Pringle, That the O. B. K. A. offer a special prize of \$25.00 for the most tasty and attractive display of honey at the Industrial Exhibition at Toronto. The display to be the production of the exhibitor provided the Industrial Exhibit Association supplement it so as to make the prize fifty dollars.—Carried.

Moved by Mr. Pringle, seconded by J. K. Darling, That Mr. McKnight be instructed to procure a corporate seal for the Association, provided it does not cost more than \$5.00.—Carried.

Moved by R. McKnight, seconded by J. K. Darling, That the account of the D. A. Jones Co. and Mr. S. T. Pettit be paid.—amount \$49.60 and \$1.79.—Carried.

Moved by F. H. McPherson, seconded by R. C. Smith, That orders be drawn on the President for the expenses of the directors attending this meeting and that the same be paid forthwith.—Carried.

Moved by Mr. Pringle, seconded by Mr. Macpherson, That we adjourn to the call of the President.—Adjourned.

W. COUSE, Sec'y.

When at the last Annual Meeting the Association put in by a vote of two to one, Mr Schultz, a man who probably no one present had ever seen, against Mr. Macpherson it said plainly we want a Bee-Keeper as Director. We now find that the Board of Directors has gone to a great length, in fact snapped the Constitution, by putting or attempting to put Mr. Macpherson in as Director. Art. vi. says, vacancies on the Board by death or resignation, shall be filled by the President. It is a pity and a sad plight that all the motions made or received by this presumptive Director are illegal, he not being a Director. The President probably thought it indiscreet to reward him for that page of advertising in the Constitution and by-laws, and the betrayal of the Association's best interests by giving him a Directorship.—Ed.

From the British Bee Journal.

A NEW ARTIFICIAL COMB.

I have been successful in producing a new artificial comb. I made this invention two

years ago, and the comb was subjected to a practical test on a pretty large scale last year, and again in the present year. My artificial comb is no work of fancy, but the result of continuous and careful observation of the bees, suggested by a remark of Gravenhorst which I came across in the second and third editions of *Der Praktische Imker* (the *Practical Bee-Keeper*), and which I find has been reproduced in the latest improved edition of this work.

This remark prompted me to make experiments, the more so as I was not satisfied with the contrivances generally employed for excluding the queen from a portion of the combs, my idea being that the queen should be able to move freely over all the combs in the hive, and yet be prevented from using certain combs for breeding. I constructed an entirely new artificial comb, different from any hitherto in use, and the workers completed it quite satisfactorily, and in accordance with my indications. Trials on a large scale have also proved most successful, and the large increase of honey harvested by me this season is mainly due to my having used these new combs. Many more tons of honey would be obtained if my combs were in general use. With my new combs my sole aim in future will be to let my bees gather honey only.

I shall be prepared to make my invention known at once if Bee-Keepers on their part are willing to compensate me for the outlay incurred and the time I have spent on these experiments.

In order to enable Bee-Keepers to manufacture their requirements of such combs for themselves, I have started a subscription to a pamphlet in which my experience, as also the manufacture of the combs and the mode of using them, shall be described. Any one who engages to buy from me such pamphlet at the price of 1m. 50d. (1s. 6d.) will in due course receive a copy post paid, in case I can get at least a few thousand subscribers. The pamphlet would be posted to all subscribers on the same day.

This, I think, is the cheapest way for Bee-Keepers to take advantage of my invention, for which in that case I should not take out a patent. But no time should be lost if Bee-Keepers are desirous of having the new comb ready for use by next Spring.

The pamphlet may be ordered by post-card

or through Bee-Keepers' Associations, and the order once given remains binding. I will announce in the *Bee Journal* the date when payment is to be made, which will be when the pamphlet is ready to be posted.—H. KOERBS, *Teacher and Organist, Berka on the Ilm in Thuringia, November, 1887.*

From the *Deutsche Illustrierte Bienenzeitung*.

We have frequently expressed the opinion that artificial combs might possibly become of importance to Bee-Keepers, as it would perhaps be possible to construct them in such a manner as to exclude the queen from the space reserved for the storage of honey, and thus to restrict breeding. This now appears likely to be realized. Mr. Koerbs, of Berka on the Ilm, in Thuringia, wrote to us a short time ago: 'Prompted by a remark which I had read somewhere, and after careful study in the apiary, I have succeeded, by means of a comb specially constructed by me, in dispensing with the separating board, as far as the obtaining of honey is concerned. The advantages I claim for my artificial combs are:

'1. They are made of pure wax by means of the Rietsche press, and are not used by the queen for breeding, even if the combs are inserted in the brood-nest.

'2. They are very durable.

'3. The most delicate combs will stand the employment of full force in extracting the honey.

'4. The honey is extracted very quickly, the operation scarcely requiring half the time it takes to empty other combs.

'5. In bad seasons these combs remain empty, not being used for breeding, and there being, unfortunately, no honey to collect.

'6. The bees do not carry pollen into these combs.

'7. The separation of the honey compartment in the hive from the brood-nest becomes superfluous.'

