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CANADIAN BEE JOURNAL

PUBLISHED MONTHLY.

NEW SERIES
VOL. VI, No. 12.

BRANTFORD, ONT., JUNE, 1898.

WHOLE No.
400

The Goold, Shapley & Muir Co., Limited, are engaged in bee-keeping on about as

A Big Season. any one in the Dominion. They have four apiaries this season; in all at this date of writing, about 330 colonies of bees. Prospects for honey were never better, and bees have been doing very well. On Sunday evening May 8th, the apiary at Brantford was making that peculiar roar, which is always an unmistakable sign of strong colonies and the ripening of honey gathered during the day. A very severe late frost is now about the only thing that can prevent a fair honey crop, and bee-keepers better get everything ready for the flow. Large as the factory of the company is, they are working day and night and making every effort to catch up with orders.

* * *

To give our readers an idea of what a bee-keeper in Kilkenny calls a big yield, we extract his report

Bees in Kilkenny. from the British Bee Journal. He commenced the season with fifteen colonies, three of which were run for swarms, and therefore not supered. At the end of May he secured a vagrant swarm from outside, and had a new hive with full sheets of foundation fitted up to receive them, but the bees united without loss to either. Swarming was excessive. Of the fifteen hives, all swarmed except four, and in one case a swarm issued from a varna. The apiary increased from fifteen

(spring count) to twenty-nine on July 31st. His rate of honey was 470 sections and 530 lbs. of extracted honey, or a total of 1,000 lbs., with well filled brood chambers and a fine cake of first quality wax weighing fourteen pounds.

* * *

If some of us are not very careful the departments containing bee matter boiled down, condensed, **Systematic Pilfering.** double distilled, etc., will become mediums for distributing to the public stolen goods and the question will be if the readers of these departments will become the receivers of stolen goods. But laying all jokes aside, the practice to cull some good ideas and appropriate them without giving credit to the place from which they were taken, is getting to be altogether too common. For instance, so and so says so and so. Now he only said so in one place, at the Ontario Convention at Hamilton. The Canadian Bee Journal was the only one which published a report. Conclusion, that credit was not given. Here and there credit is given. Yes, only a portion of the goods have been stolen.

* * *

At this date of writing (April 27th) we have a letter and article from Captain Hetherington. At the **Capt. Hetherington** Buffalo convention he was kind enough to come to the editor of the Canadian Bee Journal and say that after constantly reading the Canadian Bee Journal, he had made up his mind that he was trying

to serve the best interests of bee-keepers and that he wanted to help in some way. He had something which he thought would be of great value to bee-keepers. It is free to all. The article will require illustrating and it will appear in due time. Captain Hetherington writes "on the wing," just as the war with Spain is breaking out. Many of us who do not believe in war to satisfy mere national honor, will wish Captain Hetherington well in the cause of humanity and that he and his may have that motive in view and come safely through the dangers ahead.

* * *

A great many suggestions have been made for hive stands and alighting boards,

but we have yet to

Alighting Boards. see anything better in

the shape of an alighting

board, than that shown by John Perie,

at the Toronto Exhibition some

years ago. There are two holes for wires

in the front board of hive, then a board

beveled on one side so as to give it a

proper slope, has two wires, one end

fastened to the board the other hooked

into the holes in the front board of the

hive. This board slopes to the ground and

enables the bees to reach the hive from

the ground. When cutting the grass these

boards can be detached and the grass cut

about and under them. We prefer a

regular stand under the hive of the same

length and width as the hive, but bricks

at the four corners will answer the purpose.

* * *

For many years we have not had the promise of so bountiful a honey harvest.

Clover generally, is in

Order Promptly. splendid condition.

Bee-keepers should see

at once that they have the necessary

appliances. The Gould, Shapley & Muir

Co., Limited has its factory running night

and day. They never had so much wax

sent in to be made up. It is quite a common

thing to have 150 to 400 lbs. come in to be

made up, whilst in other years this was

made up by local men and the change is

in part due to the excellence of the new Process patent foundation, yet it also shows the demand for bee goods, owing to good wintering and present prospects for the honey flow. Therefore order early. Comb foundation has been steadily advancing and it is a question if there will be sufficient wax in time to supply the demand.

* * *

Owing to the shortage in the rain fall, the California honey flow is likely to be very short. The Rural

Prospects of Honey Californian just be in California. fore the honey season

devotes considerable

space to articles on "Feeding Bees," "Pre-

paring Bees for Dry Weather," etc. If

Canada gets a good honey flow, the short-

age in a California honey crop is likely to

help our honey in the British market.

* * *

At this date of writing, May 24, the

prospects for the bee-keeper are bright

indeed. Clover

The Season's Prospects. never was better

and basswood

trees in this vicinity are loaded with

blossom. The Gould, Shapley & Muir

Co., Limited, are running over three

hundred colonies this season, and in pass-

ing we cannot help but be amused at the

statements persistently made by some

when they say that the company are

supply dealers and not bee-keepers. A

company that manufacture goods and use

them extensively as well, should have the

very best opportunity of selecting and

making what is suitable for bee-keepers.

and their ever increasing volume of busi-

ness tends to show that bee-keepers

generally appreciate the fact. The

company's factory has been running night

and day and every man that could be used

engaged, and yet they are behind in

orders, perhaps not as much as some

others, who have less facilities for turning

out goods, but enough to make custom-

ers who expect goods to be sent at once, see

very unpleasant, The Root Company, on

the other side, are three weeks and more behind orders, and in "Gleanings" they say what we feel, that bee-keepers must run some risk themselves and order early or run the chance of delay. We would advise everyone to order at once from their supply dealer what goods they may require, or they may not get them at all, and more than that, before you threaten to cancel orders, make sure you can get them more promptly from someone else, or you may by cancelling lose the chance you had, and have to take your turn further down the ranks. Have your affairs in shape for ample storage, take a well ripened article in extracted honey, and a good comb in sections and you can command the best price.

Reports.

The April number of THE CANADIAN BEE JOURNAL is very good. I think you are solid on the new Bee Way Section.

J. F. DUNN.

Ridgeway, April 2nd, 1898.

Please find post office order. The Journal has greatly improved since coming under your management and I wish it every success. Sorry to hear of the loss you sustained in the factory by fire. Wishing you every success, I remain,

Yours truly,

ARTHUR MURPHY.

Ontario, April 6th, 1898.

The prompt manner in which you attend to business and your square dealing, deserve my kindest acknowledgment.

JAS. SHAW.

Kemble, April 9th, 1898.

Bees brought in first pollen here on March 16th. If this weather continues we will have swarms early in May.

J. F. DUNN.

Ridgeway, Ont., Welland Co.

