

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.

Coloured covers/
Couverture de couleur

Coloured pages/
Pages de couleur

Covers damaged/
Couverture endommagée

Pages damaged/
Pages endommagées

Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée

Pages restored and/or laminated/
Pages restaurées et/ou pelliculées

Cover title missing/
Le titre de couverture manque

Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées

Coloured maps/
Cartes géographiques en couleur

Pages detached/
Pages détachées

Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)

Showthrough/
Transparence

Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur

Quality of print varies/
Qualité inégale de l'impression

Bound with other material/
Relié avec d'autres documents

Continuous pagination/
Pagination continue

Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure

Includes index(es)/
Comprend un (des) index

Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

Title on header taken from: /
Le titre de l'en-tête provient:

Additional comments: /
Commentaires supplémentaires:

Title page of issue /
Page de titre de la livraison

Caption of issue /
Titre de départ de la livraison

Masthead /
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

NEW SERIES
Vol. 1, No. 2, 1894. MAY. —

 The 
Practical

Bee-keeper

CONTENTS

	Page
In Vindication..... Allan Pringle.....	19-21
Honey Adulteration.....	20
Peter Piper's News Notes.....	21
Hints on Bee-Keeping..... Peter Bussey.....	22
Editorial.....	23-24
The Continuity of Queens Laying..... Maurice Bellot.....	25
Low Hives vs. High Hives..... Devanchelle.....	25
Robber Bees..... E. H. Schaffle.....	26
Transferring..... N. H. Smith.....	27
Planting for Honey..... Jas. Heddon.....	7
Toutte Sort • De Chose..... W. J. Brown.....	8

PUBLISHED MONTHLY BY
C. A. OUELLETTE, TILBURY CENTRE.

♦ ♦ ♦
T. N. LEIGH, EDITOR.

♦ ♦ ♦
TERMS: 50 CENTS PER ANNUM.

THE LIBRARY, UNIVERSITY OF GUELPH

WANTED

A Salesman, energetic, pushing and bright, to represent The Feathill Nurseries of Canada, the largest in the Dominion. Over 700 acres of choice stock. Position permanent and lucrative. Our hardy Canadian grown stock sells rapidly where properly introduced. Send for terms now and secure choice of territory.

STONE & WELLINGTON,
Toronto, Canada.

Mention Practical Bee-Keeper.

BICYCLES

I will sell you a good Pneumatic Tire Cycle, 26 in. wheel, tangent spokes for \$55.00

LIST OF WHEELS

Humber, Whitworth, Crescent, Belsize, Junior, Fleet, John Bull, Spartan.

C. A. OUELLETTE Tilbury Centre.
Mention Practical Bee-Keeper.

A NEW DEPARTURE**The Bee-Keepers' Quarterly**

Will be issued April 1st, 1894, and be largely devoted to editorial review of apicultural literature. It will contain not only all practical methods of management and devices found in Bee Journals, but many points not given elsewhere. Earnest efforts will be made to eliminate the impractical theories and claims so often met with in bee literature, giving only practical information, which may invariably be relied upon. There is some who make a financial success in these hard times and to show you how they do it will be Quarterly's mission. Price 25c per year.

JAMES HEDDON, Dowagiac, Mich.

J. W. McAlpine

GANANOQUE, ONT.

Dealer in— All kinds of

Bee-Keeper's Supplies.

Mention Practical Bee-Keepers.

Still Alive!

42 Full numbers of...

SUCCESS IN BEE CULTURE.

50 cents, or Success one year and Hilton's book "Advanced Bee Culture" 75 cents.

If you prefer we will send Success one year and Hilton's book "How I Produce Comb Honey" fresh from our press for 50 cents.

A late sample and two back numbers of The Bee-Keepers Enterprise 10 cents.

BURTON L. SAGE, Highwood, Conn.
Mention Practical Bee Keeper.

200 Nuclei For Sale.

Each has two frames of brood and bees and a 5 Banded Italian Queen purely mated—Price \$2.00 each.

1000 Queens ready to mail the 1st * week of June. *

75 Tested Queens ready to mail at * one—Price \$1.50. *

No foul brood in my Apiary
Price List and Sample of Bees (all 5 Banded) sent free.

N. H. SMITH Tilbury Centre, Ont.
Box-2.

A SUPERIOR STRAIN OF

GOLDEN ITALIANS

The results of 18 years' careful selection and breeding. They are gentle, industrious, good comb builders, enter the sections readily, are not inclined to swarm and are second to none in beauty. By practical test they excel all competitors in storing honey. Queens ready to ship from April to November at prices as low as good queens can be sold for.

Do not fail to send for descriptive catalogue before you purchase. Safe arrival and satisfaction guaranteed;

C. D. DUVALL,
Spencerville, Md.

Mention Practical Bee-Keeper.

5-BANDED ITALIAN QUEENS

Warranted—\$1, after May, 75c.

Best stock and method; no poor, forced queens. This is how they please:

"The dozen queens I rec'd. from you last May, have proved very satisfactory indeed—Part give bees as yellow as gold, very gentle and good workers. You may expect more orders from me."

F. J. Miller, 212 Dundas St., Lon., Ont.
"The queens came promptly. They are an extra fine lot. The Bees are finely marked, gentle, and hustlers when it comes to honey. I have no trouble in picking them out now from over 600 colonies."

W. L. Coggeshall,

West Groton, N. Y., Oct. 17, '93.

