

# THE CANADIAN BEE JOURNAL

Vol. 19, No. 8.

AUG. 1911

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Index

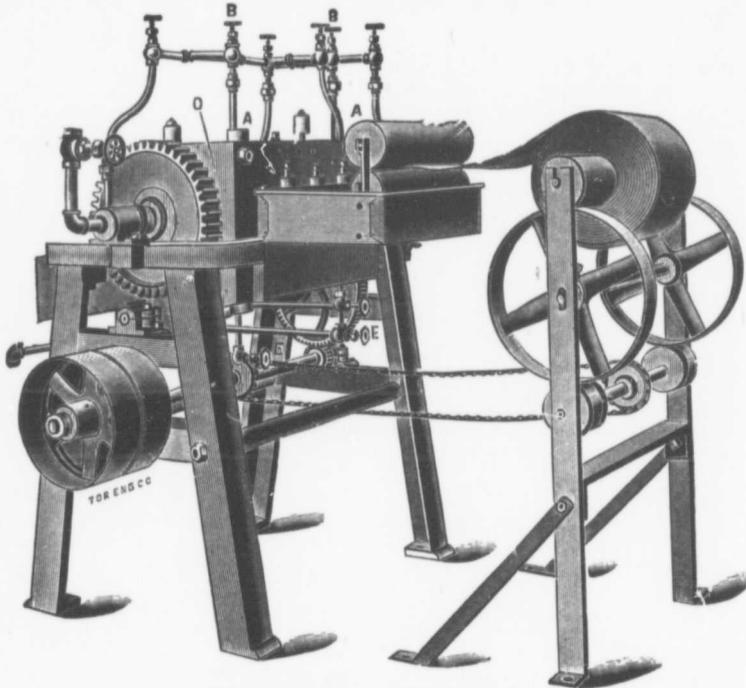
## Honey from Everything

"Honey and the honey-comb, roses and violets, are yet in the earth. The sun and moon yet reign in Heaven, and the lesser lights keep up their pretty twinklings. Meats and drinks, sweet sights and sweet smells, a country walk, spring and autumn, follies and repentance, quarrels and reconcilements have all a sweetness by turns. Good humour and good nature, friends at home that love you, and friends abroad that miss you—you possess all these things, and more innumerable, and these are all sweet things. You may extract honey from everything."—Charles Lamb in a letter to a friend.

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**The Canadian Bee Journal**

BRANTFORD, CANADA

**The  
Canadian Bee Journal**

Devoted to the Interests of Bee-Keepers

JAS. J. HURLEY, Editor

Published monthly by  
The HURLEY PRINTING CO.,  
Brantford, Ont.

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# The Canadian Bee Journal

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# The Ca

JAS. J. HU

Vol. 19, No. 8.

The Honey Crop C seems to be hitting the wholesaler is beginning bluff.

\* \* \*

We trust there will be a mention of Canadian bee-keepers at the National convention. The program appears in another

\* \* \*

Help along the value of the woman's department by a campaign of honey. The county will pay. The county does much in this direction.

\* \* \*

Yes, we are in favor of a free trade but, if they were as the Editor of the World feel obliged to revise our ever, even this difficult itself—a free trade has accomplished great things. cannot renew our youth.

\* \* \*

The following circular from Lutherford, Marshall, I will serve to show the concerted action on the part of producers of Ontario, themselves in the matter of honey operation in the sale of honey to be the only solution:

**"Important to A**

"Do you know this fact? carries, extracted honey much cheaper? We are mild, white honey at several in the United States. bill passed on the other

# The Canadian Bee Journal

PUBLISHED MONTHLY

JAS. J. HURLEY, EDITOR, BRANTFORD, ONTARIO, CANADA  
W. WHITE, ASSISTANT EDITOR.

Vol. 19, No. 8.

AUGUST, 1911

Whole No. 558

The Honey Crop Committee Report seems to be hitting the right spot. The wholesaler is beginning to squeal and bluff.

\* \* \*

We trust there will be a large delegation of Canadian bee-keepers at the next National convention. A capital program appears in another column.

\* \* \*

Help along the valuable suggestion of the Woman's department, and inaugurate a campaign of honey advertising. It will pay. The county associations could do much in this direction at small cost.

\* \* \*

Yes, we are in favor of woman's suffrage—but, if they were all likely to vote as the Editor of the W. D., we might feel obliged to revise our opinion. However, even this difficulty may yet right itself—a free trade husband might accomplish great things. Alas, that we cannot renew our youth!

\* \* \*

The following circular sent out by Rutherford, Marshall, Limited, Toronto, will serve to show the necessity of some concerted action on the part of the honey producers of Ontario, to protect themselves in the matter of honey prices. Cooperation in the sale of honey seems to be the only solution:

### "Important to Apiarists."

"Do you know this fact, if Reciprocity carries, extracted honey will be bought much cheaper? We are offered fancy mild, white honey at seven cents a pound in the United States. Just before the bill passed on the other side we bought,

in Ontario, a car load of fancy clover from nine to ten cents a pound. Quite a difference? It not only applies to honey, but to everything in the produce and provision line—prices will be lower. We always voted "Reform," but not for Reciprocity, Sept. 21, 1911.

"We still want more Canadian honey, comb and extracted, for immediate use, providing we can buy at a reasonable price. Thus far, samples have been excellent and crop good in sections. Can you offer us any? If so, state quantity, how put up, and your lowest price F.O.B. your station. We prefer it in sixty pound tins crated, and we sincerely believe those who sell first will get best prices.

Awaiting your reply, we are

Yours truly,

Rutherford, Marshall, Limited."

Toronto, Aug. 2nd, 1911.

The first clause, apart from its bad taste in introducing political matter of a contentious character in a business circular, appears to be nothing but a bluff to attain the object set forth in the second paragraph, "providing we can buy at a reasonable price." It would appear that the work of the Honey Crop Committee is being felt. We trust that no bee-keeper will be caught by this sort of thing. The crop is short this year, and many bee-keepers will be receiving but poor remuneration for their labor, even if they should be successful in obtaining twelve or twelve and a half cents per lb. wholesale.

J. J. H.

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Mr. York, most able and courteous of bee paper editors, believes that the honey bee may be improved by careful methods of breeding. He himself is a queen breeder, and should know. Successive issues of the American Bee Journal have contained valuable contributions on the subject, and bee-keepers generally are under a debt to him for keeping the subject "alive." We ourselves have seen what can be done with the bee by judicious crossing and careful selection, and trust to refer to the matter in these columns at an early date. We are fully convinced that no other subject presents the same possibilities for bee-keepers as that which concerns the improvement of the honey-gathering capabilities of the bee. At the same time, it seems to us no less certain that the empirical methods so far practised by bee-keepers cannot be productive of the results looked for. Candidly speaking we are somewhat skeptical as to the measure of success really achieved by certain of the writers on the subject. To effect any lasting improvement in the races of bees some regard should be had to the modern teachings of science, and, so far, we have read but little that implies the possession on the part of the writers the necessary knowledge of the laws of heredity or of the science of breeding generally.

We have learned with very considerable interest how a certain well-known apiarist claims to have "improved" his strain of bees in some half-dozen different ways—by selection of course; we have also perused the contribution of a learned doctor who states on the other hand that "improvement" in the case of the bee is impossible—who, in fact, denounces the attempt as something very wicked indeed. We should like to listen to a debate between these two bee-keepers on the subject.

But we would return to our American editor, who is still appealing to the non-sitting hen for an answer to the ques-

tion, "Can the swarming instinct in bees be eliminated?" Mr. York will, perhaps, pardon us for yet maintaining that biddy is not able to furnish him with an answer. We still hold that real reproduction does not take place when a worker bee is produced. The cycle of bee life in fact is not complete in our humble opinion, until an individual is produced capable of continuing the race. This individual is the queen that has been accepted as the new mother of a colony.

Mr. York asks us whether swarming is not really colonization rather than reproduction? We are willing to admit that the term "colonization" is appropriate to the act of swarming. Nevertheless, the fact remains that the queen is the individual, the matriarch, who alone counts in a community, whereof the few hundred drones are individuals merely tolerated for a particular purpose for a short space, and the remaining multitudes of workers, creatures whose individuality and purpose are sunk in those of the whole colony.

"Suppose," says Mr. York, "a colony continues year after year without swarming, each queen in succession being quietly superseded, would there be no reproduction?" The statement above furnishes our reply to this question. But "suppose" we bred such a race of bees! Now we imagine that the swarming propensity is very closely connected with the honey storing instinct,—that the two have been evolved in association and that to destroy the one will mean certain destruction to the other.

Personally, we have always regarded the prevention of swarming as being one of the most important aids to the bee-keeper. Any successful method of prevention is a very valuable help indeed to the man who wants honey. But for our own part we have never wished for a non-swarming race of bees. Give us bees that are prolific and efficient, and we will endeavour to find a means

of **persuading** them not will try and give them think about.

\* \*

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A new skipper has  
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man like Mr. E. B. T  
continue the late Mr. H  
In Mr. Tyrrell we hav  
great experience, and a  
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Mr. Holtermann  
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of persuading them not to swarm. We will try and give them something else to think about.

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Miss Wilson of Marengo, in the American Bee Journal, writes as follows: "In her salutary, Miss Ethel Robson, conductor of the Woman's Department in the Canadian Bee Journal, makes an unusually strong and convincing plea for bee-keeping for women. Pity that it could not be read by the thousands who are not interested in bee-keeping and yet who might be, instead of being read by the few already interested." Miss Robson's article is reprinted in the A.B.J. in its entirety.

\* \* \*

A new skipper has taken the helm, and the Bee-Keepers' Review is to continue its course. We are glad that such a distinctive periodical is not to go under. The bee-keeping fraternity are much to be congratulated on having a man like Mr. E. B. Tyrrell willing to continue the late Mr. Hutchinson's work. In Mr. Tyrrell we have a bee-keeper of great experience, and as the present issue of the Review proves, is capable of maintaining as its editor the reputation built up by his predecessor. Moreover, in him we find an admiring disciple and, therefore, doubly deserving of the support of the Review's readers. In a letter from the bereaved wife, we learn of the expressed desire of Mr. Hutchinson that in the event of the latter's death Mr. Tyrrell should take over the paper. We wish Mr. Tyrrell every success in his new undertaking.

The best memorial of the late Mr. Hutchinson is his magnificent book, "Advanced Bee Culture." Its moderate price, one dollar, places it within the reach of every bee-keeper, and every bee-keeper should possess a copy.

\* \* \*

Mr. Holtermann furnishes some strong arguments in Gleanings in favor

of the old D. A. Jones uncapping knife. This pattern of knife has as its cross section an obtuse isosceles triangle, and as we ourselves know, it is very much lighter and easier to manipulate than the Bingham knife. Mr. Holtermann well points out that in the case of the latter knife, "when the correct angle is not maintained the knife will either be pressing into the comb or the knife will be held at such an angle that the depth of the capping will be increased." In the case of the Jones knife "there is much more to guide the knife when cutting, and, therefore, is less difficult to keep in a proper position for cutting." The strongest proof of all, he says, is that he has found so many uncappers who by practical experience have found the old Jones' knife to do its work better than the Bingham. We agree.