Personal.

A son of Mr. R. McKnight, Owen Sound, who during the last five months has been attending the Ontario Agriculture College, has left for the Klondyke. Another in the party is a son of Mr. John Miller, Owen Sound, who has about 90 colonies of bees and is Warden of the Goal.

Notes from the Central Ontario Apiary.

By C. W. POST.

During the past season I began a diary of the season's work in my apiaries, but as the season turned out a failure as far as honey was concerned, it was abandoned to be continued in a more favorable season. Last season's work can be told in a few words. In this locality it was a failure. The first of August found me removing winter packing and preparing to move the bees to more favorable quarters for winter stores. I moved three colonies to the Murray Canal, taking 135 colonies in a car and the balance by steamboat. I never saw better prospects for buckwheat, but as soon as we got things moved and placed in three apiaries we had nothing but cold, squally weather, just as unfavorable as it could be, and they barely stored enough for winter stores.

This season I began placing them on their summer stands earlier than usual. The first sixty-six were taken from the cellar on February 11th and the balance between the 5th and 12th of March. If there is any difference in their condition at this date of writing, its in favor of the first one's removed. I placed a cushion on each colony as far as they went, not having enough for all, I tried a new plan of spring packing. I placed a row of stands facing east and set them perfectly level, and set a colony on each stand and spread a piece of cotton just the size of the hive and then spread a thin layer of sawdust on to level up and fill up the bee space over tops of frames, then over that placed an enamel cloth cut two inches larger than tops of hives, then put on the honey boards and the four inch suncaps and allow it to crimp down the enamel cloth to prevent any heat from escaping. They were allowed to stand in that way for a few days, and when the next lot were taken from the cellar, the suncaps and honey boards were removed from those prepared, and a colony was set directly on top of each one facing the west and a long alighting board placed in front (I had some discarded bottom boards that just filled the bill). I placed a cushion on the top hive with all suncaps painted red. You may imagine the results. I expect to pack a large proportion in that way next year.

(To be continued.)

QUESTIONS.

What is the Best Time and Way to Transfer Bees From a Box Hive?

In spring during fruit bloom, choosing a warm day. There is hardly space here to give minute directions.

EUGENE SECOR.

Have had no experience. W. SCOTT.

During fruit bloom, or about twenty-one days after the prime queen has left the old hive. There is then no brood to handle, and it is easily done. If the bees are in a box hive, drum them out into an empty hive, then cut out the combs and fasten with string into movable frames, then hive the bees back onto the transferred combs and the bees will do the rest.

F. A. GEMMELL.

During fruit bloom. First smoke at entrance of box hive, then invert and smoke the bees well down into the combs; then place a box of the same size over the box hive, then drum on the hive with a small hammer or stick for about twenty minutes, or until the bees have left the hive and are clustered at the top of the box. Then shake on a hiving board in front of a new hive containing frames of comb, or full sheets of foundation. When the bees are quietly clustered in the new hive, open it and take out the two outside frames and shake the bees off in front of the old hive. The new hive should occupy the old stand. Twenty-one days from the time that the first bees were driven out, the brood will be all hatched, then drum as before and shake the bees in front of the new hive. The old combs may then be cut out and melted. R. A. MARRISON.

If you have only one colony to transfer the spring is a good time before the combs are heavy with honey, or say during fruit bloom. To transfer proceed as follows: First blow a little smoke in at the entrance, then turn the box hive bottom side up of the bottom board and blow in more smoke. Then invert a box over the mouth of the old hive and drum on the sides of the hive to make the bees leave it and go up into the box. When the most of the bees have clustered in the box, remove it and take off side of box hive so as to fit the frames, wind some twine round the frame to keep the comb in place and hang it in the new

hive that is placed on the old stand, place frames containing brood in the centre of hive; remove any crooked or drone combs that are empty and if not sufficient combs to fill hive, fill up with frames of foundation, then shake bees out of box in front of entrance and let them run in. If you have many to transfer, or at a time when honey is scarce, a tent will be necessary to prevent robbing.

R. H. SMITH.
St. Thomas, Ont.

In my own locality in early spring, or a warm sun-shiny day, when the fruit trees are in full blossom. Transferring can be successfully done at any time by an expert, but the beginner should attempt it only when nectar of some kind is being secreted in the fields and the bees are gathering it freely. Much depends however, on whether you wish to get your bees into frame hives only, or to get some surplus honey also. As a rule, I should say transfer as early in the season as honey is being gathered freely. As to the way to do it, consult most any text book on the matter, and a full explanation will be found.

J. L. POND.

North Attleboro, Mass.

The best time is about the time apple trees are in bloom. At that time the bees get some honey to induce them to repair things nicely and not enough to be seriously in the way of the work of transferring the combs. If you are a new hand at the business as I infer you are, you may succeed best by turning the box hive upside down, put a box on it and then proceed to rap with a stick or light hammer on the hive till the queen and most of the bees are driven up into the box, set the box with the bees on the old stand, now pry off one side of the box hive, cut out the combs, fit them in the frames and secure them with single ties of cotton twine; don't wind the twine around and around the frame, for if the bees should cut the twine in one place, it will let all loose. Hang the frames of transferred combs in the hive set it on the old stand, and shake the bees from the box in front of it and see that they enter it all right. In a week, if the weather is good, you may remove the twine ties or leave the bees to do it.

G. W. DEMARCE.

Christianburg, Ky.

In the spring, when bees are gathering a little honey, is the best time to transfer. For the way to transfer, I would refer you to the A. B. C. in bee culture. J. PIRIE.

Wait till they are strong, nearly ready to swarm. Operate as follows: Reserve

your hive and set an empty box on it, drive the bees up, divide about equal, put one part with queen in new hive on old stand, the other part put back in old hive and move to a new stand. In twenty-one days repeat the operation, only put all the bees in new hive, set the old hive at the side of your apiary until the bees have removed the honey, then cut out the old combs and put them into the wax extractor.

A. D. ALLAN.

Bee-Keeping in Canada.

—BY F. A. GEMMELL.

In November issue the editor makes some comments on Mr. Holme's article, read at the Buffalo Convention, concerning bee-keeping in Canada, etc., in which my name is mentioned as deserving honorable mention in assisting to secure Foul Brood legislation, and asking for a few facts as a matter of history. This, as promised in a former issue, I fully intend doing, but the article will of necessity be a trifle longer than I can at present find time to write.

What I desire now to state, is in regard to Mr. Holtermann's other request, viz., information as to the time when bees, movable frames and Italian queens were first brought into any particular locality.