Send for Circular and Quantity Prices.

J. B. Case, Ft. Orange, Florida.

Mention practical Bee Keeper.

THE PRACTICAL BEE-KEEPER

NEW SERIES
VOL. 1.

TILBURY CENTRE, ONT., APRIL, 1894.

No. 2.

IN VINDICATION.

For The Practical Bee-Keeper.

ALLEN PRINGLE.

In the American Bee Journal of Nov. 2nd, 1893, (I think that was the date) there appeared an account of the lamentable death of Mrs. Van Deusen, in that terrible railroad accident in the G. T. R. at Battle Creek. The A. B. J. in giving the account, went out of its way to make an uncalled for attack on so-called "infidels" and "scoffers." I noticed the fact at the time, but much as I felt like replying, I decided to pass it by in silence for more than one reason. Another correspondent, however, Mr. Wheeler, replied to the editor in vigorous fashion, in a letter which appeared in the issue of Nov. 16th. When I saw the comments of the editor of the A. B. J. appended to Mr. Wheeler's letter, I felt that forbearance was no longer a virtue. I accordingly replied, where-upon Mr. York announced that he had decided not to admit any reply to his columns. I remonstrated, showing him that as he had himself commenced the controversy by an unprovoked attack on so considerable number of his readers, and kept it up in his comments the second time to which there had been no reply published, he was in honor bound to hear from those assailed. Brother York's arguments why we should not get a hearing were, to say the least, peculiar, and with the usual courage and fairness which charac-

terize some of our christian friends when they get in a corner—my reply was never permitted to see the light.

The later editorial deliverances, to which I took exception, and to which I certainly had the right to reply, were as follows:— "The very best writers of bee-literature to-day and those who are doing and ever have done, the most for practical bee-culture, are almost without a single exception, earnest Christians," and the editor said he did not "believe there was a sincere infidel in existence to-day."

That was the last deliverance, and quite in keeping with the first attack. Now, as a goodly number of the readers and contributors of the A. B. J. (and even some of Mr. York's brother editors) belong to that class of thinkers Mr. York calls "infidels," this opinion of the journal concerning them and their sincerity would appear to be not overly complimentary. However, as nobody is to blame for his honest opinions, no matter how absurd or untrue they may be, the editor of the Journal has the fullest right to his opinion of his agnostic friends.

But the other asseveration as to the pious character of "the very best writers of bee-literature to day" is quite another affair as it touches a matter of fact, not opinion.

The following is, for the most part, what I wrote to the A. B. J., but which, it seems, was hewing just a little too close to the line for brother York to stand: "Now, in availing myself of my right to

reply to your strictures, I shall not take advantage of the occasion by attacking any man's religion, or by entering into an argument against christianity; albeit I do think that under the circumstances I would not be out of place in doing so. Moreover, I have nothing to say against what is good and true in christianity or any other religion, and there is more or less truth as well as error in them all. I only repudiate the dogmatic and untenable creeds, and object to the narrow bigotry and intolerance of their devotees, often manifested (as in the present case) by men who are naturally fair-minded, but actually made worse by their religion.

At the recent great parliament of religions held in the Art Palace, Chicago, during the exposition, it is an admitted fact, that so far as charity, tolerance and good will are concerned, so far as the "brotherhood of Man" in the highest and noblest sense is concerned, the pagans—to use a world's fair phrase—"made the best exhibit." It was a christian, Rev. Jos. Cook, not a heathen, who sounded the first note of discord at the parliament—who first manifested the ugly spirit of bigotry and narrow intolerance. The learned and able representatives of the great religions of the east were uniformly courteous and charitable in spirit and utterance. The parliament has taught the western world a lesson, which, however, I fear has not yet reached friend York, and that lesson is, that there are other great religions in the world besides Christianity, embracing great moral truths the same as itself; and that the adherents of these religions, including the so-called "infidels" with their religion of humanity, may be just as sincere in belief and exemplary in conduct as the Christian. All are in pursuit of truth though in different ways and by different roads, and it ill becomes one to call another an "infidel" or a "scoffer." The literal meaning of the word infidel is unfaithful, and I therefore decidedly and emphatically object to being called an

infidel by some one I may happen to disagree with in matters of faith—some one may be just as much infidel to my faith as I am to his—some one whose creed may not be a whit better than, if half as good as, my own, and who might be bothered not a little to give a valid reason for his faith other than that he was taught it and that it is popular.

(To be continued in June number.)

The forgoing is part of a long article from the pen of Mr. Pringle and which will be concluded next month. Properly speaking a bee-journal is not the proper place for an article of this nature, but as Mr. Pringle considers himself aggrieved we do not well see how the proper publicity could otherwise be given. The P. B. K. by its publication of this article does not necessarily subscribe to the opinions of the writer, and in justice to ourselves and Mr. Pringle, we request that no comment be offered until the remainder of the article is published.—Ed.

ADULTERATION OF HONEY.

House of Commons, Ottawa, April 23.

Mr. Sproule introduced a bill further to amend the Act, chapter 107, R. S. C., entitled an Act respecting the adulteration of food, drugs, and agricultural fertilizers. The object was to prevent the adulteration of honey, now extensively practised, and to provide for the punishment of persons who sold as honey, or exposed for sale as honey, manufacturers of sugar, glucose, or molasses. The bill had been urgently asked for by the Beekeepers' Association for several years, and had been drawn up by the assn.

