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THE

CANADIAN

Honey Producer.

Its Reading Columns for the advancement of Honey Producers exclusively.

Vol. I.

BRANTFORD, MAY, 1887.

No. 3.

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 addressees. For further particulars see our Premium List.

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

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

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

TO CONTRIBUTORS.

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

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

The Canadian Honey Producer one year with the following Books:

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

A. B. C. in Bee Culture, A. I. Root, paper,	\$1.00,	1.25
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Single subscriptions are 40 cents per year.— Three subscriptions for one year at one time, \$1.00. In addition to the above, any one sending us 15 subscribers will receive one of Alley's Queen Traps; and to any one sending 25 subscribers we will send one of our No. 1 Smokers. Postage or express must be paid by the recipient of premium. All subscriptions must be for one year. Any one subscribing for two years will count as two subscribers. The largest number of subscriptions sent in by any one up to 1st May, '87, will receive in addition one complete Blackburne hive for comb and extracted honey. The number of subscriptions must exceed 35.

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

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JACOB SPENCE,

Handles Honey, wholesale, Comb and Extracted.

Largely supplied by Extensive Producers in Ontario.

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

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32 Page monthly.

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The October Number, 1886, of the **AMERICAN APICULTURIST** contains **ELEVEN ES-SAYS** on **WINTERING BEES**, from eleven of the best known Bee-Keepers in the World. Sent free. Address,

HENRY ALLEY, Wenham, Mass.

The Most Useful and Best

Hives, Smokers, Honey Extractors, Sections, Comb Foundation. Also, Bees and Honey,

Sold by **CHARLES MITCHELL,**
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ITALIAN QUEENS for 1887,
FROM HENRY CUPPAGE,
ORILLIA, ONT.

Dealer in Italian Bees, Queens, and Honey.

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

H. CUPPAGE.

Champion's Buggy Tops.

PATENT PROPS.

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

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

TOPS.

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

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Leather Cushion, Drop Back & Fall plain \$10.00

“ “ “ sewed or pleated 12.00

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Velveteen “ “ plain 8.50

HOW TO ORDER TOPS—Send width of seat from out to out on the top of seat.

CHARLES CHAMPION,

Hardware and Carriage Goods, Brantford, Ont.

Patented in Canada and United States,

THE CANADIAN
HONEY PRODUCER.

Vol. 1. May, 1887. No. 3.

The Guelph Central Bee-Keepers' Association, Wellington; the Brant Bee-Keepers' Association, Brant; and the North Middlesex Bee-Keepers' Association, at their last meetings have all shown a deep interest in what steps are being taken to assist in opening out a foreign market. They all feel the necessity of the work commenced last year by the exhibition of honey at Kensington, and the sale of the shipment from Canada being continued under the auspices of the association. Resolutions have been passed and forwarded to the president of the Ontario Bee-Keepers' Association urging him to go on in the work and advising that one of the four directors who went last year to the Colonial, should go to England for the purpose of disposing of the shipment. The North Middlesex Bee-Keepers' Association, requesting that the president himself should go and in case he should not be in a position to go one of the other directors who visited England last season should. We do not know if the president can be induced to go, but have no doubt that if he can make arrangements at all he will make every sacrifice to carry the work he has taken in hand to a successful issue, he has the interest of bee-keepers' at heart in this matter, and the confidence in turn placed by the latter was satisfactorily proven by his re-election as president at the annual meeting in January last.

The sentiment of Bee-Keepers' at large is certainly in favor of carrying on the work commenced, and we think the president can hardly ignore these expressions, and we sincerely hope there will be no further delay in making arrangements.

At the Guelph Central Bee-Keepers'

Association meeting, it was suggested that probably the Niagara Fruit Growers, and the Ontario Bee-Keepers' could make arrangements to ship honey together and make some satisfactory arrangements to occupy the same place of business for headquarters in Liverpool or London, and after the men who would retail Ontario honey had commenced to handle it they could order from this place of business. An arrangement of this kind might be mutually satisfactory and we have communicated with the secretary of the Fruit Growers Association and shall publish his reply.

It seems to be argued by some that the grant of \$500.00 cannot be used to defray a part of the expenses connected with a shipment of Ontario honey to Britian, "Applying a grant to secure big prices for a few of its members." We have yet to learn that the shipment for which \$1000 was granted by the Ontario government and freight paid by the Dominion government was made "To secure big prices for a few of its members." Any man who can or wants to see as far as his hand knows the shipment was made to promote the interests of bee-keepers throughout the Province. Why such under proper management would be the case and will be equally so again needs no explanation. The grant is given to promote the interests of bee-keepers and who can point to a better mode of expenditure. The columns of this paper are open to such to lay before the public such a method.

We would here say that had the plan of sale been as President Pettit stated he proposed at the Colonial we should be able to furnish many retailers with honey by simply sending it to some house in England and notifying such dealers where Ontario honey could be secured. Dealers kept calling during the exhibition for prices on honey, desiring to retail. The majority of the commissioners however decided not to quote them prices

or sell honey desiring rather to attempt to retail it all upon the grounds. After the exhibition closed, prices were not quoted to such parties for some-time. Was this a proper or business like method of treating men who it was our object to reach. Let the public decide. This is a weighty and important matter to every bee-keeper in the country.

It now remains to be seen if President Pettit will consider himself justified in remaining inactive, when publicly called upon to act by large bodies of bee-keepers' in various parts of the Province. This is the expression of every association which has thus far had an opportunity of speaking since the meeting of the directors.

As to the request made by the Guelph Central Bee-Keepers' Association to have a financial report laid before the bee-keepers' of Ontario relative to the shipment of Canadian Honey to the Colonial, we were present at the meeting and stated that those contributing, had a right to call for such a report or any one of them, but other bee-keepers' had a right only in so far as any other rate-payer of Ontario.

For the Canadian Honey Producer.

J. R. KITCHEN, SECRETARY.

The Lambton Bee-Keepers' Association met in the Music Hall in the village of Watford, on Monday, April 11th.

There was a fair attendance and all seemed anxious to exchange ideas on the various questions advanced.

The morning session was short owing to the President not being in attendance until late in the afternoon. The first business was that of calling the roll of officers and members, next was the reading of the minutes of the previous meeting which were adopted, then the Treasurer presented his report which was accepted. The by-laws which had been drawn up by a committee for the association to be governed by was presented and read and a number ordered to be printed and a copy sent to each member of the association.

Mr. J. B. Aches of the adjoining association

was present and was made an honorary member. This closed the proceedings of the morning session when it was moved, seconded and carried, that we adjourn to meet at 1.30 p. m.

AFTERNOON SESSION.

When the meeting was brought to order, the president was asked to give an address, but not having one prepared he declined but insisted on having a question box so that any who were desirous of gaining information could ask any question on paper concerning bee-keeping, and it would be discussed by the association. The first question was "What is the best method of bringing bees through the spring after removing them from the cellar?"

