

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- |  |  |
|--|--|
| <input type="checkbox"/> Coloured covers/<br>Couverture de couleur   | <input type="checkbox"/> Coloured pages/<br>Pages de couleur   |
| <input type="checkbox"/> Covers damaged/<br>Couverture endommagée  | <input type="checkbox"/> Pages damaged/<br>Pages endommagées   |
| <input type="checkbox"/> Covers restored and/or laminated/<br>Couverture restaurée et/ou pelliculée  | <input type="checkbox"/> Pages restored and/or laminated/<br>Pages restaurées et/ou pelliculées                    |
| <input type="checkbox"/> Cover title missing/<br>Le titre de couverture manque   | <input checked="" type="checkbox"/> Pages discoloured, stained or foxed/<br>Pages décolorées, tachetées ou piquées |
| <input type="checkbox"/> Coloured maps/<br>Cartes géographiques en couleur   | <input type="checkbox"/> Pages detached/<br>Pages détachées  |
| <input type="checkbox"/> Coloured ink (i.e. other than blue or black)/<br>Encre de couleur (i.e. autre que bleue ou noire)   | <input checked="" type="checkbox"/> Showthrough/<br>Transparence   |
| <input type="checkbox"/> Coloured plates and/or illustrations/<br>Planches et/ou illustrations en couleur  | <input type="checkbox"/> Quality of print varies/<br>Qualité inégale de l'impression                               |
| <input checked="" type="checkbox"/> Bound with other material/<br>Relié avec d'autres documents  | <input checked="" type="checkbox"/> Continuous pagination/<br>Pagination continue                                  |
| <input checked="" type="checkbox"/> Tight binding may cause shadows or distortion<br>along interior margin/<br>La reliure serrée peut causer de l'ombre ou de la<br>distorsion le long de la marge intérieure  | <input type="checkbox"/> Includes index(es)/<br>Comprend un (des) index  |
| <input type="checkbox"/> Blank leaves added during restoration may appear<br>within the text. Whenever possible, these have<br>been omitted from filming/<br>Il se peut que certaines pages blanches ajoutées<br>lors d'une restauration apparaissent dans le texte,<br>mais, lorsque cela était possible, ces pages n'ont<br>pas été filmées. | Title on header taken from: /<br>Le titre de l'en-tête provient:   |
| <input type="checkbox"/> Additional comments: /<br>Commentaires supplémentaires:   | <input type="checkbox"/> Title page of issue/<br>Page de titre de la livraison                                     |
|  | <input type="checkbox"/> Caption of issue/<br>Titre de départ de la livraison                                      |
|  | <input type="checkbox"/> Masthead/<br>Générique (périodiques) de la livraison                                      |

This item is filmed at the reduction ratio checked below/  
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12X	16X	20X	24X	28X	32X

# CANADIAN BEE JOURNAL

PUBLISHED MONTHLY.

NEW SERIES  
VOL. VI, No. 11.

BRANTFORD, ONT., MAY, 1899.

WHOLE NO.  
411

Bees were working on Maple April 14th. This is the first we have noticed this year.

As far as we can make out bees throughout Ontario and Quebec have wintered fairly well. Some of those who have grown careless, or who have been busy with other matters and neglected their bees, have lost heavily. This winter has demonstrated more than ever that there is no trouble in wintering a good colony with good stores put away as approved by our best bee-keepers. What has suffered is weak colonies wintered outside having a great deal more space than they can cover. When stores are so scattered that in cold weather the bees are unable to move well, they invariably starve. The season is late, but since blossoms opened the weather has been exceedingly favorable.

he says that he has so far been entirely successful.

He practices Doolittle's plan in raising queens. His nuclei are supported, not only with nursing bees but with a good supply of drones. He removes the nucleus to his cellar where he leaves it well supplied with honey for about three days. He then, at 5 30 p. m., after all outside drones have returned to the hives, brings out his nucleus, when the virgin queen and drones will at once rush out for a flight after their long confinement. After their return the queen is examined and if she does not show evidence of having met the drones, the operation is repeated and she is given another chance at the same hour on the following day.

Now I do not know whether you have heard of this place, or whether you have faith in its efficacy, but I thought I would write you about it, and if you have any use for it in the C. B. J., use it.

Mr. Holmberg has a way of introducing new queens that is, as he says, very successful.

The old queen is caged and placed on the top of the frames for two or three hours. Then she is destroyed and the new queen is put in the same cage which is placed in the same place over the frames. After an hour she is released, when she is accepted readily. The bees think she is their old queen, now having the odor of the old one gathered from the cage and her position over the bees. He says the plan is a good one in his practice.

April 17th, '99.

[The above idea is new to me and I have never heard it mentioned at any of the bee-keepers conventions I have attended. The method given of controlling fertilization appears to me very reasonable, and I believe your article and Mr. Holmberg's experience valuable. Ed.]

## Control of the Fertilization of Queens.

—By W. A. WHITNEY.

I have just visited the apiary of Mr. J. Holmberg in this city, and as he gave me what I consider a new idea in the fertilization of queens, I will give you, and perhaps your readers, a brief account of his plans.

How to prevent Italian virgin queens from becoming fertilized by black or inferior drones has always been a difficult problem for bee-keepers. Mr. Holmberg says he has succeeded in solving it and

## Notes and Pickings.

—D. W. HEISE.

Are the same honey plants differently affected by different climates and localities? is a question brought up by F. Greiner, in American Bee-Keeper. He answers the question himself by saying, "Yes, they are indeed." And he cites a number of cases that came under his own observations, and that of others, to show that such is really the fact. I think this is a question that very few bee-keepers will need to search very little for proof of, and it applies very forcibly to my own locality. Take for instance the much renowned honey plant. "White Clover." Only one year in ten have the bees gathered anything to speak of from this plant in this locality. I have often been led to wonder why this should be the case, since the plant flourishes luxuriantly in all waste places. And I have sometimes thought, that perhaps it is owing to the fact of alsike clover being so extensively grown, and coming in bloom, as it does, about the same time as white clover, and possibly it affords opportunities to the bees that white clover does not. Then, again, take "golden rod," although we have in this locality quite an area of uncultivated lands pretty well covered with this plant, yet it is very rarely that the bees will be noticed working on it to any appreciable extent. Wild cherry and buckwheat come under the same role, the former scarcely ever being noticed by the bees, and the latter having only yielded me a crop one year in ten, although it is not extensively grown in this locality. There are a number of other plants that flourish moderately in this locality which are considered great honey producers in other sections, but they offer very little encouragement to the apiarist in this. Fruit trees as a rule, secrete nectar lavishly, I believe, but the weather is generally so bad during the bloom, that the bees are not able to profit much by it. Alsike is our mainstay, and the only thing that can be depended upon for a surplus crop in this locality.

"Best hive for beginners being asked for in the American Bee Journal, more of the veterans agree upon 10 frame Langstroth than upon any other."—Stray Straw, Gleanings. In a foot note, the Editor says:—"It is a fact that the call

for the ten-frame is on the increase, as our orders from season to season attest. We may talk about the eight-frame being big enough, but to insist that it is large enough for all localities, all conditions, and all bee-keepers, is foolish, to say the least." Just so. And yet we can find not a few who will persist in that foolishness.

[I think very few persist in saying the eight frame is large enough for all localities and conditions. I believe improper care and management has more to do with failure than the hive. But the hive can stand to be blamed, it can neither hear or answer back.—Ed.]

"What a wholesale recanter ye Editor is, when once he finds he's wrong. From thinking fifteen minutes enough to boil foul brood honey, he has gone clear up to three hours. I protest that there is no sort of proof for the necessity of boiling more than two hours and a half. It is rather humiliating to have to turn 'right about face,' but when one sees he is wrong, it is the only thing to do. Three hours! why if two and a half hours is just enough—just barely enough—why not make a sure job of it by taking three hours?"—Editor Stray Straw, Gleanings.

[There has been a lot of guessing on the above subject and the end is not yet.—Ed.]

The man who does the boiling for the American Bee Journal, makes a quotation from a foreign journal, in which J. W. Green says, he once had a full sheet of heavy brood foundation one side every cell drone comb, whilst the other was all worker. Cogitator thinks its all right, and says "The foundation was probably so heavy that the bees treated it just as they would a waxed board—first left one side alone, then levelled and propolized it, and later on made it a half-comb of drone cells."

Mr. Boiler of "Beedom" thinks I am making for myself a whole lot of trouble, by being disrespectful to the generally accepted opinion regarding winter protection for bees. Now just to save you any further anxiety Mr. Boiler; and to avert any possible trouble to this paper, I will modify my statement so much as to say, that the protection spoken of by J. E. Crane in a late number of Gleanings, is about what suits me. Will that do?

G. M. Doolittle has used foundation two years old. Dr. Miller gets him four years better, having used it when it was six, without noticing any difference between that and new foundation.

[I have used it four or five years old after being carefully packed, I do not think it had deteriorated,—Ed.]

A very pretty view is that shown as a frontispiece in the March edition of the Review, the apiary and residence of T. F. Bingham. What excited my curiosity most, was the number of barrels appearing back of the hives in the apiary. I wonder if Mr. Bingham keeps his bees in barrels? No, surely he is not so disrespectful to his bees. But then, if that is what he uses them for, perhaps he can explain their superiority over modern hives of the square dimensions. I would not like at this stage to throw cold water on the scheme of "barreling bees." It might cause an increased demand for empty sugar barrels, of which I have considerable number for sale each year. See?

