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THE



CANADIAN

Honey Producer.

Its Reading Columns for the advancement of Honey Producers exclusively.

Vol. 2.

BRANTFORD, JUNE, 1888.

No. 4.

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.

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

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

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

TO CONTRIBUTORS.

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

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

The Canadian Honey Producer one year with the following Books:	
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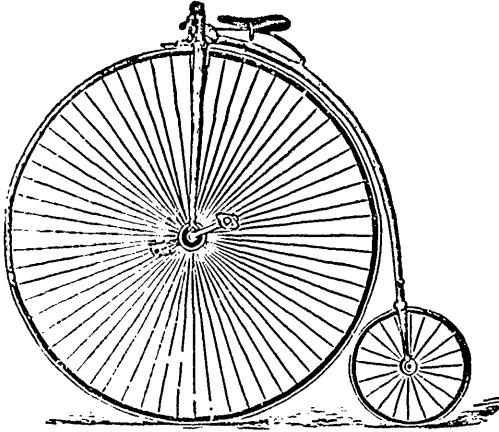
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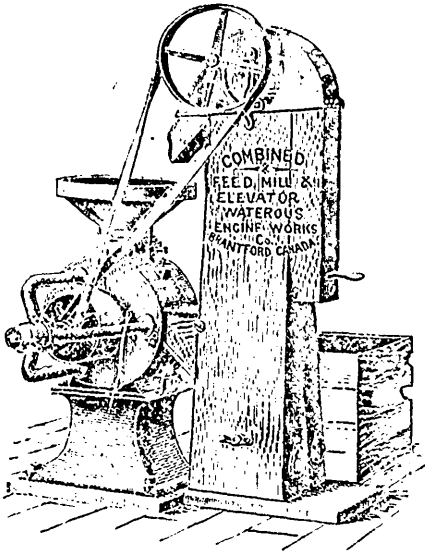
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The Production of Comb Honey.

A neat little book of 45 pages, price 25 cts. The REVIEW and this book for 65 cts. Stamps taken, either U. S. or Canadian.

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The twelfth thousand just out. 10th thousand sold in just four months. 2,000 sold the past year. More than 50 pages and more than 50 costly illustrations were added in the 8th addition. It has been thoroughly revised and contains the very latest in respect to Bee-Keeping.

Price by mail, \$1.25. Liberal discount made to Dealers and to Clubs.

A. J. COOK, Author and Publisher,
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THE BEE-HIVE

Contains Questions and Answers, Whit and Yumer (comic.) Departments, and is the only Bee-Paper publishing G. M. Doolittle's Method of rearing Queens; being the most natural way yet discovered, and like all of Mr. D.'s writings, practical. 4 Nos. of Bee-Hive giving above method, 15c; or Bee-Hive and Canadian Honey Producer one year for 60c.

E. H. COOK, Andover, Toll Co., Conn.

THE CANADIAN
HONEY PRODUCER.

Vol. 2. June, 1888. No. 4.

Beginners often make mistakes in purchasing bees, they will lift the hives to see which is the heaviest. Then again even if the top of combs are examined there may be but few bees. If there is but a narrow strip of comb in the frame the bees must crowd near the top and a number of bees thereon be no true index to the strength of the colony. A colony may be queenless. In short better get a man of experience to buy for you or help you.

The report that E. L. Goold & Co. are purchasing six hundred colonies and intend to establish extensive apiaries about Brantford, is not correct. Mr. Goold is connected with several extensive establishments such as J. C. Wisner Son & Co. ; Goold & Knowles; The Goold Bicycle Co. ; E. L. Goold & Co., besides other business, occupying his whole time. Mr. W. H. Shapley, the Co. in Goold & Co., is also connected with another of the firms given above. The above will occupy their entire attention for the present year.

Angus A. Taylor and Duncan Deware of Belmont, purchased some bees in St. Thomas. While driving home some of the bees got out and stung the horses. Mr. Dewar was thrown out and being an old man sustained injuries from which he died. The horses were prevented from running away. Mr. Taylor had become a subscriber for our Journal. Great care should be taken in moving bees that everything is secure and will stand rubbing and jarring. If bottom boards are clamped secure them with a nail, and fasten wire cloth well. If nails are not driven quite home there will be no trouble in removing them when required.

OUR OWN APIARY.

This date, (May 17th,) bees are working well although working the entire day in the apiary, the bees have made no attempt at robbing, and we find whole combs of fresh honey. We have spread but little brood ; if a colony is very strong we insert a comb of honey. If medium we turn the outside combs. If weak, of which we have but few, we do not spread, the Spring has been too cool and unless done very carefully it does more harm than good.

To beginners we would say do not put your super upon the hive until the bees build brace combs above the top bars and the upper edge of the combs show they have been newly drawn out and honey stored in them. We have purchased 400 old combs which we know to be free from foul brood and we expect it will give us a big lift this Summer. It is our custom to give a swarm combs if we can, with two or three frames with foundation or starters in the centre and in the supers we put every time we extract two frames with foundation or starters, they can build this out without loss and it gives us many extra combs each time. We may say extracted honey is mostly taken and if a colony shows a disposition to build drone comb such frames are not inserted.

It is our intention to rear queens this Summer as we require to have an extra hand and in our next issue we shall give the method to be adopted in rearing them.

This day, May 21st, bees have been working well and some colonies have gained as much as $2\frac{1}{2}$ lbs. in our apiary.

May 26th.—Our bees are booming on fruit bloom ; we are putting upper stories on most, taking a frame of brood above and replacing it with cards of foundation to be drawn out in upper story. We put in addition to frame of brood one, two or three frames

with foundation to be drawn out. To contract chamber above we use a division-board. We thus get foundation drawn out and give the bees room and prevent early swarming.

We welcome as an exchange "Rural Life." It is only 20c. per annum, or we can club with it for 50c. per annum. It is published at Marshallville, Ohio, U. S.

We are in receipt of 1st, 2nd and 3rd numbers of "The Bee-Keepers' Adviser." It is published monthly in England and edited by Thos. Wm. Cowan, F. G. S., F. R. M. S., &c., who is also proprietor, his object being to give a cheap Journal to the cottagers and advance bee-keeping in that way. The annual subscription is 2s. (50c.) and may be remitted to us. We can supply it and the Canadian Honey Producer at 80c.