\* \* \*

"If a queen lays 3,000 eggs daily from May 25 to June 10, she will in that 16 days fill 8 frames full, all but a rim of one-half inch at top and at each side. If she lays daily 4,000 eggs she will in 16 days fill 9½ frames entirely full. But notice, that's only for 16 days, and a hive must hold what a queen will lay for 21 days. Besides, frames are never filled without a considerable margin, for at least some of the combs. If we allow an average margin of one inch at top and sides, it will take 14 frames to accommodate a queen that averages 3,500 daily for 21 days. No doubt many a good queen is badly cramped in a ten-frame hive during the height of the breeding season."—(Dr. Miller in Gleanings.) These striking figures show the necessity for watching the brood chamber carefully during the critical period. The eight-frame brood chamber—and even the ten-frame—is much too small for the purposes of the average queen during the breeding season, and unless the pressure is relieved in some way or another, swarming is inevitable.

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Wesley Foster in Gleanings does not believe in smoking bees at the hive entrances. Says the Colorado bee-keeper:

"A hive of bees bringing in five pounds of honey a day will lose nearly a pound of bees by being disturbed with smoke at the entrances, and will be all torn up inside the hive. Suppose you go through fifty hives a day; there is a loss of fifty pounds. It is possible to puff a little smoke (a very little) in at the top when raising the cover, and go through the manipulation without disturbing the field workers. I note also that Mr. Townsend does not use a veil—that means more smoke. I say more veil (and more gloves if necessary) and less smoke in our bee operations, especially during the honey flow. I think too much smoke is responsible for the loss of many a good queen. With gentle bees neither smoke nor veil need be used. Deliberate movements when working over the hive will be better practice than some of the habits the professional bee-keeper falls into. One of the difficult things to learn is to speed up operations at all times except when over the hive of bees with the cover off."

Is it not a fact, that, as a rule, a hive of bees bringing in five pounds of honey a day needs but little smoking—just a "touch," say, now and then? This is obvious, surely, even to the novice. The entrance smoking is not **always** necessary, and we cannot see how any hard and fast rule can be set down. But generally we find it better to quiet the guard bees at the entrance, as well as those that take up sentry duty at the tops of the frames when the cover is taken off. It is the first sting or two that excite the ire of the bees and this the **judicious** use of the smoker prevents. All will endorse Mr. Foster's remarks concerning the necessity for the "make haste slowly" method of dealing with the bees.

Sometimes trouble arises from faulty methods of hive arrangements in the apiary and many unnecessary stings are suffered by bee-keepers who, on account of the way in which their hives are placed, are compelled when working at a colony, to stand or sit two or three feet in front of another hive entrance. At times when working under such conditions in apiaries, we have found it necessary to smoke the second colony. There can be no worse plan of arranging the hives than upon the check-board pattern.

\* \* \*

Testifying as to the value of the hive-bee to the fruit growers, Cecil H. Cooper states in the British Bee Journal that all our hardy fruits are more or less dependent on insects for fertilization, some being entirely so. Observations showed that various insects visited fruit blossoms as follows: hive bees 80 per cent., bumble bees 15 per cent., other wild bees, black midge-like flies, tiny beetles, etc., 5 per cent. "The hive bee," he states "is the most important and numerous of the fruit pollenizers, and is the only one under our control to increase or decrease in numbers; the diseases of bees are, therefore, a very great calamity to fruit growers, many of whom, unfortunately, do not value the work of the bee as highly as they should, and get their work done by other people's bees."

\* \* \*

The honey bee is of vast economic importance to other industries than our own, and deserves special consideration on the part of the Federal as well as the various provincial Departments of Agriculture. The question of bee diseases is of grave importance to the fruit grower, the wholesale infection of apiaries being disastrous to him as well as to the apiarist. The connection between the work of the bee and the production of a perfect fruit, is not always obvious to the fruit grower, and bee-

keepers would do well to take this matter well to their hearts. It is sufficient we urge, that the duty of combatting many of the other diseases that may befall them should be left to the Department of Agriculture and its rich and rapidly developing resources, ample funds should be provided for the purpose by the Government, who alone are in a position to control bee diseases throughout the Canadian territories.

\* \*

We much regret that the late Gene Secour's fine line of work last month, we inadvertently state that the poem "The Honey Bee" were taken, originally from the American Bee Journal.

\* \*

The editor of the *American Bee Journal* draws attention, in his recent issue, to the absurd "continental names" to designate chief bee diseases. The honey bee in America is not from Europe and not of a different kind, and foul brood is just as common in our countries where bees are never imported. Therefore, the names of European bee diseases are wrongly applied.

\* \*

Attention is drawn to the fact suggested by the Federal Beekeeping Committee of the O.B.J. for the present year, and bee-keepers should make every endeavour to keep prices, at least, for the present year, as low as possible. It has been seen that a short crop of honey from all over the Province and that consequently a high price for honey is suggested by the market.

\* \* \*

In the February issue of the *Beekeepers' Gazette* we reviewed the first number of the *Beekeepers' Gazette*—an excellent publication edited by Mr. J. I. D. who is editor also of the

arises from faulty arrangements in the necessary stings are ers who, on account ich their hives are d when working at or sit two or three other hive entrance. ing under such conve have found it ne the second colony. orse plan of arrang- upon the check-board

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of vast economic im- industries than our special considerationederal as well as the departments of Agri- on of bee diseases is to the fruit grower, ion of apiaries being well as to the apiar- ion between the ee and the pro- fruit, is not always it grower, and bee-

keepers would do well always to keep this matter well to the front. It is not sufficient we urge, that in Canada, the duty of combatting foul brood and any other diseases that may attack the bee should be left to the Provincial Department of Agriculture at Toronto. In a rich and rapidly developing country like ours, ample funds should be set aside for the purpose by the Federal Government, who alone are in a position to control bee diseases throughout the various Canadian territories

\* \* \*

We much regret that in quoting Eugene Secour's fine lines on Dr. Miller last month, we inadvertently omitted to state that the poem from which they were taken, originally appeared in the American Bee Journal.

\* \* \*

The editor of the Australian Bee Bulletin draws attention, in the last issue to hand, to the absurdity of using "continental names" to distinguish the two chief bee diseases. He says: "The honey bee in America is an introduction from Europe and not of American origin, and foul brood is just the same in all countries where bees are kept, no matter whether imported there or not. Therefore, the names as applied by Americans are wrongly applied."

\* \* \*

Attention is drawn to the prices suggested by the Honey Exchange Committee of the O.B.K.A. for the current year, and bee-keepers are urged to make every endeavour to secure these prices, at least, for their honey. It will be seen that a short crop is reported from all over the Province of Ontario, and that consequently an advance in the prices is suggested by the committee.

\* \* \*

In the February issue of the C. B. J. we reviewed the first number of the Bee-Keepers' Gazette—an excellent publication edited by Mr. J. D. Digges, M.A., who is editor also of the Irish Bee Jour-

nal. From Mr. Digges' editorial it seemed clear to us that the new paper was competing for the patronage of the various English and Scottish Bee-Keepers Association, (of which the Bee-Keepers' Record is the recognized official organ), and thus tending to create a division in the ranks of British bee-keepers. Mr. Digges, very naturally, perhaps, took exception to our comments on the matter in his editorial notes printed in a subsequent issue of the "Gazette." Now it is very far from our intention to hurt anybody's feelings unnecessarily and we trust Mr. Digges will accept our expressions of regret for having dealt with the matter. Our respect for him both as bee-keeper and editor is very great indeed and we should be extremely sorry if our unfortunate remarks should have been the cause of disturbing the cordial relations that have always existed between the C.B.J. and our Irish friends.

\* \* \*

Just as we go to press we have received a copy of the Toronto "News" in which appears an article based upon the post-card sent out to bee-keepers and others by Messrs. Rutherford, Marshall, Limited. The information contained in the article appears to us to be misleading, and we intend to deal more fully with the matter in the next issue of the C. B. Journal.

W. W.

#### THANKS.

The Canadian Bee Journal:

Messrs.—I desire through your columns to thank those bee-keepers, so dear to Mr. Hutchinson, that assembled at the Massachusetts Agricultural College, for their kind words of sympathy.

I also sincerely thank the Canadian Journal for the kindly notice of Mr Hutchinson.

Yours in sorrow,  
Mrs. W. Z. Hutchinson.

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## WOMAN'S DEPARTMENT

CONDUCTED BY

Miss Ethel Robson, Ilderton, Ont.

Material for the department was running low this month, so in a moment of madness the editor took to making rhymes. The result she offers with apologies to the readers of the C.B.J.

### Summer and Bees.

Have you seen the meadows glowing with the clover all abloom?

Have you smelled its fragrance blowing thro' the balmy month of June?

Have you heard the bees a-humming thro' the long and sunny days?

Have you seen their wings a-flashing in a busy, busy maze?

Have you watched them coming in, like a cloud from the field?

Laden with the choicest sweetness that the blossoms yield;

Have you listened in the moonlight to their deep, persistent hum?

Have you felt your pulses quicken with the harvest that's to come?

Have you peeped into the hive when the combs are growing white?

Have you seen the rich drops glisten as you hold them to the light?

Have you weighted up a super when it almost broke your back?

And placed an empty underneath for those busy bees to pack?

Have you heard the mad vibration of a myriad wings in air?

Which tells you very truly that a swarm is surely there;

In a high old orchard tree seen them cluster, rich and brown;

Have you climbed a wobbly ladder and brought it safely down?

Have you seen the basswood laden with its sweetly scented flowers?

Which the bees come to rifle thro' all the daylight hours?

For there's nothing in this world tempts the bees so far afield,

As those clustering pearly blossoms with their precious sweets unsealed.

Have you carried in the heavy combs all ready to extract,

And seen the white wax crinkle up at the uncapping knife's impact?

Have you filled up with honey the pails so bright and clean,

And sent it to the markets—a food fit for a queen?

If you have, you've learned a secret from the golden summer day,

Which takes you close to nature's heart and teaches of her ways,

For the heart of all the summer is the humming of the bees,

In the fragrant clover blossoms and the whispering basswood trees.

In an editorial in the July C.B.J. the beneficent effect of gentle stimulative feeding is spoken of. I made a slight attempt at it this year, but owing to absence on institute work was unable to give it any sort of thorough trial. However, the necessity for it here most seasons, seems somewhat doubtful; that is if colonies are put away with abundant stores in the fall. Thorn trees are scattered all about the country, and their bloom follows almost immediately on the dandelion and apple blossom and last up to the clover, thus bridging over the dangerous interval. I should like to know if those bee-keepers who so strongly urge stimulative feeding have much hawthorn within reach of their yards.