Bee-keepers will find no further use for the phrase "Travel-Stain." J. E. Crane has shown that cappings do not become darkened by bees passing over the sections. But that the darkened appearance is the result of bees mixing some "foreign matter," with the wax, under some conditions when capping the honey. On the other hand, Dr. Miller says that sections capped perfectly white, if left too long, will be darkened, by dark material carried from below, but not by the "feet" of the bees. Bury the familiar phrase "Travel-Stain" decently.

[Are you sure now?—Ed.]

"Good Things from other journals," is the appellation of a new department which makes its initial bow in the March number of the Bee-Keepers' Review. It is presided over by that wily, and good natured personage, Dr. A. B. Mason, of Toledo, Ohio. This Picker having met the Genial Doctor at several conventions, and having formed a very high opinion of him, desires to offer his very best congratulations to Editor Hutchinson, in securing such a whole-souled bee-keeper as Dr. Mason to preside over the department. The Doctor appears to have been somewhat reluctant in taking charge of the department, and expresses wonder, that the Editor should ask him to pick out the "good things," when he should have known that it was easier for him

(the Doctor) to pick out and criticise those things that he don't agree with, than to commend the "good things." He says further, "That most of us take the good things, and let the others go." He expects however that Messrs Taylor, Miller, and Doolittle, whose business it is to be picking at someone, or something, to get after him; and throws out the timely warning to this gigantic "trio" that if they, or any one of them, attempt to "sass" him back at any time, the readers of the Review may hear of trouble. This is just like the Doctor every time.

"In order to break the news gently I am getting ready to report a case of bad wintering."—Stray Straw. I am ready now to report that kind of a case. While I have usually been very successful in wintering bees on the summer stands this is an exception. But I am taking consolation from that inner consciousness, that it is not my fault. Dame nature was against me, so mote it be.

---

#### Markets For Honey.

I think the Journal would be improved by quoting the market value of honey and wax every month. E. MARSHALL.  
York Co., Ont., March 29th, '99.

If any one can suggest a reliable way of securing market quotations, we shall be only too pleased to put them in. Almost all the market quotations we have seen would tend to depress the market and we have considered it injurious to to bee-keepers to put them in. Take, for instance, Toronto quoting extracted in 60 lb cans delivered in Toronto 54c, and dark honey 3c per lb, and Montreal comb honey, white, 85c per dozen. such quotations although generally given are misleading and injurious. If some of our bee keepers can help us out, we should like to hear from them, it is certainly a question worth considering.—Ed.]

---

Bees wintered well.

W. J. Brown,  
Pres. Ontario Bee-Keepers'  
Association.

Prescott Co., Ont., April 19th, '99.

### Origin and Development of Some Common Fruits.

Frederick C. Newcombe, Ph.D., Jr. Prof. of Botany, University of Michigan.

**M**AN is not content to see the outside of things. It is not enough for some of us that we can recognize apples and grapes as such, but we wish to know how these things come to be, how they originate and how they develop. We are to consider for a few moments the origin and development of a few of our common edible fruits.

We all know that the flower precedes the fruit, and before we can talk of the origin of the fruit we must look to the structure of the flower. In Fig. 1519 is

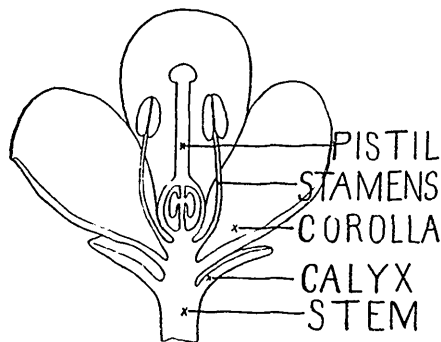


FIG. 1519.—Diagram of a flower in longitudinal section.

shown a diagrammatic view of a longitudinal section of a complete flower. The parts of the flower are seen to arise in circles from the flower stem, the lowest circle being the calyx, the next above, the corolla, then the stamens, and sitting on the apex of the stem is the pistil.

The calyx is usually green, and surrounds the stem as a cup or as several small leaves; in the bud it is folded closely over the other parts within, often protecting them by a waxy covering from the intrusion of rain, and from bird or insect enemies by distasteful secretions.

The showy corolla which to man's eye paints nature in beautiful colors, is a sign unfurled by the plants to tell insects of good things to eat, of banquets of pollen and nectar. The stamens with slender stalks supporting pollen-sacs are the male

organs whose pollen-grains effect the fertilization of the ovule and thus start the growth of the fruit. The pistil is the female organ containing in flask-shaped base, or ovary, the ovules which are the germs of seeds.

This is the structure of a simple and complete flower. But every part just named is capable of modification, and there is no part among those named that may not be absent from some species of flowers.

In the pea and the bean flower, for instance, the corolla is so modified that its separate leaves are no longer alike, but together present a peculiar butterfly appearance. In the pumpkin the corolla is all in one piece forming a beautiful yellow funnel. The corolla may, instead of one, be composed of several rows of colored leaves, as in a cultivated rose or the white water lily. On the other hand, the corolla may be wholly absent as in the flowers of the sugar maple; the calyx and corolla may both be absent as in our American sycamore and in the female flowers of birch; the stamens may be absent as in one kind of flowers in the melons, or the pistils may be absent as in the other kind of flower of the melons. When all parts are present in a single flower, the pistils and stamens may become mature at different times, thus insuring cross-fertilization, as in the pear. The successful fruit-raiser takes all these variations into account; for he has learned that in order to raise certain kinds of strawberries, grapes, pears, etc, he must so arrange his plants that there shall be a plentiful supply of ripe pollen when the pistils are ready for fertilization.

The apple blossom is illustrated in Fig. 1524. If we look closely at the sections of flowers as shown in B and C, we shall note principal variations from the structure of the cherry flower. The apple, instead of one pistil as in the cherry, has usually five; and the pistils instead of sitting freely in the bottom of the cup of the stem as in the cherry, are fused with the cup of the stem in the apple. As the fruit begins to develop after fertilization, the stem cup as well as the pistils, enlarges, carrying the rest of the flower on the rim of the cup for a short time; soon the corolla, the stamens and the upper parts of the pistils fall off, but the calyx remains even upon the ripe fruit.

Of a quite similar origin to the apple are the pear and quince. The fruit of the apple, pear and quince is therefore a swollen stem or axis enclosing the base of

the pistil, thus differing widely from the fruits previously considered.

Currants, huckleberries, gooseberries, cranberries, pumpkins, squashes, melons and bananas have a similar origin to the apple; for in the flower, their pistil-base is

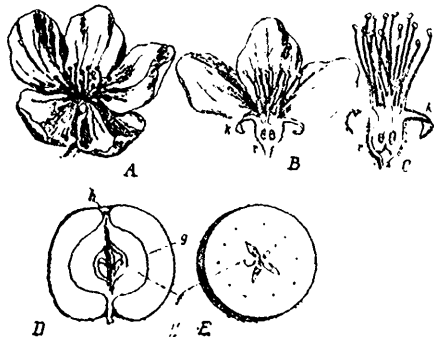


FIG. 1524.—THE APPLE (*Pirus malus*). A, flower; B, flower in section; C, flower in section with corolla removed; r, the axis or stem which develops into the fruit; D, fruit in longitudinal section, showing persistent calyx k, wall of ovary f, and vascular bundles g. E, fruit in cross section.

fused with the cup of the stem, and as the fruit develops both stem-cup and pistil-base enlarges together. There is however this difference between the fruits last named and these of the apple, pear and quince; in the latter group the edible part is all or nearly all stem; while in the former group, the stem part is but a thin covering over the outside, the edible part being mostly pistil.—The Canadian Horticulturist.

#### Brant Bee-Keepers Association.

The above Association will meet at the Court House on Saturday, May 13th, at 2 p. m. Business of importance will be discussed. Spring management and other topics of interest will be brought up. Members will please take this as a notice of the convention.

JAS. SHAVER,

Pres.

C. EDMONSON,

Sec'y

Bees seem to have come through the winter pretty well, and if the spring is favorable there will be a considerable crop of honey secured in all probability.

F. W. JONES.

Missisquoi Co., Que., April 19th, '99.

#### Separators and Sections.

—By N. D. WISR.

Editor CANADIAN BEE JOURNAL:—

I notice that you do not favor a change of separator, for the new kind of fence separator. Neither do I; nor do I favor the change from the standard  $4\frac{1}{2} \times 4\frac{1}{2}$  section for some other size; it is far better to have standard goods for the market. We poor bee-keepers are making a mistake when we try to put our honey in some shape on the market so as to get a better price for only one or two years, when at this time, if the market demands a change, others will fall in line and send in the same goods, or worse yet, make a smaller size box and get something else that is new started. These changes prove a curse to us poor fellows who are in the bee business and have to pay for all of the changes and our own mistakes too. That is what keeps us so poor. See how different it is with other professions. The doctor, for instance, gets paid for his mistakes just the same whether he kills or cures. The minister and the lawyer get their salary and so does the President of the United States, whether he is successful or not. The people pay for their mistakes, but we have to pay for the misfortunes brought on one another by striving to get ahead of everybody else by some change of honey box or shipping crate. Whereas, we should try to get good, clean honey closely graded and put up in a neat shipping crate and strive all of the time to use uniform boxes and crates, and the prices of the same quality of honey should be the same. Then the production of comb honey would be profitable and we could produce it cheaper than we now can. Our crates and sections should be as uniform as a barrel of flour and sell by count if properly graded. Twenty-eight years ago I used what I called a slatted separator, made with three slats,  $16 \times 1 \times \frac{1}{2}$ , and two end posts,  $6 \times 1 \times \frac{1}{2}$ . These posts were nailed on both ends of these three slats and then I had a plain fence separator instead of a plain section. The bees could go through between the slats of the separator both sidewise and lengthwise. But the trouble with these were, they made ridges on the combs where the spaces were between the slats and above and below the slats too, when we had a flush yield of honey. I did then, with my

first trial, use plain sections too, but they were rude sections compared to what we now use. I soon changed for a tin separator and when I had enough to run three hundred swarms, using the tin separators, together with two pound boxes without glass, or two and one half pounds with glass, I felt that I was ahead for a while, but along came the one pound box. How I dreaded it! But the market demanded it and I had to fall in line. I may have to change again but I don't want to. It would cost me 1,600 crates and fixtures to make the change, and I am convinced that as soon as the change is made I would not get any more for my honey than I am getting now. But old styles get out of date for the new and do not sell as well, that is all. I go slow in making a change on a large scale.