First fruit blossom, English-Cherry, was noticed May 15th. The season has been very backward. If Bee-Keepers only can get their bees strong we incline to the opinion there will be a good honey flow.

We have at this moment with us Monsieur de Neiderhausen of Geneva, Switzerland. He came here direct from his native place. He has kept bees for 5 years. It is his intention to learn bee-keeping as it is conducted in America and embark in the business. We have secured him a position with one of the best Bee-Keepers in America. He saw Mr. Cowan two hours before his departure. The latter is in Lausanne, Switzerland. We shall have more to say about Swiss Bee-Keeping in a later issue.

For The Canadian Honey Producer.

Breaking down Queen Cells to prevent Swarming. Shall we do it?

Carlingford, April 23rd, 1888.

In localities where the honey season does not last for more than six or seven weeks, and

when the Apiarist has as many colonies of bees as he can well care for, it becomes desirable to prevent swarming as far as possible, in order that all colonies may be kept very strong and have a large working force while the flow lasts.

If the bees can be managed in such a way as to prevent their getting the swarming impulse there will be no difficulty, but when once this has been acquired, it will be necessary to satisfy or overcome it, in order to successfully prevent swarming.

This cannot be done by breaking down queen cells so long as the bees are allowed to retain their old queen. Should it be attempted, they will build again as fast as they are destroyed, and the work will require to be done over again every few days. This will necessitate the removal of the surplus arrangements each time the work is done. Some cells are very apt to be built in corners of the combs where it will be difficult to see them without shaking off the bees when the hive is crowded. The bees almost cease working when about ready to swarm and such frequent disturbances would prevent them resuming again even if they otherwise would.

It will be seen that to manage a colony in this way would require a great deal more work than would be required for the two colonies if they were allowed to swarm, while the return would be much less satisfactory to the Apiarist.

Then in practice many unforeseen difficulties would arise; for instance, the bees might become dissatisfied with the queen and destroy her, in which case if all the cells were broken down and no eggs left from which to rear others, a troublesome case of fertile workers would result.

The swarming impulse might be overcome by removing the queen as soon as the first cell was sealed and then in about 7 days break down all but one cell, from which they could be allowed to raise a young queen. I do not think this plan would be advisable as there is apt to be trouble in some way in having queens fertilized in strong colonies that have prepared to swarm. If they are given a comb containing eggs, they may build more cells and swarm with the new queen. If the eggs are not given and the queen should be lost we would have the fertile worker trouble again. With regard to after swarms the case

is different. If all cells except one, are broken down before the first queen issues, they may safely be given a comb containing eggs as there will be little danger of more cells being built unless the queen be lost.

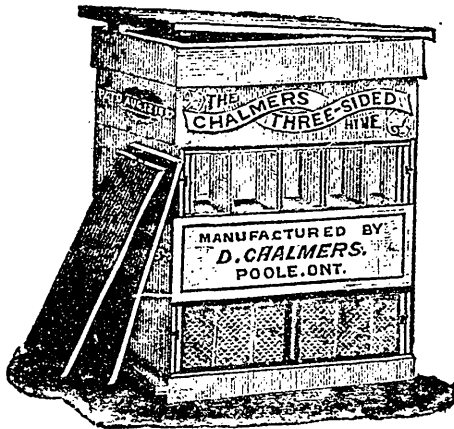
The following plan, which is substantially the same as given by Mr. Heddon, will work well:—Allow the bees to swarm and hive the swarm on the old stand, placing the old hive beside it, but with the entrance facing in another direction. Gradually turn it back so as to face in the same direction, and in five or six days remove it to a new location. The surplus arrangement would of course be given to the swarm. By this plan the swarming impulse is satisfied, a very strong working force is kept in the supers and there need not be much increase as two or three of these weakened colonies may be united after the queens commence to lay, using the extra queens to replace old ones.

There will not be much need of breaking down queen cells as there will be so few bees left that the first hatched queen will be allowed to destroy all the rest.

A. G. WILLOWS.

The Chalmer's Three-sided Hive.

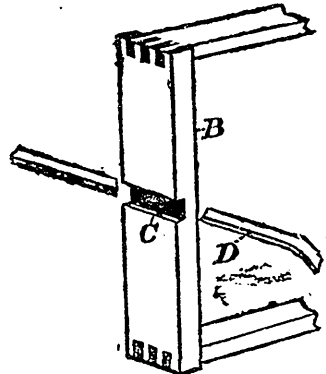
As promised in last issue of C. H. P. I herewith present cuts with description of above hive. Considerable of the explanatory part given in last number will have to be repeated in order to make it more convenient for the reader.



My patent don't really cover any new kind of hive, but simply new and useful improvements in bee-hives, consisting of moveable

sides, (Fig. 1.) and cut in ends of frames, (Fig. 2,) whereby the frames are suspended on iron slides and one side of which engages a groove in inner centre of ends of hive while the other side projects far enough to support the frames in C a transverse groove in centre of ends of frames of about 11-32 of an inch in width; the slides pass through the ends of side pieces of hive as well and can be slipped in or out from either side; they are well adapted for supporting the frames and at the same time are so secured that they cannot spring or bend under the weight.

When the hive is inverted the comb-frames drop 5-16 of an inch and thus resume the same relative position as before. It is immaterial which side of the hive is up and should the manipulator see fit to invert it he may rest assured that on his return he will find the frames retaining their position; no danger of dropping out of place.



B (Fig 2,) indicates the comb-frames which are 5-16 of an inch less in vertical dimensions than the hive, so that when the latter is in position the upper level of top hive giving full bee-space between top of frames and honey board; they also hang slightly below the bottom of hive. By this arrangement it will be seen that when the latter is placed across the bottom-board or other level pieces, that the frames will be raised to a degree sufficient to relieve the slides which can then be easily withdrawn allowing any of the frames to be taken out, or the hive lifted off all frames at once, or without either changing the position of the hive or removing slides but simply by detaching the side, the manipulation is readily accomplished. The reader will understand at a glance how nicely the movable side works with my plan of suspend-

ing frames with closed ends, the mode of securing adjustable side is yet incomplete, it should have spring enough to come and go with closed ends, frames (or sections side by side) as effected by weather.