Mr. Mills (Bothwell)—Does the hon. gentleman propose to prevent the sale of imitations?

Mr. Sproule—No. Where the imitation is properly labelled, it may be put on the market for sale.

The bill was read a first time.

PETER PIPERS' NEWS NOTES.

An ignorant man is never beaten in an argument.

The bee fever is less prevalent than it was a few years ago.

Some prominent men in the fraternity, who formerly denounced galvanized honey-tanks as dangerous to health have got new light on the subject. Numberless are the notions once held by leading bee-keepers, only to be abandoned, without those who entertained them being convinced of their own fallibility.

“Between two worlds life hovers like a star.”

On the 7th of April Samuel Corneil was found dead in his bee-yard. Little did we think when the association met a few months ago at Lindsay, that its secretary who did so much to make that meeting a pleasant and successful one, would be so soon and so suddenly called from our midst. The name of Corneil is a household word, in bee-keeping circles—not only in Canada but throughout America and Britain as well. Retiring in his disposition he was nevertheless bold to avow his convictions. Diligent in the pursuit of knowledge—especially fond of scientific research—he was perhaps the best posted bee-keeper in Canada on the scientific side of the honey industry; a man who did nothing by halves. His views on all matters pertaining to bee-keeping, when made public, bore the stamp of careful study and close investigation. As a man he was true.

“In substantial learning, high,
For every virtue, every worth renowned,
Sincere, plain-hearted, hospitable, kind.”

Such was the character of our deceased brother and we mourn him as a friend lost to us

“Leaves have their time to fall
And flowers to wither at the north wind's
breath,
And stars to set; but thou hast all seasons
for thine own; Oh, death!”

To him, death's visit was without warning, but not without preparation.

Requiem in peace, friend Corneil.

“According to their works shall they be judged

When even handed justice in the scale
Their good and evil weighs.”

The latest sensation in bee-keeping circles is the charge laid at the door of James Heddon by the editor of *Gleanings* that he has been in the habit of adulterating honey with glucose and selling it for the genuine article. The charge is backed up by some damaging evidence of Heddon's guilt. If it were not for the alleged fact that Heddon has been selling honey away below the cost of its production, one would refuse to believe him guilty of the serious charge preferred against him. Heddon denies the charge and the proof of his guilt is not yet conclusive. Until a man is proven guilty of an alleged crime, the law of the land esteems him innocent and it is a serious matter for any man, or set of men, to charge his or their fellow with that which is calculated to destroy his character for honesty.

“Steal my purse and you steal trash;
Rob me of my good, name and you take
from me

That which you cannot restore.”

—Shakespeare.

Jas. Heddon has been a prominent man in bee-keeping circles for many years and it is almost inconceivable that he would so far forget his own interest as to jeopardize his good name for the paltry advantages to be gained from the practice he is alleged to have been following. It is just as inconceivable that men like the Roots should incur the responsibility of preferring a charge against a fellow bee-keeper, which, if true, is calculated to destroy his character for honesty. Without being in possession of conclusive proof of his guilt, we will wait and see what we shall see.

HINTS ON BEE-KEEPING.

(For THE PRACTICAL BEE-KEEPER.)

A paper read by Peter Bussey, Cottam, before the Western Bee-Keepers' annual meeting at Tilbury Centre:—

"I have gathered a few facts out of my own experience of 19 years of hard work in apiculture. I have during that time taken a great deal of notice of the bee-keepers at large; have noticed some making money at the business, while others make a total failure; hence this paper. So I will take for my subject why so many men fail and condemn the keeping of bees for a livelihood. Of course, before going further, I don't wish any person to get the idea that I keep my own bees to perfection; but have the idea all right, so if I preach what I don't practice you will kindly look over it and make no remarks. Now I will proceed to give the facts why so many men condemn the bee or honey industry.

Some men get the idea when they see a man making a fair livelihood that there is lots of money in the business and little expense; and the work light and not much of it to do. Well, the first thing they will do is to invest a lot of money in procuring a lot of bees, thinking the expense is all over, at least the bulk of it, and they start out knowing but very little more about apiculture than a cow knows how to skate. Well, they start out, we will say, with \$100 worth of bees. They begin to scratch their heads, trying to find out what course to pursue. He finds out that a smoker will have to be had, an extractor, honey knife and a dozen and one different things. Not knowing how to use the honey knife and extractor, will most surely make a bungling of it. I might just state here, once I sold a man an extractor and knife and he went home thinking to make lots of money in extracting honey; but in a few days he came back

with them and said he would not have the things; he said the honey would stick to the knife and tear the combs, and the extractor would jump all over the house. Now, I said to him, "you just take them back home and keep the uncapping knife in hot water when you are not uncapping, your knife will be always warm." He condemned the extractor for that.

Very often a farmer tries to keep bees. The worst with farming and bee-keeping is that nine times out of ten the bees are neglected, they will not pay expenses. They forget that in order to make bee-keeping a success they should have as much care or more, than a crop of corn or potatoes.

Then what little honey some of these careless bee-keepers get, they put on the market in such a poor shape that they get a small price for it and often cannot sell it at all. Comb honey stays on the hive so long that it gets travel-stained and their extracted honey very often taken to market in a candied form which makes it really worse than it is; then these same men seldom grade their section honey and don't scrape the propolis. The few men that condemn the honey industry.