#### ANOTHER CRAZE.

A short time ago the craze was for making brood frames invertible to prevent swarming, etc. I don't hear anything about them now. See what I said about separators and sections in Gleanings in Bee Culture, Page 297, April 15, 1897.

We have had a long winter here and a cold March. On March 14th I carried out 45 swarms and they did not fly until April 4th. On April 5th I finished carrying out 180 swarms at home in the morning, and while my help was left to carry out the last few hives, I went to fix the wagon to go to an out yard twelve miles away; but I slipped on a piece of ice and sprained my ankle and put it out of joint. The boys carried me into the house on the bee carrier, the doctor was soon here and treated my ankle. I was left on the sofa but the boys went on. They have not returned yet. This yard is on my farm and they stay another day there. This day, April 6th, is a fine day and bees are having a fine time. I can't get out of doors to see them. I expect I shall soon go out with crutches. The doctor says it will be a long time before I can step on my foot. I don't like such falls. I weigh over 200 pounds and when I fall it hurts.

I have just got up in the chair for the first and write this much.

Middleburg, N. Y., Apr. 6th, 1899.

I herewith enclose \$1.00 subscription to the Canadian Bee Journal. It is just the paper for the bee-keeper.

A. L. BOUCHER.

Algona Ont., April 20th, '99.

#### WAX EXTRACTORS.

We Want one that is Practical and Business-Like, yet Thorough.

C. G. FERRIS, in Bee-Keepers' Review.

"Learned criticism has always been averse to the truth upon the first appearance of a new doctrine, whether in science or religion."

MY dear Mr. Hutchinson: A gentleman by the name of Gemmell, of Stratford, Canada, is hunting up the wax left in the refuse after rendering. Probably you know him, and more about it, than I can tell you. In his communication to me he questions the practical working of any steam arrangement to attain this purpose. You, also, I see, are somewhat inclined in that direction. Mr. Gemmell wrote me that he was going to see you about getting samples from the wax extractor you now have, to experiment on. While I do not question your ability to handle the refuse properly, I would call your attention to the fact that you have one of my old extractors; and will venture that you have never tried the No. 2 process for treating the refuse. Do you mean to say that I lose from one-third to one-fourth by the use of steam? I guess you have not become familiar with the working of the one-basket extractor, or you never would make such a statement as that.

There is another point that you lose sight of, and that, to me, is everything. It is easy for any one having only a small job of rendering, to adopt that primitive and well-known way of Mr. Beckwith; or to submerge a few combs in sacks, in the bottom of the boiler, as you speak about in the Gemmell method. To those who work in that way I do not expect to sell an extractor, nor do I advise them to buy one—they have no use for it. You speak about the refuse being so free from wax after being pressed. Why, my dear sir, for years, all the refuse that I have thrown out has been as void of wax as though it had never been in contact with it. Always, by using the flooding process, we get the granulated refuse; unless there is a great amount of sticks, waxes, etc., in it. As before stated, we want a system of rendering wax that is practical and rapid. By almost any process we can, in a small way, get all the wax by fusing; but what we want is to run all day, and

then clean up in a few minutes and get desirable results. The first desirable point is rapidity; next, simplicity, and lastly, to save all the wax.

There are those who can not run any kind of an implement with success. They need something that will run itself—and then there is something lacking. This is the kind of bee-keeper from which friend Gemmell will get his refuse that still contains wax. I will send him all the refuse that I have, for the rest of the time that I keep bees, and pay him one dollar a pound for all the wax he gets from it. I might safely pay an ounce, but he might get the ounce; and that would make me feel bad.

How well I remember the way we used to squeeze the refuse; Beckwith style. How the wax would cool on the outside of the cloth; and how, under pressure, the wax would squirt in all directions except the desired one. How things would sing, crack and snap, and we would dodge to escape being encased in wax. O, that beautiful clean way! That ancient way of squeezing and dodging the wax.

Mr. P. H. Elwood, my neighbor, one of the most practical, scientific, educated and scholarly gentlemen we have, that I know of, has used the press, a powerful one, in pressing out the refuse after boiling—in a large kettle. With him it was not perfectly satisfactory; as he has placed his order for one of my large three-basket extractors. With this he will have no danger of burning the wax; which has been a great disadvantage heretofore.

Should there be a better way of rendering wax, I should like to know it myself; but I never will go back to friend Beckwith's and Gemmell's way.

Say, have Gemmell come down this way. I will take him to the Hetheringtons, with their thousands of swarms; and to Elwood's with almost as many more. Would be glad to have him.

South Columbia, N. Y. Jan. 25, 1899.

### Plain Sections.

Lest some of our readers might think that the Gould, Shapley & Muir Co., Limited, cannot supply the plain sections 4x5, we will say that they will be only too pleased to supply them at the price of regular sizes. They take less lumber, and from the standpoint of the supply dealer, the more of them they sell the better they will be pleased.

### Plain Separators and Other Things.

HENRY ALLEY IN THE AMERICAN BEE KEEPER

Plain separators are what I want and here are my reasons why I want them: Last season nearly all my best and well-filled sections were ruined by using separators that had bee-ways at the top and bottom. Such a bee way at the bottom would have been no disadvantage, nor of the least advantage over a plain, straight piece of wood, as the opening in each section is sufficiently large to admit bees to the sections. Then, again, the smaller the entrance to the section the less lumber of bees it requires to build comb and draw out the foundation, as too much ventilation retards the bees in working at storing honey and making comb.

I found where separators were used that had bee-ways cut out of them, the bees would bulge the comb and thus making it bad to handle and pack the sections, also spoil the looks of the face of the comb.

I do not believe the "fence" separators are as good as the plain pieces. I don't want so many bee-ways and bee-spaces, nor so much ventilation through a hive when bees are storing surplus honey. Heat is what is wanted, as the bees have a way of ventilating their apartments to their own liking. In order to maintain the desired heat in cool weather for wax working the bee-crowd into the sections in great numbers. Now if the interior of the hive can be kept so warm that but few bees will be required to maintain the proper degree of temperature, all the more bees can be spared to the fields in search of nectar. I always made it a point in cool weather when the bees were storing honey to contract the entrance accordingly as the weather varied. On a very warm day give the full entrance, also at all times when bees were disposed to cluster about the entrance. On cool nights I have not only contracted the entrance to the hive, but have thrown a blanket over the entire hive in order that the bees might not desert the sections during the night.

I understand, of course, that a person who has several hundred colonies would not find it practical to cover and uncover so many hives. But the small bee-keeper,



the one who takes great interest in his bees, can do many things to help increase the income and profits of his apiary. If a bee-keeper is to adopt all the new-fangled notions that appear in the bee-papers, I fear the expense would consume much more than the profits of his apiary. Some inexperienced bee-keeper gets an idea that he has devised something new. He has a cut made, sends description to some bee-paper, then "tis hurrah boys, bee-keeping revolutionized," and so it goes. What is there in bee-keeping that makes the business so pleasant and profitable? So far as my experience goes it is the plain, inexpensive hives and fixtures. What is there so nice to handle as a plain Langstroth hive, a Bingham smoker and hundreds of other things used by those bee-keepers who have made apiculture a success? Down with a hive, a smoker, a section-case and all other clap-trap fixtures. Give me things the most convenient and inexpensive. Scientific bee-keeping in any branch of apiculture is a nuisance.—The American Bee-Keeper.

Wenham, Mass.

[Henry Alley is one of our best known bee-keepers and the above article contains information of value. We have for years abandoned the separators having beeways at the top and bottom. The separators did for us just what Mr. Allen states. Of course there may be some who never crowd their sections sufficiently to get the bulging condition, but in that case they must content themselves with a section not well filled.—Ed]

\*\*\*\*\*  
 \* A Struggling Bee-Keeper Tells His \*  
 \* Story. \*  
 \*\*\*\*\*

Hollaway, June 7th, 1898.

Dear Sir:—I desire to call your attention to the following facts which may be of interest to the Ontario Bee-Keeper's Association. The facts are as follows:—Seven years ago I lost my farm in default of payment on mortgage, result, mortgage foreclosed late in fall. No sale, after being offered at auction. I refused to vacate. Sheriff's writ issued and my goods and stock put off the farm, including thirty colonies of choice Italian Bees, several colonies containing imported

queens from the best breeders in the States. Colonies in A. 1. condition, all on seven frames (Langstroth), choicely selected combs—selected while extracting in buck-wheat season. Bees removed to road side late in December, the stock being in cellar built specially for wintering bees. Bees remained on road fourteen days without covering. I then placed them in their winter quarters again until spring. I found it impossible to get a cellar, farmers' cellars all being full at that time of the year and most people frightened at the thoughts of bees in their cellar. Why, the girls and women folks would be afraid to enter the cellar. Thousands of bees flew out while on the road side every fine day and never returned, being chilled after soaring around the hives and falling within a few yards of the hives, the snow being covered in some places near the entrances. All the colonies were very strong. Result, in spring when taken out, four weak colonies, three mere skeletons, rest all died in cellar. I thought this very hard treatment and wondered if there was any protection for our little pets against a bad lawyer.