As my younger days were spent at Sarnia with my parents; I will with pleasure state that my first swarm of native or black bees, was purchased in June 1864, and was hived directly into one of Rev. L. L. Langstroth's observing hives and said hive, not however containing the same identical swarm, occupies a position in my home apiary in Stratford to-day.

In October of the same year, I purchased from Messrs. Langstroth & Son, who were at that time residing in Oxford, Butler Co., Ohio, an Italian queen, paying for same the reasonable sum of ten dollars, they having been sold the same spring and summer for fifteen and twenty dollars each. This queen was duly received per express, the charges for such carriage being \$1.25. She arrived in prime condition, and was successfully introduced, much in the same manner as is employed to-day, by the candy process, except that the hole in the cage contained a small cork, as when received, queen and her attendants were subsisting on honey contained in a small piece of comb. First of all, the black queen was removed and the cage

with escorts laid upon the top of the frames with a piece of string attached to the cork stopper, long enough to reach the outside of the hive, and three or four hours afterwards, when the colony had become settled and darkness prevailed (it was about 9 o'clock p. m.) the string was cautiously pulled until the cork was out of the cage and the hive then left severely alone, the actual result of said introduction not being known until the spring, when I had the long looked for satisfaction of not only seeing young Italians through the glass sides of the hive, but also saw them flying the first fine days in March and April. As a matter of course, I then, and still consider myself one of the first introducers of Italian blood into Canada, as also among those who began apiculture after the fashion of the Langstroth principle. I am at the same time perfectly well aware that there are others, but as a matter of history I prefer hearing through the columns of the Canadian Bee Journal, these actual experience coupled with data, as I am perfectly prepared to substantiate by letters received from the late Mr. Langstroth, all I have stated above. You will therefore perceive, that my first experience in bee-keeping took place thirty-three years ago, and yet I am by no means an old "duffer" yet.

I must not however, in my enthusiasm endeavor to have the impression created, that I have always been constantly engaged in the pursuit all those years, as when I left the parental roof to seek my fortune elsewhere, my small apiary, consisting of about half-a-dozen hives, was disposed of to Mr. Morrison Hall, an uncle of mine, who is still a resident of Sarnia, and who had previous to my first purchase kept bees, and has never yet been without some colonies. On my again resuming the pursuit, I came into possession of the original observing hive, which is to-day in a first-class state of preservation, and with the addition of a new roof, has received little or no repairing, although several coats of paint have since been added. As far as I can learn bees were kept in that locality eight or ten years prior to 1864, but not to any great extent and then only in box hives.

I have an old scrap book which contains articles on bee-keeping, written by Rev. W. F. Clarke, for the old Canada Farmer and also clippings from various papers published in the United States years ago, and a copy of the American Bee Journal when first published by the late Samuel Wagne, and can therefore look back with pleasure and profit to the many

changes and improvements which have from time to time been made in apiculture.

Quinby on the "Mysteries of Bee-Keeping Explained" was my first text book and was purchased December 2nd, 1863. Then came Langstroth on the "Hive and Honey Bee" purchased 18th February, 1864, so that as you will observe, I had studied up apiculture before I went into the pursuit at all. The above books are still in my possession and nothing affords me greater pleasure during my spare moments, than a perusal of both. Why, I read them so much, when I took the fever, caused by my frequent visits to my uncle as already mentioned, that I almost knew them of by heart, as the saying goes.

Now friends let us have more statistics with the proofs, as well as to the first use of movable combs, and introduction of Italian blood into Canada.

Stratford, Ont., Nov. 1, 1897.

Spring Management.

—BY A. FYFE.

A FEW HINTS TO BEGINNERS.

The safest rule for the bee-keeper would be to set bees out on the first appearance of natural pollen and not before, unless your bees are restless or affected with dysentery, and in such cases set the effected colonies out for a cleansing flight some bright warm day. After your bees have had a good fly, look through each colony and see that all is right, fix them up cozy and carry them back to their winter quarters until pollen appears. Among the first to yield pollen, are the swamp willow and soft maple. In setting out bees select a day which you suppose will be warm and favorable, a southeast wind is preferable; proceed to bee-house or cellar, close the door after you allowing no light unless it be from a lantern, close the entrance of each hive so that no bees can get out, as soon as you have done this, open the doors and commence carrying them out, if possible have the ends of the combs next to your body, by doing so it will prevent the combs from swinging and disturbing the bees. I use a hand barrow for carrying out bees. You can make one in a few minutes. Set each colony on the

summer stand with end of stand raised one half inch, put on the cover, open the entrance to one bee space or if your colonies are strong, regulate entrance accordingly. I prefer setting out one-half of my bees the first day alternately on their stands, and the remainder next day. The day after setting out your first colonies if the weather is warm and bees flying pretty well, examine each colony to ascertain if they have a queen. Should you find any queenless, unite them with your weaker colonies, clean all dead bees and dirt from combs and bottom of hive, give each colony just what combs they need. For immediate use space the combs one and a quarter inches from centre to centre, put in your division board, two are better if you have them, one on each side of the combs which can be held in their place by a few small nails. Fill in behind with chaff or sawdust, put plenty of quilts on top of combs, old newspapers are excellent for retaining the heat. The warmer you keep the bees, the better for brood rearing. Contract the entrance well and if you bees have plenty of honey, leave them alone for ten days or two weeks. If the nights are cold close the entrance, especially weak colonies. Open them again in the morning so as to allow the bees to fly. Would not practice the spreading of brood in spring, but simply add combs as needed; placing combs next to the brood, keeping the outside combs containing pollen next to side of hive or division boards. Keep a thermometer in your beeyard and never attempt to examine a colony of bees when the temperature is below 60°. Exposing the combs to a lower temperature is apt to chill the young brood. If you have quite a number of colonies, I would advise you to make or purchase a folding bee tent. From past experience I find it one of the most useful inventions of the day, I couldn't do without it. Should your bees commence robbing, attend to them at once by opening the entrance throw down loosely some dry hay five or six inches deep, so that the air is allowed to get in at the entrance, then take a pail of water and sprinkle it over hay, bees and all. The robber bees will have to crawl through the wet hay, getting their bodies and wings wet before they get to the hive. The notion of stealing honey is all taken out of them and instead of trying to enter the hive, they crawl back and return to their own hive and try to lead a more honest life. The hive containing the robber bees should be treated similar to the one being robbed.