Up to the present I have not had the necessary time to experiment along the

line of Mr. Gray's advice, I tried to set eggs with a crochet hook, but owing to the attempt, but owing to the egg was not getting it located in the cell. I am sure all interested in bee-keeping will all bee-keepers ought to be glad of further part of Gray. However, if the queen larvæ for the future development and that of the bee for the first 36 hours theoretically, what difference whether we use eggs or not. Of course the bees, when started, always begin with the smaller cell as this gives them an opportunity to pare the larger cell before it is deposited. But if eggs are used, the queens than larvæ we have for after all, the queen

Experience this year has shown the value of re-queening. In the year I reared about 50 young, two or three from the stock and in almost every case the better results than the previous season was early and of good weather, unusually so. Only those colonies which were quickly which had a chance of getting a goodly amount of honey in every case the young bees showed their superior ability. Owing to that many of the stock were built up late in the season and so practical feeding, and so practical bees, would probably be in good condition in the spring.

Certainly there is nothing to be gained than the honey crop there been a spring of dandelion than the one just passed, and a good catch the previous year. The bees can be reared well; the bees can winter with little loss and suffered from spring dwindling during dandelion and apple good, thus enabling them to use their abundant stores; and when

line of Mr. Gray's advice re transferring eggs with a crochet hook. I made one attempt, but owing to the adhesiveness of the egg was not very successful in getting it located in the new cell. I am sure all interested in queen-rearing, and all bee-keepers ought to be, would be glad of further particulars from Mr. Gray. However, if the milk food for the queen larvæ for the full period of development and that of drone and worker bees for the first 36 hours are the same, theoretically, what difference can it make whether we use eggs or larvæ? Of course the bees, when starting queen cells, always begin with the eggs when possible as this gives them an opportunity to prepare the larger cell before the egg is deposited. But if eggs will produce finer queens than larvæ we want to know it, for after all, the queen is the thing.

Experience this year points strongly to the value of re-queening every year. Last year I reared about 50 young queens, only two or three from the swarming impulse, and in almost every case they have given better results than the old queens. The season was early and owing to the dry weather, unusually short, and it was only those colonies which built up quickly which had a chance for gathering a goodly amount of honey, in almost every case the young queens proved their superior ability. Of course the fact that many of the stocks were nuclei, built up late in the season by stimulative feeding, and so practically without old bees, would probably help put them in good condition in the spring.

Certainly there is nothing more uncertain than the honey crop, rarely has there been a spring of greater promise than the one just passed, the clover was a good catch the previous fall, and wintered well; the bees came through the winter with little loss and scarcely suffered from spring dwindling, the weather during dandelion and apple blossom was good, thus enabling them to put in abundant stores; and when the clover op-

ened the fields never showed a greater quantity of bloom; everything looked like a bumper crop. Then came the drought drying up the clover and shortening the season by fully two weeks. The June bugs destroyed many of the basswood buds and with no rain when the blossoms opened, there was little nectar in those that were left. Bit in spite of all it has been a fair year wherever the colonies were in good condition. That's the point—good strong colonies in the spring!

Why is this department advocating an advertising campaign for bringing honey more prominently before the people? First—Because it is the only definite tentative policy before the association, and without some sort of progressive work the organization simply cannot flourish. Second—Because there is a general feeling that marketing conditions might be improved; and lastly, all the indications point to it as the coming policy. Just glance over the programme for the National and see what that indicates, and then ask yourself if you want to see Canadian bee-keepers in the rear.

Judging by the views given in the July C.B.J. of the field meetings recently held, the ladies are taking considerable interest in bee-keeping.

Sometime ago an enthusiastic uncle lent me "Alexander's Writings on Practical Bee Culture." I was much impressed with the possibilities he claimed for saving weak colonies in the spring by placing them over strong ones and decided to experiment with three—not enough to make a fair test—but the results were not encouraging. One, a weak one, disappeared altogether; in a second they destroyed the queen below; in the third both queens continued to lay, but no advantage was gained. Possibly where the main harvest is the buckwheat it might be all right, but I'm skeptical of its advantages for clover. But there was one valuable suggestion gleaned, re

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marking the queens. He used bits of tin cut a certain shape for each year, with a tack driven through. These were placed on the front of the hives when the queen was clipped, the place on the hive indicating the quality of the queen, thus enabling the bee-keeper to tell at a glance whether the queen was clipped, her age, and if she ought to be superseded. Instead of the tin I used pieces of cardboard, which is easier cut and will last quite as long as it is needed. It is certainly a satisfaction.

The conductor of the W. D. rejoices to think that she has provided the text for such an able sermonette as Editor Hurley has given us on the subject of free trade. But is our editor a suffragette? He would seem to be for he readily subscribes to the statement that the arguments for free trade are "as incontrovertible as those for woman's suffrage." And he finds fault with the statement "that logic is not the dominant element in human affairs," surely he does not know very much about women! Then he tells us that if we are opposed to protection we must not compromise with it; yet is not this

#### THE COMING CONVENTION AND CO-OPERATION.

We are very glad to publish the following circular letter sent out to some of the leading bee-keepers in Ontario:

Dear Sir,—I hope I am not responsible for giving the co-operative movement in O.B.K.A. too heavy a douche of cold water by saying that it could **only** come by merging successful county organizations. While I still believe that to be true in reference to selling honey, I feel that a great deal could be done in the way of buying supplies by a Co-operative concern. When that is well started, who knows what selling honey might be done by the same concern. Don't you think this should be made a special feature

after all just what this reciprocity treaty which he is advocating is—a compromise with protection—negotiated by two governments, both committed to protection, for the sake of satisfying a rising popular demand? Also as an example of free trade he points us to the condition of the birds that chirp and sing above us, yet up to the present we hadn't noticed any signs of a well developed commerce among them.

#### Honey Cookies.

Here is a recipe which we have found extremely satisfactory for honey cookies, especially in the summer time when rolling cookies does seem such hard work, and yet they seem almost a necessity, for nothing is quite so satisfactory for a quick lunch as one or two cookies. One generous cup of shortening (we use beef dripping if we have it), two cups granulated sugar, three eggs, one cup honey, one cup raisins, quarter pound lemon peel, half nutmeg, two teaspoons vanilla, one teaspoon soda dissolved in quarter cup sour milk, flour enough to handle. Form in small balls with the hands, place in the pan and press down with a fork; bake thoroughly in a slow oven.

of the coming convention? For example, large quantities of Italian queens were bought by individual bee-keepers this year to prevent E.F.B. More will be needed next year, because nothing can stop its spreading over the whole province. These could certainly be bought more cheaply in quantity.

How would you advise having this handled at the convention?

Yours truly,  
MORLEY PETTIT.

Guelph, July 27, 1911.

The foregoing communication shows how thoroughly conversant is the Provincial Apiarist with the aims and objects of the co-operative movement. At first sight, the suggestion put forward by Mr. Pettit that bee-keepers should purchase

their supplies co-operate to some people startling in its origin, acquainted with the c are well aware that t its origin in the littl by co-operative societic in various parts of E land. That combinatio may economize by bu; or may increase their in common, has been too clearly by the great must not lose sight a fact that in its widest u is a **theory of life** which morality of the present tem and proposes that i voluntarily combine, ea sciously for the general body of which he forms in return the support "Each for all, and all accepted motto of the n a co-operative concern; hoping to see launched the near future will end conditions so as to bring formity with **equity, re common good**. The ta such a concern should be pishment, the more so t of the provincial Depart culture have shown be sympathetically disp the project. Mr. Pet ther the matter should special feature of the com Most emphatically, yes! "major questions of bee- is worthy of being given t our amongst the subjects at our apicultural Parliam We believe also with M if we are to prevent the European Foul Brood th tario we must have resort requeening with Italians. up a further field of discus Pettit states, queens may

his reciprocity treaty is—a compromise initiated by two governments, one committed to protection, the other to free trade. A rising population is an example of free trade to the condition of the world and singing above us, yet we hadn't noticed any developed commerce

#### Cookies.

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attention? For example, Italian queens were sold by local bee-keepers this year. F.B. More will be sold because nothing can be bought over the whole province certainly be bought in quantity. I advise having this convention?

Yours truly,  
MORLEY PETTIT.  
1911.

This communication shows that the conversant is the Province. The aims and objects of the movement. At first it was put forward by Mr. Pettit. Beekeepers should purchase

their supplies co-operatively, may appear to some people to be somewhat startling in its originality. Yet those acquainted with the cooperative system are well aware that the movement had its origin in the little stores managed by co-operative societies of workmen in various parts of England and Scotland. That combinations of individuals may economize by buying in common, or may increase their profits by selling in common, has been shown to us only too clearly by the great trusts. But we must not lose sight altogether of the fact that in its widest usage co-operation is a **theory of life** which implies the immorality of the present competitive system and proposes that individuals should voluntarily combine, each striving conscientiously for the general welfare of the body of which he forms part, and receiving in return the support of his fellows. "Each for all, and all for each" is the accepted motto of the movement. Thus a co-operative concern such as we are hoping to see launched in Ontario in the near future will endeavor to modify conditions so as to bring them into conformity with **equity, reason and the common good**. The task of floating such a concern should be easy of accomplishment, the more so that the officials of the provincial Department of Agriculture have shown themselves to be sympathetically disposed towards the project. Mr. Pettit asks whether the matter should be made a special feature of the coming convention. Most emphatically, yes! It is one of the "major questions of bee-keeping," and is worthy of being given a place of honor amongst the subjects for discussion at our apicultural Parliament.

We believe also with Mr. Pettit, that if we are to prevent the spreading of European Foul Brood throughout Ontario we must have resort to wholesale requeening with Italians. This opens up a further field of discussion. As Mr. Pettit states, queens may be purchased

in quantity more cheaply than individually. Quite true. But we also believe that they could be raised in Canada, and sold more cheaply still, if queen-breeding establishments were started, similar to those in operation in Switzerland. This subject is pregnant with possibilities and we will do no more here than mention it.

Canada is taking a lead in many of the progressive world movements of the day. Why should not the bee-keepers of Canada, acting in unison, raise their industry to the highest level of efficiency? In Ontario, at all events, their aspirations have always met with a sympathetic response from the Department of Agriculture, and we feel confident that further developments along lines of real progress will always be accorded a similar reception.

Note.—We must confess our failure to understand the first sentence of Mr. Pettit's letter.

We cannot for a moment imagine that he desires to see or to bring about the "merging of successful county organizations." We believe, and we think that Mr. P. believes that the most efficient method of organizing the bee industry is **through** the county system.

#### FIELD DEMONSTRATIONS IN ONTARIO.

Indexed

The Ontario Provincial Apiarist is to be congratulated upon the success that is attending his work of disseminating a knowledge of bee-keeping by means of field demonstrations throughout the province. We believe this to be the only way of reaching the thousands of men, who, as a well-known Scottish bee-keeper would put it, are not apiarists, but who merely keep bees! At one of these held meetings recently a man admitted to the writer that although he had kept bees for a great many years—his present count approaching a hundred colonies—yet he had but just recently

and for the first time in his life opened up a brood chamber. This bee-keeper apparently possessed but vague ideas as to the normal appearance of brood combs, for seeing the unsealed larvæ, he mistook them for for foul brood, and burned five healthy colonies before he was aware of his error! Now it is to help such bee-keepers that field demonstrations are being organized, and it should be unnecessary to impress upon the readers of the C.B.J. that their co-operation in making these events widely known in their various neighborhoods will be much appreciated by those responsible.