To-day I am again in trouble, have been renting a vacant lot and have three colonies of bees. Landlord has demanded possession, threatening to issue writ and put the bees on the road. Can he do this? If so, I would suggest that a law be had that would protect the rights of a bee-keeper, and thus prevent the bees from being disturbed against the wishes of the bee-keeper. Say all colonies to be left undisturbed from off their summer stands after 25th of April or 1st of May until, say 10th or 15th of October following; all colonies to be left undisturbed either on their stands or in their winter quarters the 20th of October, and to so remain until the following spring not later than the 1st to the 5th of May, this would protect the bees and the bee-keeper and also give the parties an opportunity to put off the bees in space of five days time in spring and fall and at a convenient season, thus preventing loss to the bee-keeper and other inconvenience arising from this sort of unmerciful disturbance. I also think a law ought to be passed to prevent bees being put or thrown on the public highway.

I have been a very delicate man all my life and too poor to be a member of the Ontario Bee-Keepers' Association, which I consider a fine association. Trusting from the above remarks you may be able to look after the interests of the bee-keeper.

ers of Ontario and thus prevent by legislation such outrageous acts being perpetrated on our bee-keepers in future.

Hoping this may be useful to the Association and that good may result therefrom, I remain,  
L. M.

### Setting Out Bees--A Report.

Yesterday my bees were rushed out of the cellar. The day was perfect for work, mercury about 50°, the day was still and clear and the sunshine lovely. The smoker was trimmed and burning, ready for use if needed: wife kept door while myself and another rushed them. No attention was paid to the old stands, we began at one side of the yard and filled every stand as we proceeded with the work. In a short time the whole eighty-three hives were out.

Of course, there was a good deal of mixing of bees caused by them returning to their old home stands; but the relative strength of each hive was practically unchanged and the bees neither knew nor cared anything about the changes and I don't know that any harm comes of it.

To my way of thinking there is great satisfaction in placing all out at once as near as can be. I am pretty sure there is less liability of robbing than by setting out at different times, and the evenness of the general divide up will be most perfect. Not a dead stock, and I am pleased with their condition generally. A few spotted their entrances and are light while all near by were in good condition.

S. T. PETTIT.

Belmont, Ont., April 10th '99.

I packed away fifty hives with sawdust on their summer stands. I had three hives destroyed with mice. I had a very weak hive which I packed also. It is dead. I have forty-six hives that have had several cleansing flights and most of the hives seem quite strong.

J. MARTIN.

Hillsdale, Ont.

I don't know yet till this beastly weather lets up, whether I will have ten colonies or one to work this season. They had three and four frames of brood two weeks ago, and gathered pollen splendidly. Now we have some of your weather here, snow and cutting winds, and they are without protection. I took everything off a week ago and let them have the sun.

E. ETHWART.

British Colonies March 23th 1899.

### The Man Who Succeeds.

The man who makes a success of an important venture never waits for the crowd.

He strikes out for himself. It takes nerve. It takes a great lot of grit. But the man who succeeds has both. Any one can fail. The public admires the man who has enough confidence in himself to take a chance. These chances are the main thing after all. The man who tries to succeed must expect to be criticised. Nothing important was ever done but the greater number consulted previously doubted the possibility. Success is the accomplishment of what most people think can't be done.

C. V. WHITE.

### Personal.

Jas. Shaver, Cainsville, President Brant Bee-Keepers' Association, was one of the members who personally interested himself in the success of the Brantford Bee-Keepers' meeting. A report of which is now appearing in the columns of the Canadian Bee Journal.

### York County Convention.

The Spring meeting of the York Bee-Keepers Association will be held on the 16th of May, in the town hall, Markham, commencing at 9 30 p. m. All Bee-Keepers cordially invited to attend.

L. MAPES, Sec'y.

### Error In Date.

Dear Sir,—I have come to think that in my notice sent you re meet of Y. B. K. A. I said 15th of May. If that is so please correct, if not to late, to 16th of May.  
Bethesda, Apr. 17, '99. D. W. HEISE.

The season is very backward here this spring, snow not all gone. I have 14 colonies of bees in fine condition and two or three weak. I lost several during the winter, they had plenty of honey in the hives, but owing to cold weather they failed to move on the combs.

JOSHUA BULL.

Brome Co., Que, April 14th, '99

I like to read the Journal, it has greatly improved since coming under your management.

ARTHUR MURPHY.

Huron Co, April 14, '99.



## Meeting of the Senate of Canadian Bee-Keepers.

Mr. Shaver. I do not advocate putting them out in the yard and letting the bees clean them out. I extract six at a time, as a rule, and use six fresh ones, and I never look to see that they go back on the same hive; I never think it necessary.

The Chairman. It seems to be understood that the best system will be any way that you can handle your honey without having it distributed among the bees or combs, or anything; not set them outside to be cleaned out.

Mr. Holtermann. The foul brood is all over, and we are trying to stamp it out of the province. Mr. Dryden asks when it is going to stop? What we want is to get at some system that will go out before the bee-keepers of the Province, and say, "You follow that system and you will have less foul brood." Advocate something that every one should go by, as well as ourselves.

Mr. Armstrong said that honey should not be fed out of doors, where it could be got at by the neighbors' bees. It is not good to expose honey where another yard can reach it. If you have foul brood, keep it in your own yard, so that nobody else can catch it.

Mr. Holtermann. As bee-keepers we have to advocate something for everybody to use. I say that the foul brood inspector, instead of looking through four or five colonies, should make the job thorough before he goes on. You will find the germ of foul brood right in the germ of the queen bee, which I did not think at one time was possible.

Mr. Roach. If the germ is in the egg you had better put them all out at once and be done with it. If it is in the egg of the queen there is no chance of escaping it at all.

**How Can Pollen Best be Kept out of the Extracting Super.**

Mr. Robinson was of the opinion that the queen bee should be kept out of the extracting comb. If she was allowed up there, there would be plenty of pollen.

Mr. Armstrong. If you allow the queen the privilege of going up in the upper story, certainly when she goes up there the pollen will go up too; keep the queen excluders on and that is about as good a preventive as I know of. The queen will not be able to go through the excluders loaded with pollen.

Mr. Atkinson. I believe if you have the two story 17 Langstroth frames, or 15 frames, for brood chambers, you will not have any trouble, but if you have a very prolific queen there is not much room for honey in the lower story. Where I have had two stories I have had no pollen. If you have large brood chambers you will find no pollen in the upper story, but if you have only one chamber you will have more or less pollen.

Mr. Alpaugh. I like to get my super combs well drawn out. That is one preventative of pollen. Another thing; if you can have a little room in the brood nest where they can put pollen, either by scraping a little honey and making them move it, which they will do. If you break it they think it is not right. They always like to put the pollen as near to the brood as they can get it, and if there are any empty cells they will put it there.

The next question taken up was

**Which is Preferable, a one or two Story Eight Frame Langstroth Hive for a Brood Chamber.**

Mr. Miller did not use Langstroth hives. In the spring he used three Heddon scories, until the early flow was over.

Mr. Armstrong said that a one story Langstroth was good enough for him, he thought it was the best all-round hive. If he found a queen that was really crowded for room in an eight frame hive he would just move brood from that hive and give it to one that had not quite so good a queen. The two story hive, in his opinion, was rather too large.

Mr. Shaver thought that, taking one season with another, one story was large

enough for any hive, for comb honey. If that is kept full properly it will be found enough.

Mr. Heise. I have never had anything in the yard as small as an eight Langstroth; I prefer a single brood chamber. A ten frame Langstroth is the smallest I use.

Mr. Holtermann. I don't know that it is the best. I think it is possible that for extracting honey a hive larger than an eight frame would be better. I would be inclined to think that two would be too large, and one smaller than you could work to the best advantage in extracting honey, but for comb I think it is large enough.

Mr. Young. My neighbor has about sixty. He uses two stories for brood raising.

Mr. Armstrong. When you use the two story Langstroth, isn't there a great deal of the lower story deserted; the lower part of the frame left there, black and empty, not even honey in it; isn't that the case?

Mr. Holtermann. We are getting on exceedingly debatable ground. Take a man who produces nothing but clover honey; he does not expect basswood or buckwheat. I believe a man like that does not want to be brooding bees to the same extent that a man who has a longer flow; and where the flow is short I think the average queen will not do any more than that. Locality has a great deal to do with this question.

Mr. Atkinson had tried for the most part, two. He preferred two. Take a two story Langstroth for a brood chamber and you will not get a swarm quite as quick as you get it off a single story, but when you do get a swarm you get from one third to one half greater. If you have a two story hive for a brood chamber, you are not so apt to have them swarm, and if you have plenty of bees and do not want them to swarm, clap on the upper story where they will have plenty of room.

Mr. Roach. I had eighteen swarms last year. I took 1340 lbs. with one story. If one brood chamber is not sufficient you want to get bees faster than most folks.