Some men have so much other work to do they cannot or will not control the swarming, thus adding expense for hives and getting little or no money, because we notice that when there is a good honey season the bees will warm more than they will in a poor season. So you will see that the man who has too many hives in the fire lets the bee industry iron burn. In that case apiculture don't pay.

I would say in conclusion those that are looking for a livelihood with lots of money in it, with little or no work, don't start keeping bees. If you do you will be sure to fail, and perhaps be many dollars out. Of course we are aware that some men will make failure of any industry they take up. What will bring success is an eye open to business, and keeping constantly at it brings success."

THE PRACTICAL BEE-KEEPER.

MAY, 1894.

The Bee-Keepers' Quarterly, the latest claimant for recognition in the way of bee literature is on our desk at this writing. The publisher, Mr. James Heddon, of Dowagiac, Mich., is well and favorably known to the majority of bee keepers on the North American continent. The new journal is entirely editorial and from Mr. Heddon's large and successful experience as a practical bee-keeper, cannot fail to be worth many times the yearly subscription, (25c.) The Review says: "The first issue is Heddon clear through, and all who have read his writings know what that means; sharp, clear, clean-cut ideas with some point to them." Mr. Heddon devotes considerable space to justifying himself in the charges of adulteration brought against him by some of the bee-journals. It seems hard that a reputation of over a quarter of a century should be shattered by a single blow, and in our opinion the matter should be proven beyond doubt before any judgment is given. If Mr. Heddon is really guilty of such a thing as "glucose adulteration" we would be among the first to condemn, but it seems preposterous to believe that any sane man would risk such a splendid reputation for a sordid object.

Besides, there is an old saying that "when doctors disagree, etc." In the first number of the PRACTICAL BEE-KEEPER was published an exhaustive article on "Analysis" from the pen of Dr. Oscar Haenle, a noted French chemist. By his method of analysis "the dialyser" he obtains results never to be determined in any other way. Let us quote:—"Many experiments and proofs have been made, and all chemists who have taken up the question have agreed with me that no honey could be condemned for the single reason of its deviation

to the right according to the place in which the honey is produced, was coldly received. The result is that chemists examining natural honey can no longer pronounce immediately upon the nature of the honey submitted to them, because glucose, the customary ingredient in adulteration, always polarizes to the right,

As my readers are aware, I have divided honey into two classes; honey derived from flowers and honey derived from coniferous or cone-bearing plants. The former always deviates to the left the latter to the right. Formerly it appeared easy to distinguish an artificial honey from that which had been adulterated, now the distinction is made more difficult by means of this double deviation. I have taken the trouble, after a long series of about 150 experiments, to establish figures showing these deviations to the right. I have even published a formulary for the approximate determination of the quantity of glucose employed in the adulteration. But the experiments have everywhere a theoretic character, and all theory ought to be done away with if it has not a practical value sure and decisive.

Following these principles I have sought other methods, based upon new theories, and then I arrived at certain results by the aid of dialysis made before polarization.

Polarization, fermentation, the reaction of the dextrine, the use of all these means has not given results that were absolutely certain.

As a matter of fact, after five long years of research, I have been successful, and I have arrived at a result which authorizes me to say to you with conviction and certainty, that it is possible to distinguish in good faith the natural honey from the products adulterated with glucose, by the dialysis before polarization. I will cite these experiments; they authorize me to make this declaration so important to apiculture, and important

precisely on this account that the greatest practical success in apiculture can not by itself force out the artificial honey which floods the country as if it were natural honey.

Here follow the experiments made by the learned doctor:—

By the foregoing experiments it is indubitably established:—

1st. That honey, which after dialysis, deviates the plane of polarisation to the right is not mixed with glucose.

2nd. That honey which, after dialysis, does not deviate the plane of polarization to the right is not mixed with glucose.

After these results give me permission to express a wish that apiculture should be under the high and powerful protection of the government, and that the government should forbid the importation and sale of artificial and adulterated honey under the name of honey, this word being applied only to the natural product.

In the same manner that the law distinguishes butter from oleomargarine it should distinguish between natural and artificial honey.

R. S. Russell in the A. B. J. 470, claims to be in possession of a secret by which any bee-keeper of ordinary knowledge in queen rearing is enabled to see, with his own eyes, his queen fertilised, and with drones of his own selection, with much less fussing or trouble than other domesticated stock.

Rambler in Gleanings says, "Good authority says that sugar syrup when fed to the bee, is not changed by the bee but by absorption of chemical matter from the comb in which it is stored. Let the bee store the syrup in the old comb, where it comes in contact with cocoons instead of wax, it remains sugar syrup. Store it in fresh new combs, and it absorbs a wax aroma, and has the so called chan ge.

Karl R. Mathey Gleanings, 381, says that a simple way of preventing theropolizing of bars and frames is to smear the parts with yellow vaseline.

Each person receiving a copy of this journal should send us the names of his neighbors who keep bees, (cost, postal card 1c.) we will see that each name sent in receives a sample copy. Then call upon them and show them the benefit of subscribing with you and securing a practical journal and one of our valuable premiums.

A writer in the B. B. J. 99, gives the following simple method of preventing swarming:—First give the bees room in advance of their needs, to discourage if possible the idea of swarming, but in case of a swarm issuing notwithstanding to destroy all queen cells, insert a couple of frames of foundation (whole sheets) taking away frames of wood, if necessary to make room for them, and then in the evening returning the swarm to the same hive, of course shade and ventilation must be provided for hot weather and the brood removed must be promptly given to another stock to hatch out. This prevents the increase of stock but concentrates the energy of the bees upon honey-gathering.