In addition to those reported in our last issue, four demonstrations were held during the month of June. Inspector Armstrong and Assistant Inspector Fretz were responsible for the conduct of the meetings.

On Friday, June 9th, a demonstration was held at the apiary of Mr. T. Romp, situated in the village of Fonthill. The programme commenced at one o'clock, when about thirty people listened to a talk by Mr. Armstrong, who discussed the subjects of swarm control and general apiary management, concluding with a review of the disease situation in Western Ontario. This talk was made as practical as possible, a colony of bees being opened up, examined and treated exactly as though diseased.

A short talk was next given by Mr. Fretz, impressing on those present the value of a good wax press. This was followed by a discussion of the points of difference between the various presses in general use.

After this, the crowd gathered in the shade, and a question drawer was opened by Mr. J. P. Dunn, of Ridgeway. Several important subjects were discussed, one being the poisoning of bees around Thorold.

Much of the success of the day was due to the genial sayings of Mr. Dunn, who is president of the Lincoln and Wel-

land County Bee-keepers' Association. He introduced the speakers, and was very useful generally.

On Wednesday, June 14th, a field meeting was held at the apiary of Mr. C. L. Mapes, of West Hamilton. The programme took much the same form as at Fonthill.

After the nature of foul brood had been thoroughly discussed, a colony of bees was shaken to show the McEvoy treatment for the disease. Later, a quantity of old combs was run through the wax press, showing how 99½% of wax could be obtained, with the minimum of labor and the maximum of cleanliness. The demonstrator, Mr. Fretz, was assisted here by Mr. Wells and Mr. Mapes, both of West Hamilton, who gave their experiences with diseases and general management. The attendance was good considering the location, there being about eighteen present, several coming a distance of some fifteen miles.

On Friday, June 16th, a demonstration was held at the home of Mrs. French, North Glanford. Mr. James Armstrong took charge, giving a talk on brood diseases and general apiary management. He demonstrated the McEvoy treatment for Foul Brood, explaining very carefully the details. Many questions were asked Mr. Armstrong, who furnished much valuable information. After this the use of the wax press was demonstrated by Mr. Fretz and the question of the economy of the different kinds of presses was thoroughly discussed. The attendance was not very large, as it was a very busy time for the bee-keepers; nevertheless, the interest was keen, especially after the demonstration, when all took part in eating the lunch prepared by the good Mrs. French, in the "shade of the old apple tree" on the lawn!

On Tuesday, June 20th, a demonstration was held in the apiary of Mr. Geo. Howard, Lynden, Ont. The attendance was small, as everybody seemed busy. However, an interesting talk was given

explaining the symptoms of brood diseases in Ontario put through the treatment thoroughly explained. Howard had treated short time before, we show as well. A d taken inside and ever chance to see it in its Howard also gave his disease, along with son

### INDEXED FOR THE BEE

#### Some Interesting Facts

O. F. F.

The occupation of bee-keeper knows, has of its own, and a number of persons is a To some extent editors and those who write up profitable industry are the increase in the numbers. Not all the novices and of the failure claim that, financially, "delusion and a snare," want of success in bee-keeping is due to an unwillingness to profit of others. Some on the other hand meet with success. Amongst such we who look after their bee in fashion, seldom going near when the honey is to be apiary of this type of bee recognized, and examples all through the country. A known fact that there is of losing hard cash in bee-keeping by neglecting to observe necessary rules. On the other hand, a bee-keeper who invariably there are a great many the intelligent working bee always ready to learn from others and profit as much as the success or failure of a

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explaining the symptoms and cure of the brood diseases in Ontario. A colony was put through the treatment and the operation thoroughly explained. As Mr. Howard had treated a colony only a short time before, we had the results to show as well. A diseased comb was taken inside and everyone was given a chance to see it in its real form. Mr. Howard also gave his experience with disease, along with some valuable advice.

### INDEXED FOR THE BEGINNER.

#### Some Interesting Facts About Bees.

O. F. Fuller.

The occupation of bee-keeping, as every bee-keeper knows, has a certain fascination of its own, and every year a large number of persons is added to its ranks. To some extent editors of bee journals and those who write up bee-keeping as a profitable industry are responsible for the increase in the number of bee-keepers. Not all the novices will achieve success and of the failures some will proclaim that, financially, bee culture is a "delusion and a snare." Much of the want of success in bee-keeping is attributable to ignorance, or to what is worse, an unwillingness to profit by the mistakes of others. Some bee-keepers on the other hand meet with only partial success. Amongst such we may place those who look after their bees in a slipshod fashion, seldom going near them except when the honey is to be taken off. The apiary of this type of bee-keeper is easily recognized, and examples may be found all through the country. It is a well-known fact that there is no readier way of losing hard cash in bee-keeping than by neglecting to observe the few necessary rules. On the other hand, the bee-keeper who invariably succeeds—and there are a great many of them—is the intelligent working beekeeper who is always ready to learn something from others and profit as much as he can by the success or failure of other bee-keepers.

He will carefully study all the mysteries of the occupation by reading up the subject when ever the opportunity is afforded him. He will start out in a small way with perhaps a colony or two, and gradually learn from experience what is absolutely necessary. His spare hours will be devoted to getting hives and fixtures prepared, so as to have everything ready to use when needed. Bee-keeping to him or her will be only a recreation. The results to such persons, taking one season with another, will be a very profitable source of income.

Only those should take up bee-keeping who are fond of the study of nature and more particularly the study of the nature and habits of the honey bee. They must be willing to adopt the valuable improvements of the present day, and keep in line with this progressive age. They must be able, in order to control their bees, to control themselves. Such will succeed; whilst those who will still cling to their forefathers' ideas of a torch of brimstone and other old fogey notions, being averse to progress—will invariably prove failures.

The care of an apiary means more than it is usually thought it to be, but at the same time does not entail any hard or laborious work. It is work, nevertheless. It is work for the brains as well as work for the hands and feet. Lastly let me say that persons intending to keep bees should bear in mind the important fact, that bee-culture is a business to be learned like any other trade or profession, and success depends in a marked degree, as I have said before, upon knowledge and experience.

We all know that a prosperous colony of bees at the beginning of the swarming season consists of a fertile queen, some hundreds of drones, and many thousands of workers. The mother bee or queen as she is called, is a perfectly developed female, and deposits all the eggs from which the other bees are produced. These eggs are of two kinds—the one that devel-

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ops into drones, and the other that under ordinary treatment, produces worker bees, or undeveloped females. The latter kind of eggs, under different treatment and care, produces perfect females or queens. The queen is the principal bee of the colony, on whose well-being the prosperity of the colony depends. There is a physical resemblance between the queen and the worker-bee, which indicates that they are both of the same sex, and were produced from similar eggs, but the more perfect development of the queen is shown by a stronger frame of body. The queen is also distinguished by a larger thorax, of a rather brownish color, and a stronger and longer abdomen, which is hardly half covered by the wings at the time when she is most actively engaged in depositing eggs. Queens are reared in special cells, called queen cells, or as some writers name them, royal cells. The workers build the foundation of a queen cell as a rule at the edge of a comb, and somewhat in the shape of a small peanut, slanting downwards—into which an egg is deposited either by the queen or sometimes, as it is thought by some, carried by the worker bees from other cells, and deposited in the queen cells.

If we were to examine a colony of bees we should find the bees engaged in different occupations on the combs, some fresh from the fields discharging their loads of pollen and honey, others engaged in feeding the young. Others would be capping over cells or building new comb. If we watch a bee just from the fields, we shall probably see her remove the pollen from her legs, and place it in one of the smaller sized cells which usually serve for this purpose; then putting her head into the cell she presses the pollen down firmly. She will next proceed to another cell, and discharge into it from her honey stomach the nectar she has collected—or rather what will now be honey—the nectar which was gathered from the flowers,

having been converted into honey by a secretion derived from the salivary glands of the bee. Now let us watch the queen, and then carefully follow the various stages through which a bee passes from the egg state to the mature insect. We shall probably see the queen moving slowly over the combs surrounded by a number of workers, which are constantly touching her and offering her food. She stops at an empty cell, examines it by putting her head inside, then, hanging on to the edges of the comb, inserts her abdomen, and deposits at the base of the cell, to which it is attached by a glutinous secretion a little white oblong egg. It will be noticed that the egg stand in a position parallel with the sides of the cell, and in this position it remains the first day. On the second day it inclines at an angle of about 45 degrees, whilst on the third it assumes a horizontal position, resting perfectly flat on the base of the cell. It requires about 15 days from the time the egg is laid until it produces a perfectly developed queen—21 days for the worker bees and 24 days for drones.

INDEXED

#### INDICENTS FOR THE FARMER.

##### Wax Rendering and the Prevention of Swarming.

N. E. France.

Bright yellow beeswax is worth saving, yet it is so easily lost in rendering old combs. I find but few beekeepers equipped with material in shape to save but a small per cent. of the wax in rendering.

First of all, but one method will save all the wax, that is to have all the wax when melted in some kind of receptacle with hot water so the wax as it gets free from the "Slumgum" will rise to the surface and can be taken off into another dish with hot water below it, to allow the sediment to settle to bottom of the dish.

Where but few bees are kept, and they on the farm, I often find all material on the farm necessary to make a good wax

press. Take a large inside a cross-slatted that will go down to kettle. Another slat larger for top one, sugar sack, and some sure weight with stone long lever with short lever over the upper pails of old combs in with soft water to cover the comb is all melted into to surface place of with lever apply pressure from old cells of comb long handled dipper sk pouring same into deep half full of boiling soft through cloth, the wax be ready for the high do not like iron as we or wooden dishes to cover. The "Slumgum" presses, is not heated germs of disease, and if diseased combs have wax machine.

Caution.—Do not over boiling will spoil the also endanger boiling where the wax will burn some cold water will be thrown into the hot boil over. Longer melt in dish with boiling water better. Rub lightly on the inside of dish in—it will keep wax dish. Wooden dishes soaked before putting them to cool. Bright the best dishes to cool

There are many bee cities, and find it no reason why bees are not be more profitable for bees to bother. colonies of bees are the orchard, the better fruits of every kind, b

ted into honey by a from the salivary Now let us watch the fully follow the var which a bee passes to the mature insect. see the queen moving mbs surrounded by a which are constantly ffering her food. She cell, examines it by inside, then, hanging the comb, inserts her sits at the base of the attached by a glutin- le white oblong egg. at the egg stand in a th the sides of the cell, a it remains the first d day it inclines at an degrees, whilst on the a horizontal position, at on the base of the about 15 days from s laid until it produces ed queen—21 days for nd 24 days for drones.