Mr. Holtermann. That does not prove that that is the best way, because it might be possible that if he had done the way that Mr. Atkinson mentions he would have as much as McArthur got. Mr. Roach got it mostly from clover.

Mr. Edmonson. In our locality, where we get 9/10 of the honey from clover, the

hive I use is about equal to a 10 Langstroth, and I think that is sufficient.

Mr. Robinson said he used a one story Richardson. When he put on the two stories the bees went up before they had utilized half the room below. He would sooner have a brood solid in the lower story than divided into two stories.

The Chairman. This question covered both comb and extracted honey. Therefore I would say both one and two stories. For comb honey I would like two shallow brood chambers, so that I could use one for putting my comb honey on when they had swarmed. Until that time arrives I want two brood chambers so as to get plenty of brood raised. I have an eight Langstroth frame, but about six inches deep. If I was running for extracting I would prefer one larger hive than Langstroth. It is not necessary to have two brood chambers when one will do, when running for extracting honey.

Mr. Gemmill had tried both single and double brood chambers, and if he was going to use a double he would not wish a sixteen Langstroth, but would prefer one shallower, either for comb or extract; would prefer to work with an eight. He liked the brood all in one place.

Is it advisable to prevent increase, to get the best financial results?

Mr. Gemmill opened the discussion of this question by saying that he had noticed that sometimes before a colony swarms they will loaf five or six days, right in the time they should do their best; but if the bee keeper could get the swarming fever off them, and make them work those five or six days, so much the better.

Mr. Atkins was of opinion that a large brood chamber and plenty of room above was one of the best preventives.

The practise of taking a small increase was followed by Mr. Miller, who believed that by doing that judiciously he could get nearly or quite as much honey, by taking a small percentage of swarms.

Mr. Armstrong. My impression is that about one swarm from each colony will produce the best results, by manipulating them in a certain way; by hiving them on the old stand, and manipulating the old colony in such a way as will keep the working force all on the old stand, either for comb or extract.

Mr. Holtermann. You put the super on before swarming?

Mr. Armstrong replied that that was his custom always.

Mr. Holtermann. I think we are pretty

well all agreed on this. A great many people are allowing their bees to swarm before they put on supers; Mr. Craig knows, as well as myself, that we have asked ever so many people how their bees are doing, and they will say splendid, and will tell us the numbers of swarms they have had; but when they are asked how much honey they have had, they will reply, not an ounce of it. The farming community and general public should go in for honey rather than increase. We all want to work in this direction—not to allow them to swarm until they can give us strong swarms, and then let them come early or late. For shade we put them under the fruit trees so that they can get the morning and evening sun. For extracting I do not want any increase. I wish to prevent swarms, For comb honey I want them to swarm once, and once only.

The Convention adjourned at 11 a.m. until 1.15 p.m., in order to pay a visit to the establishment of the Goold, Shapley & Muir Co. (Limited), manufacturers of wind-mills and bee-keepers' supplies. A photograph of the members of the Convention was also taken by Mr. Park, a photographer of Brantford.

(To be continued.)

### Bees in Eastern Ontario.

I put thirty good strong colonies in the cellar and lost only one. I took them out on the 13th and we have had lovely weather since, and they are as busy bringing in pollen as they would be in May. They are all in first-class order. The hive I lost was empty of bees, I believe it had fifty lbs. of nice white honey in it.

W. G. WOODMAN.

Frontenac Co., Ont., April 21st, '99.

A curious result of the slow changes of level going on at various points of the earth's surface has recently been pointed out by a Canadian professor. This is a gradual tipping up of the shores of Hudson Bay, as if some gigantic power were engaged in an attempt to empty the great basin of water into the adjoining sea. When Henry Hudson, in 1610, discovered the bay, he wintered with his ships on the east coast in a harbour which has now all but disappeared.

### "A Little Knowledge."

Some people whose botanical learning is not very deep are fond of Latin names for plants and bowers. There is a garden not a hundred miles from London which is kept by an old gentleman who delights to have all his plants labelled with high-sounding "botanical names"—it does not matter in the least what; and so some of his more learned friends have helped him to distinguished appellations.

He has, for instance, a bank of roses, the plants in which bear these labels:

*Nux vomica*; *Nisi prius*; *Ipecacuanha peruviana*; *Particeps criminus*.

It is easy to see to what professions the friends belonged who supplied the worthy gardener with these eminently scientific names. The gardener is proud of them, and they undoubtedly answer every purpose of the planter.

This reminds one of the story of the Rev. Sydney Smith and the newly-rich lady of Kensington. She was quite ignorant of either Latin or botany, but she had a fine conservatory, and she considered it a proof of her own cultivation to know the botanical names of all her plants.

These names she committed carefully to memory, and one day, when Mr. Smith called, she took him to the conservatory and reeled them off to him. She showed him the *Pelargonium quercifolium* and the *Cheiranthus icanus* and the *Mezembryanthemum* and the *Amygdalus persica*, and scores of other high-sounding things—which were, after all, but common flowers and fruits.

Sydney Smith listened until he was tired, and then, turning to the lady, asked—

"Madam, have you the *Rubeola morbilli*." The lady stopped short. What in the world might the *Rubeola morbilli* be? She had not the slightest idea. It might be something familiar of which she had not learned the name—and the name was pretty, anyway. So she put on a bold face and replied—

"Not just now; but I had it last year, and gave it to as many of my neighbours as I could." "Ah. Did you indeed?" said the great clergyman, and left her quite ignorant of the fact that he had asked her if she had the measles!

# Annual Meeting Ontario Bee-Keepers' Association

Held at Guelph  
Tuesday, Wednesday  
and Thursday  
Dec. 6, 7 and 8, 1898

Continued from page 443.

Mr. Armstrong—I think brother Brown has given us a very fine paper, but there are a few things that I don't agree with him on. The first thing I notice here is having his hives all in rows. That is something I used to do, but I have dropped that. Instead of putting them in rows I put them in clusters or I put them in pairs. Another thing, in the extracting, I don't quite agree with him there. I don't generally do it till the season is all over. I generally have supers enough, so that when one is full I take and raise the super up bodily and put another empty one in under it with full sheets of foundation, or if not I put full combs if not full sheets of foundation. If they need another one I do the same. I leave my whole crop of honey there until I am ready to extract it. I have my honey all there and I think I get a good deal better honey, and I have no trouble in ripening my honey afterwards. Then I extract the whole crop. I very often use the Porter Bee Escape. I can take off may be 20 or 30 supers to-morrow. I just take my wheel-barrow up alongside of my hives—I have two hive boxes that hold eight frames each—and I just put my combs right in there and wheel them right alongside the extractor into the honey house without lifting them at all. That does away with all this lifting. I just take it right up alongside the uncapping can and slide them off. If the season is over certainly, I leave them in the honey room until towards evening and then I return the empty combs and have them clean them out and leave them there until such time as I go to examine the bees to get them ready for winter, and my combs are all clean and dry. That is all I do with them. That is one thing in this paper I don't agree with.

Mr. McEvoy. You just take the top story right off?

Mr. Armstrong. Yes. What I had reference to was not when I take them out comb by comb, but when I take them off

as a whole with the Porter Bee Escapes I don't need these. I take the full supers off as many as I can get on the wheel-barrow.

Mr. Newton. I would just like to ask Mr. Armstrong if he uses a stove like Mr. Brown. In our locality, if we were to leave our combs over night with the Porter Bee Escape on we would be unable to do so. Mr. Brown says he uses his for a variety of purposes because he says when he takes the honey to the house he keeps the temperature at 90°. Bro. Armstrong would have to use it for warming the honey up for the purpose of extracting it, because we couldn't do it if they stood over night with capped combs.

Mr. Armstrong. I had no difficulty with leaving them over night. In some cases the honey would be toughish and in that case I have a stove in my honey house.

Mr. Gemmell. If you take your honey out in July or August have you to heat it before extracting it?

Mr. Newton. Certainly. I don't think any one can extract it without the honey stringing out, and I don't want it all over me.

Mr. Brown. I think there would be no daubing if it was left until cold with me, particularly if it was clover or basswood honey. I find if that is left over night it will stick and become as sticky as mud, but at the last extracting, when the buckwheat honey is coming in, it is unusually clean, and suppose it does stand over night, or over a week, it makes very little difference, you can uncap it supposing it is cold, but with the clover honey it becomes too thick.

Mr. Holtermann. Do I understand Mr. Brown to say the buckwheat honey is thin?

Mr. Brown. Yes.

Mr. Post. I have had buckwheat honey as thick as any honey I ever saw.

Mr. Brown. I am living in a buckwheat district, and I have harvested buckwheat

honey for 16 years, and I never could get it as thick.

Mr. Darling. I have had buckwheat honey average 14 pounds to the gallon.

Mr. McEvoy. These men are all right. President. Do I understand you, they are all right and all wrong?

Mr. McEvoy. As a rule, I say, it is not as thick as clover.

Mr. Holtermann. I don't think any one has handled as many samples of buckwheat honey as we have from different dealers, and I was a little bit surprised at the statement of Mr. Brown. I believe if you get a sprinkling of buckwheat honey in with this, then that holds good, but I believe the buckwheat honey is more difficult to remove from the comb.

Member. Mr. Brown and Mr. Holtermann live in two different districts of the country.

Mr. Sparling. My experience is the same as Mr. Holtermann's.

Mr. Darling. I have had buckwheat honey so thick that I could lift a pound and a half on a spoon.