The bottom-board is also invertable, it is made of a board of equal width with interior of hive, with pieces nailed to sides and one end corresponding in thickness with sides of hive and wide enough to project $\frac{3}{8}$ of an inch on one side and $\frac{3}{4}$ of an inch or more on the other of said board; the former is for summer and the latter for winter use, and requires to be turned up in early fall. The winter extension I don't claim, but am told that it is the invention of Mr. J. B. Young, of Stratford, (I also saw in a late issue of the A. B. J. a similar board described so far as I have gone.) Across the centre on the summer side of this board I drive a row of strong wire nails until the top of their heads come level with top of ledges, one nail under each frame. This is to prevent the frames from sagging; the interior of the frames are supported by a strong wire which reaches from lower to upper bar, and the frames in cases above (should there be any,) by a piece of tin 5-16 of an inch in width, which stands on edge on the frames below. It is T shaped on either end and its position maintained by those ends being placed between the lower and upper side frames.

The honey board is made of woven strips of wood (same as window blinds,) they are strong enough to carry their own weight across the hive and only being propolised around the under edge of hive are easily ripped off.

The top, as shown in (Fig 1,) consists of four narrow pieces being nailed together, rabbited on one edge to rest on hive. This is used for packing Spring and Fall, and in hot weather keeps the cover at a distance from the combs and bees. The roof is flat and is held in place by cleats being nailed to lower side of it; which slip inside said box.

Trusting the explanations are sufficiently explicit and thanking the C. H. P. for the use of its columns,

I am very truly yours,

D. CHALMERS.

ECHIUM VULGARE.

Echium Vulgare, commonly called Vipers-Bugloss and Blue-weed, having received some attention from Bee-Keepers and they being desirous to know if it is a noxious weed, we thought for the interest of Bee-Keepers and Farmers it would be well to hear from so high an authority as Prof. Panton of the Ontario Agricultural College.— We may say after having studied under Prof. Panton that he is not only fitted by education to give a correct opinion upon this question, but is by early and present surroundings able to speak of the habits of this plant and the effect it has upon agricultural districts.

The following is his reply to our enquiry :

Agricultural College, Guelph, May 4th, 1888.

Yours of the 1st is before me. In reference to the "Blue Weed" (Echium Vulgare,) I may say that it seems to me that some other plant might be found blooming at the same time equally good for honey supply and with a much better character as a plant.— This is a weed which spreads rapidly and persistently especially in lime-stone districts. It is very partial to lime, there being quite a large percentage of that compound in its ash. There are worse weeds than this to eradicate, for being a biennial the limit of its vitality is reached at the close of the second year. It seldom invades open fields where thorough cultivation is carried on, but in fence corners it takes hold and in stony districts it soon becomes master of the position. It has a habit by which the seeds heap together and especially in winter roll over the snow across long distances so as to become widely distributed. In the county of Gengarry this plant has become a perfect nuisance! It has spread over wide areas which it has rendered useless for pasture and being somewhat stony the fields yield no income.— Around Guelph our road-sides are rendered unsightly by its presence, and in some cases fields too are invaded. In some parts of Ontario farther west it has also become a serious weed. I fear if Bee-Keepers encourage its growth they will soon have many disap-

pointed by seeing this plant rapidly gaining ground, where it is difficult to keep it in subjection. I have often observed it while in flower and never was struck by its receiving much attention from bees, though looking for them, and I fear its character as a weed (for it belongs to a low family, the *purse*), is too bad to ever secure the approval of farmers.—

J. HOYES PANTON.

Can we use the Honey Extractor without increasing winter loss and injuring the quality of Honey?

The above question is a very important one and a question which takes up a very wide field in bee-keeping. My answer is, as far as it lies in my power to answer. Generally the extraction has led us to have greater winter losses and too often an inferior honey which has hindered the development of our honey markets. Greater winter losses on account of frequent disturbance of brood chamber and insufficiency of stores left the bees. If no upper story is used the combs and natural position of the brood chamber is constantly changed, the losses of queens more frequent and we often extract to-day to find our bees are starving to-morrow, and feeding has more frequently to be restored to, and this has often meant robbing, and wearing out bees to feed back to them at a loss, what should never have been taken away.

In a hive which is now generally used where the upper story is used for extracting, the evils are less, but here too, care must be taken that bees will have left them in combs sufficient stores for winter. The more frequently we extract or more properly, the less we crowd the surplus arrangements the less honey we will likely have in the brood chamber at the close of the honey season.

Now as to quality of honey, it has been deteriorated by the desire to have large quantities, and it has been taken from the combs and sold before being capped or ripe, and placed upon the market when as inferior both in taste and value as a food as the chicken which crawls from the shell is inferior in the same respect to the matured pullet.

I may as well here say, I am not in favour of ripening honey artificially and am satisfied that it is inferior to that which has been

ripened in the natural way by the bees, but even granting that it is equal, how many of our Bee-Keepers ripen it—not one in ten thousand.

In order to develop our honey market we want an article which attracts the eye and by this method awakens a desire to taste and which when tasted gives no disappointment but rather leaves the partaker agreeably surprised, the flavor being even more pleasing than was anticipated. Then it must have a value above sugar, although the difference in price is now but small, and in honey properly ripened we have a food pure, wholesome and ready for assimilation by the weakest stomach if taken in the right quantity. That such can be claimed for the fluid which some extract from the combs is impossible.

Now it will be claimed that all their evils can be prevented, so they can by one who knows how to do it, but we must remember this has been—and we must remember that there has been more honey taken by the novice than the experienced. What we should then aim at, is to make the honey extractor a useful instrument in the apiary, an instrument which will help us to produce a better article than formerly, at a cheaper rate, and help us to winter our bees by judicious use instead of injury. Let us produce only ripe honey and it will advertise and sell itself, let us use it when the brood chamber is crowded and it will then prove an advantage; and lastly let us provide combs of sealed stores which will prove ample for fall, winter and spring use and do away with feeding.

Let no one imagine it is advocated to keep bees in their natural condition, let us aim at that and only depart from it as far as is necessary with our primary aim—profit.

R. F. HOLTERMAN.

The Bee-Keepers' Review. Hiving Swarms with Clipped Queens.

In reply to the above Mr. G. M. Doolittle contributed the following excellent article to the A. B. J. We give it in a condensed form.