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one method will save is to have all the wax some kind of receptacle the wax as it gets free m" will rise to the sur- taken off into another er below it, to allow the e to bottom of the dish. bees are kept, and they ten find all material on ry to make a good wat

press. Take a large iron kettle, place inside a cross-slatted wooden follower that will go down to curve of bottom of kettle. Another slatted follower little larger for top one, an empty outside sugar sack, and some way to apply pressure weight with stone or better with a long lever with short large stick under lever over the upper follower. Place two pails of old combs in the sack in kettle with soft water to cover same. When the comb is all melted, and wax is coming to surface place on top follower and with lever apply pressure, to force wax from old cells of comb. I then with long handled dipper skim off the hot wax pouring same into deep pails which are half full of boiling soft water. If poured through cloth, the wax when cooled will be ready for the highest market price. I do not like iron as well as tin or copper, or wooden dishes to cool wax in.

The "Slungum" from solar wax presses, is not heated enough to kill germs of disease, and should be burned if diseased combs have been in such a wax machine.

Caution.—Do not overheat the wax, as boiling will spoil the value of wax, and also endanger boiling over into the fire, where the wax will burn like oil. Have some cold water handy so it can be thrown into the hot wax, should it boil over. Longer melted wax is cooling in dish with boiling water under wax the better. Rub lightly cake of hard soap on the inside of dish the wax is to cool in—it will keep wax from sticking to dish. Wooden dishes should be water soaked before putting hot beeswax in them to cool. Bright tin pails is one of the best dishes to cool wax in.

There are many bee-keepers living in cities, and find it profitable, but I see no reason why bees on the farm would not be more profitable. No neighbors for bees to bother. Certain if several colonies of bees are on the farm, near the orchard, the better and more perfect fruits of every kind, better corn, cucum-

bers, pumpkins, squashes, melons and alsike clover seed, and also all the family can use of the best of all sweets. Honey is used by carloads by the bakers to sweeten their goods, and in making candies. It is also used in canning fruits, I repeat, farmers, keep some bees. Wisconsin has beautiful residences paid for with single season honey harvest on the farm. I know of Wisconsin farms with an apiary that furnishes family all the honey wanted, and surplus every year pays the taxes of the entire farm. Most of premiums at Wisconsin State fair and the County fairs for best honey are paid to Wisconsin farmers. 15,650 Wisconsin bee-keepers, produce about 3,000,000 pounds honey each year.

Prevent Swarming—Just a little time mornings or evenings to care for quite a large apiary on the farm and not be called from the fields to hive the swarms. First, of all, take off every bottomboard of the hives. All frames to fit in any hive. As soon in spring the bees are broodrearing, it will pay to feed every colony some warm honey placed in the hives, either in bottomboard feeders, or placed above the brood, so as to prevent robbing. As soon as dandelion bloom is over, see if the swarms will take care of another hive full of combs, if so, place the new hive on old bottomboard with old hive on top. Then when clover bloom is beginning to yield honey, take another hive body full of combs or full sheets comb foundation. Set the hive with bees in to one side, this new hive on old stand. Exchange one of the combs for one with very young brood in this new hive. Now place a queen excluder on new hive and the other two hive bodies above. Carefully look over the above hives, find the queen and place her below, and see no queen cells in upper hives. You can now let that colony alone; it will not swarm; it will have room below for the queen and the two hives above will be filled with honey as fast as the brood hatches.

At your pleasure after clover bloom, just place a bee escape between where queen excluder is and next day or so all bees will be out of the above hives. If you have a fall honey flow, it may be well to place one live body above for surplus honey, but be sure the lower hive has abundance of honey for winter stores.

If you wish to produce comb honey, all the difference is to exchange upper hive bodies with full combs for supers of sections, using the surplus brood for new swarms.

All of above can be done at little spare times, any farmer can well afford the time for the honey harvest as reward.— [From the Annual Report of the State Inspector of Apiaries, Wisconsin.]

#### NATIONAL PROGRAM.

There will undoubtedly be reception committees who will meet all incoming trains the forenoon of August 30th. Hotel information can be secured from them. Those arriving in the afternoon will go direct to the convention room

#### Place of Meeting.

G. A. R. Hall, Court House, Minneapolis, Minn.

#### Time.

August 30th and 31st, 1911.

#### Sessions.

- 1—Foul Brood, 1.30 p.m., Aug. 30th.
2. Honey Selling, 7.00 p.m., Aug 30.
3. Business, 8.30 a.m., Aug. 31.
4. Miscellaneous, 1.30 p.m., Aug. 31.
5. Co-operation, 7.00 p.m., Aug. 31.
6. Free trolley ride around the city, courtesy of Minneapolis Commercial Club, 9 a.m. Sept. 1st.

#### Hotels.

- Radisson, \$1.50 per day and upward.  
 Dyckman, \$1.50 per day and upward.  
 West, \$1.00 per day and upward.  
 Nicollet, \$1.00 per day and upward.  
 Vendome, \$1.00 per day and upward.  
 Rogers, \$1.00 per day and upward.

- Camleld, \$1.00 per day and upward.  
 Majestic, 75c. per day and upward.  
 Golden West, 75c. per day and upward.  
 Beaufort, 75c. per day and upward.  
 Pauly, 75c. per day and upward.  
 Russell, 75c. per day and upward.

#### Program in Detail.

**Foul Brood Session** begins at 1.30 p.m., August 30th, and is subdivided into the following topics:

- 1—The present status of the campaign against foul brood.
- 2—Advantage of apiary inspection under the supervision of the State Entomologist.
- 3—How can a national campaign be conducted against foul brood?
- 4—How to get state foul brood laws.
- 5—The agricultural college and inspection.
- 6—Curing foul brood—Inspectors' methods—What are they?
- 7—Appointment of committees.
- 8—Question box.

**Honey Selling Session** begins at 7.00 p.m., August 30th, and is subdivided into the following topics:

- 1—Is a national advertising campaign for selling honey practical?
- 2—How can a national campaign be conducted for developing the wholesale honey markets?
- 3—A mail order honey trade—how conducted.
- 4—Developing the home markets.
- 5—What sized package should be used for the retail trade?
- 6—Question box.

**Business Session** begins at 8.30 a.m., August 31st, and is sub-divided into the following topics:

- 1—President's address.
- 2—General Manager's report.
- 3—Secretary's report.
- 4—Shall the National be one separate association, or an aggregation of smaller ones?
- 5—The new constitution and by-laws.

- 6—Publication of an
- port. Is any change d
- 7—National Associ
- What they have acco
- 8—Nomination of o

#### Miscellaneous Session

m., August 31st, and the following topics:

- 1—Mating stations government—would the
- 2—Uncapping melter used extensively?
- 3—Steam heated un Are they practical?
- 4—Uncapping machi yet a success?
- 5—Adulteration of h tent is it being practis done to stop it?
- 6—Uniform shipping what size should they
- 7—Question box.

#### Co-operation Session

m., August 31st, and the following topics:

- 1—What the Colora ers' Association is doi
- 2—Co-operative effor
- 3—The Michigan pl Michigan Association i
- 4—What can the Na operative lines?
- 5—Obstacles to be n erative efforts, and l them?
- 6—Question box.

You will notice that gram the names of tho not given. There is a this. First, we want are to lead in the han to be present. Seco member to come prep in the discussions, as w a convention of live r have the majority sit s the talking. Rememb called upon to take p In conclusion let me :

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itution and by-laws.

6—Publication of annual convention re-  
 port. Is any change desirable?

7—National Association Bulletins—  
 What they have accomplished.

8—Nomination of officers.

**Miscellaneous Session** begins at 1.30 p.  
 m., August 31st, and is sub-divided into  
 the following topics:

1—Mating stations conducted by the  
 government—would they be practical?

2—Uncapping melters—Are they being  
 used extensively?

3—Steam heated uncapping knives —  
 Are they practical?

4—Uncapping machines—Are they as  
 yet a success?

5—Adulteration of honey—To what ex-  
 tent is it being practised? What can be  
 done to stop it?

6—Uniform shipping cases—If adopted  
 what size should they be? Why?

7—Question box.

**Co-operation Session** begins at 7.00 p.  
 m., August 31st, and is sub-divided into  
 the following topics:

1—What the Colorado Honey Produc-  
 ers' Association is doing.

2—Co-operative efforts in California.

3—The Michigan plan, or what the  
 Michigan Association is doing.

4—What can the National do along co-  
 operative lines?

5—Obstacles to be met with in co-  
 operative efforts, and how to overcome  
 them?

6—Question box.

You will notice that in the above pro-  
 gram the names of those to take part are  
 not given. There is a two-fold object in  
 this. First, we want the persons who  
 are to lead in the handling of the topics  
 to be present. Second, we want every  
 member to come prepared to take part  
 in the discussions, as we want this to be  
 a convention of live members, and not  
 have the majority sit still while a few do  
 the talking. Remember YOU may be  
 called upon to take part.

In conclusion let me say that there will

be some competent person there to han-  
 dle the above subjects. Prominent bee-  
 keepers from all parts of the country will  
 be there, and these topics will be assigned  
 to some of them before the session starts.  
 But it is expected that every member will  
 plan to take part.

E. B. TYRRELL, Secretary.

#### CHALMERS' OBSERVATIONS.

##### Indexer

Mitts.—Assistant Editor W. W. in an  
 editorial in July C. B. J. says: "He  
 scents trouble when he sees a bee-keeper  
 donning mitts." Yes, and on a recent  
 inspection trip I scented more trouble  
 through such costume than Mr. White  
 perhaps has in mind. Calling at a place  
 to inspect bees I was informed that ex-  
 tracting honey was the order of the day,  
 and was directed to the bee-yard where I  
 found the owner costumed as Mr. W.  
 W. pictures. On going up to him un-  
 veiled, he very kindly, but firmly ut-  
 tered these warning words: "You'd  
 better keep back or you'll get stung,"  
 and when he saw his visitor's disobedi-  
 ence he repeated the warning, "Now, I  
 tell you, you'll get stung." "Well," re-  
 plied I, "perhaps I'd better get a veil,"  
 and suiting my actions to my words,  
 made tracks for the buggy, where after  
 laying my coat aside, the needful was  
 donned.

Returning to the battlefield with  
 smoker in hand, I introduced myself as  
 Chalmers, the bee inspector, at the same  
 time holding out my hand, but for once  
 in my life I was glad to be refused a  
 shake, for a gloved hand was exhib'ited  
 all pasted with propolis and honey. This  
 party, however, wasn't long in informing  
 me that "he was just thinking of send-  
 ing for me as he suspected disease in  
 the yard."

Well, this proved to be a very badly  
 diseased apiary. Can a more effective  
 means of spreading foul brood be devised  
 than by the bee-keeper wearing gloves  
 or mitts all saturated with honey full

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of germs of that dread disease, and the smoker all pacted in like manner?

This is a case in which I fear the owner will never be able to clear up the disease and where quarantining should be repaired to if in force.

Strange to say that although I rolled up my sleeves to my elbows to show this man how to handle bees, I never received a sting until leaving. Having occasion to return to the yard unveiled to note the number of diseased colonies, a bee saw her chance and took me on the cheek. It may have been meant for a kiss, but to use Miss Robson's words in an address to the Milverton Ladies' Institute in January last, "It wasn't a painless operation."