Mr. Newton. I don't believe in that way of extracting, leaving it till its gets cold. The way the price of honey is today I don't think it pays Mr. Brown or anybody else to burn wood to warm it up. I just rose to say that I agreed with the discussion as to thick and thin buckwheat honey. I believe the season has a great deal to do with it. I know if the season is dry we always have a much thicker and much better quality of honey than we have in a wet season, and it is the same with buckwheat honey as with other honey.

Mr. Holtermann. What is the object in not extracting it after you take it off the hive?

Mr. McEvoy. Can't always get the time.

Mr. Jacob Alpaugh, Galt. There is another point in Mr. Brown's paper. If we could all have plenty of top stories so as to keep adding as the bees want room, and never take in until the season is over; then take your honey and set it in a warm room for a certain length of time, we would have a better class of honey.

Mr. Armstrong. I may say here that the season with me is over by the first of August. When the thermometer is at 80 or about there you have no trouble in extracting.

Mr. Holtermann. Even if we do make bee escapes and don't mind how many we can sell of them, I want to just say that I am a little surprised at the use that many find for them in extracting honey. You

smoke your bees, and you know they rush down. If you will hurry and take out your comb and give them a little shake before they get back, and put back your combs, I don't understand how any man wants to be troubled with a bee escape after that. Then if I couldn't take the honey all off at one time I would just take off the capping and extract it as we go along. It is true if you keep your combs in a warm room the honey will ripen. If you have a place where you can keep the temperature up, then it is all right, but if you haven't the quicker they are taken out of the combs the better.

Mr. Frith. If the discussion on this part of the paper is over I would like to ask Mr. Brown a question. He hinted at the quantity of stores sufficient to carry the bees over until white clover. Why does he require that in his locality?

Mr. Brown. I think that is a little oversight. I said "until clover bloom," but I said later until the "honey flow." I didn't mean that they should have sufficient stores when set out in the Spring to carry them through until the clover honey flow, but until there would be sufficient honey coming in to carry them through.

Mr. Frith. The reason of asking the question is this: We find there is quite a difference in the spring flow south of this district and the latitude north. Mr. Brown being north of this we would suppose the spring flow would be somewhat different to the flow south of this. We sometimes get large quantities from fruit bloom in my locality before the white clover comes in. It was brought out at our Oxford Convention that those north of us do not get the quantity of honey in the Spring that we do, and it has quite a good deal to do with the efficiency of the bees at the time of the big honey flow, and I thought Mr. Brown had something of that in his mind when he made that statement.

Mr. Brown. I would simply say that we have very little flow until the clover comes in. We generally have more or less, but nothing of a good flow.

Mr. Holtermann. How about raspberries!

Mr. Brown. We have a small quantity of wild raspberries. I live in rather a sandy district and we find some of our old farms growing sorrell in place of clover. I find that in a field of sorrel the bees work on that as strong as they would at a field of clover during the time it is in full bloom; and that carries them right up pretty well to clover bloom. We have

some wild bloom and some fruit bloom, but the mainstay before fruit bloom is sorrell.

Mr. Evans. I would like to ask Mr. Brown if he knows of them gathering honey from the sorrell.

I wouldn't be positive of that, but I know they work well on it.

Mr. Darling. In Mr. Brown's locality and mine we have very little fruit bloom. True, we have some wild blooms; apples are not a success with us; peaches, we cannot get trees to live, as is well known; small fruits bloom well; they are not much cultivated. Wild fruits in the rougher regions are somewhat plentiful, raspberries and the like of that, but I am not aware of bees doing as well on anything as they do on the dandelion. I had honey stored from dandelion one year, so much so that I took some from the bees; not a very bad honey, but it wasn't a white honey by any means. This year I discovered a lot of bees working on the white oak, but I don't know whether they got any honey.

Mr. Holtermann. Haven't you got a lot of wild cherries in your vicinity?

Mr. Darling. Not a large quantity.

Mr. Brown. A while ago the question came up about the buckwheat honey being heavier than the clover. Here is a proof of it. Here is the clover honey in the bottom and buckwheat on the top, both in liquid form. So if the clover was lighter than the buckwheat it should rise to the top and bring the buckwheat down.

Mr. Holtermann. I said that could very readily be explained. The clover was gathered first, it was well ripened; the buckwheat later and not so well ripened, and it came to the top.

Mr. Frith. Specific gravity and consistency are two different things.

Mr. Edmundson. I think if Mr. Brown left the clover honey in the hive until he got the buckwheat, they would be the same weight.

Mr. Holtermann. I was at the Ottawa Exhibition and noticed samples of honey separated in that way. Some of the local men had it there, and you could see standing there a few days, clover in the bottom spreading and colorless. My explanation may not be correct, but that is the one that would suggest itself to me.

Mr. Alpaugh. It is quite natural for honey to form itself into strata or layers. One kind of honey's specific gravity is much greater than another's.

Mr. Holtermann. I may say that the Experimental Union have taken the spe-

cific gravity of some 50 samples of honey. They are being taken in hand at the O. A. C. and forwarded to Ottawa, so I expect you will know more a year from now than we do now. They have been collected from all over the dominion with that object. So we can talk a little more intelligently a year from now than we can to-day.

#### QUESTION DRAWER.

**QUESTION**—Which is the better, a Frame running across the hive, or one running lengthwise. Explain the difference.

Mr. Post. I give the preference to the hive with frames running parallel. There is one reason in particular why I favor it. You take it late in the fall, say in my case in buckwheat honey, I want the back end of my hive raised quite high, and the bees naturally store their stores in the back end of the frame. When they go into winter quarters the frames are practically empty in the front end and as they take the stores out they move slightly back. I find if they set perfectly level that they don't do it so; they seem all to cluster promiscuously anywhere in the hive. That is one reason. I give them just as much pitch forward as they will bear.

Mr. Hall. I confirm what Mr. Post says in reference to the frames running towards the entrance, for various reasons. He gave you one in reference to the deposit of the honey for winter stores; that is very good. Another reason is this. I want the hive tipped slightly forward so that water will not go in it, and in spring, so that the condensation will run out. We tilt up our hives at least four inches higher at the back than the front, for various reasons. First, to assist the bees in taking out their defunct ones; secondly, to run the water out of the hive, and lastly, but most important of all, when you have the hive tipped up there is the top of the rear end of bottom board in the hive level with the entrance of the hive, and therefore the cold air cannot enter the hive so readily as when flat. It is a very important fact that they should run from front to rear so that you can tip it up three or four inches.

Mr. Gemmell. You cannot raise a hive at the back very well if the combs run crossways of the hive, whereas, if they run from front to rear you can raise it as much as you like.

Mr. McEvoy. I winter my bees altogether out of doors, and I wouldn't think



of putting the frames crossways. It is much better to winter slightly slanted to the front.

Mr. Alpaugh. This gentleman said it was natural for the combs to run to the entrance, and it seems to me that in almost every case the comb is running to the entrance in some way, may be not exactly parallel. They have a direct road almost to the entrance. But I think one of the best things where the frames run to the entrance is that they get right on to the end of the frame and go just where they want to go without crawling over a lot of comb. I must say I didn't have success with hives running crossways and in under. I would say by all means have hives with frames running to the entrance.

Mr. Brown. My experience has been a little different to Mr. Alpaugh's in that line. As I said in my paper a little while ago I find that they give the best results, usually come out better in the Spring, with the ten frame hive running crossways. I find them more convenient for manipulation. I like to be behind my work, not beside it.

Mr. Alpaugh. When you get the latest system of keeping bees you can't work from the back, you must work from the side.

President. Those who favour the course of frame running lengthwise please stand up.

All but four or five rose.

### Management in Swarming Season.

By W. F. Hutchinson, Flint, Mich.

(See page 467 Canadian Bee Journal.)

Mr. Alpaugh. Putting in the starters for instance in place of full combs I have had some experience in both of these lines, and I found full combs containing no brood works very well, provided you don't give them too many. If you give them just what starters they can cover nicely there will be but very little drone comb built. Of course, he says if you don't want all your increase you can take the best combs from a certain number of hives and make a certain number of good hives. I can say nothing only just agree with his paper.

Mr. Smith. I endorse nearly everything Mr. Hutchison has said as to the management of swarms. It is practically our method. One thing I don't just agree with, is putting on a super too early. We found this season especially they were filled up with a very inferior grade of honey. In fact I know of one man

who put on several thousand sections, and he found them half filled with this honey dew. Of course that may not occur again, but in this case he had to get that all out of the sections again, and get them filled up with honey.

Mr. Gemmell. I have very little to say. I agree so fully with Mr. Hutchison's paper. I would just like to ask him in regard to the drone trap if he really prefers the drone trap to cutting the queens wings?

Mr. Hutchison. The drones will, of course, go up and die in that trap unless you take them off.

Mr. Gemmell. With a large quantity of drones I found it was necessary.

Mr. Hutchison. There is a division about half way up, and the drones come in this upper apartment and the lower apartment is left free. I couldn't say that it interfered with the passage of the workers or the ventilation.

Mr. Gemmell. There is the question of cost.

Mr. Hutchison. I was thinking of the time it took to look over the bees and find the queen and clip her and cage her. This queen trap would practically last a man's lifetime and they cost about twenty-five cents apiece.

Mr. Hall. I didn't hear all the paper read, but I think it was favoring drone traps. If there should come one young queen, or queens, with her wings not clipped we simply put it on and catch the queen on that occasion. But in putting them on to catch the queen we find it a very filthy practice. The drones, unless you empty them every day, will fill them half full. I don't think the bees like it. I simply lay them around in prominent places in the apiary, and as the queen never leads off a swarm there is generally half the bees out before the queen comes, and we, in nine cases out of ten, have the trap on and catch the queen in that way. We have them, but they are lying outside for that very reason. It is a filthy, nasty mess.