Bees are a necessary adjunct to horticulture; they are created for a wise purpose in connection with the growth, development and perfection of the vegetable kingdom. Experience has taught us that the flowers of certain plants need insect aid to perfect fertilization. What I meant by the benefits of cross-fertilization was, that it was an advantage to the individual plant to be fertilized by the pollen of some other individual plant of the same species, growing as far as possible from the first, and under different conditions.—Hon. Eugene Secor.

THE CONTINUITY OF A QUEEN'S LAYING.

MAURICE BELLOT.

Translated.

Here is what I have observed on the continuity of a queen's laying. In strong colonies, well supplied with workers, the queen lays every day from March to August, but if there is a spell of very bad weather, cold and rainy, it sometimes happens that the queen ceases laying, not for the purpose of resting herself, but solely on account of the bad weather. This year (1893) from the first days of March up to the end of August, I have never found a hive whose queen did not lay.

It happens also that during the heavy honey-flow the bees fill all the cells, thus obliging the queen to cease laying for the time being. It is then a case of an exercise of pure will power on the part of the queen and not that she has need of rest.—*Revue Internationale*.

A non-swarming strain of bees could be as easily produced as a non-sitting variety of fowls, provided we could as easily control the mating of the queens; at least, so argues Mr. J. E. Armstrong in the A. B. J. Against this idea many have urged that all living things have the instinct to "be fruitful and multiply." To this Mr. Armstrong very appropriately replies that to man has been given the power to "subdue and have dominion over every living thing that moveth upon the earth." Mr. Miller gives some very happy illustrations of what man has done in the way of breeding out instincts and traits. Mr. Miller hopes that the mating of queens in confinement may yet be made a success. Mr. Heddon in his article on Practical Breeding says that very nearly as good results may be obtained without mating queens in confinement.—*Review*.

LOW HIVES VS. HIGH HIVES.

DEVAUCHELLE.

[Translated from the French].

For the past two years I have used some low hives for the object of comparing their productions with those of high hives.

This year I had in the spring 53 twin (double) hives of which 51 had two colonies each and the other two but one each; having harvested 2605 pounds of extracted honey as well as some sections, the average production per hive has been about 50 lbs.

Among my 53 hives I had 4 with low frames and two colonies each. Two of them gave each 103 pounds of honey, another 86 pounds and the fourth, 84 pounds; making a total of 376 pounds of honey and an average per hive of 94 lbs.—that is to say, nearly double of what came from my high frames.

I have noted also that this year everywhere the Italian and hybrid bees have gathered more honey than the native bees and of the eight queens of my four low hives, there was an Italian or hybrid for each hive (that is to say the half) whilst my high hives had scarcely the 16th part of Italians or hybrids.

In spite of this restriction it remains none the less true, that the low hive has exceeded the high in production; and I begin to believe that Mr. Dadant has good reason to praise the hive with the low frame.—*Revue Internationale*.

Mrs. Jennie Atchley in the A. B. J. 432, says that it does not at all injure queens to cage them when in full laying condition, that it does not hurt a queen to stop laying, but that it is better to wait three or four hours before mailing.

There are lots of fiddlers who play on one string, but their music doesn't make you feel like dancing.—*Success in Bee-Culture*.

ROBBER BEES.

I have found only one effectual way to stop robbing. I take a piece of 4x4 scantling and saw out a groove $\frac{1}{4}$ inch square on one side. I then place this across the entrance so that the bees must pass in and out through this groove. At the same time I open the ventilators, shade the hive, and look after the block of wood to see that the passage way is not blocked with dead bees. I have a box with a few bees in it that have lost their queen. The robbers do not enter this hive, but bounce down on the alighting board and garrote the guards. The robbers rush up to the guards, who put out their tongues and evidently disgorge their honey, as robbers do when confined to the hive, and feed its stores through wire mesh to other robbers on the outside. This latter is quite common, but I have never seen the "stand and deliver" game worked by the robber bees before.

TRANSFERRING BEES.

Has anyone tried drawing the bees up into a hive with tull sheets of foundation and a least one frame of brood and supplies, then placing a queen-excluding zinc over the new hive, setting the old on top, and at 22 days slipping a bee-escape under the old hive, and having the bees go down into the new hive? I believe that it would work with that frame of brood in the lower hive. By this method the bees would be all together. You are sure of a queen in one of the hives; and if bad weather follows, the bees have their stores right at hand. I prefer transferring at once and done with it. With a long sharp knife kept hot I can readily cut out the combs and slice off any bulges, while a mixture of three parts rosin and one of wax will hold any comb if enough is used. Beeswax alone wont do, as it is too greasy and doesn't stick to the wood. The bees have all their comb ready built, and proceed to business.

ENTRANCE DIAGNOSIS.

Mr. Dayton is good on that; but why did he omit to state how a queenless colony could be checked out by entrance diagnosis? Go out to the bees any morning, when they are packing in pollen; and when you have found a hive where the bees bring in no pollen, that hive is queenless; for, as the bees have no brood they need no pollen and don't bring it in.—E. H. Schaffle in Gleanings.

THE JOURNAL IS THE THING.