Although I clip my queens, I have, for the past five years, hived very few swarms by the returning-plan, but when I do, the plan

is thus : When a swarm is seen issuing, I (or Mrs. D.) step to the rear of the hive and then look on the grass to one side of it to see if there are many bees there, thereby indicating the presence of the queen ; and if not, step up on that side and glance over the ground in front of the hive. If the swarm has nearly done issuing, the queen is readily found by a little cluster of bees being about her. If just commenced to swarm, look at, or near the entrance where she will be seen running as soon as she comes out. Have on hand a round wire-cloth cage, $1\frac{1}{2}$ inches in diameter by 8 inches long, made by rolling a piece of wire cloth around a stick, and sowing the sides together, when a stopper is to be fitted in each end.

As soon as the queen is seen, place the cage in such a way that she will crawl into it, and if a few bees go in with her, all the better. Now move the old hive back, and place in its place the one which the swarm is to occupy, when the cage with the queen is to be laid near the entrance. Place the old hive where you wish it to stand, or move it up beside the new hive at right angles, a la Heddon, as you prefer. Have on hand two sheets, one of which is to be placed on each of the hives on either side nearest the one now awaiting the swarm, so that they can be spread over them should the swarm attempt to enter these hives upon returning, which they rarely will do if the queen, with a few bees, is left at the entrance of the new hive. Leave the queen caged until nearly all the bees have entered the hive (or become clustered on the outside, as they sometimes will do,) and are quiet, when you will let the queen go in. By thus keeping the queen caged, you will avoid the difficulty of her running out, and the bees with her.

If they are clustered on the outside of the hive, let them become quiet after the queen is out of the cage, when you will detach a few and start them to running into the hive ; then detach more bees, and so on until all have run in.

If several swarms come out together, more sheets are needed, so that if more than the right proportion of bees draw toward one of the new hives placed on the old stands, a sheet can be thrown over until they go as you wish them to. But, as I said at the outset, this plan of hiving does not necessarily fol-

low having the queen's wing clipped, although many prefer it. The simplest plan, and the one I use most, is to go to the woods and cut a light, tough pole, which will reach to the top of my tallest tree, providing that it is not more than 20 to 25 feet high. If swarms attempt to cluster higher than this, I always use the returning-plan above given. Have the large end of this pole sharpened so it can be pressed into the ground when necessary. Near the upper end of it fasten a few dry mullien tops, or a roll of black rags, as large around as your arm, and a foot long, when your pole is ready.

When a swarm issues, proceed to get the queen as before, and when caught, secure the cage to the black bunch at the top by means of a bent wire. Raise the pole in the air, and keep it where the bees are thickest, when they will often alight on the pole ; and if not, they will soon select a spot to alight upon the same as they would if the queen were flying with them, for her presence is known to them just the same as if she had her wing whole and was among them.

As soon as they begin to alight, place the pole in such a position that the queen and black bunch comes in the place they are clustering ; and leave it thus while you are preparing a hive for them. When they are partially clustered, raise the pole, or push it up and out, so that the queen and bunch of rags, with the bees on them, is a foot or so from the limb, when all the bees will cluster with the queen ; after which you can carry them wherever you please, the same as Mr. Hutchinson does his branch after he has cut it off.

You should also hive them as he tells you, by first detaching a small part of the cluster, and after they start up the call of a "home is found," detach more, and lastly let the queen go in.

Now we will suppose that the second, third or fourth swarm issues before you get ready to hive the first, simply let them cluster on the pole, and you are at liberty to prepare the second, third, or fourth hive, as the case may be, leaving a queen in front of each hive except the first, as that has the queen on the pole. When all are clustered, take the pole and carry it to one of the hives having a queen in front of it, when you will proceed to hive them as at first, till you have got the right proportion of bees for one hive, then

go to the next, leaving enough for a colony there, and so on until all are hived as you wish them.

BORODINO, N. Y.

To the Editor of Canadian Honey Producer.

SIR :

It will be of interest to the members of the Association to learn that Mr. Geo. A. Howard has been awarded the contract for the supply of Queens advertised for by the Committee.

It may be well to give the text of the Agreement into which it was thought advisable to enter with the gentleman who secured the contract; from it the members will learn what their rights and duties are under the Agreement. The following is a copy :

"This Agreement made and entered into this day of May, A. D. 1888, between Geo. A. Howard of Lynden, in the county of Wentworth, Apiarist, hereinafter called the party of the first part; and Martin Emigh, President of the Ontario Bee-Keepers' Association and William Couse, Secretary of said Association, for and on behalf of said Association hereinafter called the Association.

The said party of the first part agrees with the Association that he will on or before the 10th day of July next, mail to the address of each and every member of the Ontario Bee-Keepers' Association a purely mated Italian Queen Bee, securely put up in a suitable mailing cage, with the usual precautions for safe transit, having written upon such cage in legible characters the name and post office address of the member to whom it is sent, and fully post paid. The said party of the first part further agrees to replace any and all such Queen Bees as may be dead on reaching the post office to which they are addressed.

It is mutually agreed between the parties hereto that such Queen Bees shall be held to be delivered if taken alive from the Post Office to which they are addressed, or if allowed to remain therein more than three days after being received at such Post Office.

The Association agrees to pay to the party of the first part the sum of (\$—) for every Queen delivered to its members in accordance with the terms of this agreement, the production of the certificate of the Post Master of Lynden that such were duly mailed.

But it is mutually agreed that such payment be deferred till the 30th day of July,

and that all Queens that are lost in transit shall be replaced by the party of the first part before the date last above mentioned, such loss being reported to the party of the first part within ten days after their being received at the Post Office to which they are addressed—otherwise the party of the first part shall not be responsible.

Signed, Sealed and delivered in presence of Sig'd GEO. A. HOWARD. (L. S.)

" MARTIN EMIGH, P. O. B. Sealed (c. s.)

" WM. COUSE, Sec'y. O. B. Sealed (c. s.)

Signed, M. WHITE.

From the above it will be seen that Mr. Howard's responsibility for the safety of the Queens ceases as soon as they are taken out of the Post Office and if allowed to remain more than three days in the Post Office. Anyone whose Queen may be dead when received at the P. O. will do well to report the fact to either Wm. Couse or myself at once that intimation may be given to Mr. Howard in due time.

R. MCKNIGHT.

MAKING HONEY VINEGAR.

Long ago I was requested to describe my plan of making honey vinegar. To simplify the whole understanding of the matter, it is well to state just how much honey is required to make a gallon of the best vinegar made. One pound of honey and one gallon of water will just make the article required.