Mr. Hutchison. Unless you empty them every few days.

Mr. Hall. I am too busy.

Mr. Newton. I have tried the drone traps in different ways, but I have discarded them only in the case Mr. Hall mentions.

Mr. Gemmell. I have tried them, and couldn't make them a success for the same reason as Mr. Hall gives.

Mr. Evans. I was told that if the queen cell was destroyed and the queens

all destroyed but one, and after five or six days eggs were hatched that would destroy the swarming impulse.

Mr. Gemmell. I have lost old queens that were clipped by swarming when I wasn't present; and in every case where a young queen took her place I never had a young queen lay a few eggs and then swarm. In every case I found she stayed there. She doesn't want to swarm.

Mr. Holtermann. Doesn't that depend on your honey flow?

Mr. Gemmell. It does, but when the swarming comes you generally have a pretty good flow.

Member. Wouldn't you have to get out the queen cells in order to get that young queen to lay there?

Member. Yes, but you would have to destroy them, the bees wouldn't.

Mr. Gemmell. If you go to the queen before the young queen is hatched, your plan is to get out all the cells but one. When she hatches she may swarm, that is, if there is larvae to raise other queens from.

Mr. Holtermann. Aren't there any amount of people whom you can't depend on doing that work properly?

Mr. Hall. That isn't the fault of the system.

Mr. Holtermann. I say universal clipping won't do for that reason.

Mr. Alpaugh. This cutting out of queen cells and depending on one, I don't like. I find a much better plan is to cut out all the cells, but take a few of the best and stick them at the end of the hive. Some of them will hatch. The first queen that hatches will run into the hive, find no cells there, and that settles it. They stop swarming and you can have lots of cells.

Mr. Gemmell. I don't object to that at all, but in my case I give them a cell I know is about ready to hatch. If you put a cell of that kind in you won't find any difficulty. Of course, if you put a cell in that you can't tell whether there is going to be a live queen or not you can't be sure.

Mr. Alpaugh. There is another instance come to my mind. If I can find the young queen I will kill her every time, and another cell will hatch. I would sooner have a later hatched cell than an earlier hatched.

Mr. Gemmell. Is that where the old queen is lost when she goes out to swarm?

Mr. Alpaugh. Yes.

Mr. Gemmell. But there are a lot of good cells in that hive.

Mr. Alpaugh. If you kill her and

allow another cell to hatch that will never happen.

Mr. Gemmell. There was another point. A gentleman here spoke of giving drawn sections and getting them filled with inferior honey. I know in our own locality sometimes if we put on drawn sections we invariably get a poor quality of honey. I never like putting sections on my hive. I prefer giving them a half story of drawn comb, that is, if it is very early in the season, to giving them sections. Then by the time they have this pretty well filled up we have them out of the packing, and when they require more room I raise it up and put the sections underneath the half super of comb.

Mr. Holtermann. That is quite an important point. You will see so much comb honey on the market that has the centre of the section a little dark, and we can do a great deal of good by emphasizing the necessity of different management.

Mr. Smith. I would ask Mr. Gemmell, does he ever allow the queen in these half stories.

Mr. Gemmell. No, I don't want her there. I understood Mr. Alpaugh to say he gave a few drawn combs, I didn't understand he said anything about foundation whatever. Why would you prefer the drawn combs to foundation, or do you? I don't think you do.

Mr. Alpaugh. I would under certain circumstances. I am not prepared to say anything about that yet.

Mr. Gemmell. Before Mr. Alpaugh went to California he was at my place. I had been using full sheets of foundation and he recommended the starters. I had never practised much with starters. However, he recommended a wide starter instead of a shallow starter. He said that if you used a wide starter, and only five of them, that the bees had a better chance of clustering on the wide starter from one end to the other, and the comb would be more likely to be of working comb, whereas on the narrow starter they hadn't so much scope, and you would probably have drone comb at the ends of two or three frames. I have practised that too, and some seasons you will get the thing pretty much without drone comb. Now he has another hive, and he is going to use sheets of foundation for hiving instead of starters.

Mr. Alpaugh. I might say that I will simply use the wide starter yet.

(To be continued.)

I wish to thank you for the supplies you sent me, they are first-class in every particular, I am satisfied there is none better made. Wishing you the success you deserve, I remain yours truly,  
A. E. BROWN.

Huron Co.

To Gould, Shapley & Muir Co., Limited,  
Brantford:—

I find your supplies all that can be desired.  
J. B. FREEMAN.  
Addington Co., March 14th, '99

I like your hives the best of any I have seen. I attended the exhibition at Toronto last fall and saw the other makes but your goods suit me the best.

W. G. WOODMAN.  
Frontenac Co., Ont., April 21st.

Cuban girls are carefully shielded from the world, the prevailing customs in regard to chaperonage being similar to the French. Children of Cuban parents are accustomed to being indulged to such a degree that they grow up timid and dependent, though warm-hearted, passionate and affectionate.

Cossack regiments are being drilled in crossing rivers on a novel sort of improvised bridge. Seven or eight lances are passed between the handles and tops of a dozen cooking kettles and are held firmly in place by the handles, and are, besides, tied together by forage ropes. A dozen bundles of these lances fastened together form one section of a raft or floating bridge, which it has been found will support a weight of half a ton. A section can be put together in twenty-five minutes.

**FOR SALE,**  
**Cockerels in Silver, Buff**  
**and Golden**  
**Wyandottes,**  
**Barred and Buff**  
**Plymouth Rocks,**  
**And Pekin Ducks,**

All of the Highest Quality.

My incubators are the best.  
Send for Circulars.

**J. E. MEYER,**  
Kossuth, Ont.



THE CRIMSON RAMBLER.

**Your  
Choice...**

**A Strong  
Plant of the  
Famous**

Yellow Rambler; or the  
Pink, White or Crimson  
Rambler  
**ROSE**

and the following collection of  
Leading Seed Novelties.....

**FOR A QUARTER:**

- 1 Aster—New branching—looks like large, graceful chrysanthemums, white, pink, yellow, lavender, etc.
- 2 Amaranthus—A wonderful foliage plant.
- 3 Pansies—A novel collection, mixed; try it.
- 4 Palm—Weeping; not injured by coal gas; very hardy.
- 5 Chrysanthemums—Double Hybrids; white, yellow, crimson, lilac, bronze, etc.
- 6 Dahlias—Some of the finest we have seen have been grown from seed the first season. Start indoors in March or April.
- 7 Cannas—Famous new sorts; will bloom first season.
- 8 Japanese Hop—A vine of striking beauty; will cover a porch in one season; oddly marked leaves.
- 9 Hollyhocks—A brilliant assortment; striking colors.
- 10 Nasturtiums—1899 novelties, mixed; dwarf.
- 11 Alyssum—Little Gem; 600 flower spikes to a plant.
- 12 Mignonette—Fragrant flowers all the year round.
- 13 Sweet Peas—A grand mixture; large packet.
- 14 Geraniums—From seed the first season.

Extra Rose Plants, 15c. each; two for 25c. Send us an order for five of these collections and we will send one **ABSOLUTELY FREE**.

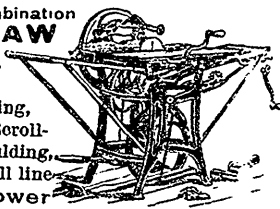
**Agents.** Men and Women wanted in every town to handle our seeds, plants and nursery stock. Liberal Terms. Catalogue **FREE**.

**OSBORN STODDARD CO.,**

MADISON, New Jersey.

**UNION** Combination  
**SAW**

for Ripping, Cross  
cutting, Mitering,  
Babbeting, Grooving,  
Gaining, Boring, Scroll-  
Sawing, Edge-Moulding,  
Reading, etc. Full line  
Foot & Hand Power  
Machinery. Send for  
Catalogue A.



**Seneca Falls Mfg. Co.,**  
49 Water St., Seneca Falls, N.Y.

THE  
CANADIAN BEE JOURNAL

Devoted to the Interests of Bee-Keepers,  
Published Monthly by

GOOLD, SHAPLEY & MUIR CO.  
(LIMITED)  
BRANTFORD, CANADA.

R. F. HOLTERMANN, - - - EDITOR

TERMS:

\$1.00 per annum, payable in advance; \$1.25 if three months, or \$1.50 if six months or more in arrears. These terms apply to Canada, the United States and Mexico; to all other countries 24 cents per annum extra for postage.

TERMS TO AGENTS.—We will allow 20c. commission to agents or those already subscribers for one new subscription; 25c. each if two or more, or 30c. each if ten or more new subscribers. Cash must accompany subscriptions and they must be for one year.

DISCONTINUANCES.—THE JOURNAL is sent until orders are received for its discontinuance. We give notice when the subscription expires. Any subscriber whose subscription has expired, wishing his JOURNAL discontinued, will please drop us a card at once, otherwise we shall assume that he wishes his JOURNAL continued, and will remit soon. If you want your JOURNAL discontinued at the end of the time paid for, say so in ordering and your wishes will be carried out.

RECEIPTS FOR MONEY.—The receipt of THE JOURNAL will be an acknowledgment of receipt of money to new subscribers. The receipt of renewal subscriptions will be acknowledged by postal card.

HOW TO SEND MONEY.—You can send money at our risk by P. O. order, or bank check or draft, and where none of these means are available bills and postage stamps by registered letter. Money sent in any other way is at your risk. We pay no exchange or express charges on money. Make all express money orders, checks, or drafts payable to Goold, Shapley & Muir Company, (Limited), Brantford.