Mr. Aches said, not to set them out too early in the spring. Last spring he did not set his out until the 15th. of April, but as soon as they were taken out he examined any that he suspected of being short of stores, and if they required it he put in a frame or two of honey. He advised not to handle them very much as there was a possibility of some people killing them with kindness, he advised if weak to crowd them on as few frames as possible and place a division board in the hive. He found no trouble in the spring with strong colonies but it was with the weak ones that the trouble was. The question was asked him "What time he set his bees in the cellar in the fall?" He said that if the winter looked like setting in early, he placed them in the cellar earlier than if it looked like being a late fall. He began to prepare his bees for winter during the summer and liked to have them in good condition in the fall when he placed them in the cellar and did not care to have them brooding any during the winter.

Mr. Husband said, that he wintered altogether in the cellar and wintered successfully, especially this last winter. Last fall he took the ventilation pipe out of his cellar and found that his bees wintered much better, he thought it best to keep bees in the cellar until about the time they could gather pollen, providing they could be kept quiet; he kept his cellars absolutely dark and found that his bees kept much quieter; he said that he ran his bees for money, and thought that the reason Mr. Aches wintered so successfully was because he did not extract from the brood

chamber; he said that last winter he wintered exclusively on sugar but thought that probably under all circumstances honey was the best.

The next question was "is a queen excluding honey board preferable for general use." Dr. Harvey never thought of using a queen excluding honey board unless for comb honey.

Mr. Traver had never used one but said that he believed them to be a good article in an apiary; he also said that he believed that if he had used them last season he could have kept his queens in the brood chamber and by so doing would have gained honey enough to have paid for them.

The next question was "why do bees winter drones over the season when in good condition." Dr. Harvey thought it purely an accident. Mr. Aches said that they generally kill their drones off in the fall but had seen a number at different times in the hive in the spring, but thought as a general rule the old queen had died or else they were queenless in the fall when put away.

The next question was "Which is best to winter with, the propolised clothes on the hives or to put new clothes free of propolis."

Mr. Aches thought it best to leave the old clothes on and put cushions on in the fall over the clothes.

Mr. Traver had always wintered with new clean clothes but last fall had left an oil cloth on one hive all winter and packed above it with dry shavings, and thought that it was this spring one of the best colonies he had in his yard.

The last question was, "How is it that comb honey becomes granulated in the summer." Mr. Aches said that it was because sugar syrup was fed to the bees. Dr. Harvey thought it best to keep honey at an even temperature and at a high temperature and then there would be no danger of granulation, Mr. Auld thought it a good idea to keep all honey at an even temperature, at the close of the afternoon session a lengthy discussion arose concerning the British Honey Market and the best way of having our honey reach the British consumer free of adulteration. After a great many plans and ideas were given it was resolved that this association think it best to have the O. B. K. A. handle our honey providing we know about what we will realize for it prior to shipment. It was moved, seconded and carried that we adjourn to meet in the town of Petrolia, on Sept. 1st, 1887.

For the Canadian Honey Producer.
HIVE MANAGEMENT AND HIVES.

G. W. DEMAREE.

In the management of bee hives the "Tiering up Plan" has had its advocates for many years, but doubtless suitable mechanical arrangements to carry it to its best results has been absent in many cases, so as to make the plan less general than it otherwise might have been. Years ago, before I ever saw a section box I systemized the Tiering Plan and made it a greater success. In those days I used four six pound boxes in each Tier, made just the right size so that the four boxes would just cover the top of the brood chamber. The boxes had slots cut in the centers of their tops and bottoms so that they would match each other perfectly, and would work with one side up as well as the other. At the beginning of the honey season one Tier of boxes was adjusted on the brood chamber and when they were about two thirds full they were raised and an empty set put under them, and this process was continued through the season, removing the filled boxes at the top as fast as they were finished, and the honey perfectly sealed. Sometimes the Tiers would be three and four high, owing to the state of the weather, the honey flow, &c. The boxes were provided with starters so that just two thick combs would be built in each box, and the boxes would vary in weight but a few ounces at most. This looks like old fogyism now, but it was the "Tiering up System" in its perfection, and paid me better then in actual cash, than my nearly Automatic Case System now pays me. It is a great mistake to give bees more room at one time than they can utilize to the best advantage. This necessarily makes double Tiered wide frames, and all such deep arrangements out of the question.

MANAGEMENT OF THE BROOD CHAMBER.

Since some not very scrupulous, but immensely visionary, "patent right" individuals have imagined that they have made great improvements in this direction, it is well to look into this matter and see that we be not led into the very common mistake of attempting to take, without giving an equivalent. The agriculturist knows that if he gets large crops he must do it at the expense of his soil,

and the machinist knows that if he wants *speed* he must get it at the expense of *power*, and so on through the catalogue. If we contract the brood chamber of the hive so as to force all the honey into the surplus cases, we must do it at the expense of our bees, and at the expense of great loss when feeding back for winter stores. So when the matter is footed up, and the sheet balanced, the loss is greater than the gain. I have experimented carefully in this direction. I am one of the pioneers of the "Tiering up system"—which is simply the "Contracting system" expressed in other words. Nearly nine years ago I commenced my experiments with the shallow frame, and shallow duplicate case system. I have worked them from the bottom up, and I have found to my satisfaction in my location, that horizontal contraction and expansion is the proper method when manipulating the surplus room above the brood nest, but nothing can be gained by tinkering with the brood chamber, as though honey can be manipulated into existence. When I can get the brood chamber full of brood and honey, at the beginning of the white clover harvest, I never fail to secure a paying crop of honey unless drouth or bad weather intervenes and blights my expectations. In either case my bees come through in good condition, while if there is nothing but *brood* in the brood chamber, as some advise, my bees are left in a starving condition whether the honey harvest is good or bad. In other words the brood chamber can be contracted with solid combs of sealed honey to better advantage than with division boards, especially as the bees must have stores to live on through the heated term, and for to winter on. That bees will work with the greatest energy in the presence of a large quantity of honey, is a settled question in my mind. If you tier up the surplus cases till there are hundreds of pounds of honey in the hive, the minute you put an empty case between the surplus and brood apartments the bees will commence filling it, and work with unflagging energy as long as there is any nectar to be had. If you have your brood chambers full of brood, or of brood and honey the aggregated results will be about the same, but in the one case, your bees will be in good condition—self-supporting, but in the other, in a starving condition.

The discovery of these facts some years

ago, led me to perfect my system of preventing *increase* and utilizing the swarming energy. I found that by my contracting system I could throw the entire energy of the "swarms" into the surplus departments and bring them to near nuclei at the close of the honey harvest, to be disposed of as such, or united together to gather the fall harvest if there is any to gather. Swarms can be utilized in this way to gather a good yield of surplus honey in good shape, the force, nay, the very existence of the swarm being spent in the operation.