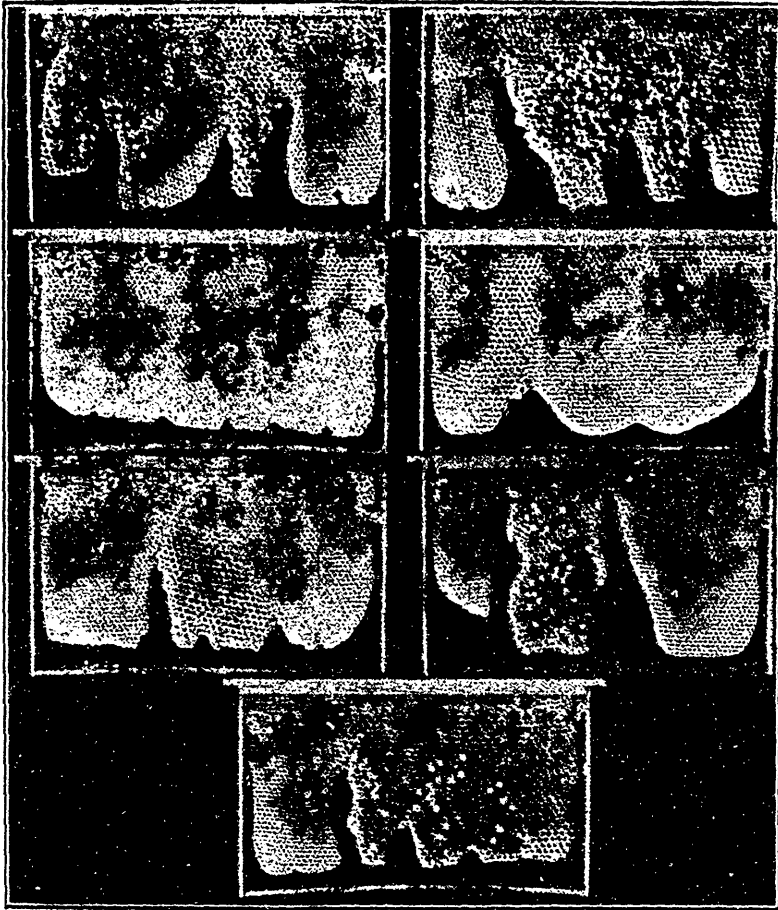
Harriston, Ont.

Carniolan Bees.

During the fall of 1896 we received two dozen tested Carniolan Queens, and introduced them to colonies of bees made

their tendency to swarm, we decided to test them, first of all, as to their disposition in this direction.

First, let me say that more than ordinary precaution was taken to give the hives shade and ventilation, particularly the latter; and room was given, as far as conditions and circumstances would warrant. The swarms from twelve of the colonies were placed in hives with only foundation starters in the frames, while



queenless for the purpose. This was done in the latter part of July and August, in ample time to give the colonies time to develop a large number of these bees to go into winter quarters. It was our intention to test these bees in a general way, but, owing to conflicting reports as to

the other twelve were given frames containing full sheets. I may say that in general we found the bees very gentle; they built up well in the spring, and the only point I could detect in which they were inferior to the Italian, was that the queen being black, there was much greater

difficulty in finding her in the hive.

The swarms put upon full sheets of foundation did not exhibit any undue tendency to swarm; but those hived on starters swarmed excessively and built exceedingly poor comb. Herewith will be found an engraving of seven combs out of eight in a brood chamber; the eighth comb was entirely drone comb. At the stage of building herein illustrated, the bees swarmed again, and the instance illustrated was not at all isolated. The result of the experiment must of course be received with caution; but thus far, without full sheets of foundation, the Carniolans have shown themselves a decided failure. They do not appear to build a proper proportion of worker comb, and the building is done very irregularly; but this deficiency seems to be overcome when the foundation of the comb is supplied. In the meantime, we would advise bee-keepers not to be in any hurry to introduce the Carniolan bees until another season's test can be made.—From Agricultural College and Experimental Farm.

Notes and Pickings.

—D. W. HEISE.

After reading all the arguments that have been advanced in favor of the plain section and fence, in five bee journals during the past six months, I have come to the conclusion that the most potent advantage brought out is that the sections will be better filled, and therefore will command a fancy price. This better filling, as I understand it, is expected to result from more free communication. Now, I just want to whisper that if better filled sections are really desired by honey producers and consumers, (Doolittle says not,) and freer communication will bring about that result, I think I know how it can be secured to a far greater extent than can possibly be done with the plain section and fence as now advocated. And if anyone wishing to learn the plan will drop into the private sanctum of this picker any week-day afternoon, I will deem it a pleasure to try and enlighten them from my (very limited) knowledge of comb-honey production.

Editor Root tells us, in *Gleanings*, that "Mr. Cogshall of York State does not

believe in taking time to pry off the super. A yank or a kick removes it and clears it of bees at the same time. Of course it angers the bees." Singular, isn't it; but Mr. C. considers that of small moment compared with the time. He runs his bees not for convenience, but for the dollars and cents; and if a kick will earn another cent, he "kicks," stings or no stings. If Mr. C. or any other man was situated as I am, and would give his bees such treatment as that just quoted, not only would the super with its industrious occupants be kicked, but the operator would (by wrathful neighbors) be kicked so long as there was anything of him to be kicked at. I consider such treatment of the bee-keepers' very best friend as almost if not extremely inhuman.

In *Gleanings*, 206, R. C. Aiken asserts that if an average colony cannot make a gain of at least 2 pounds of raw nectar per day, we should not expect any surplus of either comb or extracted honey, unless the flow should exceed 30 days duration. This is some information worth remembering and worth testing.

In answering a question A. B. J. 183, in regard to a remedy for moth worms, Dr. Miller says: "Let me first tell you how to encourage the production of moths. Allow plenty of pieces of comb to lie around for breeding places, where the moth can lay her eggs. If a colony dies in winter, be sure to let the empty hive with its comb, stand out where the moths can get at it. They will be delighted with this arrangement. Be sure to increase rapidly, so as to have a lot of little colonies so weak they can't fight their way against the moths and worms. If they can also be queenless, that will help greatly, and it will be still better if they have no Italian blood. If you don't care to have your combs eaten up with moths, just do the opposite; and above all KEEP ALL COLONIES STRONG."

In reply to that article on page 176, A. B. J., in reference to the identification of laying workers, I want to say to its author (the Boiler of Beedom) that perhaps you have misjudged my judicious manner and lenient consideration in matters of this kind. I find no fault with the assertion you make, but rather heartily concur in your views. But I do take issue with you when you make the "accusation" that I did "aid and abet" the promulgation of the idea that a laying worker can be "seen and told by her looks." Say, Mr. Boiler, just read my comment on the article quoted again, and if you or the president

of your vast Republic, principalities or powers, things that be or things to come, heights or depths, or any other creature, can fairly interpret my meaning as in any way aiding or abetting that idea, I am willing to go do down on my toes and humbly beg your pardon. Now, turn up your knuckles; crack, bang, whack. My sympathy for the culprit, I can assure you, is not very pronounced. Nor indeed could it be when I find you doing the very opposite to what poor "deluded Hasty" gave you credit for only last month, that is, "careful reading." So out with that hand again; crack, bang, whack. Now, Mr. Boiler, (Oh, how I am longing to learn your identity), if you, (after having digested this, and applied some soothing poultice to your knuckles) feel sufficiently penitent. I am willing to cut the controversy in half, if you will agree to give me full half. Will holler 'nuff, shake hands and be good friends again on this matter. Bye-bye.