There is nothing mysterious about advertising. It is an exact science. You are simply telling people where they can get certain needed things. That's all there is of it. Most any sort of advertising is useful, but journal advertising is not only the best but it costs less than any other kind—service considered. You can get more circulation—talk to more people—for less money, in a journal than in any other way. Figure it out and see.

THE BUSY BEE.

Careful weighing shows that an ordinary bee, not loaded, weighs the five-thousandth part of a pound, so that it takes 5,000 bees, not loaded to make a pound. But the loaded bee when he comes in fresh from the fields and flowers loaded with honey or bee bread, weighs nearly three times more—that is to say, he carries nearly twice his own weight. Of loaded bees there are only about 1,800 in the pound. An ordinary hive of bees contains from four to five pounds of bees, or between 2,000 and 25,000 individuals but some swarms have double this weight and number of bees.—The Agriculturist.

It is just surprising how the Italian bee has conquered all its foes. I thought there would be more dissenters. A vote on the best race results:—German, 0; Italian, 19; Carniolan, 1; various hybrids, 3; Syrian, 1.—E. H. Hargis.

TRANSFERRING.

N. H. SMITH.

Another method of transferring is frequently practised in which the combs are not transferred and is as follows:—

Prepare a hive and have the frames filled with combs if possible—if not, put in full sheets of comb foundation or strips as already directed and place it near the one to be transferred.

One or more combs of brood can be obtained from some other hive and put in this and then the bees will be more apt to be contented with their new home.

If neither combs or foundation can be had, proceed as directed in April number of the Practical Bee-Keeper, in "How to get Straight Combs."

This method of transferring should not be attempted except in warm weather and when there is a good honey flow. When bees are swarming is about the best time. Now drive out all the old bees as before directed, making sure that the queen is driven out with them and empty them down in front of the new hive and see that all enter. Then place the old hive a few feet back of its old location with entrance in the opposite direction to what it was before.

After two or three days move the old hive a few inches towards its old location and also turn its entrance a little towards its former direction, and so continue to do every day or two till it stands by the side of the new hive with the entrance the same way, which should be accomplished at least three weeks from the time the transfer was made.

In twenty-one days from the time of the transfer all the young bees will be hatched in the old hive when all the bees should be driven from it and united with the colony in the new hive, first destroying the queen that is with the bees just driven out.

The old hive may now be taken apart, the honey extracted from the combs and the combs melted into wax. If the surplus arrangements have not been added to the new hive, it may now be done.

This method of transferring saves much work and perhaps many stings.

The future proceedings will depend on what kind of honey it is intended to secure—comb or extracted.

PLANTING FOR HONEY.

(Bee-Keepers' Quarterly.)

Whether or not the average bee-keeper should invest in seeds, and ground in which to plant them, for the purpose of raising honey producing plants, is a question which has been discussed a great deal. Certain it is that much depends upon the location of the bee-keeper; whether he has many or few indigenous honey producing plants, how copious they yield and how frequently they fail to secrete nectar. After 25 years of reading reports from others and personal experimenting, we have arrived at the following conclusion: It is better for us to select some one of the many unoccupied good honey locations, or not attempt to keep bees as a specialty. It has not yet been proven that it pays to devote seed and ground to any honey plant for the production of honey alone. The man who is compelled to sow and cultivate some plant, in addition to the other expenses of running an apiary, in order to secure a remunerative crop, cannot compete with bee-keepers who have such locations as will supply a good yield from natural sources.

But there are two other considerations; some of you may reside in rather unfavorable localities in which you are held by other interests and while making bee-keeping a secondary business, you would be glad to increase your nectar supply as much as possible. Where white clover is scarce, on suitable pieces of moist

ground, alsike clover is the best substitute and pays for planting as a hay crop. If your ground is high and dry, sweet clover or melilot is a good investment. It thrives best on gravelly soil, although it does well on black loam and will do very well on light sand. For extremely light soil, however, nothing flourishes so well as the pleurisy plant and no blossom in the world, not excepting the bass wood, yields honey more copiously than the pleurisy in this locality.

But I have found the most profitable results from planting, to come from the scattering of seeds in waste places. This demands no outlay for ground and is a blessing rather than an injury to all mankind. The pleurisy plant and melilot clover stand to-day as favorites. Neither are obnoxious, having no thorns nor prickles and both are handsome and odorous. While both are extremely tenacious, possessing powers of sure and rapid reproduction against all plant competitors, both are very easily exterminated by man.

I would recommend as profitable to perhaps a majority of bee-keepers, the scattering of the seeds of these two plants from year to year, in all waste places.

TOUTE SORTE DE CHOSE.

Chard, March 20th, 1894.

To Editor PRACTICAL BEE-KEEPER:—

Dear Sir,—After reading your kind letter of recent date and after carefully considering the request therein contained I came to the conclusion that you had me "in a box." I was also reminded of the old song entitled "Anything." So as you did not lay down anything in particular for me to write about I thought I would give you a bill of fare made up of "Toute Sorte de Chose."

First allow me to congratulate you on your successful effort in getting up a "Practical Bee Journal" and of having secured for some of your correspondents some of the most practical bee-keepers

on this continent. If you only secure a few of our western stars your horizon would be radiant indeed.

I am well pleased to learn that you are going to make the "Practical" a monthly as I am satisfied that the additional outlay will be more than met by the increased number of subscribers you are sure to receive.