These facts show that bees must be managed in accordance with the purposes we have in view.

Christiansburg, Ky.

BRANT BEE-KEEPERS.

THE SECOND ANNUAL MEETING OF THE ASSOCIATION—ELECTION OF OFFICERS.

The second annual meeting of the Brant Bee-keepers' Association was held at the Court House, Brantford, on Saturday 26th inst., at 2 p. m. Among those present were, Messrs. W. R. Brown, D. Anguish, R. Murdo, W. R. Howell, A. Dawson, S. McKay, C. Edmonson, Wm. Edmonson, S. A. Dickie, T. Birkett, R. F. Holtermann, O. McAlister. The President, W. R. Brown in the chair. After the usual routine business the following officers were elected: President, W. R. Brown; Vice President, John Inksater; Sec-Treas., R. F. Holtermann.

This was followed by a paper upon "Spring Management" by the Secretary, wherein the practise of over manipulation in fall and spring was condemned, viz., the taking out of combs in the fall and replacing them in the spring. Also stimulative feeding, and building up weak colonies at the expense of the strong. This brought on a somewhat animated discussion as to time of setting out bees and the best temperature at which to have winter repositories. A temperature of 45° to 50° was considered best.

The best time to take out bees was after the changeable cold winds has been supplanted by the warmer and milder, and when natural stores could be secured from, willow, etc., being about the middle of April.

The next question was, "How to prevent excessive swarming." Was variously answer-

ed. D. Anguish and John Inksater had succeeded very well in preventing second swarms by introducing a young queen just emerging from the cell to the colony which had cast the swarm. The queen cells were destroyed, the young queen became fertilized, and the bees generally thought no more of swarming.

The Secretary explained a good method to prevent after swarms. When the second swarm issues, place it on a few combs in rear of the hive from which it has come, the evening of the second day unite it with the parent stock in front and almost always there was no further trouble about after swarms.

The question of a market in Britain for Canadian honey was then taken up and expressions of regret made, because the Ontario Bee-Keepers' Association was not taking more active steps to follow up the good ground gained last year by the exhibition of honey at the Colonial.

It was then moved by D. Anguish, Mohawk, seconded by O. McAlister, Mohawk, and resolved—That the Brant Bee-Keepers' Association would ask the president and directors of the Ontario Bee-Keepers' Association that one of the four commissioners who visited England last year with Ontario honey be sent to England this year with Ontario honey collected and inspected under the auspices of the Ontario Bee-Keepers' Association; that the \$500 granted by the Government be expended to pay expenses, and balance of expenditure be met by a tax per lb. upon the honey to be sold, and that this Association will make every effort to cooperate with the O. B. K. A. to ship honey and make a success of the undertaking.—Carried.

R. F. Holtermann was appointed a delegate to place the views of the Association before the directors of the O. B. K. A. at their next meeting, and the Association adjourned to meet at the Court House, Brantford, on the last Saturday in May at 2 p. m.

Written for the Canadian Honey Producer.

C. Mitchell's Report for 1886.

Mr. Editor, as my report for 1886 has not been published I conclude to send you a short account. Having about 75 colonies I sold about \$150 in bees, took 4,000 lbs. honey.

It was a very short honey season only three weeks, many not getting any surplus at all. My bees are wintered out doors and were full of honey before many were set out of the cellar. I think I have learnt where nearly as much honey is lost as is secured each season, which would make an article of itself. It is worth hundreds of dollars to me. We have had two very dry summers and small honey crops, but last fall was the most beautiful weather and the ground and clovers has not been in such good shape for winter for many years. I look for a season like 1883 when I took from one colony spring count 612 lbs. of extracted honey; I think this is the largest yield ever taken from one colony in Canada. I had the bees on shares and gave the owner 306 lbs. The proceeds of this colony was \$103.80, no tampering not even spring feeding with them. I only mention the above to show what a season can do, of course when the honey granulated some people raised the cry of sugar. I have lived through it all at the expense of other people's ignorance, for every pound is fully warranted. I have said perhaps too much in favor of people going into bee-keeping and will be very slow to advise in the future. It takes muscle and the closest attention of any thing I ever tried.

Molesworth, Ont.

We shall expect you to favor us with the article containing the information which is worth hundreds of dollars to you, if you kindly will.—Ed.

For the Canadian Honey Producer.

Canadian Honey for British Markets.

S. T. PETTIE.

It appears to me that it would be a great mistake to send our honey in bulk and then liquify and refill into small containers. We all agree, I think that liquifying honey changes the flavor perceptibly—makes it to a degree flavorless or syrupy, as some call it, and this fact of itself is a strong argument in favor of every producer putting up his own honey; then again every small package should have, not only the general trade mark but the producer's name upon it.

This practice no doubt would cause each one of us to be just a little more careful in every particular.

Then, as to the matter of extra cost of liquifying and refilling it will more than off-set the difference; and beside that liquifying and refilling gives an opportunity for crowding in with ours a cheaper article and selling all for good. *Canadian honey.*

The question has been raised—shall we mix the different kinds of honey and blend all the different flavors? If we could have a full crop every year of all the different kinds I would, yes, by all means, but the difficulty is some seasons we have but little clover and a large yield of linden and but little thistle, and another year the thing is reversed. So it seems to me after duly considering the matter, that the best thing would be to just keep each kind separate and give the name of each kind. We know that customers not unfrequently ask for the different kinds of the G. & I. E. Of course I would not make any attempt at naming the different kinds in comb honey. I would like the opinion of others upon the subject.

I have been corresponding with Hamilton Glass Company and their offer in large quantities is much cheaper than they have been charging in a small way, and I am of opinion that if they were personally waited upon and made reasonably sure of large contracts that we would have but little reason to grumble at their prices, they express their willingness to do the best they can for us! A friend in England writing me says: "You need not be the least afraid of people here suspecting the honey to be adulterated if you put outside of each package, say across the lid, a label with the words, 'warranted pure honey.'" The adulteration act is pretty vigorously enforced and those who transgress are generally heavily fined, and as soon as your honey begins to find its way into the market you be sure that some of your competitors will test its purity. If it is proved with after being tested likely become a favorite.

Owing to the superabundance of all sorts of fruits last year, the prices of preserves and jams of all kinds have been materially reduced and consequently honey is somewhat neglected, but its large supply and its use will soon again be noticed in the market.

P. S.—I note with a good deal of interest the resolutions passed by a number of bee keepers' conventions lately, relating to the putting of our honey upon the British market.

would most respectfully remind these many friends that it is no easy matter to run against the decision of our representative men, the directors of the O. B. K. A.

Belmont, Ont., April 15th, 1887.