The Wintering Problem.

—S. B. SMITH.

A week ago I was laid flat on my back with the grip, and felt like finding fault with nearly everything, and the grip in particular. To-day, feeling somewhat in a fault-finding mood still, my thoughts have turned to the light frame L hive, for wintering bees in outside, with an outside case, and must say in my opinion there should be something better, and will try to explain in a few words as possible the reasons why. First, to give the bees the necessary ventilation, it is necessary to have an opening all the way across the front. The combs being placed with their end to the opening, brings a direct current of cold air from the entrance over the entire surface of all the combs before it has any chance of becoming warmed or broken in its direct course from the cold entrance to the warmer air around the cluster. Again, it brings the honey from which the bees are to feed below where they naturally cluster and between them and the cold current from the entrance, from which they keep as far as possible, and when they do venture, become chilled and seldom reach the cluster again, hence the pile of dead bees we find at or near the entrance, which are not carried there

by their brother bees after death, but drop where death overtakes them. May we not be able to trace some of our brood trouble to this same cause? Would it not be better to have a deeper hive, say for two sets of about seven inch frames, one above the other, with a good space between, and especially the top ones, well stored with honey. They are then above where the bees naturally cluster, also the heat from the cluster keeping the honey warm and easy to be obtained, instead of between them and the cold, which becomes hard to get at. Also, the combs should be sides to the entrance, instead of ends, which would assist in breaking the direct current of air from the entrance. In nature, where the bees are left to build the combs, we find them quite different. There we find them built in braces and and circles, thereby doing away with all possibility of a current of air from the entrance passing over the entire surface with nothing to break it, and in the bee tree as well as any of their own built homes, we find the honey is stored as high and as much above the bees as possible, and they never do any of their work by guess or without a reason. The meeting of the cold and warm air must cause the same to condense, and the moisture thereby created, also by the dead bees, is a serious consideration which should be avoided.

S. B. SMITH.

Listowel, April 6, 1898.

Winter Report.

Islington, April 27, 1897.

Editor Bee Journal.

DEAR SIR—Bees wintered well here. I put twenty-six in the cellar and lost one. Forty I put in clamps packed with sawdust. They were all alive but one on the first of April, but I lost four since. The cause seemed to be a scarcity of bees, as they were unable to go to the honey in the other parts of the hives when it was exhausted where they were located. If the bees are numerous so as to keep up the heat, I think this class of starvation seldom occurs, as in that case they can pass from comb to comb comfortably. My bees gathered pollen on March 30th, and on April 2nd, on opening a hive, I found a little new honey. I believe it

came from the aiders, which are abundant here. I noticed a few maples grown around houses, evidently a nursery grown variety, that were fully in blossom on the first of April and these blossoms are now all gone, while the common soft maples are now out. This kind would be well worth planting. Speaking about trees, I noticed some basswoods planted in the Spring of '95 that were full of flowers last summer. These trees were about two feet high, with few limbs, as they had been taken from a thicket. Surely this is not long to wait. I believe it would be better for bee-keepers to scatter alsike than sweet clover, which is, in my opinion, greatly overrated. It grows freely here wherever sown, and the bees work on it even after some frost, but I notice they never stay long on one flower and don't seem to get much honey. I took six hives away some years ago in August, to where there was about ten acres of it and they did not improve in weight. I believe it always produces sour honey; just enough to amuse the bees, but not enough to give a surplus. I am confirmed in this opinion by being told by Mr. John McArthur, of Toronto, that last year was the worst honey year he ever had, and he is surrounded with sweet clover. The prospect for wild or Dutch clover was never better here, and yet I don't rejoice at anything that looks like a great honey yield, for I foresee that the price will destroy the profit. I see honey quoted in Toronto at 5½ cents. Where now are the men who said "We can't have too many good bee-keepers," and that if we had more honey there would be a good demand for export. Sometime when I am in a bad humor I will give those people a piece of my mind if you will supply the ink.

I notice a long discussion in the Yankee (I object to the word American, as applied to any separate part of America) bee-papers about spacers, and nails seem to be in great favor. Surely they must be quite in the road of the honey knife and troublesome in the extractor. Why not drive staples into the hives, the staples being just wide enough to keep the frames the proper distance apart? I know it will be objected that the frames could not be shifted sideways so as to give room to take them out, but I don't think that would be found a serious objection in practice. But, if that would not do, why not try a small metal button fastened with a screw in its centre to the ends of the frames. When in position the button being in a horizontal position, and the ends meeting would keep the frames the right

distance apart. When the frames required moving or taking out, all that would be required would be to pass a screw driver or similar instrument down between the frames and past the buttons, parallel with the ends of the frames, and they would be out of the way both of the extractor and honey knife. But I must stop, or you will have to enlarge the Journal or the waste paper basket.

Yours truly,
J. D. EVANS.

A Report.

—MRS. DAVID PAPPLE.

I see in the March number of the C. B. J., it spoke of no one standing in the way if we wanted to discontinue publishing the journal. For myself I would be very sorry to see it drop out. It is as good as a teacher to me. I love bees, and I love to read about the way they are to be handled. I know very little about bees, but I hope to know more some day. In looking over our bees this February, I found brood hatching on the 21st of the month. Is it something usual or unusual for them to hatch so early? There were only two hives at that time, and others had some sealed brood.

In the January number, G. M. Doolittle gave his experience of wintering bees in snow as not satisfactory. I don't think he gave it a fair show, as nothing would be supposed to live under 10 feet of snow. We have wintered our bees in the snow 3 years in succession, and have had better success than any other way. In the beginning of November we put wheat chaff cushions on top of the bees, as thick as the super will allow, then a board on top of the cover of the hive, then a brick on top of that, to keep the wind from blowing off the covers. When the first snow comes we bank it on the two sides and back firmly. You can open the hive when you like in winter and the bees always seem comfortable.

I tried a few hives this winter by shutting half the entrance, but do not care for it, as there seems to be a moisture form at the opening, and it freezes in an ice and shuts out the air altogether. I had to thaw them open different times.

I think Mr. Heise is right about the leaflets. I think they would do more good than anything else.