That is, 29 pounds of honey will make—water being added to it enough to fill a regular 32 gallon barrel—one barrel of the best vinegar. The vessels I use to make it in are common alcohol barrels, which I find at drug-stores. I saw out one of the barrel heads and paint the outside to prevent the iron-hoops from being destroyed by the vinegar.

The barrels and vinegar are kept in my house-cellar, so covered with burlap as to keep the dust out and let the air in.

One year converts this water and honey into the choicest vinegar. More age will make it sharper or more acid, but at one year old it is fine enough for any use.

Of course sweetened water from washing honey-cappings is the most common waste of the apiary, and to utilize it is presumed to be the desirable matter in connection with honey vinegar. Still with the low price of honey bee-keepers may find a reasonable outlet for some of their poor honey, such as is unfit to sell as an article of delicate luxury for table use.

To know how sweet water slowly sweetened and constantly fermenting should be, is one of the difficult features of converting the washings of cappings into vinegar. An instru-

ment used by brewers known as a Saccharometer, would, of course, show the amount of honey in the water, even if the taste did not fully determine the increasing sweet in the water as it was souring. I have made a few cheap instruments to be used by those who wish to know how sweet water should be for vinegar, and may be relied upon as permanently accurate for such test.

Vinegar made of honey may be evaporated, and the honey will candy in the residuum, and may be so reclaimed when honey is more prized than vinegar. So it will be seen the honey still holds its place, even though it has previously been the most perfect vinegar.

I trust that the above may enable many to obtain the one article of universal use, in its known pure state.

T. F. BINGHAM.

Amboniar, Mich.

*Bulletin from the Ontario Bureau of industries,
issued by the Ontario Department of
Agriculture.*

BEES AND HONEY.

It was evident when the bees were placed in winter quarters that the season would be very trying to them. The flow of honey had ceased unusually early in the summer, and so had breeding, and as a consequence stores were light in the hives and the occupants were chiefly old bees lacking the vitality to stand a long period of winter seclusion. Losses are reported as general, ranging from 5 to 75 per cent, and it may be assumed that about one-fourth of the colonies entering the winter died before the time came for their spring flight. The counties of Huron, Bruce and Simcoe seem to have suffered most heavily in the matter of winter losses. In many instances the bees died of actual starvation, owing to the scant supply of summer honey, and poorly ventilated cellars are also ascribed as a cause of loss, although several experienced apiarists express themselves as puzzled to account for the mortality in certain cases. Many of the surviving colonies were weak from long confinement in their winter repositories, and the cold and backward spring thinned them out in several districts. Complaints were also made of losses from dysentery and spring dwindling. Where specially well fed and cared for during the winter, the honey makers came out as a rule very lively, and are busily engaged now carrying early pollen. No mention is made of foul brood from any

quarter. An effort was made during the past winter, at the suggestion of the Bee-Keepers' Association, to procure statistics of the industry, and three thousand schedules were sent out to apiarists in the province. Returns were received from 651 persons sufficiently complete for tabulation, the aggregates of which showed that 19,015 hives were put into winter quarters in 1886, and 23,828 in 1887. The season of 1887 opened with 14,613, showing a decrease of 4,402 during the winter; but as sales were not reported it is not likely that the whole decrease was due to mortality. The increase by colonies last year was 10,863, making an aggregate of 25,476 hives for the season. These gave a product of 112,477 lb. comb honey, 499,093 lbs. extracted honey, and 6,686 lb. wax, valued at \$67,237, or an average of \$103.28 for each proprietor. Full returns for the province would doubtless show that the industry is one of very considerable importance, but a practical difficulty in the way of procuring statistics is the lack of a complete list of apiarists.

How to use the Extractor.

Most Bee-Keepers raise both comb and extracted honey and some are of the opinion that it does not require so much care for extracting as it does for comb honey. But to extract at the proper time without injuring the quality by not waiting until it is perfectly ripened and also have enough of good honey in the brood chamber to carry the bees through with safety till next summer, requires more care and is more difficult to manage properly than the production of comb honey. There is generally more loss in wintering those extracted. Leave those hives set apart for extracting without putting your supers on until they are full and crowded with bees; consequently you will have the outside combs full of honey some in the ends and along the top of all the frames. This honey will be well ripened for winter use and very seldom you will have dysentery among your bees in winter. If you put on your supers too soon before the body of the hive is filled with bees, they will commence to store honey in the centre of your super, right over the cluster before the outside combs in the body of the hive is filled, and the queen

will fill the outside combs with brood, and when the honey season is over your hive will feel rather light when the brood in the comb hatches out, and they will have to be fed or they will starve before winter is over.

When extracting keep some of the best filled and capped combs for feeding; put what you think necessary into the hives that are light. They are better for feeding than liquid honey or syrup. If there is feeding required have it done early in September so the bees can have it capped over and ripened before cold weather sets in. I have seldom seen any that required feeding that was used for comb honey. It is the amount of storage room they have in extracting that keeps them filling up the surplus combs when emptied at the expense of the brood chamber that causes the difference in the broods. When the combs in the supers are all filled and about two-thirds capped you may safely extract and have a good quality of honey that will keep without fermenting. No doubt tiering up is very good for a good quality of honey, but is more expensive and will require double the amount of supers and comb, and will be more apt to make your bees swarm more when you don't want them.

I know some will not agree with me in some points such as contracting the brood chamber. I could not see the benefit in getting a large amount of surplus honey and feeding a large share of it back again or a substitute for it. I got the largest amount of surplus honey from a twelve frame Langstroth that ever I got.

DR. DUNCAN.

Answers to Queries for May, Omitted last issue.

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.

Do not allow the impure drones to fly, by keeping one of Alley's drone traps before the entrance.—J. & R. H. Myers, Stratford, Ont.

Prevent the rearing of drones in the Hybrid and Black colonies by using all worker combs and use guards on the entrance of the hives to prevent any that may be reared in those hives from flying at any time when your

queens may be out for mating—A. G. Willows, Carlingford, Ont.

For a small apiary the best way is to buy Italian queens as soon as they can be got and introduce one in each black colony, then you won't have any black drones—Dr. Duncan, Embro, Ont.

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?

Use the tiering up system and when the source of the Honey changes, raise up the top super or supers, putting on an empty one and the different varieties will be distinct enough for all practical purposes.—J. & R. H. Myers.