Thanks.—Few, I consider, view the profit and loss of the inspectors in their work as does Miss Robson, for "those of us who have not a competent person to leave at home," are losers every day they are out, as this work has to be done during the most valuable time in our own apiary. My best thanks, and I feel certain of those of my fellow Inspectors, are hereby tendered to the editor of the Ladies' Department for her kind sympathetic expressions.

DAVID CHALMERS.

Poole, July 20th, 1911.

#### MR J ALPAUGH HEARD FROM.

Indexed

Jacob Alpaugh.

Just a few lines to let you and other brother bee-keepers know that I am still on top of the sod, (although natural sod is rather scarce in this part of California). Most kinds of fruit are plentiful enough. The few navel oranges that are still left on the trees are certainly worth eating. Peaches, apricots, plums, figs, grapes, berries, and other kinds of fruit too numerous to mention, are now ripe and delicious. I wish I could pass around some that we cannot get outside of California.

My wife and I left Galt, Ont., on the 1st of May with the intention of spending the summer in B. C. We visited friends on our way out in Michigan, Indiana, Illinois, Washington, and so on to Vancouver, B.C. While at this last mentioned place we met Dundas Todd, foul brood inspector for Western B. C., and had a good talk with him. He is a jolly good fellow. I was out with him on his rounds for two days. There is no disease in that country that they know of. When I first saw the clover, both alsike and white, which at the time of our visit were in full bloom, I came to the conclusion that it was a paradise for bees. The valleys around Vancouver and all back into the mountains were simply one white mass of clover bloom. When, however, I came to get among the bees and bee-keepers, I found there was some thing wrong. The clover had then been in bloom for three weeks, and was still in bloom, looking as though it would be in that condition for several weeks to come. Yet, while I found good strong colonies and the upper stories full of bees, where they had not swarmed, there was very little honey stored, and the bees would rob a comb if it were left out of a hive just as they would do back east after the honey flow was over. As far as I could learn, they get a good flow from clover some years, but as a rule the nights are too cool for nectar secretion. We only spent about one month in B. C., and I was not really comfortable most of the time, so I made up my mind that I did not wish to monkey very much with bees where I could not keep warm in the summer time. We never expected to be in Southern California at this date, but I must say that the climate is fine here at present. It has not been hot so far this summer—from 70 to 90 degrees, a temperature, which with the sea breeze is just fine. After a little I expect to get some of the B. C. chill taken out of me. I have not been among the bee-keepers here yet and will

report later. Until forward my C.B.J. fornia.

Upland, Cal., July

[We are very glad friend Alpaugh, and Mrs. A. will have a trip. Your hint as of clover in B. C. as supply will prove well who may contemplate west. We should like reports upon this visit from our B. C. await your next report.—Ed.]

#### MR. T. W. COWAN:

Indexed

The apiarist of the a bee-keeper merely. was. Even in the day phenomena of bee-life mystery, the bee-master sopher. The possession skeps and the ability placed him upon a that occupied by his possess a mastery, no carious, was in itself and the old time apiarist man to make light of. Then, as to-day, bee-keeping fascination for all its whom the bee-state was simplify all that was of emulation. We may the old fashioned bee-slightest pretensions to never tire of expatiating Nor is the modern apiarist this respect from his for it is absolutely necessary of mind to know every his craft.

To satisfy his desire of great body of literature so that the future investment somewhat difficult to new field of research.

left Galt, Ont., on the  
the intention of spend-  
n B. C. We visited  
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s here yet and will

report later. Until further notice kindly  
forward my C.B.J. to Upland, Cali-  
fornia.

Upland, Cal., July 9th, 1911.

[We are very glad to hear from you,  
friend Alpaugh, and trust that you and  
Mrs. A. will have a good time on your  
trip. Your hint as to the unreliability  
of clover in B. C. as a source of honey  
supply will prove very valuable to any  
who may contemplate moving so far  
west. We should like to have further  
reports upon this very important ques-  
tion from our B. C. readers. We shall  
await your next report with great inter-  
est.—Ed.]

#### MR. T. W. COWAN'S "WAXCRAFT."

Indexed

The apiarist of the present day is not  
a bee-keeper merely. Probably he never  
was. Even in the days of yore when the  
phenomena of bee-life were a profound  
mystery, the bee-master was also a philo-  
sopher. The possession of a row of straw  
skeps and the ability to hive a swarm,  
placed him upon a higher plane than  
that occupied by his fellow rustics. To  
possess a mastery, no matter how pre-  
carious, was in itself no small matter,  
and the old time apiarist was not the  
man to make light of his achievements.  
Then, as to-day, bee-keeping possessed a  
fascination for all its practitioners, by  
whom the bee-state was accounted to ex-  
emplify all that was virtuous or worthy  
of emulation. We may be certain that  
the old fashioned bee-keeper with the  
slightest pretensions to learning would  
never tire of expatiating upon the bee.  
Nor is the modern apiarist different in  
this respect from his worthy predecessors,  
for it is absolutely necessary to his peace  
of mind to know everything relating to  
his craft.

To satisfy his desire for knowledge a  
great body of literature has sprung up,  
so that the future investigator will find  
it somewhat difficult to strike upon a  
new field of research. Thus every bee-

keeper worthy of the name has his little  
library of works relating to bee lore.  
No matter whether he possesses but two  
colonies or colonies by the hundred he  
cannot possibly be happy without the  
companionship of bee-books and bee-  
papers. Part of what Anna Botsford  
Comstock terms the "psychic income" is  
derived from the reading of bee litera-  
ture.

There is one direction in which writ-  
ers have displayed a somewhat remarkable  
neglect, and also some lack of discrimi-  
nation, for until the publication of Mr.  
Cowan's "Waxcraft," the field covered by  
this work was left almost entirely un-  
explored. For ages the production of  
beeswax has been in itself—is yet in some  
parts of the world—an industry of con-  
siderable importance. To-day, in addi-  
tion to that consumed in the bee-keeping  
industry itself, vast quantities are re-  
quired in large and increasing numbers  
of manufacturing processes. It is some-  
what strange, therefore, that the subject  
has not been more often dealt with.

Mr. Cowan has opened up the ground  
somewhat as a pioneer, yet with great  
thoroughness and care. In a chapter of  
some length he deals with the subject  
from a historical point of view, going  
back to the early Greek and Roman ages  
when wax was very largely employed  
in the arts and crafts of those early pe-  
riods, and when bee-keeping must have  
been carried on upon a very extensive  
scale. The story as Mr. Cowan tells it  
is a very interesting narrative taking us  
through the centuries—through the dark  
ages—and up to the present day. The  
chemistry of the subject is also very ade-  
quately treated, and in such a manner  
that the unscientific bee-keeper is put in  
possession of a knowledge of the means  
of testing wax for adulterations. A very  
full account is given also of the various  
mineral and vegetable waxes which are  
employed, sometimes as adulterants of,  
and sometimes as substitutes for, bees-  
wax. Even the most experienced bee-

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keeper will find in the chapter dealing with wax-rendering much that is useful to him in the practice of his craft. Mr. Cowan is one of the world's veteran bee-keepers. He is one of those who have helped to make modern bee-keeping what it is, and his name is known wherever up-to-date methods of apiculture are practised. Thus, whatever our author has to say upon any branch of bee-keeping will always command respect and attention. Almost every method of rendering wax, from the old and crude methods to the latest processes devised by our bee-keepers on this side, is described. In the like exhaustive manner, the author discusses the subject of the preparation of wax foundation.

At the end of the book are to be found over a hundred recipes in which wax is used as an ingredient. In conclusion, let us state that no other work in the English language deals with the subject so thoroughly or so authoritatively as Mr. Cowan's "Waxcraft," and we have great pleasure at this season, when many bee-keepers will be engaged in melting up their old combs, in recommending this work to their notice. The book is well printed and very artistically bound, and will form a fitting companion to the best that are to be found on the bee-keepers' book-shelf. The price is 60 cents, and we should be pleased to forward a copy to any reader on receipt of a remittance to that amount.

#### ONTARIO BEE-KEEPERS' ASSOCIATION.

##### Honey Exchange Committee and the Prices of Honey.

The Honey Exchange Committee of the Ontario Bee-Keepers Association met at the Secretary's office at Toronto on July 17th. This date was fixed two weeks ahead of the meetings of the past five years on account of the extreme drought shortening up the white honey harvest to a very considerable extent.

The reports received from all the counties of the province show a decided falling off in the crop with the exception of Middlesex and a few apiaries in other central western counties.

The average yield per colony is 50.6 as against 58.3 in 1910, which would mean a reduction of at least one million pounds in the total crop. Entire failures of the crop are commonly reported this season and the average is lower than for many years past.

Taking into consideration the practical failure of the small fruit crops, the high prices of cherries, and only a fair crop of apples together with the reduction in the supply of white honey both in Canada and the United States, the committee recommend the following prices for the year:

No. 1 Light extracted (wholesale), 11c. 12c. per lb.

No. 1, Light extracted (retail), 13c.-15c. per lb.

No. 1 Comb, (wholesale), \$2.00-\$2.60 per dozen.

No. 2 Comb, (wholesale) \$1.50-2.00 per dozen.

A later report will be furnished to cover Buckwheat Honey.

#### SEASON REPORT.

Bees in this district came out of winter quarters in excellent condition, and during the warm weather in May they built up greatly increasing their numbers. Thus by the time the nectar is usually secreted in the flowers the force for gathering was at the maximum. But the flowers were few, owing to winter killing, and those which survived were prematurely dried up by the scorching heat of first half of July. Hence the honey crop is the poorest in 30 years, at least. In fact, there is scarcely any clover honey, and dependence must now be placed on buckwheat for stores to winter on.

J. R. Black.

Harwood, Northumberland Co., July 31.

#### HOW TO SECURE A INCREASE Y

Index Joseph

There is an old saying not have your cake when applied to the "you cannot have b crease." This is true for it is possible to successfully after the of this article is gathering. Keep the bulk for the harvest and stock after the harv have an advantage o ing, a laying queen in

There are three ways for the purpose of your stock.

First, by natural out one or two nuclei swarmed, according to season, cutting out the cells and filling up with frames fitted with foundation, wired in. do but are not so good honey in them, excluding queen, whereas the queen with the swarm is just mence laying by the time is drawn out, and swarming is thrown in. The one or two nuclei day old cells will have gins, and the virgin queens by the time the drawing to a close.

The second way is to in the honey flow from stocks. It does not matter output of such stock if is taken from it, queen any of the usual queen

The third way is to and buy the queens from cure extra combs for of full standard depth

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## REPORT.

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at for stores to winter

J. R. Black.

berland Co., July 31.

## HOW TO SECURE A HARVEST AND INCREASE YOUR STOCK.

*Indexed* Joseph Gray.

There is an old saying that "you cannot have your cake and eat it," which when applied to the apiary would read, "you cannot have both honey and increase." This is true in a limited sense for it is possible to increase your stock successfully after the harvest. The gist of this article is gathered into one sentence. Keep the bulk of the bees together for the harvest and nucleus-swarm the stock after the harvest, and you will have an advantage over natural swarming, a laying queen in each colony.