Peninsula Park Farm, March 26, 1898.

Wintering Without Pollen.

OTTAWA, April 11, 1898.

R. F. Holtermann, Esq., Editor Canadian Bee Journal, Brantford, Ont.

DEAR SIR,—Many thanks for your promise to send me the C. B. J. The enclosed letter from Mr. Wintle records that gentleman's experience in wintering bees in sugar. As I thought the data might be of interest to your readers, I asked Mr. Wintle for his consent to forward the letter to you, which he willingly gave.

Yours faithfully,

FRANK T. SHUTT,
Chemist, Expl. Farms.

THE ANCHORAGE, Como, P. Q.

March 25, 1898.

DEAR SIR,—I have been reading in the C. B. J. your enquiries re wintering bees on syrup alone. I have in my apiary a case in point. Last autumn, (in Sept.) I was offered nine hives of bees by a farmer here. The arrangement was that I was to take the bees alone, leaving him hives, honey, etc., etc. It was very late to try to get them to feed up and seal over stores for winter, but I use chaff hives with transverse frames, which allow of a sort of back chamber being made, where the bees can feed in shelter.

To cut a long story short, I made my nine lots of bees into three hives, which I hived on either empty combs or partly drawn foundation, and fed them up with hot thick sugar syrup (invented), until they had sealed over about 30 lbs. each hive.

These three hives have come through the winter on their summer stands, and are now three of the best hives in my apiary. Needless to say, I have supplied them with cakes of pea flower candy for spring brood rearing. Of course I would never recommend anyone to put off feeding up "condemned" bees till as late as Sept. It was only because I got the offer of the bees then, and it was a case of "try it" or "leave them," that I made the attempt. Even by making my nine hives into three, as I did, I do not think that the bees would have sealed over their new stores except for the fact that we had an altogether artificial temperature here caused by bush fires. However the fact of the bees having wintered well on pure syrup remains unaltered.

I have said that I got the bees in September. It was in the latter part of that month, so that I did not get them finished and packed for winter till on in Novem-

ber. They could scarcely possibly have gathered any pollen from the fields.

Yours faithfully,

GILBERT WINTLE.

The Season's Management.

A. FYFE.

As it is a long time since I wrote anything for the C. B. J., and I am not adapted to writing for the press, I will endeavor to give the readers of the C. B. J. a few pointers on my method of bee-keeping. The first day after setting out my bees, and all have had a fly, I remove the hive bottom, which is loose, from each hive and replace it with a clean one. Next day, weather permitting, I examine each colony to ascertain if they have lots of stores and a good laying queen. Colonies having lots of stores and to spare I share up with those that may be short. I remove what combs the bees cannot cover, and keep combs containing pollen on outside of brood chamber.

I put in a division board and put on a good cotton quilt and all the old newspapers that I can get the hive cover on with, and make a note of the condition of each colony, and age of queen, on a tablet which hangs on the side of each hive. I do not make a practice of spreading brood, nor do I examine the inside of colonies the same day as set out of winter quarters, as I find it causes the balling of queens more or less. I always use a folding bee tent in spring and fall. Should my bees commence robbing any of my weak colonies, I remove them to the bee house in the evening, and place an empty hive on the stand containing a few empty combs for a few days. In some cases I throw my bay down in front of the hive and sprinkle it occasionally with water. I clip queens' wings, remove old stock to a new location, and hive all swarms on old stands. I place a super underneath the new swarm for a few days after which I remove it and put on a queen excluder and remove surplus case from old stock and place it on the new colony. For ventilation I bore two 1½ inch holes from back end of hive bottom, tack on a piece of wire cloth and put large button on the under side.

Harriston.



JAMES FLETCHER, LL.D., F.R.S.C., F.L.S.,
President of The Entomological Society of Ontario, 1886—88.

James Fletcher, LL.D., F.R.S.C., F.L.S.

WE are happy to be able to begin the thirtieth volume of *The Canadian Entomologist* by presenting to our readers an excellent portrait of Dr. James Fletcher, whose name is a household word among entomologists, not only in Canada, but throughout North America, and in many parts of the world besides. Born and educated in England, Dr. Fletcher came to this country when a young man, as a junior officer in the Bank of British North America, and soon began to devote his leisure hours to the study of insects and plants. Finding the work of a bank by no means congenial to his literary and scientific tastes, he obtained a position as assistant in the Library of Parliament at Ottawa. It was not long before his talents and attainments in botany and entomology became widely known, chiefly through his contributions to this magazine and the annual reports of our Society. His first paper in the latter was an article on Canadian Burprestidae, which was published in 1878, while his first contribution to this magazine appeared in January 1880. During all the years that have followed no volume of either publication has been issued without some valuable article from his pen.

In 1878 he became a member of the Council of the Entomological Society of Ontario, and every year since has been elected to hold some office in the Society, being four times vice-president, and for three years, 1886-8, president. In 1879 he was one of the originators of the Ottawa Field Naturalists' Club, the most successful society of the kind in the Dominion, and more recently he suggested, and by his influence and energy accomplished, the formation of the important Association of Economic Entomologists of North America.

The first official recognition of his attainments was in 1885, when he was appointed Honorary Entomologist to the Department of Agriculture at Ottawa, and in that capacity, though much hampered by his duties in the library, he published a valuable report on the injurious insects of the year. Two years later his present position of Entomologist and Botanist to the Experimental Farms of the Dominion was conferred upon him. In the ten years that have now gone by, he has done an enormous amount of valuable work, as shown in his annual reports and evidence before the Standing Committee of the House of Commons on Agriculture, his voluminous correspondence with farmers and fruit-growers all over the Dominion, and his addresses to Farmers' Institutes and other gatherings. No one in this country has done so much as he to instruct the people in a practical knowledge of their worst insect foes and the best methods of dealing with them, while probably no one but he could have given the Province of Manitoba the information and the advice that he has repeatedly offered by his lectures, addresses, and publications on the noxious weeds of that portion of the Dominion. All his friends will, we are sure, unite with us in the earnest wish that he may long be spared to carry on his admirable work, which is of such vast importance, not only to those directly interested in the products of the soil, but to all the dwellers throughout this wide Dominion.—*The Canadian Entomologist*.

Eighteenth Annual Meeting

OF THE ONTARIO BEE-KEEPERS' ASSOCIATION.