(a) I don't think it is. (b) My experience is that it is most desirable to keep the different varieties separate.—A. G. Willows.

(a) It is impossible; if you want to keep any kind separate you must extract as soon as the change commences. (b) It will answer better; not to leave it until all is capped and keep clover and basswood separate.—Dr. Duncan.

I use full sheets of foundation in the brood chamber, Langstroth Frame. What thickness of foundation shall I use?

To get the very best combs possible, and at the same time, save your money. Wire the frame, and use foundation 6 or 7 sheets per pound.—J. & R. H. Myers.

For wired frames (which I always use) I prefer about six square feet to the pound. If unwired frames are used it should be much heavier.—A. G. Willows.

4½ or 5 feet to a pound of wax. If it sags make it a little thicker.—Dr. Duncan, Embro.

Queries for June.

No. 37. Is there any material difference in foundation made upon the various mills? If so what mill do you prefer?

I have no doubt there is material difference but which is the best I am not able to say as I only use the Root Mill and I am well satisfied with it.—Dr. Duncan, Embro, Ont.

I use the Root foundation for brood, and the Vandervort for sections, I prefer these.—Will Ellis, St. Davids, Ont.

I think that the difference is not so much in the kind of Mill the foundation is made

with, as it is in the skill of the persons who do the manufacturing of the foundation. Foundation made on the Dunham Mill has given me the best satisfaction.—G. W. Damaree, Christianburg, Ky.

I would say no, but have not experimented.—D. P. Niven, Dromore, Ont.

There is no material difference.—John Yoder, Springfield, Ont.

The prime qualities in foundation, depend more upon the kind of wax used, and the proper classification of the same, than upon the machine with which it is made. The Vandervort Mill for natural base and the Van Deusen flat base are each masterpieces of mechanism; and in the hands of skilled manipulators produce foundation, which is a marvel of perfection.—L. C. Root, Stamford, Ct.

Yes I prefer that made on the Given Press.—Ira Orvis, Whitby, Ont.

I cannot say which is the best make of Foundation Mills.—W. Couse, Streetsville, Ont.

I believe Mr. Dadant prefers the Vandervort Mill. I know of no better authority.—A. J. Cook, Agricultural College, Mich.

Yes. Should prefer a Vandervort first and a Root next, but I prefer a Given Press to a mill, and have used one for years.—A. B. Mason, Auburndale, Ohio.

There is a difference but as I buy my foundation I don't know what will make the best.—Dr. C. C. Miller, Maringo, Ills.

There is some difference of opinion in regard to the merits of the flat bottomed cell, and that naturally shaped. I myself prefer the "Root Mill" foundation. It has always worked better than any other in my own experiments.—J. E. Pond, North Attleboro.

I have only used foundation made on Willes' Mill.—A. D. Allan, Tamworth, Ont.

No. 38. In Summer, which part of the compass should hives face?

I prefer facing my hives to the south as they will have a more equal share of sunshine on the front.—Dr. Duncan, Embro, Ont.

Every alternate hive, south and east.—Will Ellis, St. Davids, Ont.

There is probably no difference.—F. Malcolm, Innerkip, Ont.

I front my hives a little south of east and prefer that position.—G. W. Damaree, Christianburg, Ky.

East.—D. P. Niven, Dromore, Ont.

I have them all ways and it don't seem to make any difference.—John Yoder, Springfield, Ont.

At my home apiary, or in apiaries where they are to remain during all of the working season, I usually prefer to have the hives face the south. But when placing an apiary for a short time, when the bees are gathering honey rapidly, there is an advantage in facing the hives in the direction from which the bees bring the bulk of the honey.—L. C. Root, Stamford, Ct.

South.—Ira Orvis, Whitby, Ont.

I prefer front to south east.—W. Couse, Streetsville, Ont.

I prefer east. It is not very important.—A. J. Cook.

I prefer to have them face south.—A. B. Mason.

Mine face east, but south may be just as good.—Dr. C. C. Miller, Maringo, Ills.

I prefer a souther facing at all seasons, the nearer due south the better.—J. E. Pond.

South east if sheltered from that direction.—A. D. Allan.

It is generally allowed that it is best to have the hives face to the south or south east. It may not make much difference in the summer, but at other seasons, when the coldest winds are from the north and west it certainly must be best to have the entrances away from those points.—Miss Henrietta F. Bulter, Cambellford.

No. 39. How shall I make honey vinegar? Give proportions of honey and water.

This is taken from *Bees and Honey* by Thomas G. Newman: Take thirty gallons of rain water, heat it and put it in a barrel; add two quarts of whiskey, three pounds of honey, five cents worth of citric acid, and a little mother of vinegar. Fasten up the barrel and put it in the cellar and in a short time it will contain vinegar unsurpassed for purity and excellence of taste.—Dr. Duncan, Embro, Ont.

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

One pound of honey to a gallon of water.—F. Malcolm, Innerkip, Ont.

I make excellent vinegar by dissolving about one pound of honey to a gallon of soft water, and manage the sweetened water just as I would manage cider for making vinegar. If you make the water about as sweet as sweet

cider, it will turn to vinegar just as cider does.
—G W. Demaree, Christianburg, Ky.

See Muth's receipt as to making. O. o lb. honey to four of water.—D. P. Niven, Dromore, Ont.

Never make it only from the soakage of cappings and rensings of dishes, and have no fixed proportions.—John Yoder, Springfield, Ont.

I have never succeeded in making satisfactory vinegar of honey. My experience would not warrant an authoritative opinion.—L. C. Root, Stamford, Ct.

I do not know.—Ira Orvis, Whitby, Ont.

Don't know.—W. Couse, Streetsville, Ont.

Add water to honey about one lb. to the gallon, and leave exposed in a warm place with cloth over the barrel to protect from dust.—A. J. Cook.

The same way as to make cider vinegar, using one pound of honey to a gallon of water.—A. B. Mason.

No experience.—A. D. Allan.

Put a pint of honey to a gallon of water, let it stand in a warm room to ferment which it will do very quickly without adding yeast. Let it ferment in an open vessel so that you can remove the scum, then put it into a cask with an auger hole in each end near the top, as the cask lays on its side. Tack wire gauze over the holes. The circulation of air over the surface of the vinegar makes it get strong more quickly than it would otherwise do.—Miss H. F. Buller.