For the Canadian Honey Producer.

A CAUTION.

WM. BUEGLASS.

I give a word of warning to intending purchasers with regard to the contagious and fatal disease known as foul brood. I believe there are many bee-keepers, lose their bees with the disease and never know what was the matter, and I may here say that an inexperienced person with the disease among his bees may be upright and honest in his dealings and would not sell a foul hive under any consideration, but he wishes to sell out and will sell what he calls cheap, probably \$4 or \$5 per hive, for he has not made good keeping a success; he cannot tell what is the trouble, it may be from brood rot at any rate, probably he never heard of foul brood but has

However I know for a fact that the disease is largely spread by unprincipled people not worthy of the name of bee-keepers. Why should their bees to have the disease. Bee-keeping has become a source of wealth and one of Canada's great industries, largely patronized by government. The O. B. K. Association has come an incorporated body, and stands on an equal footing with the Fruit Growers and Dairyman Association of Ontario.

If I mistake not the grandest exhibition of honey America has seen was made by Ontario bee keepers at Toronto in 1883; probably the grandest exhibit of honey the world has ever witnessed was made by 27 of Ontario bee keepers at South Kensington, England in 1886.

When such an impetus has been given and is being given to bee-keeping, and these facts brought to bear on the public mind, directly, the result will be that inexperienced people will want to try their hand at bee-keeping as it is called. Allow me as a friend of the fraternity to caution such against buying from men who care not what becomes of the bees or the country, so long as they get their money. Buy only from men you are intimately acquainted with, therefore permit me to say to all be careful. I have it from good authority that there is foul brood in nearly every county in Ontario.
Bright, Ont.

FOREIGN.

Mr. Thomas Wm. Cowan, F. G. S., F. R. M. S., etc., Editor of *The British Bee Journal* contemplates visiting Canada the coming season. Canadian bee-keepers will doubtless be pleased to do all in their power to make Mr. Cowan's visit an entertaining, profitable and pleasant one, enabling him in every way in their power to secure a full insight into bee-keeping as followed here. From June 20th to latter part of July is generally the time of our best honey flows and would probably be a very interesting time to visit Canada. Mr. Cowan is well known as a bee-keeper throughout Europe and other lands.

The British Bee-Keeper's Guide Book in its 8th edition has been received and contains much interesting and practical information, it contains 180 pages and the price in England is 1s. 6d.

We are also in receipt of a Pamphlet No. 1st Doubling and storifying for extracted and ~~ed~~ honey and the prevention of swarming. Price in England, threepence. This dwells upon the necessity of strong colonies, young and vigorous queens, prevention of increase, &c., &c. Knowing our honey flows and ~~ground~~ bees ready for them, and altogether touches and enlarges upon many valuable points ~~to~~ the prevention of swarming it must however be remembered that our honey flows are greater and more rapid than in Europe and ~~under the circumstances~~ the prevention of swarming combined with the best honey crop may be somewhat more difficult.

The Deutsch Illustrirte Bienenzeitung also ~~and~~ *Revue Internationale d'Agriculture* much attention has been paid to water for bees at all times. An excellent contrivance for water can't simply be made as follows: A cross piece as the dasher of an old fashioned barrel churn is placed in a pan. The handle of the dasher is replaced by a bottle, neck downwards, fitted with water. The mouth of the bottle is raised or lowered depending upon the depth of water desired in the vessel: the water in the vessel is displaced by the water from the bottle as it is carried off. A little moss thrown in the water sufficient to prevent bees drinking is desirable. Salt is also used as bees require it. About half to two table-spoonsful to a patent pail of water. If the bees do not take it with fish, water can be

added. No one should be deceived because the bees do not frequent the place the first day or several days, it takes time for them to find it. The supply should never be allowed to become exhausted throughout the entire season, and it is astonishing how even through the honey flows, bees find use for this salt water, try it.

IN SOUTH AFRICA bee-keeping appears to be conducted in a peculiar manner by the Holland peasantry. A box is daubed with honey or wax to entice the bees. When the honey season is over he smothers the bees cuts out brood and honey, and his family consumes the former as a delicacy, the latter is sold. The last few years have been unfavorable to bees.

A peculiarity with bees is they migrate, moving from one part to another according to the honey flows.

From the *Dutsche Illustrirte Bienenzeitung* we learn that Ukraine of Russia 20 years ago a beautiful tract of land for bees, willows in abundance, forests with linden a thousand years old, and meadows with abundance of flowers for bees, all has been changed. The 176 sugar refineries have caused the cultivation of mangolds to take the place of meadows and forests. From it we learn that there as in Canada the thistle yielded a delicious honey, also winter and summer rape at one time a source of honey has been largely substituted for cultivated fields of mangolds. Buckwheat from the middle of June to early July is now the great source of honey, after that the flow is over. In spite of this the number of colonies kept have doubled during the last ten years, yes more, every little village has at least 400 colonies in it. The tract spoken of has a population of 2,144,274 inhabitants. Bee-keeping is carried on in a very rudimentary way, the movable frame hive is not generally used, the bees are carried out in the spring and placed on the damp earth, and an old man placed to watch and hive the bees and this is all the attention they receive until harvest is over, when the bees are brimstoned and the honey secured. The more extensive and higher class have seldom less than 500 colonies and in the neighborhood of the writer two men were wintering 1000 colonies each. These move about with their bees all summer, they feed also, and when towards the end of May the

colony becomes populous, they drum the hive and get a new swarm, leaving the parent colony on the old stand. When honey is scarce the drummed colonies frequently perish. The bees swarm but little, because of the room in the hive, and also on account of frequent moving. They move their colonies to willow tree, rape and buckwheat blossom if possible. When the last honey flow has passed, those colonies intended for honey are smothered. The top is removed and combs with often adhering bees scraped into vessels. Superstition is still very strong. A God-fearing man prevented robbing by taking the dish water after Easter dinner, and sprinkling his colonies with it. The honey is secured from the vessels by tapping them at the bottom; what honey drains from the mass is called A 1. The balance is heated in the oven, and the flavor of the honey secured is indescribable, but honey secured in this way fetches a higher price than extracted, the reasons why extracted honey is not secured are various. 1st, There would be great danger of theft, and this is second nature of the inhabitants. 2nd, It is more troublesome. 3rd, The Russian is too lazy. 4th, The outlay would be too great. The consumer too, says, the extracted honey does not taste strong enough.

The Revue Internationale D'Apiculture says, in early spring it is very necessary that each colony should have sufficient pollen and salt water. It recommends that in each hive should be placed a trough or glass bottle with salt water so arranged that the bees cannot be drowned. This saves many trips in a chilly atmosphere and hence many lives.

Sundry Items.

My bees are in splendid condition—C. McNally, Simcoe, Ont.

Bees all very strong never better at this season—James Porter, Mt. Brydges, Ont.