I don't propose to inflict any advice on bee-keepers, in this short article, because any bee-keeper who would attempt to follow all the advice given will find himself in a terrible dilemma, for the simple reason that there is such a vast difference in the methods to be followed in different climates. I think that we eastern chaps must have stolen one of your fine western winters this year as we have experienced a very mild season.

Now that our delegates are about to await on the representatives at Ottawa I hope everyone who wishes to uphold our good name as outlined in that very able paper read by Mr. Pringle at the annual meeting at Lindsay, will leave no stone unturned to secure the passage of a "Pure Honey Bill."

What has happened to friend Bussey that he has been silent so long? I hope he is not numbered with the dead. Let him come again, I like to hear from him.

Bees appear to have wintered well in the cellar at a temperature of from 59 to 55. Many cases of starvation are reported around here.

The same old story—extracted too long. Penny wise pound foolish.

Advertisement copied from a Texas paper: "Slippers for ladies should never be used for spanking purposes. Careful mothers with unruly children will be presented with a fine, well made carpet-beater with every pair of our shoes. The wearing quality of our slippers will not then be endangered by using them for correcting purposes.—Success in Bee-Keeping."

Our
Great
Premium
List

PREMIUM NO. 1

Practical Bee-Keeper 12 months and one 5-Banded Italian Queen, purely mated \$1.00.

PREMIUM NO. 2

Practical Bee-Keeper 12 months and 500 No 1 Snow-White Sections, 4 $\frac{1}{2}$ x4 $\frac{1}{2}$ x1 $\frac{1}{8}$ or 1 $\frac{1}{4}$ or 7 to foot \$2.00.

PREMIUM NO. 3

Practical Bee-Keeper 12 months and 1 Large Smoker, No. 1, 3x8 inches barrel \$1.25

PREMIUM NO. 4

Practical Bee-Keeper 12 months and 1 Dove-Tailed Hive, complete in every particular \$1.50.

PREMIUM NO. 5

Practical Bee-Keeper 12 months and 1 Improved Dove-Tailed Super, Complete with sections, but no foundation starters, 75c.

PREMIUM NO. 6

This is for the boys and girls. For 30 subscribers at \$1.00 each, each subscriber to receive The Practical and Queen, we will send postpaid

ONE WATCH FREE

This is a bona fide offer. This watch is a good one, silverine case and guaranteed.

The Publisher has made arrangements to rear a large supply of these 5-banded beauties. and all subscribers' names will be entered in order of their receipt, and the Queens sent accordingly. This offer is unprecedented. Take advantage of it. All money received will be immediately acknowledged. A list of names will be kept and Queens sent in rotation as early as it will be safe to send them. Subscribe now.

Send money by Post Office Order or Registered Letter; and address all money letters to

C. A. OUELLETTE,
Tilbury Centre, Ont.

DO YOU . .
KNOW

That I can sell bee supplies of MY OWN MANUFACTURE Cheaper and Better than you can buy them elsewhere.

WHY ?

Because I make Bee-Supplies and Bee-Supplies only.

Because I have access to the very best timber.

Because I give my business my own personal superintendence.

Because my machinery is of the very latest improved pattern.

Because I make EVERYTHING used in an Apiary:

Hives, Supers,
Frames,
Racks,
Smokers,
Extractors,
Comb Foundation.

Everything you can think of,

If you have not received a catalogue send me a postal card.

Special prices to dealers, manufacturers and large consumers.

C. A. OUELLETTE,
TILBURY CENTRE.

**LEADERS
IN
SEEDS**

FOR

1894

John S. Pearce & Co. London, Ont.

WHITE MONARCH OAT.....
IRISH COBBLER POTATO....
GOLD MEDAL DENT CORN..
CANADIAN THORPE BARLEY
&c., &c., &c.,

Our 1894 Seed Catalogue is brim full and flowing over with good things that every progressive Farmer and Gardener should have. Send for a copy. Address

HEDDON'S DIVISIBLE BROOD CHAMBER

* * * *HIVE* * * *

It is still at the head and a leader in the Apiaries of the foremost Bee-Keepers in North America.

For full descriptive catalogue for the States, address JAMES HEDDON, Dowagiac, Mich. and for the British American Possessions, A. E. HOSHAL, Beausville, Ont. Mention Practical Bee-Keeper.

WATCH FOR \$4.

American Watch, O. F. Stem Wind, Pendant set. I have bought a large number of these fine watches, direct from the factory, and can give you watches at wholesale prices. All watches warranted not to vary ten minutes in a year. A good agent wanted in every town to handle these watches. Address all orders to

N. H. Smith,
Box 2, Tilbury Centre.

Our New Style Frame

Gives better satisfaction than anything we have gotten out for several seasons. Our **THIN WALLED HIVE** is **BEST** and **CHEAPEST** on the market. With our **OUTSIDE WINTER CASE** it makes the **BEST OUTDOOR WINTER HIVE** and the **CHEAPEST**. We are **ORIGINAL MAKERS** of **POLISHED SECTIONS**, and our goods are acknowledged to be the best, and cheap as any.

Illustrated Catalogue and copy of THE AMERICAN BEE-KEEPER, free on application.

THE W. T. FALCONER, MFG. CO., Jamestown, N. Y.

DO YOU TAKE

**The . . .
American
Bee-Keeper ?**

If not, send for a sample copy. Address

The W. T. Falconer Co.
JAMESTOWN, N. Y.