There are three ways to secure nuclei for the purpose of nucleus-swarming your stock.

First, by natural swarming, taking out one or two nuclei from the stock that swarmed, according to your locality and season, cutting out the rest of the queen cells and filling up the brood chamber with frames fitted with full sheets of foundation, wired in. Empty combs will do but are not so good, as the bees store honey in them, excluding the work of the queen, whereas the queen returned along with the swarm is just ready to recommence laying by the time the foundation is drawn out, and all the vim of swarming is thrown into the super work. The one or two nuclei with these nine day old cells will have hatched their virgins, and the virgins become laying queens by the time the honey harvest is drawing to a close.

The second way is to form nuclei during the honey flow from any of the strong stocks. It does not materially lessen the output of such stock if only one nucleus is taken from it, queens being raised by any of the usual queen raising methods.

The third way is to form your nuclei and buy the queens for them. To secure extra combs for the stock, supers of full standard depth should be used.

These should be partly filled with comb in one half, and in the other half with frames fitted with full sheets of foundation wired in. Don't intermix the two, but fit up half and half. Evener work will be done in the new frames, and foundation drawn out in the super will be built into comb clear down to the bottom bar. You can secure such frames by bringing the foundation within  $\frac{1}{8}$ " of the bottom bar. My system of wiring is two horizontal wires on each side of the foundation; no imbedding is needed and the foundation will not sag.

Extract your honey just before the close of the honey harvest, fill out your nuclei with the extracted combs and **nucleus-swarm the stock**. To do this, set your nucleus to one side and carry your stock on to the stand of the nucleus. Now carry the nucleus on to the stand of the strong stock, doing this when the bees are well on flight and still bringing in stores. The flying bees on returning form the swarm.

The nucleus should not be unnecessarily strong at the time of swarming, but should be in a normal condition so that the queen is surrounded by her own bees. There is then no need to cage the queen. If the extra combs are given the previous evening, the nucleus will become normal or quiet by morning.

To complete the success of your operation and lay the foundation of the next season's work, feed to produce young bees and finally for winter stores.

## BALLING OF A QUEEN.

*Indexed*

Isaac Balmer.

Friend Byer has been having some trouble with the balling of a queen, and is unable to tell what crippled her, according to his notes in Gleanings. Well, perhaps, the following will clear the case up for him. A few years ago I discovered a queen balled, and using the point of a screw driver rubbed the bees

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off, and found one bee on her back, doing its best to sting her, I used my finger and thumb on it, but the damage was done. She had been stung on one side, completely paralyzing that side, so she could only use three legs on the other side. I left her for three days; she was still in the same condition, so I at once pinched her, and concluded that I would experiment on the next one, if I should ever get the chance. The opportunity soon came. I found the same condition—one bee on her back trying to sting her, the other bees clustered over the two of them, I rubbed them off, the one little rascal, (evidently a young bee), was not satisfied, took after her again, and jumped on her back, determined to finish her, and the bees near by formed a ball just as quickly. This time I rubbed the bees off and pinched the mischievous one. The queen was unhurt and no more balling followed. I came to the conclusion that the bees that do the balling are friendly to her, but why they do not prevent that one rascal from killing her I cannot conceive.

The above might not be the true case in the balling of a queen at all times, but I am inclined to think it is. I would be pleased to hear from some bee-keepers through the Bee Journal, who have examined queen balling.

Purlington, July 17, 1911.

#### DEFOLIATION OF FORESTS BY THE SPRUCE BUDWORM.

Considerable uneasiness and even alarm has been felt by lumbermen and others interested in forest products, over the depredations in different parts of Canada, of the spruce budworm (*Tortrix fumiferana*). It was feared the spruce might suffer a fate similar to that of the tamarack which was killed by the larch sawfly about twenty-five years ago. As a result, however, of careful investigations

begun by the Division of Entomology of the Dominion Department of Agriculture during 1909 and still in progress, the situation appears to be much more satisfactory and reassuring than was at first considered possible.

The destructive work of the budworm was first reported two years ago from Vancouver Island, where the Douglas fir was attacked; and from Quebec, where the spruce and the balsam suffered chiefly. In the case of Quebec, the pests were at first confined to the west-central portion of the Province, but during 1910 areas on the east of the St. Lawrence were also attacked. It was this latter circumstance that roused timber owners to a sense of the possible extent of the danger.

While in the caterpillar stage these insects destroy the buds of the spruce and balsam, especially at the tops of the trees. They also bite off the leaves, which together with the excrement of the caterpillars, cause the tops of the trees to assume a reddish brown appearance. When a large area is attacked it appears as if it had been swept by fire.

As such plagues of air insects can only be controlled by natural means, the Dominion Entomologist visited a number of the infected districts for the purpose of discovering a natural remedy that would meet the situation. Various insect enemies or parasites were found, that prey upon the budworm, and these are being used to destroy the pest. As the percentage of important parasites, especially of the minute species which attack the eggs of the budworm, is unusually large, there is abundant reason for hoping for the extermination of the latter. Judging by previous experiences in studies of this nature, it is not improbable that the insect will be controlled by its natural parasites in the course of a year or two, that is, before it has inflicted any serious damage to the spruce and balsam by repeated defoliation.

August, 1911

#### BEE-KEEPING F

Indexed

Miss Ethel

Bees have always been a part of the race. For untold generations practically the only source of sweets and when Mr. Moore describes the richness of the soil he spoke of it as a land "flowing with milk and honey." Yet it is only within 50 years that bee-keeping has been introduced to a scientific basis. An old uncle who was one of the first beekeepers of the country and who is hardly possible for the present to realize how little was known 50 years ago. Many people have but the operations with bees shrouded in mystery and the securing honey were often cruel and barbarous. All the science and knowledge of the habits of bees has made it possible to be placed on the market in a more economical form.

To remark on the changes of the last century is almost trite, yet so powerful have the changes affected our sex, that we are not yet adjusted themselves to the development of the modern world. It was the centre of industry and women were proficient in it. The advent of the steam engine and all this and women have taken the home into the store and into the office. But these changes do not affect the women in the country as their city sisters. On the farm there were yet many activities and it was an independent life. On almost every farm there were sources of income which were unquestionably to the women—these were the chickens, the poultry. The income from the farm was not large but at least it was much of the running expenses and providing many an extra

## BEE-KEEPING FOR WOMEN.

Indexed

Miss Ethel Robson.

Bees have always been connected with the race. For untold generations, they were practically the only source for a supply of sweets and when Moses wished to describe the richness of the promised land, he spoke of it as a land "flowing with milk and honey." Yet it is only within the last 50 years that bee-keeping has been reduced to a scientific basis. I have an old uncle who was one of the pioneer bee-keepers of the country and he tells me it is hardly possible for the people of to-day to realize how little was known of bees 50 years ago. Many people kept them, but the operations within the hives were shrouded in mystery and the methods of securing honey were exceedingly crude and barbarous. All this has changed and knowledge of the habits and instincts of bees has made it possible for honey to be placed on the market in a palatable and economical form.

To remark on the great industrial changes of the last century has become almost trite, yet so powerfully have the changes affected our sex, that women have not yet adjusted themselves. All through the development of the race the home was the centre of industry and the women were proficient in many crafts. The advent of the steam engine changed all this and women have gone out from the home into the store, the factory and the office. But these changes did not affect the women in the country as much as their city sisters. On the farm there were yet many activities left for women, and it was an independent life as well. On almost every farm there were two sources of income which belonged almost unquestionably to the house or the women—these were the cows and the poultry. The income from these might not be large but at any rate it met much of the running expense, besides providing many an extra for the daugh-

ters. But the coming of the cheese factory, and later, the creamery placed the dairy industry on a different footing, butter making passing from the home to the factory. On some farms the tradition that the butter money belongs to the women still lingers but more often than not the monthly cheque is swallowed up in the general expenses. The poultry, however, were still left for the women, but the prevailing high prices of the last few years are drawing the men's attention and it seems likely that they will soon appropriate this last stronghold of women's independence on the farm. Only a few days ago I heard a young farmer remark with much interest and some pride that their turkeys brought them in over \$80. I knew that his taxes amounted to just about half that much and I have no doubt that much of the turkey money went to meet the bill. Now, how are our country women going to meet these changed conditions? Will the girls as they grow up have to leave the farm for shop and store and office in order to maintain some economic independence. Or is there still a chance for them on the farm? Undoubtedly there is; the old order has changed but the new is vastly fuller of opportunity than the old. It is true that more efficiency, more practical training are necessary to meet the situation, but the results to be gained are such as were altogether impossible 20 years ago.

And it is not only our independence which is at stake. Our usefulness in the community depends largely on our ability to do things, and more than this our common place, daily happiness depends upon it. Inefficiency, helplessness and incompetence are the sure seeds of dissatisfaction, discontent and despair. It's a big busy world and we must play our part in it wisely and well; new conditions have been forced upon us and we must face them bravely and squarely, determined that the women of to-day shall in no wise be put to shame by the women of the past.

How then are we to meet the problem which confronts us? The answer is ready at hand. This is the age of specialization and we must specialize along those lines for which nature has fitted us. Our dominion with the cow has passed forever, but in poultry, gardening and bee-keeping there are almost unlimited opportunities; it is my happy task this afternoon to tell you of the possibilities with bees—one of the least exploited and most promising fields for women in this country.

Although it may seem somewhat egotistical, a little of my own experience may serve to point out as well as anything else. What one woman has done another can do. It's not because of my own success that I choose my own story, but because the difficulties I have had to contend with will be fairly suggestive of what almost any woman would have to meet.

Indeed, I have had little of real success; yet my story so far is made up largely of futile efforts and many failures; perhaps because it is so commonplace it may be of more real value than if it were one of brilliant success. Until we have learned to extract the goodness and the sweetness out of failure we have not learned to live. Success is one of the most unsatisfactory things in life. We exult in it for a time but it leaves little behind it, whereas through failure we may learn the wisdom of the ages if we are made of the right stuff.

Now, it was from no matter of choice that I became a bee-keeper. We had always kept a few bees at home—enough to supply the house with honey. I took no part in their management other than to spread a wild alarm when they were swarming. About 10 years ago father purchased some 65 colonies with the intention of making bee-keeping his principal business. However, after the first enthusiasm had passed he found that he much preferred to stick to the farm. For two or three years we got on fairly well. Then a succession of hard winters, coupled

with poor management, depleted our stock until in the spring of '07 we were reduced to 18 weak colonies. Now it is here that I really come into the story. Up to that I had helped with the bees in the summer and during the winter was attending school in Toronto. Like a good many other girls I was filled with a warm idealism for the betterment of the world. The world, however, was wiser than I, and did not meet my efforts with approval, and finally to teach me wisdom I sat me down somewhat disheartened and discouraged at the humble task of bee-keeping, of building up and bringing to a paying basis our sadly neglected apiary.