I have over thirty buried in a clamp which seemed by their low quiet hum to be quite happy, those wintering out doors on summer stands packed, are doing very nicely—John G. Gray, St. Catharines, Ont., March 21st.

Bees all out, lost 12, about 15 weak, the balance good. We are having the very worst

kind of weather for bees. If small colonies are allowed the whole hive they cannot keep up heat enough for brooding—Martin Emigh.

We believe Mr. Emigh has about 200 colonies—Ed.

Bees all out but four hives, these will be from 8 to 14 dead or useless, many very strong; they are generally strong. Most mortality caused by starvation—S. T. Pettit, April 21st, 1887.

Mr. Pettit was through illness last fall on his return from the Colonial Exhibition unable to provide these colonies with combs of sealed stores.—Ed.

This winter my bees have done well and they are apparently strong this day (April 9th,) they were coming in loaded with pollen, &c. I have a house, walls packed with saw dust but so that they could come in and out when they please. A number about here have lost heavily this winter—Wm. F. McBride, Lambton Co.

T. McMurdo states that bees were gathering pollen April 2nd, Brant Co.

Russell Smithers a customer in British Columbia writes April 9th, "Bees here have been gathering pollen for a month lacking a day or two.

BEE'S WAX.

The *British Bee Journal*, a weekly, with which we club at \$2.90 a year, and which has much of interest and would well repay the Canadian apiarist to subscribe for, has the following test for pure wax by W. B. Webster. "The melting point of pure bees wax is 146° Fahr. If the foundation will stand 145° before it melts it will stand the heat of the hive at breeding time." "The appliances necessary are—a thermometer that will register 200 degrees Fahr., or over, a capillary tube, this can be made, but they are very cheap, by drawing out a thin glass tube made hot in the gas or spirit lamp, an empty condensed milk tin and an empty lobster can without top or bottom, this latter is your stove, your fire must be a lamp of some description. Place the lobster can on the table, out of any draught, and put your lamp inside

see that it has ventilation, or it will not burn ; now place the milk tin on top and nearly fill it with warm water, have your capillary tube ready, melt a portion of the wax to be tested in an old spoon and fill a portion of the tube, then immerse it in the water, allow the water to get *gradually* hot and when the thermometer registers 146° Fahr., the wax in the tube will assume suddenly a transparent look, it has melted."

The wax should not melt at a lower temperature. Ed.

Under "the production of wax," it says: "Beeswax then is not found ready made in nature, but is a product of the bees body ; it is like honey, an organic production, and not a mechanical or technical one. Wax is formed in the body of the working bee, of fluid honey and pollen. But it is not found involuntarily, as a very well nourished body forms fat, but voluntarily, viz., it is formed when the bees wish to form it, viz., when they have taken fluid honey and pollen, in a larger quantity than they used for their own bodily nourishment, and the surplus is given neither as food to the brood, the queen, nor the drones, but is retained and further digested, and allowed to pass into the blood vessels, in order to be organically, chemically distilled there, and to be separated as a kind of fatty matter by the segment of the abdomen.

The wax leaves the separating organs in a fluid state and solidifies in the form of small transparent white little scales, five cornered.

It is remarkable that a light yellow wax comes from dark kinds of honey, like for instance, heather honey, and a dark orange red wax from white honey, as, for instance, vetch honey. The circumstance which Mons. De Layens, a well known bee-keeper and author in France was the first to notice, led this sagacious enquirer to think that the coloring of the wax is probably owing to the pollen which was also chemically proved last year by Dr. A. Von Planta, the famous Swiss chemist.

"The specific weight . . . lies between 0.965 and 0.966.

The preparation of wax not only makes great claims on the vital powers of the bees, but also costs them, as well as the bee-keeper much honey."

Whatever claim we may have as

practical apiarists upon the more scientific point, in bee-keeping the German, Swiss, French and English far outstrip us, and the knowledge acquired by them through careful and painstaking research put in practical use by us, may often be of value.

Gathered on the Wing.

During the past month it has been our good fortune to spend some time at the apiary of Jacob Alpaugh, of St. Thomas, Ontario. We there also found Mr. and Mrs. F. Malcolm of Innerkip, on a visit. Mr. Alpaugh has a comfortable house designed by himself, and for originality and convenience combined with economy it would be difficult to excel. We should strongly advise any bee-keeper, though his means be limited, to build somewhat on the same plan. The cellar has for an outer wall stone and the floor is cemented. His bee repository lies within this stone wall and is bricked about from floor to ceiling, leaving an air space all the way around and between it and the stone wall. There is a door leading from the main cellar to the repository. With this device rays of intense cold will not change the temperature of the bee room.

The main cellar has a large stove in it with two pipes leading up stairs, it takes large cord wood, and from this stove the entire upstairs is comfortably heated, 6 cords of wood is all that is required for a winter's use.

The main part of the cellar contains also the cistern which is open at the top and fresh air passes over it at all times keeping it sweet and pure. There is a sink up stairs which communicates with a drain which latter has a pipe for foul gasses which may generate, and this pipe communicates with the chimney. The overflow pipe from the cistern also communicates with the drain and floods the latter occasionally. The bee-cellar stood at a temperature of 57° about two feet from the cellar floor. Mr. Alpaugh stated that the cellar had only varied two or three degrees all winter.

The atmosphere was sweet, the bees dry and lively, as upon a summer's day, they appeared in fine condition, every quilt we raised showed bees in the extreme ends of the hives.

Bee-Keepers in parts of Haldimand report heavy losses in wintering.

North Middlesex Bee-keepers' Association.

The 4th Annual Meeting of the above association was held at Park Hill, March 31st, 1887, commencing at 2 p. m. The president, Frank Atkinson, in the chair, and an attendance of about 85 bee-keepers.

The president in his opening address expressed pleasure at the work done thus far in regard to opening up a British Market for Canadian honey and at the splendid exhibition of honey made at the Colonial, and hoped the good work would be carried out successfully. He pointed out the advisability of placing upon the market only the very best honey and keeping poorer grades for cooking purposes, making honey vinegar, drinks, &c. Also the advisability of distributing free receipts for uses of honey both as food and medicine.

Election of officers resulted as follows: Pres., Frank Atkinson, Ailsa Craig; Vice-Pres., J. B. Aches, Poplar Hill; Sec'y-Treas., A. W. Humphreys, Park Hill.

Directors: The above officers and Wm. Coleman Devizes; H. Phippin, Parkhill; B. Gott, Arkona; D. Stewart, Nain.

Mr. Gott gave a paper on "Bee-keeping and fruit culture." He pointed out how man was always improving in his devices and still had not reached perfection, the bee, however, in the construction of its cell and many other ways, in its assistance to fertilization of flowers had commenced at perfection; man could only devise means to assist the bee in carrying on to the best advantage its perfect work.