Mr. Koerbs promises a good deal. What Dzierzon often imperfectly realized by means of his diamond rule, and others by means of a division-board, Vogel's canal, or by merely moving the combs together more closely, may now be obtained more easily and in a more natural way by the use of Koerbs' artificial combs. Mr. Koerbs has been known to us for a long time as the fortunate inventor of the frame machines which go by his name, nevertheless we were not over sanguine in regard to his latest invention. But as he offered to give us particulars of his invention if we would give him our word of honour not to divulge his secret, we complied with his

desire, and asked for full particulars, which were readily supplied to us; and in addition we received one of Koerbs' artificial combs completed by the bees from which the honey had been extracted several times. How simple a matter it appears! It is, indeed, another case of the egg of Columbus, and it seems strange the idea has occurred to no one before. Nobody by merely looking at Koerbs' artificial comb, as put up by us, will see anything particular in it, but when you take it into your hands and have a little explanation given you, the importance of this invention becomes at once apparent. If this new invention should accomplish only half of what Mr. Koerbs expects it to do, we shall undoubtedly see a great revolution in the manufacture of artificial combs, as well as in Bee-keeping generally.—C. J. H. GRAVENHORST.

[We received the enclosed notice of a new artificial comb, with the request to give an opinion on it, and a promise to send us a sample comb if we would undertake not to divulge the secret. This we undertook to do, but pointed out that we thought British Bee-Keepers would look with suspicion upon the method employed to make the invention known, and suggested a simpler method. The inventor prefers now to keep the idea secret, so we give the opinion of M. Gravenhorst upon it, taken from the *Deutsche Illustrierte Bienenzeitung*. If, as there stated, the invention would be a valuable one, it would be a pity if some method could not be devised to bring it into the market other than the one of collecting 1s. 6d. from each Bee-Keeper previous to sending out the pamphlet. Why does not Mr. Koerbs sell his invention to some foundation manufacturer, and introduce it in that way, or take out a patent and charge a small royalty?—Ed.]

British Bee Journal, March 15th.

The new foundation is made on glass, wood, tin, card-board, or other material, with the impression of the cells in wax on one side, the other being left smooth.

The idea of having one-sided foundation is certainly novel, but it remains to be proved by experiment whether it will be of so great a value to us as it would be to German Bee-Keepers, whose hives have a brood-space so much smaller than ours. The cell is elongated to prevent the queen laying in them.

[Such an invention will be of no practical value to Canadian Bee-Keepers. We can secure elongated cells by spreading combs during a good honey flow, but we have no desire to retard the ripening of our honey in the cell which added depth would induce. It would also injure the quality of the honey for the same season.

We are indebted to the Germans for much in bee-keeping, but this invention is of no use to us.—Ed.]

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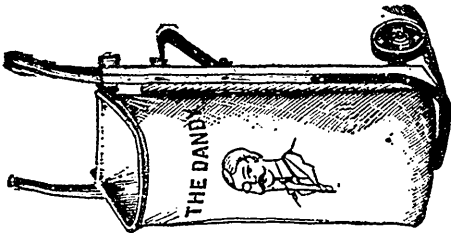
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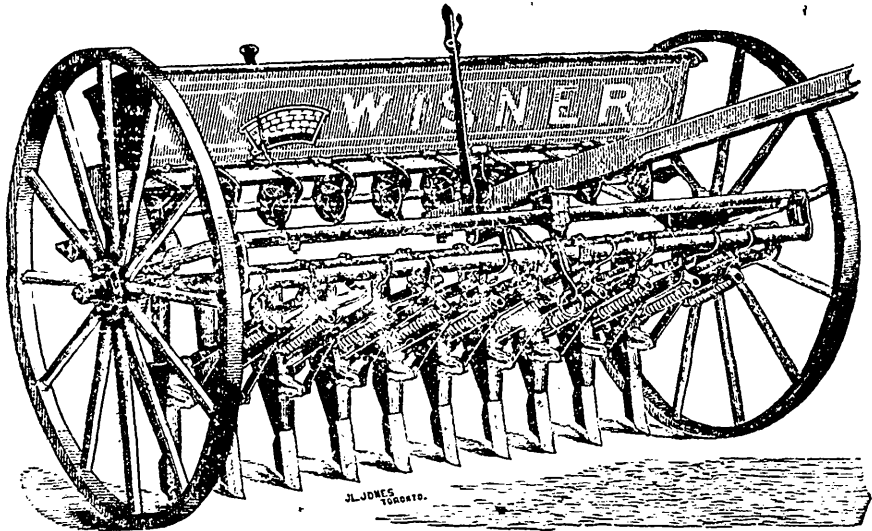
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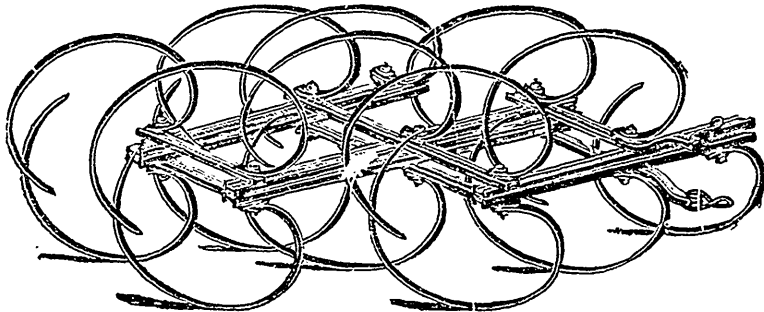
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