Continued.

able to see that there is any very great difference. I imagine that the bees do not work with the regularity that some of our poets have supposed them to, and the season and the flow of honey and many other circumstances have an effect upon this matter of wax and its production, and consequently I am not surprised at finding that we are not able to draw conclusions showing that there are great differences between waxes somewhat similar in weight. I think I have brought before you practically the lines of work that we have been engaged in and the results that we have obtained. I do not hope and I do not expect that these results will solve the question as to the relative usefulness of various foundations to the bee-keepers, because I am fully aware that there are other considerations that must be thought of besides that of furnishing the wax for material in comb building, but I think that we have arrived at conclusions as far as that point itself is concerned, which are of some importance and value to bee-keepers. I trust that there will be some little discussion on this point, so that if we find it possible to continue this work we may start it with more information that we have had in the past. (Applause.)

Mr. Holmes—Mr. Chairman and brother bee-keepers, before this discussion, which may take place, is opened I would like to make a motion. I think we have been very highly favored by the most elaborate and instructive lecture that we have listened to, and the very concise reports of the experiments conducted under the supervision of the learned professor, and not only so, but I think we have been highly honored by his presence in our midst to-night, therefore it affords me very great pleasure to move that the best thanks of this association be tendered to Professor Shutt for his presence here and for the great favor he has conferred upon this association on this occasion.

Mr. Gemmell—I have much pleasure in seconding that.

The President put the motion, which, on a vote being taken, was carried amid applause.

Prof. Shutt—I do not deserve all this kindness, but I may say that as regards my presence here, those thanks should be conveyed to the Minister of Agriculture to whom you owe my presence here. As far as I am personally concerned, I am very pleased to come; I have been wishing to come for the last two or three years so that I could present personally these results. I know, in some measure they have been brought before you by others, but I thought when I was the one who was doing the work that no one else could really understand it in the same way and interpret it in the same way as I could, and when the invitation came I said to the Minister that although these results had come before you I thought I could probably add a few words of explanation, which would be of use to the association. He said, "well, if you think you can be of any value you may go". I thought if I was to continue this work, I wanted to get the voice of the association as to whether I was on the right lines, so that our work can be useful and practical, making our investigations and results of benefit, and I thought it was necessary, in order to do that, that I should get some further light upon the question.

Mr. Holtermann—With regard to the milling point of wax at 145 degrees and paraffine at 130, degrees, I understand some of these paraffine products have different melting points. I also understand that the melting point of some is so high that in Germany—I remember particularly Germany being mentioned in the European Bee Journals—they utilized a certain per centage of these paraffine products and not wax alone in the production of foundation.

Prof. Shutt—I just mentioned that fact to show our work at the Experimental Farm had been useful. Beeswax can be adulterated with vegetable waxes which

have as high a melting point as beeswax proper; then of course we cannot arrive at the nature or extent of that adulteration by a mere determination of the melting point; we have then to go to chemistry, and what we have to do is a little difficult for me to explain and I would have to find out the amount in very ordinary language. Different waxes make different soaps. There are many different ways of doing it, but that is the way in which we detect the presence of waxes which have a high melting point.

Mr. Holtermann—You think it is possible that that statement is correct in Germany, that they do utilize these cheaper products in the place of wax?

Prof. Shutt—I would not like to say anything about the German practice because I really do not know. I think it is possible; it is something which I think is within the bounds of possibility.

Mr. Holtermann—They simply state such is the case, but we in this country have felt inclined to doubt the possibility of it. I am very much pleased to hear Professor Shutt's opinion that he thinks it is possible.

In regard to these experiments, I believe that the first experiments that were conducted, with various weights of comb foundation, were carried on by the Experimental Union of the Ontario Agricultural College, Guelph, and at that time I suggested these experiments, and the different weights that were taken were rather extreme; that is, we took as heavy a brand as we could get hold of, and we took the lightest we could get hold of and then one grade between, and something like twenty specimens were sent in which had been put into sections. Now, in every case, by holding up to the light, and even pressing on it with a dull knife, we could detect, without looking at the side of the section, which way the foundation had been put into that section. Following those experiments, as far as I know, this line of work was taken up by the Michigan State Agricultural College, and they wrote me at that time and sent me a full set of combs, saying that as I had been the first one to do anything in that line, they would like me to carry on some experiments in the same line, and, if I remember correctly, they corroborated those experiments; that is, that as a rule, with few exceptions, that it was in proportion to the weight of foundation supplied to the bees. I know a great deal about Prof. Shutt; he has the reputation of being exceedingly careful in all his experiments, and all the work he has

shown we can depend upon it has been done in the most painstaking way, and the only criticism we can offer is that Prof. Shutt does not profess to be a practical bee-keeper; and a point which is lost sight of and which is of great value to the practical bee-keeper is the amount of what we call fish bone left in that foundation. We want to supply a certain man material, but we dare not go beyond a certain weight of foundation; if we do we get a certain amount of fish bone. Now, some of us claim, and I think justly, that under favorable conditions a good deal of comb foundation is utilized by the bees; but if a heavy flow comes on suddenly, then the bees do not utilize the wax in that foundation to the same extent; they begin adding to the wall of the foundation. I think, as practical bee-keepers, we may supply them with an article which under the most favorable conditions is not going to be too heavy. There is the only point which I think, in those experiments and in giving the results, has been lost sight of to a very great extent. I know there are many who profess that they use a heavy comb foundation, but let us try that comb foundation; I believe there are samples here on the table; let us test it and send it around and see the amount of base there is in that comb. If there is not much fish bone in it, that will be strong evidence that it is a good article. I am very much pleased that Prof. Shutt has carried on these experiments, and, as I said, the work he has done I am satisfied has been done in a painstaking way. I wish I had known this subject would come up. The first year in the Ontario Agricultural College experiments we carried on work in that line, and we went altogether perhaps in the other direction. We went to work and shaved down that comb, and then we had a very fine instrument for detecting the thickness of any substance, and we took these combs, shaved them down and put them upon ice, to make them offer the greatest possible resistance, and then tested them, and we found a very material difference, and that difference almost I think in every case—at any rate the report would show—varied in proportion to the weight of foundation given to the bees; and more than that, just to see how far they did utilize the wax given, we not alone took a dark colored foundation, but we colored it absolutely black, then we filled the empty comb with plaster of Paris; that made a solid comb; and then we shaved it off, and you could just see the inside of that with the naked eye, the difference in

the thickness of the comb foundation given in the first place, and you could see how high up on the side of the wall that black foundation was used; it was up as high as over one-third of the height of the cell foundation. In all comb foundation at the present time, if you look at it, you will find that it has quite a thick side, while if you shave it off, after the bees have utilized that and built the comb you will find in every case there is a certain amount immediately adjoining the base that is never touched by the bees, and the thicker the side wall is to begin with the thicker you will find it. These are points of interest that are of exceedingly great practical value to the bee-keeper.