R. F. Holterman, Brantford, was then called upon to address the meeting upon the present state of apiculture in Canada.

Mr. Holterman spoke briefly of the progress apiculture had made during the last few years, what had been done in relation to a foreign market, the difficulties in the way and the importance of having an outlet for surplus honey.

A number spoke of the importance of having a British market and the pleasure at what had been done as also embodied in the president's opening address.

On motion of Messrs. Coleman, of Devizes, and Charlton, of Ailsa Craig, it was resolved:—"That whereas this Association realizes the grave importance of securing a foreign

market for our surplus honey, it learns with deep regret that the directors of the Ontario Bee-Keepers' Association is not taking more vigorous steps to follow up the ground gained by an exhibition at the Colonial; this Association would therefore express its desire that the President of the Ontario Bee-Keepers' Association should take a shipment of Ontario honey to dispose of in England, or in case he find it impossible to go, some other competent bee-keeper be appointed. That the Association would co-operate and do its best to make a success of the undertaking; and consider that the \$500 grant to the Ontario Bee-Keepers' Association be used to defray expenses in shipment, and that the balance of expenses be met by a tax upon shippers in proportion to the quantity shipped by each, and that—be elected a delegate to interview the President, or if a directors' meeting be held, to present the views of this Association.

The following paper, by Henry Phippen, Parkhill, was then read:

Best Method of Strengthening a Colony for Early Honey Flow.

When the apiarist takes his bees out of their winter quarters, he should see that they have a queen and plenty of honey, and he should take away all the frames that the bees cannot cover nicely, and make the brood chamber smaller by putting in a close fitting division board. The hive should be tightly closed above and the entrance made small so as to retain as much heat as possible. Enlarge the brood chamber by shifting the division board and adding small frames as rapidly as the strength of the colony will admit. I do not believe in beginning feeding too early in the spring, as all my attempts to stimulate too early breeding have resulted in failure, as there is no advantage in rearing one bee and losing two, which you are very apt to do if you begin too soon. The bees should not be stimulated to begin breeding until it can be continued without interruption. As a rule commence about the first of May by giving half a pound of honey, or even less, to each colony every evening, and continue doing so until there is plenty of honey in the fields for them to gather.

Mr. Phippin said that in this part we don't begin much before May 1st, which he thought to be early enough. Mr. Aches said in some localities soft maple supplied all the honey that is necessary as early as the 10th of April. A brief inspection about the 1st

of April at the condition of bees would indicate to him whether feeding was necessary or not. It is injurious to bees to feed them if they do not need it.

Mr. Holterman quoted G. M. Doolittle to the effect that bees need a week's store ahead.

Mr. Aches—That is right. I can tell at a glance whether they need feeding or not.

Mr. Longford said his plan is to open the hive and see if the bees need feeding.

Mr. Phippen said he had 300 hives, and it was too much work to go over them all and examine them.

The question drawer was now opened.

Q. How large a space is necessary at entrance of the hive to secure proper ventilation in winter quarters?

A. In doors, full width of hive. Outside 2 in.

Q. Who is Peek-a-boo?

A. Mr. McKnight.

Q. What advantage has the Heddon hive over other shallow framed hives?

A. Bee-papers please answer.

Is there any probability of overstocking the market at home for honey?

A. If the honey is good there should be a market for all surplus honey in Europe.

Q. What is the degree of heat for keeping bees safely in winter quarters.

A. 46° to 52°.

Q. Why is honey not more generally used by people at home?

A. Because it has been considered a luxury and the public are not properly educated that at the present prices it is an economical food.

Q. How much does it cost to produce honey per lb.

A. (by a farmer) It costs more to produce 100 lbs. of pork than 100 lbs. of honey.

Q. What will stop dysentery in bees?

A. Raise the temperature to about 50° even as high as 70°.

Q. Is the Langstroth the best frame. Mr. Wm. Coleman, Devizes, said yes, he had tried a number of frames and preferred the Langstroth. Several others spoke in its favor, Mr. Aches said he used a deeper and liked it.

Mr. Holterman was asked. He stated he had after testing others adopted the Langstroth, found it answered every purpose, no hive but one worked on the tiering up plan should be tolerated. He would, however, not go so far as to say that a frame about the size of a Langstroth, even a Richardson was not a good hive, such a view would perhaps be extreme.

He thought however a bee-keeper never knew how extensively he might go into bee-keeping and no frame was so generally used as a Langstroth, therefore a colony in such a hive could be sold all over, others must generally be sold at a reduction unless sales are local which are limited.

Read at the N. M. B. Convention.

Spring Management of Bees.

In talking of the spring management of bees, the ground has been gone over so often that it seems impossible to say anything new or interesting. All I can do is to give you my own experience, and I think it is the duty of every one to do something towards making our meeting together both interesting and profitable. As I winter my bees in a beehouse and cellar, I will have to begin with the setting out, which should not be done too early. Beginners like to set them out the first warm spell in March, but this is a mistake. When I began bee-keeping I used to do that and the first thing I knew the half of them were dead. Since I now understand bees better I am in no hurry setting them out, but wait till pollen can be gathered, which will be from the 6th to the 20th of April or perhaps later. By this time the frosts will be nearly all gone, which will prevent spring dwindling to the great extent. If bees show symptoms of dysentery, any one having a few colonies could set them out for a flight and set back again, but you can't do that when you have 200 colonies or more. If set out before pollen can be gathered they are sure to rob more or less, and this must be carefully guarded against, for if once begun it is very hard to stop. Now to begin with the setting out. Take the first fine day after the pollen can be gathered, the first hive I take to one corner of the bee yard, and the next to another, and so on never setting two hives near each other, so that when the bees come out to fly they don't get mixed. Those colonies that were light I mark by putting a piece of broken delf on top. These I feed first by giving them a frame of sealed honey. In my experience I never fed sugar. I always keep enough frames of sealed honey for spring feeding, which I find very handy. The rest of colonies I examine after sundown, and to any that are short of stores I give a frame of honey. Colonies should never be opened in daytime as it will perhaps start robbing. Any one who has not honey could feed sugar syrup every evening after sundown, by using an entrance feeder, being sure to take it away next morning. The entrance blocks must be put on as soon as the bees are and carried out. I put them about 3 in.