PRICES TO SUIT
THE TIMES . . .

Everything required in the Apiary. The latest in . . .
SUPPLIES . . .
SMOKERS . . .
HONEY KNIVES . . .
EXTRACTORS . . .
FOUNDATION COMBS . . .

The celebrated Dove tailed Hives. Highest price for Beeswax in any quantity.

PETER BUSSEY, Cottam, Ont.
Mention The Practical Bee-Keeper.

TESTED

Queens are usually sold for \$2.00. I will explain why I wish to sell a few at less than that. As most of my readers know, I re-queen my apiary each spring with young

QUEENS

From the South. This is done to do away with swarming. If done early enough it is usually successful. It will be seen that the queens displaced by these young queens are never more than a year old; in fact, they are fine, tested, Italian queens right in their prime; yet in order that they may move off quickly, and thus make room for the untested queens, they will be sold for only

\$1.00.

Or I will send the BEE KEEPERS' REVIEW for 1884 and one of these queens for only \$1.75. For \$2.00 I will send the REVIEW, the queen and the 50c. book "Advance Bee Culture." If any prefer the young, laying queens from the South, they can have them instead of the tested queens, at the same price. A discount given on large orders for untested queens. Say how many are wanted, and a price will be made.

If not acquainted with the REVIEW send 10c. for three late but different issues.

W. Z. HUTCHINSON,
Flint, Mich.
Please mention the P. B. K.

PROGRESSIVE!

The Progressive Bee-keeper is the name of a journal for which you ought to subscribe. Though the price is only 50c. the journal is first class in every respect. Dr. Miller calls it "the really progressive Progressive." During the past year it has received more favorable notices from the bee-keeping press than has any other journal. Its subscription list is six times what it was a year ago when taken in charge by Mr. Leahy.

We are also the largest manufacturers of apiarian supplies west of the Mississippi. Kindly send us your name and we will send you a sample copy of the Progressive Bee-keeper.

LEAHY MFG'G CO.,
Higginsville, Missouri.
Mention Practical Bee-keeper.



A monthly journal devoted to Apiculture Published by

C. A. OUELLETTE, Tilbury Centre, Ont.

T. N. LEIGH, EDITOR.

TERMS

50 cents per annum, invariably in advance. Single copies, 5 cents.

Practical, one year, and 1 Banded Italian Queen, purely mated \$1 00.

See our premium list on another page

ADVERTISING RATES

All advertisements will be inserted at the rate of 8 cents per line. Nonpareil space, each insertion: 12 lines of Nonpareil space makes 1 inch. Discounts will be given as follows.

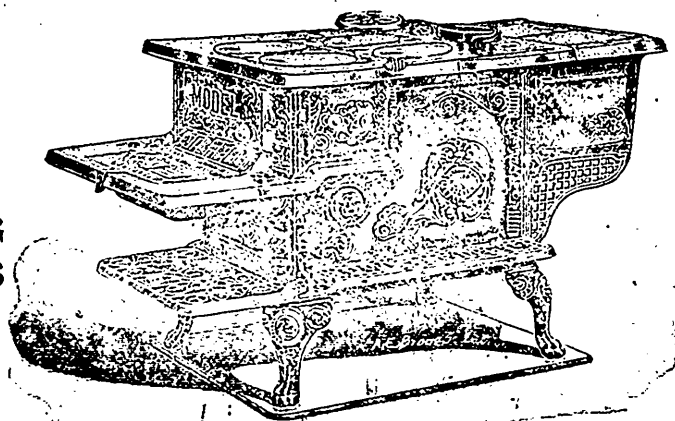
On 10 lines and upwards, 3 times, 5 per cent.; 6 times, 15 per cent.; 9 times, 25 per cent.; 12 times, 35 per cent.

On 20 lines and upwards, 3 times, 10 per cent.; 6 times, 20 per cent.; 9 times, 30 per cent.; 12 times, 50 per cent.;

Send money by Post Office Order or Registered Letter, and address all money letters to

C. A. OUELLETTE,
Tilbury Centre, Ont.

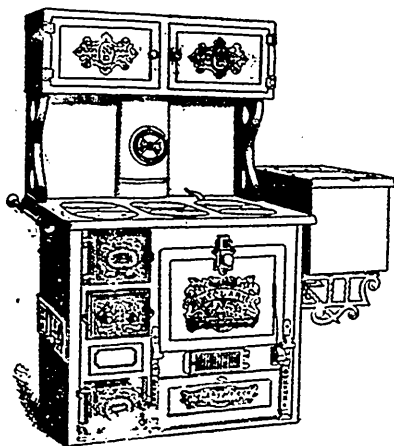
☀
 WE
 HAVE
 BEEN
 MAKING
 STOVES
 FOR
 40
 YEARS



And the cut shown is of our

“MODEL WOOD COOK.”

It can be found in THOUSANDS OF CANADIAN HOMES and is everything that a Cook Stove should be.



* HEAVY STEEL *

Plate Ranges

* A VARIETY OF STYLES *
 AND SIZES.

LARGE OVENS—
 —QUICK BAKERS
 DURABLE.

Specially adapted for—
 — FARMERS HOMES.

If your local dealer does not handle Our Goods, write our nearest house.

THE M'GLARY MFG. CO.

LONDON, TORONTO, MONTREAL, WINNIPEG
 AND VANCOUVER.