And thus I found myself launched as my own boss. My equipment was in some respects better than most girls could start out with. It consisted of a good honey house and extractor both of which would have cost me more money than I could have afforded, and a cumbersome quantity of supplies. Unfortunately the hives were not of standard type and I am still using them, although I hope to change them sometime. These together with 18 weak colonies from which nothing could be expected that year, and general knowledge of bees completed my outfit.

The record of my first year is not to be proud of. Have you ever thought what a difficult thing it is for the average girl to manage a business on her own initiative. We are not trained for it and public opinion does not demand that we make good. A man has all the advantages in these things, and unless a woman is gifted with an unusual amount of business ability, she has a hard struggle. At the outset she has to develop a new attitude of mind, and almost a new set of instincts and this requires considerable perseverance. I know if it had not been for the determination to prove my own worth for something, there were many times when I should have been tempted to let go. I liked the work while I was at it, but after being away for a few

days it always cost me back to it again; the ing, the responsibility, the watchfulness, the untiring detail, all were new to me and difficult. Many attempts failed but there was always the hope of proving that here was something which I could carry to me at it. Just here I received encouragement to try templates taken up and be afraid to go ahead. stiffen your backbone times. There is no reason not to succeed in the end for the boys to spend the that's just the way they have just as good a r they have.

Now for a brief summary of what I have accomplished in my first year. I have had no expense for hives other than honey pails. The yield was only 300 lbs. of honey from 18 to 35 stocks. The honey was all required for winter feeding; spring count 1,000 pounds, price 10c., sugar \$40, put away for winter feeding; colonies put away for winter count '09, 40, honey 3,000 lbs., sugar \$40, put away for winter count 1910, 55. I promised wonderfully well for spring, but later proved a disappointment. As I anticipated to help me next season to increase my stock, and bring the number up to 80, ever, to feed heavily for winter, left about a profit of \$6 ever, in spite of the appointment, I feel well satisfied with my son's work, for at last I am myself master of the situation. I have my failures, but I know there is no reason why I cannot live. Indeed, I know that

ment, depleted our spring of '07 we were colonies. Now it is come into the story. I helped with the bees in spring the winter was in Toronto. Like a colony I was filled with a hope for the betterment of the colonies. However, I was wiser than I thought to meet my efforts with a woman who is able to teach me a somewhat disheartened the humble task of setting up and bringing our sadly neglected

I myself launched as a business in some of the most girls could start with a good honey both of which would cost more money than I could buy a cumbersome quantity of equipment. Fortunately the hives were of the best type and I am still in the hope to change these together with 18 colonies which nothing could be done in a year, and general business completed my outfit. My first year is not to be compared to what you ever thought of it is for the average business on her own in not trained for it and I do not demand that we in business has all the advantages, and unless a woman has a usual amount of business has a hard struggle. I have had to develop a new business and almost a new set of equipment requires considerable money now if it had not been for my own business to prove my own business, there were many who would have been tempted to do the work while I was being away for a few

days it always cost me an effort to go back to it again; the planning, the deciding, the responsibility, the constant watchfulness, the untiring attention to detail, all were new to me and all were difficult. Many and many a time I failed but there was always the incentive of proving that here was something which I could carry to success to keep me at it. Just here let me say a word of encouragement to the girl who contemplates taking up any business. Don't be afraid to go ahead. You'll have to strengthen your backbone a good many times. There is no reason why you should not succeed in the end. It's all right for the boys to spend the money and fail; that's just the way they learn, and you have just as good a right to do it as they have.

Now for a brief summary of what I have accomplished in my five seasons. I have had no expense for supplies other than honey pails. The first season I had only 300 lbs. of honey and increased from 18 to 35 stocks. The money for the honey was all required to buy sugar for winter feeding; spring count '08, 30, honey 1,000 pounds, price 9c. and 10c., sugar for winter feeding about \$140; colonies put away for winter 45. Spring count '09, 40, honey 3,000 pounds, price 10c., sugar \$40, put away for winter 56. Spring count 1910, 55. Last season promised wonderfully well early in the spring, but later proved a great disappointment. As I anticipated having my sister to help me next season, I was anxious to increase my stock, and was able to bring the number up to 85. I had, however, to feed heavily for winter, which left about a profit of \$60 clear. However, in spite of the apparent discouragement, I feel well satisfied with last season's work, for at last I begin to feel myself master of the situation. I shall have my failures, but I know that there is no reason why I cannot make a good living. Indeed, I know that I can look

after a sufficient number of colonies to net several hundred dollars a year.

Now, apart from the initial difficulties of which I have spoken, what are the special difficulties which we, as women, have to face in bee-keeping? The first difficulties which come to mind with most people are the stings and swarms. Now, there is no doubt that bees do sting, and there is also no doubt that it hurts—but you get used to it, and after you have become seasoned to it, the sting ceases to swell or to annoy afterwards. But I don't think the operation painless at any time. You hear people say sometimes that bees come to know those who work with them, and, in consequence, do not sting them. This may be so, but I think a good deal more lies in learning how to work with the bees. Undoubtedly there are some people whom bees will not sting but they are rare. You need not build much on belonging to that class if you are going into bee-keeping. The strains of bees vary greatly. I have seen some so cross that I wouldn't take them as a gift; while others can be handled with the greatest ease. The kind of clothing you wear also makes a difference. Bees greatly dislike anything black, and will sting it viciously. They also dislike woolly substances, and light colored cotton clothes are the best. Of course a veil is necessary to protect the face.

Now, as to swarming; this is no longer a difficulty, at least, not in the way it is popularly regarded. The prevention and management of swarms undoubtedly makes a great amount of work, but the day of panicking and tree-climbing have gone forever, and each year is improving the methods for the control of swarming. I have not time to tell you now how it is done, and you wouldn't care to listen if I did, but you do not need to think of the swarming as any reason for not going into bees.

But there is one real difficulty for women in bee-keeping, and that is the heavy lifting. Honey is heavy and there

always will be more or less lifting. There are various hive-lifting devices which ought to eliminate a good deal of this. I have never used one, but mean to try it next summer. In a late number of "Gleanings," there was an illustration of a reliable hive-lifting apparatus, especially recommended to lady bee-keepers. It was a man lifting a hive of bees, but occasionally when I have called one in to assist, have found it unsatisfactory. However, a partnership might be alright. It was highly recommended by some of the speakers at the last Ontario convention. But there is no kind of partnership I can vouch for. Two girls can work together to advantage. My sister sometimes helps me and then we have no difficulty with the heaviest hives. Certainly, unless you have a very good back I would not advise you to go into bee-keeping on a large scale, as the strain would be sure to tell.

There is also the mechanical part of the work, such as making supplies, packing cases, etc. Most women are at a considerable disadvantage here. However everything can be bought all ready for use, but of course at a greater cost. It is a great help to be able to use a saw and a hammer to some extent at least.

Now, for the other side of the picture, —the advantages. These are, as the advertisement says, "too numerous to mention"; but a few of the chief ones may be pointed out:

1st. It permits a girl to remain at home; anyone who has had an experience of boarding houses knows what this means.

2nd. Unlike poultry-keeping the work can all be done in the fine weather; in fact it HAS to be done then.

3rd. It leaves a good margin of time for other pursuits, save in the busiest seasons, and the winters are entirely free.

4th. The work is healthful, taking one into the open air and in touch with the great world of nature.

5th. It is interesting and sufficiently

difficult to require one's best energies.

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(To be continued).

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**WANTED**—Bees — Will those having bees for sale this spring, or those who know of any for sale, please communicate with Drawer A, Canadian Bee Journal, Brantford, Canada.

**HONEY BOUGHT**—Wanted first-class white or buckwheat extracted honey; also fancy and No. 1 comb honey. We can supply vessels. White honey wanted early. Foster & Holtermann, Limited, Brantford, Ontario.

**LEATHER COLOR ITALIAN QUEEN BEES FOR SALE**—Why not try one or more of Fuller's queens this year. No foul brood. Have had bees 29 years and have never had a case. Circular free. Untested queens, \$1.00 each O. F. Fuller, Blackstone, Mass., U.S.A.

**HONEY WANTED**—I want all your first-class honey. Let us arrange now and I can send you tins. I cannot handle to as good advantage late in the fall. G. A. Deadman, Brussels, Ont.

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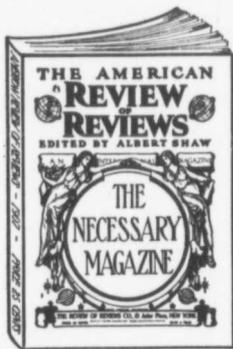
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an overwhelming total of tangible reasons for its wonderful success.

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The Oliver Typewriter is a powerful creative force in business—a veritable wealth producer. Its use multiplies business opportunities, widens business influence, promotes business success.

Thus the aggressive merchant or manufacturer can reach out for more business with trade-winning letters and price lists. By means of a "mailing list"—and The Oliver Typewriter—you can annex new trade territory.

Get this greatest of business aids—for 17 Cents a Day. Keep it busy. It will make your business grow.

### Aids Professional Men

To the professional man a typewriter is an indispensable aid.

Barristers, Clergymen, Physicians, Journalists, Architects, Engineers, and Public Accountants have learned to depend on the typewriter.

You can master The Oliver Typewriter in a few

minutes' practice. It will pay big daily dividends of satisfaction on the small investment of 17 Cents a Day.

### A Stepping-Stone to Success

For young people, The Oliver Typewriter is a stepping-stone to good positions and an advancement in business life.

The ability to operate a typewriter counts for more than letters of recommendation.

Start now, when you can own The Oliver Typewriter for pennies.

### Join the National Association of Penny Savers!

Every purchaser of The Oliver Typewriter for 17 Cents a Day is made an Honorary Member of the National Association of Penny Savers. A small first

payment brings the magnificent new Oliver Typewriter, the regular \$125 machine.

Then save 17 Cts. a Day and pay monthly. The Oliver Typewriter Catalogue and full details of "17 Cents a Day" Purchase Plan sent on request, by coupon or letter.

Address Sales Department

The Oliver Typewriter Company  
Oliver Typewriter Bldg., Chicago

(97)



# The OLIVER Typewriter

The Standard Visible Writer

### COUPON

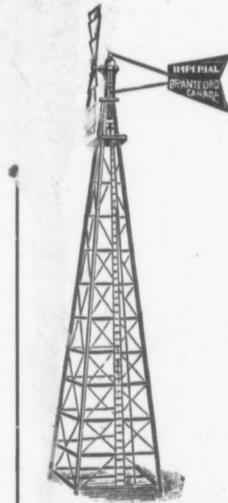
THE OLIVER TYPEWRITER CO.  
OLIVER TYPEWRITER BLDG., CHICAGO

Gentlemen: Please send your Art Catalogue and details of "17-Cent-a-Day" offer on The Oliver Typewriter.

Name.....

Address.....

# WINDMILLS



OUR TOWERS are girted every five feet apart, and double-braced. This doubly insures against accidents in storms. All Mills are galvanized after completion. This gives increased strength.

OUR MILLS have proven by test to be the best.

Gas and Gasoline Engines (stationary and mounted), Grain Grinders, Pumps, Tanks, Etc. Automatic Batch Concrete Mixers

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