apart till after the bees have had a flight when I go around and close those on the strong colonies to about an inch apart and on the weaker ones about $\frac{3}{8}$ or $\frac{1}{4}$ inch. As the bees increase and the honey begins to come in, the blocks should be placed further apart, and when the harvest is fully on they can be taken away. On top of the hive I use a quilt made of strong cottonade, which was not taken off in the fall, and being all glued over with propolis, keeps the heat in. I then put on a top story or surplus case, placing inside a cushion made of cheap factory filled with sawdust. This keeps the bees warm. I place the cover over that, which is made of a $\frac{7}{8}$ in. board, which fits closely. Weak colonies should have all the frames removed that the bees cannot cover and a division board used to contract the brood nest. As soon as the remaining frames are filled with bees and brood give another frame of empty comb and so on till the hive is filled with bees and brood. As a general thing weak colonies never amount to much if left to themselves. When bees get robbing, the way I stop it is to close the entrance blocks and put a weight on them, as the bees inside will shove them away. Leave them for 10 or 15 minutes till the robber bees inside get filled with honey. I then stoop in front of the hive and let the robbers escape, keeping the bees back that are outside, then close the hive and leave it there till after dark, when I carry it into the bee-house and leave it there two or three days, when the robbers will have forgotten all about it. Now to insure a good crop of honey it depends mostly on spring management. The bees must be looked after every day to see that nothing is wrong and that they have plenty of stores for breeding purposes until there is plenty coming in from nature. As for queenless colonies they never amount to much in the spring unless they are given a laying queen. Now there are in every apiary in the spring weak colonies with a handful of bees having a queen, these bees and queen can be given to the queenless colony and so save them. I forgot to mention that every hive must be carefully examined to see that it has a laying queen. You can know this by the presence of eggs in the cells and those that have no queens I treat in the above way. Top stories or surplus cases should not be put on the hives till they are full of bees and honey coming in.

Queries for May Number.

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

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

I think it is an advantage to take out part of the combs and replace them in the spring if properly done.—Martin Emigh, Holbrook, Ont.

Have 35 lbs. honey in four hives with full number of combs in September, then you need not have any more trouble with them till the beginning of the honey season, and they will be in as good condition as you can get them by any other method.—Robt. H. Shipman, Cannington.

I always leave all the combs in hive all winter for full stocks. I never spread brood in spring. I believe the practice injurious and think the next five or ten years will put an end to the practice in general, if not entirely.—S. T. Pettit, Belmont, Ont.

Yes, I think bees winter better on frames when they are apart even $1\frac{1}{2}$ inches, and in spring bees should cover all the combs well the hive contains.—Wm. Couse, Meadowvale, Ont.

No. Remove empty combs in the spring and replace as needed. Spread brood when the weather gets warm enough.—Ira Orvis, Whitby, Ont.

I think it an advantage. If the combs have sufficient honey the fewer the better. This stands to reason as there is less space to warm. It is very desirable to have space below. I should like to have an inch between frames and bottom board.—A. J. Cook, Lansing, Mich.

No. 4. Would not remove combs in the fall or spread them. In spring would only take part of the comb from a colony below the average and weak, when the contraction of the brood chamber is an advantage. A good chaff or sawdust cushion should then be placed above the frames.—Ed.

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

Natural Swarming.—Ira Orvis, Whitby, Ont.

I would prefer natural swarming.—Martin Emigh, Holbrook, Ont.

Natural swarming.—Robt. H. Shipman, Cannington.

Natural swarming every time.—S. T. Pettit, Belmont, Ont.

Natural swarming would likely be the more profitable.—Wm. Gouse, Meadowvale, Ont.

If possible natural. Only modify by clipping queens wing so as to render hiving quick and easy.—A. J. Cook, Lansing, Mich.

No. 5. Should recommend the beginner to resort to natural swarming. Ed.

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

Any plant which produces honey.—Robt. H. Shipman, Cannington

All plants that honey is gathered from in profitable quantities. I hope the names of the different plants are not required in this answer.—Wm. Crouse, Meadowvale, Ont.

Any plant that yields honey I suppose.—S. T. Pettit, Belmont, Ont.

Any plant on the blossoms of which the bees are given to work. They may visit it for honey or for pollen.—A. J. Cook, Lansing, Mich.

No. 6. Should say only such plants as bees work on. It is difficult to draw a line.—Ed.

Queries for June Number.

No. 7. When is honey in a fit condition to extract from the combs when extraction is done from an upper story.

No. 8. I am a beginner in bee-keeping. Should I take extracted or comb honey or both. I have six colonies.

No. 9. What is the best method of getting foundation fastened in frames and combs, built out for and during the honey season.

McINTOSH vs. HARRISON.—We learn from the defendant's lawyers, Osler, Tetzl and Harrison, Hamilton, this case has been taken to a higher court and will probably be brought up for argument this month in Toronto.

Bee-keepers and others are frequently troubled with mice and in places where they do not feel free to use poison. A clamp holding twenty colonies in our country apiary has been entirely freed from mice which had become

troublesome by the following method; mix plaster of Paris dry, and flour about equal parts. The mice eat the mixture readily, it becomes sufficiently moist to harden in the stomach of the mouse and it must perish. Since it has come to our notice we have seen a number of instances even in dwellings where rats and mice have entirely disappeared by this method. It is cheap, simple, without danger and effectual.

A CORRECTION.—Page 38, 2nd column, fifth and sixth line, should read 8 or 9 pence per lb. not 8 or 9 cents.

The head of alsike clover droops more than white and there is less thin honey gathered from it, this is especially the case during a rainy season.

Many good bee-keepers are not aware of the evil effects of allowing smoke to drift about an apiary. Bees become irritable and are far more liable to attack upon the slightest or no provocation for days after, a smoker should not be allowed to stand in the vicinity of a hive as is often done.

HONEY MARKETS.

BRANTFORD.

There is no first-class comb honey, dark comb such as buckwheat sells in lb. sections upon the market at 14 cents. The production of comb honey is not equal to the demand, has not been for several years.

Extracted first class is selling on the markets at 12½c. per lb. Wholesale price per hundred 9½c. per lb. Local lots are pretty well sold off, no dark left.

Have handled 23,000 to 25,000 during the last 7 months.

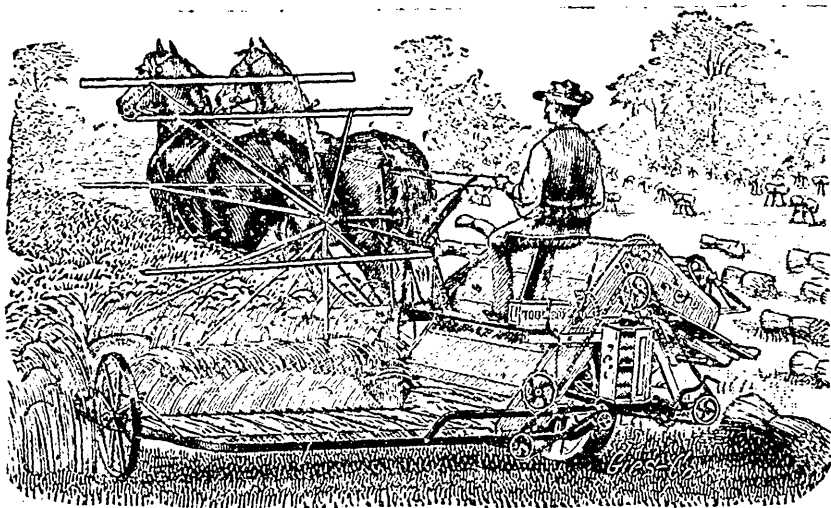
The Meteorological Station, Ontario Agricultural College, Guelph, reports as follows for March 1887:

THERMOMETER.