ADVERTISING.

We are in no way responsible for losses that may occur in dealing with our advertisers, yet we take every precaution to admit only reliable men in our columns.

RATES OF ADVERTISING—

TIME	1 inch	2 in.	3 in.	4 in.	1 col.	page
1 Month	\$ 2 00	\$ 3 00	\$ 3 50	\$ 4 50	\$ 6 50	\$10 00
2 Months	3 00	4 50	5 50	6 50	11 00	17 00
3 Months	4 00	5 50	7 00	9 00	15 00	25 00
6 Months	6 00	9 00	12 00	15 00	25 00	40 00
12 Months	10 00	15 00	20 00	25 00	40 00	75 00

CLUBBING LIST.

We will send CANADIAN BEE JOURNAL with	
The American Bee Journal, \$1.00 for .....	\$1 75
The American Bee-Keeper, 50 cents for .....	1 40
Gleanings in Bee Culture, \$1.00 .....	1 75
British Bee Journal, \$1.50 .....	2 60
Illustrated Home Journal .....	1 35
Weekly Witness .....	1 60

SPECIAL FEATURES  
of the  
CANADIAN POULTRY REVIEW

Department on "Practical Poultry," conducted by A. G. Gilbert, Manager Poultry Department Dominion Experimental Farm, Ottawa.

Department for "Turkeys, Ducks and Geese."

Department for "Bantams."

Department for "Incubators and Brooders."

Department "With Uncle Sam," (U. S. news.)

Department "Poultry Ailments."

Colored Plates, Numerous Illustrations, all Show News, Prize Lists, etc.

The best articles written by the best men.

OUR MOTTO.

"What we have we'll hold, and what we have not we'll hustle for."

FOR SALE OR EXCHANGE.

One hundred colonies of bees; bees-wax wanted.

JAMES ARMSTRONG,  
Cheapside, Ont.

50 YEARS' EXPERIENCE

**PATENTS**

TRADE MARKS  
DESIGNS  
COPYRIGHTS & C.

Anyone sending a sketch and description may quickly ascertain our opinion free whether an invention is probably patentable. Communications strictly confidential. Handbook on Patents sent free. Oldest agency for securing patents. Patents taken through Munn & Co. receive special notice, without charge, in the

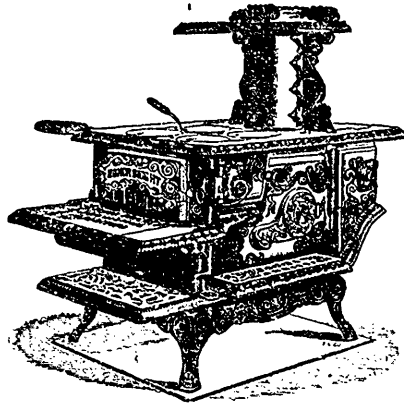
Scientific American.

A handsomely illustrated weekly. Largest circulation of any scientific journal. Terms, \$3 a year; four months, \$1. Sold by all newsdealers.  
MUNN & Co., 361 Broadway, New York  
Branch Office, 625 F St., Washington, D. C.

# The Wm. Buck Stove Co'y

## BRANTFORD, ONT.

A Tried and  
Old Friend  
is the  
Best.



Accept No  
Other as  
"Just As  
Good."

## THE HONOR BRIGHT

(Wood Cook)

Beautiful in Design, Economical in Fuel, and a Perfect Cooker.

## ...POULTRY...

### BARRED PLYMOUTH ROCKS

In the pen a cock and four pullets, purchased and selected for me by the well-known poultry expert, Mr. Jarvis, of the Ontario Agricultural College, Guelph, who has also acted as judge for many years in the leading poultry shows of Canada and the United States. The cock is Thompson, bred at Canton, Ohio. It won 1st as a cockerel. Again under Bridge it this year tied for 1st place for cock in very strong competition. One pullet took 1st at Canton, Ohio; the other was one out of the pen which took first for the best breeding pen. The cock was also pronounced by Mrs. Comyns-Lewer, editor Feather World, London, Eng., who visited the great Toronto Poultry Show this year, as the most perfect type of Barred Rock she had seen on the American continent.

Settings: 13 eggs, \$2; 30 eggs, \$4.  
Best cockerels, \$10 each. A few culls left, \$2 each.  
No pullets or hens for sale.

ADDRESS:

**R. F. HOLTERMANN,**

Editor The Canadian Bee Journal, and Manager Gould, Shaply & Muir Company's Bee Supply Business.

**BRANTFORD, ONTARIO, CANADA.**

### BUFF ROCKS

The coming breed; very popular. All my stock the same blood as the best prize winners at the Toronto Exhibition last year.

#### PRICES.

Best cockerels, \$10 each; ordinary cockerels, \$8 each.

Pullets and hens have all been sold.  
Settings: 13 eggs, \$2. 26 eggs, \$3.50.

### BELGIAN HARE

(Solid color) from Imported Stock: \$3 a pair. (Full brothers and sisters sold at \$40 a pair.)

# ....A PERFECT GRAIN GRINDER....

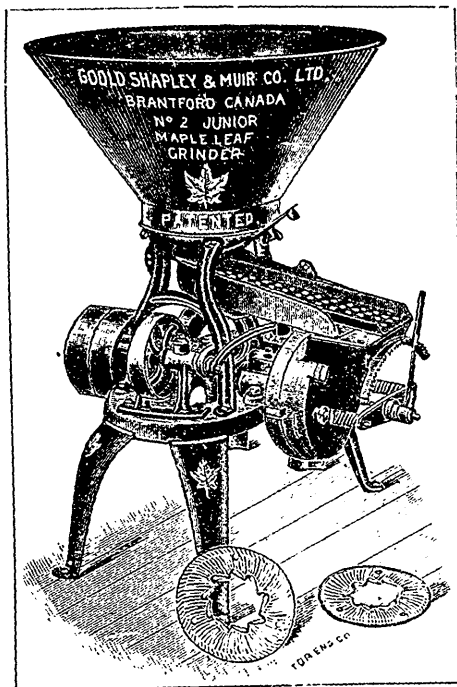
The Patent Ball-Bearing

# Junior Maple Leaf Grinder

WITH 8-INCH SINGLE BURRS.

*MANY IN USE AND WORKING SUCCESSFULLY*

The Junior Maple Leaf is especially adapted for Wind Mill, Horse or Tread Power, or any other power less than 8 or 10 horse.



It is supplied with two sets of Grinding Burrs, one for coarse grain and general purposes, and the other for hard grain and fine work.

The Patent Ball-Bearing takes the heavy back pressure of the burrs when at work, and greatly lessens the friction. In consequence the Grinder will do more with a given power than any other.

We Will Give Any Responsible Party a Fair Trial.

**We Absolutely Guarantee the Grinder.** Send for Prices.

We also make the famous No. 1 Maple Leaf Grinder with 10-inch burrs.



BRANTFORD CAN.



Easy to see that our line of



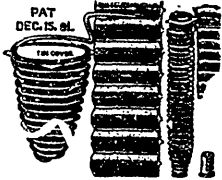
# Bee-Keepers' Supplies

is the best on the market.

ADDRESS :

**Goold, Shapley & Muir Co., Limited**  
Brantford, Ont.

## CONTROL YOUR SWARMS, RE-QUEEN



Send 25c. for samples of West's Patent Spiral Wire Queen Cell Protectors, and Patent Spiral Queen Hatching and Introducing Cage; also best Bee-Escape, with circular explaining. Twelve Cell Protectors, 60c.; 100, \$3. Twelve Cages, \$1; 100, \$5, by mail. Circular

free. Address N. D. West, Middleburgh, Soho, Co., N. Y. Sold also by all the leading supply dealers.

AGENTS :

**GOOLD, SHAPLEY & MUIR CO., Limited,**  
BRANTFORD, ONT.

## Bees= Wax Wanted.

We pay Cash or Trade.

Address,  
**Goold, Shapley & Muir Co., Limited,**  
Brantford, Ont

## Comb Foundation Mill.

12-inch. First-class for practical purpose. Will take Cash, Wax or Honey in payment. Mention how you want to pay for the Mill.

**GOOLD, SHAPLEY, & MUIR CO., Limited,**  
Brantford, Ont.



**A POULTRY  
PAPER FOR  
50 CENTS....  
PER YEAR..**

THE  
CANADIAN  
POULTRY  
REVIEW

announces that its price in future will be but 50c. per year; or, that

THREE NEW SUBSCRIPTIONS will be sent for ONE DOLLAR. Sample will be sent on addressing H. B. DONOVAN, Publisher, Toronto. Also Publishes the "Canadian Kennel Gazette."

**FREE FOR BOYS and GIRLS**  
Fine German Silver Keyless Watch, guaranteed for 5 years, with Chain, or a "Snap-Shot" Camera, with all attachments ready to take pictures, given free for selling for us 25 Magic Polishers at 10c. each—**SELLS IN EVERY HOME.** Send name and address, we'll forward goods without money. **Canada Supply Co., Toronto.**

**BIG MONEY FOR AGENTS**



## THE STAR RIVETER

For MENDING HARNESS, BELTING, etc. indispensable to Farmers, Carriers and Threshermen. **STAR RIVETER** complete, with 50 rivets \$1.00 Best selling article ever introduced. Agents write for special prices and terms.

**ENTERPRISE MAN'G CO., - TORONTO, ONT.**