CORRESPONDENCE.

Lynden, April 21st, 1888.

My bees are in cellar and in good condition. I expect to open the season with 85 colonies; I clip all queen's wings, and out of 12 swarms which issued at one time I secured 11 separate swarms and queens, (one queen not being clipped was destroyed.) The swarms spoken of above clustered on a tree and was 7 ft. 6 in. high. I brushed sufficient bees into a swarming box at a time for a swarm, none less than 3 lbs. and emptied them in front of their hive allowing a queen to run into each hive.

GEO. H. HOWARD.

As we will have a man in charge over our Apiary this Summer and whose exclusive

work will be there, we intend to clip queens wings, otherwise we should not do so.—Ed.

Langley, B. Columbia, April 2nd, 1888.

DEAR SIRS :

Bees have been flying on and off here for about 2 months they had one spell of about a week and have gathered some pollen from willows, but they will not get much of anything for a month yet.

Yours truly,
ALEX. HOLDING.

Campbellford, Ont., April 28th, 1888

My bees have come through the winter in splendid condition. I packed in sawdust outside; all are alive and strong. 23 I put into my small side hill bee-house and they are all alive and very strong except one which starved to death; two I put into a closet in the cellar just under the kitchen stove, and there was plenty of tramping and noise overhead all day and every day, and the thermometer several times went down to 28° and was seldom above 40°. Most of the time it stood about 36 degrees, but these too also wintered very well. I put a sawdust cushion on top of frames and as an additional protection put an old blanket over the hives so that it came down over the sides. The cellar was dry until about a month before I took the bees out, when some water ran in and made the stone floor quite damp where the bees were.

HENRIETTA F. BULLER.

Embros, May 3rd, 1888.

I am glad to report that I had very good success in wintering my bees last winter. They are doing very well since I set them out considering the cold weather.

DR. DUNCAN.

Fisherville, May 15th, 1888.

My bees wintered well, they are all living.

MRS C. F. HOLTERMANN.

Cromarty, April 11th, 1888.

DEAR SIRS :-

Quite a number of colonies are dead in this locality. They left them outside with insufficient protection against the extreme cold.

W. F. JOHNSON.

The Beo-Keeper's Association at Tilbery Centre has affiliated with the Ontario.

A. G. Willows Carlingford writes: We are getting up an entertainment to help pay for a new temperance hall. There is to be a honey social in connection with it.

Cobourg, May 15th, 1888.

E. L. Goold, & Co.

Sir,—I received the Honey Producer and rather like the ring of it. Please send the March No. of second volume; I guess I'll have to subscribe. Bees wintering outside and inside have all faired alike this cold Spring. Clover is killed by the winter and the probabilities are that the honey market will not be glutted this season.

Yours,

B. LOSEE.

Oxford Bee-Keepers' Association.

Town Hall, Woodstock, May 19th.

Pres. Shelle in the chair. The first order of business was a discussion which was followed by a resolution instructing the secretary to apply for affiliation with the O. B. K. A.

It was decided to devote the funds to prizes at the County Shows on honey, fruits in honey cakes, &c., on condition that the County supplement a reasonable amount. Committee, Messrs. Hall, Shell and Goodger.

The Association decided to pay 50 per cent of the expenses of the representatives. Mr. Whaley, Kintore, was elected one, the second not decided upon.

Tuesday, 9 a. m., Woodstock was decided upon for time and place of next meeting.

Who has wintered without bottom boards?

Mr. W. Goodger had combs clean and dry have not yet noted difference in brood, the season too cold to see yet.

Mr. Whaley had bees that did well. J. B. Hall wintered ten that appeared not quite as good, first of June he can tell better. This winter he had few dead bees and bottom or no bottom made no difference.

The impression was that the cellar must have a higher temperature when no bottom boards.

J. B. Hall related how bees had been wintered hanging up without bottom boards, outside year after year and not dying except when short of stores.

Question.—I have colonies with three to four cards of brood partially filled with

the latter, they have stores enough. What shall I do? They will take care of themselves. They might have a card of honey uncapped and placed outside of division board to keep them employed.

Will they build up for clover harvest? Yes.

J. B. Hall in answer to question—Have bees in 12 Heddon hives, on whole have wintered better in these. Put 100 in cellar, have now 90. 12 Heddon are good, only one weak. The previous winter I had two they wintered. I wintered in 1, 2 and 3 sections. I prefer 2. Anything more I do not know. I set out my bees April 25th, 26th and 27th.

F. A. Gemmel—Have 23 colonies in Heddon hives only lost one colony. The thumb screws I find deficient.

Another has one—The seam between sections seems a disadvantage.

Dr. Duncan had tried them and wanted no more.

The general impression was that bees had not yet suffered from the cold spring, to any great extent.

Toronto Industrial Exhibition.

Sept. 10th to 22nd, 1888.

PRIZE LIST.

HONEY AND APIARY SUPPLIES.

COMMITTEE.—Messrs. Geo. Vair, (Chairman,) Martin Emigh, J. B. Hall, C. Bonnick, J. P. Edwards, H. Glendinning and Ald. Boustead.

SUPERINTENDENT.—Mr. P. Cavers, Hornby.

All honey exhibited must be the production of the exhibitor.

Exhibitors selling honey during the exhibition, (for which right a small fee will be charged,) will not be allowed to make any removal from their regular exhibit, but may have a special supply at hand from which their honey sold may be taken.

All comb honey cut for sale must be put in manilla paper bags and purchasers notified not to eat it in the building. A breach of these Rules will forfeit any prizes that may be awarded.

(See also General Rules at beginning of Prize List.)

CLASS 76.

OPEN TO ALL BEE-KEEPERS (AGENTS EXCLUDED.)

(Entrance Fee, 25 cents each entry.)

SEC.—1. Best display of extracted granulated Honey, in glass, not less than 200 lbs.—1st, \$10; 2nd, \$5; 3rd, \$3.

2. Best display of liquid extracted Honey, not less than 1,000 lbs. of which not less than 500 lbs. must be in glass, quality to be considered.—\$20; \$15; \$10; \$5.

3. Best display of comb Honey in sections, not less than 1,000 lbs., quality to be considered.—\$25; \$20; \$17; \$6.

4. Best display of comb Honey in sections, not less than 20 lbs., quality to be considered, that is to say, clean sections and best filled.—\$8; \$4; \$2.