Prof. Shutt—In every one of the reports I have pointed this fact, that it is the heavy comb foundation that has always resulted in leaving a heavy septum of fish bone. We have two contending motives. We do not wish on the one hand to supply such a heavy wax as will leave a heavy septum; at the same time we want to furnish, as far as possible, all the wax that can be utilized by the bees; it is in the middle row that we are going to find our salvation. If we follow that out then we only attain one object, and that is only with regard to the weight of the septum; we are not supplying the maximum amount of wax that can be utilized by the bees.

Mr. Holtermann—I went to one extreme and you went to the other.

Mr. Hall—If you want us to give you our honest opinion, it is not, in my case, the entire desire to keep the bees from utilizing their time and energy to make wax, it is to get all the worker comb in our hives; that is the main crucial point. We then raise a host of laborers, not consumers or idlers; if we can get it with a small quantity just as well as we can with a large quantity, so much the better, but if we have what we call sagging of the comb, and that sagging of the comb puts cells out of shape which the queen does not utilize and therefore there is no brood raised in them, either drone or worker. As far as your thin foundation and your thick foundation and your temperature is concerned, when you crush the wax you break the grains, as some of the ladies do in working the butter, they almost work it to death: by breaking the grains, my humble opinion is, the bees couldn't get hold of them to utilize it. Wax is crumbly and if you ever break wax you will see it looks grainy. The bees can get hold of this grain and pull it out and stretch it,

and if it is worked up so that there is nothing for them to get hold of they cannot utilize it; they cannot get hold of the skin of the fruit because it is smooth.

They cannot get hold of the Patent Process because it is squeezed to death. The bees say, "look how tough it is, we don't want it, we want something full of grain that we can utilize and pull out and make it quickly." I have reference to comb honey or to the brood, I don't trouble which it is. We want it heavy in the brood nest, not because the bees utilize it, but simply to keep that comb from sagging. And then these manufacturers say, put a wire in it. They don't have the job of doing it, they simply stay in their factory, but they say that will get over all the difficulty and save you so much for foundation. I would rather pay \$100 for foundation that suits me than \$50 for foundation that does not. The reason I make my own foundation is because the manufacturers know more about it than I do, or at least they think so. They say, that is what you want; they say, you don't know what you want. I had to get my own machine to make a certain make of foundation that the bees utilize. Put it alongside of this process that makes it so shiny and so that there is nothing left but backbone and they cannot utilize it. As regards the fish bone, I have sold honey for thirty-two years, and I take comb honey principally, and I have had but one solitary complaint about fish bone in comb honey. It sometimes takes first prize. I have had one small complaint and that was from a man that was a farmer; on one occasion he had a stock or two of bees and he sold his farm or rented it, and went to town and started a grocery. I sold him some honey and he says, "don't you know that there is a fish-bone in your honey?" The man didn't know what he was talking about. That is the only time in thirty-two years we have had a complaint; we have sold tons upon tons of it and we have never received a complaint. This fishbone business is only a bugaboo. The manufacturers get up these beautiful things; they say, "Look at that, see how beautiful it is," and the bees don't think it beautiful and they don't use it because they can't. The main object of using foundation is to get all worker cells and not drone—straight comb.

Mr. Holtermann—Let us test this thing; there is a section of Mr. Hall's on the table; send it around and abide by the decision as to fishbone.

Mr. Hall—Not to-night, to-morrow.

In regard to the question of brood comb foundation, Mr. Hall says the less there is the better, as long as it does not sag, and at the same time he says he has no use for the Patent Process. Evidently he has never tried it, because with the patent Process I would say this, and stake anything reasonable upon it, that what we call medium brood comb foundation that the patent process is as strong as the heavy is in the other, if that is what you want.

Mr. Hall—The bees can't work it.

Mr. Holtermann—They do. Mr. Post has over 300 colonies. It has given him satisfaction.

Mr. Hall—I have used it; I got 600 pounds from VanDusen and boiled it down.

Mr. Holtermann—You say that you got it from VanDusen. Every man in this room knows that VanDusen never made patent process. He made flat bottom foundation.

Mr. McKnight—Is this discussion in order?

Mr. Post—It gave the best satisfaction for me.

Mr. McKnight—In your work, along the lines that you did work, you found that the amount of wax added was in inverse proportion to the weight of the foundation?

Prof. Shutt—Yes. It does not work all through.

Mr. McKnight—That being the case, the bees must have of course secreted more wax, and added it to the lighter foundation, than they did to the heavy. When that foundation was drawn out and a given proportion shaved away along the septum, as you refer to it, do you think

(To be continued.)

- Ripans Tabules.
- Ripans Tabules cure nausea.
- Ripans Tabules: at druggists.
- Ripans Tabules cure dizziness.
- Ripans Tabules cure headache.
- Ripans Tabules cure flatulence.
- Ripans Tabules cure dyspepsia.
- Ripans Tabules assist digestion.
- Ripans Tabules cure bad breath.
- Ripans Tabules cure biliousness.
- Ripans Tabules: one gives relief.
- Ripans Tabules cure indigestion.
- Ripans Tabules cure torpid liver.
- Ripans Tabules: gentle cathartic.
- Ripans Tabules cure constipation.
- Ripans Tabules: for sour stomach.
- Ripans Tabules: pleasant laxative.
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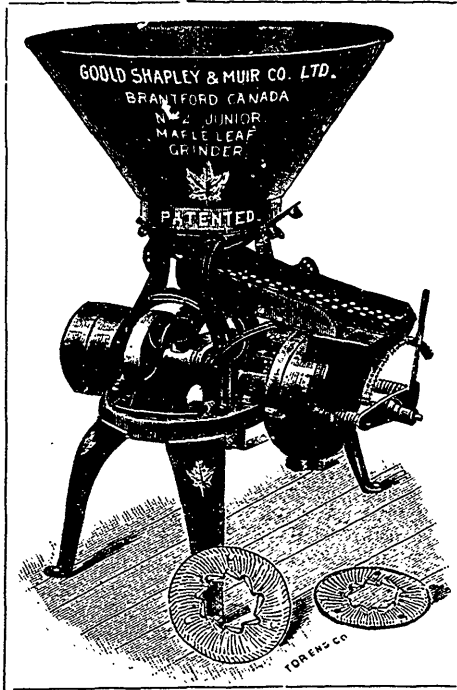
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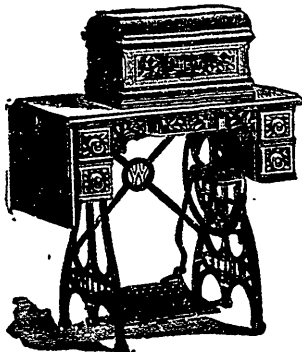
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