Highest Temp. March 24th, 45.5 °
Lowest Temp. March 31st, 2.2 °
Monthly mean 21.62 °

BAROMETER.

Highest March 10th, 9 p. m., 29.498
Lowest March 24th, 9 p. m., 28.144
Monthly mean 28.814



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FOR SALE CHEAP,

Or exchange 200 Jones' hives half stories, stands, &c., for which bees or farm stock will be taken. Quantities to suit purchaser.

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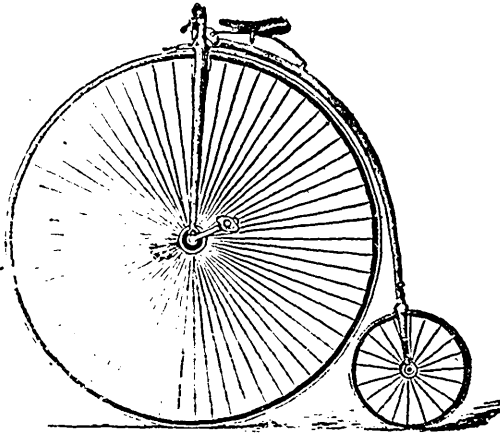
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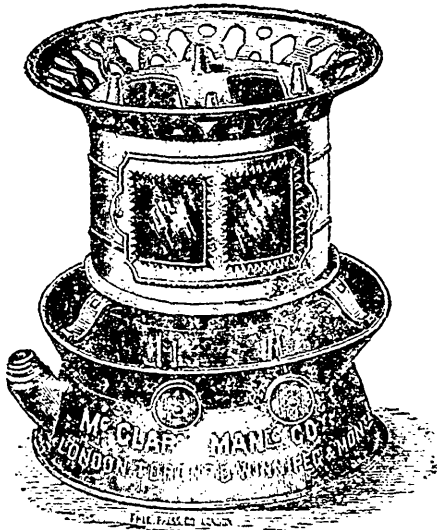
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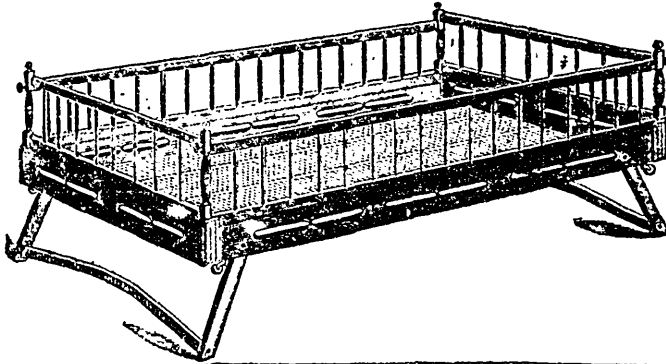
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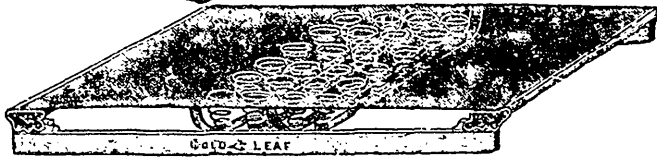
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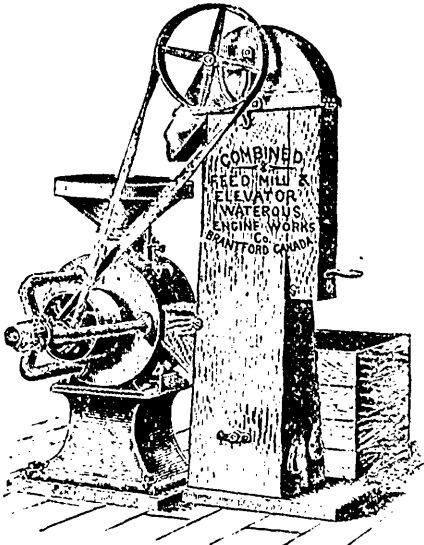
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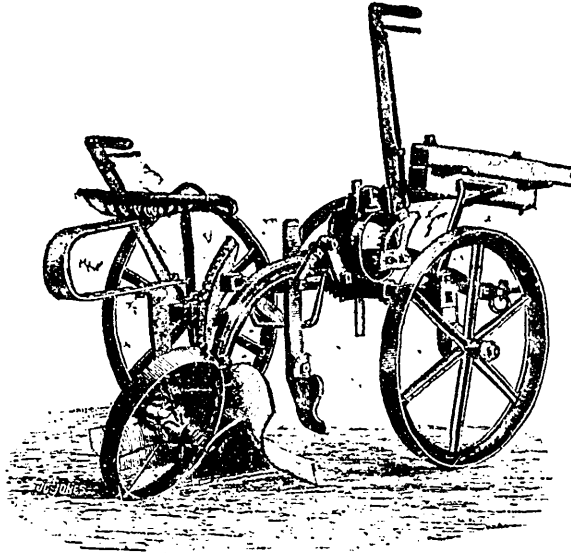
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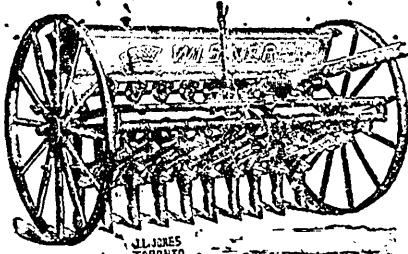
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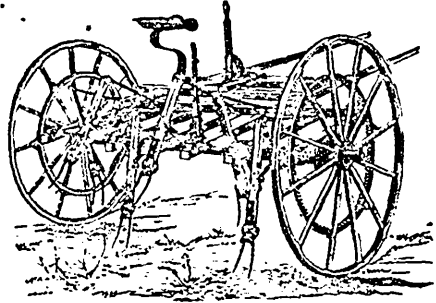
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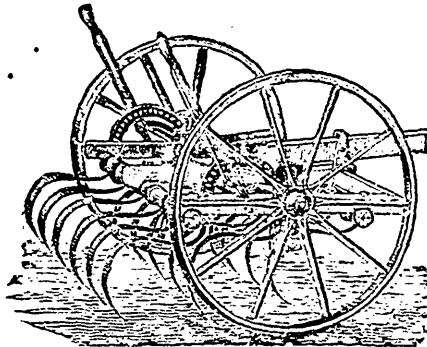


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