5. Best display of liquid Linden Honey, in glass, quality to be considered, not less than 50 lbs.—\$5; \$3; \$2.

6. Best display of extracted liquid clover Honey, in glass, quality considered, not less than 50 lbs.—\$5; \$3; \$2.

7. Best Beeswax, not less than 10 lbs.—\$3; \$2; \$1.

8. Best foundation for brood chamber.—\$3; \$2; \$1.

9. Best foundation for sections.—\$3; \$2; \$1.

10. Best mode of securing the largest yield of comb Honey, product to be exhibited in super as left by the bees.—\$3; \$2; \$1.

11. Best mode of securing the largest yield of extracted Honey.—\$3; \$2; \$1.

12. Best and largest display of Apiarian supplies, quality of workmanship to be considered.—1. Silver Medal; 2. Bronze Medal.

13. Best style and assortment of tins for retailing extracted Honey.—1. Silver Medal; 2. Bronze Medal.

14. Best style and assortment of glass for retailing extracted Honey.—1. Silver Medal; 2. Bronze Medal.

15. Best section super for toy story and system of manipulating, product to be exhibited in super as left by the bees.—\$3; \$2; \$1.

16. Best and most practical new invention for the Apiarist.—\$5; \$3; \$2.

17. Best assortment of Fruit preserved in Honey, 6 bottles or jars.—\$5; \$3; \$2.

18. Best Cake or Pastry made with Honey.—\$3; \$2; \$1.

19. Best Honey vinegar, not less than one quart.—\$3; \$2; \$1.

20. Best and most useful green nursery cage.—\$2.

21. For the most tasty, attractive and neatly arranged exhibit of Honey in the Apiarian department, all the Honey to be the production of the exhibitor. Half of this prize is given by the Ontario Bee-Keepers Association.—\$50.

American Bee Journal.

Bees are not mailable to Canada. We received an intimation of this from Dr. S. W. Morrison, of Oxford, Pa., and immediately wrote to Mr. Bell, Superintendent of Foreign Mails at Washington, for the facts in the case, and here is his reply;

WASHINGTON, D. C., May 16th, 1888.

SIR:—In reply to your letter of the 14th inst., I have to inform you that under the Postal Convention now in force between the United States and Canada, queen-bees are absolutely *excluded* from the mails exchanged between the two countries, and consequently are not allowed to be forwarded by mail from the U. S. to Canada.

A proposal has been made to the Canada office to so modify the Convention as to admit, for the future, queen-bees to the mails: should it be accepted by the Canada office, public notice thereof will be promptly given.

N. M. BELL,

Supt. of Foreign Mails.

The Editor of "The Bee-Keepers' Review" in writing to Mr. Cheshire says: Speaking of open-sided sections, Mr. Cheshire calls them an important improvement and says they must be generally adopted, an opinion with which we beg to differ most heartily; but we agree just as heartily when he says: "Sections on the side of the brood-nest give much trouble, and are, all things considered, undesirable." Separators are spoken of as a "necessary evil," and regarded by the bees with a "wee prejudice," but "holding their own because they always give an amount of flatness and regularity, which can only very occasionally be attained without them."

Queries for July.

No. 40. Why do people go into bee-keeping? and why do so many become enthusiasts?

No. 41. Do bees secrete wax at certain seasons of the year, even if not required? or is the action entirely voluntary.

No. 42. I wish to prevent swarming to secure honey. What is the best thing to do with the new and old swarm, should I fail to prevent swarming?

LOOK HERE ?

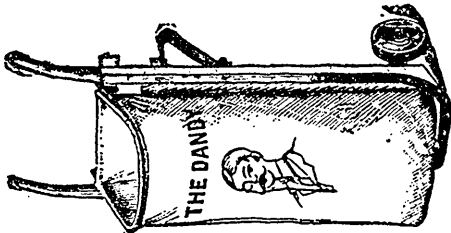
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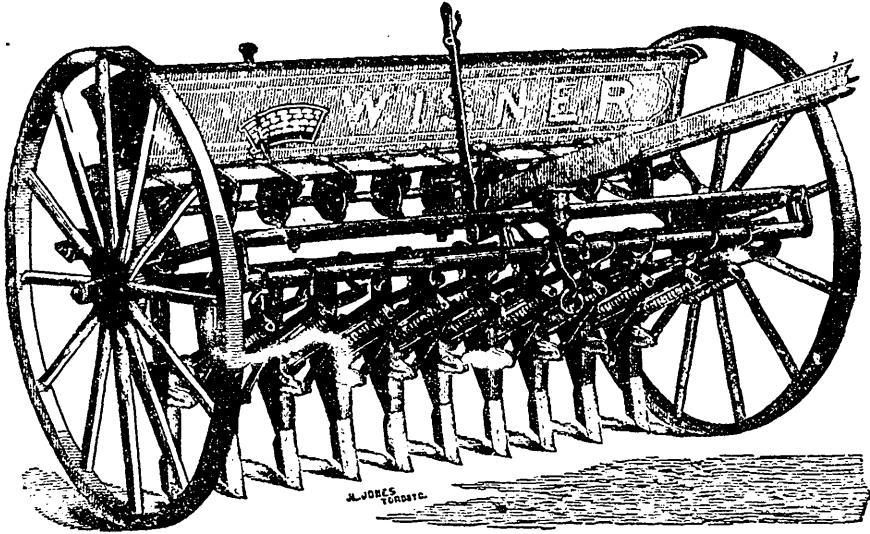
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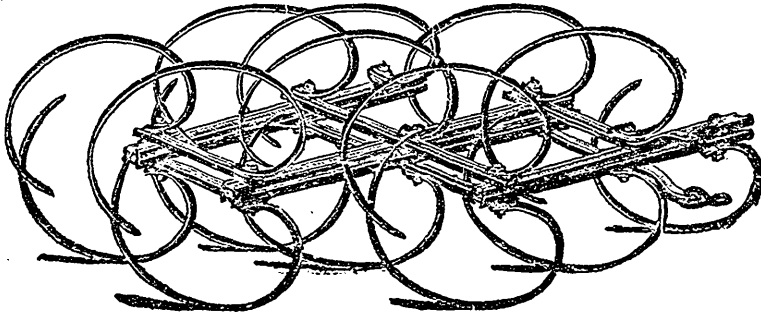
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