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ANNUAL MEETING ONTARIO BEE-KEEPERS' ASSOCIATION

Past Winter Losses and the Lessons to be Drawn Therefrom.

(By R. F. Holtermann.)

In the Canadian Bee Journal for September appears a letter from the veteran statistician in the Department of Agriculure for the Dominion, Mr. Geo. Johnston, which reads in part as follows:

We certainly had a severe loss in our bees here. I lost all I had in Nova Scotia. East of the Ottawa I think more than 75 per cent of the colonies were lost. That would mean 53,000 or 4,000 colonies dead, leaving not more han 17,000 that came through the winer, while 50 per cent loss west of the ttawa would leave the stock of bees ot more than 60,000, giving in all 77,-00, where the census of 1901 gave a otal of 190,000. This is a terrible eath-rate, and at \$2 a colony the loss rough winter's action would not be r from a quarter of a million dolrs for bees alone, to say nothing of e loss of honey through not having bees. If the whole 77,000 give off o swarms this season, we would still 69,000 to 70,000 colonies short of at we were in 1900."

he above statement, coming from h a source, has upon it the stamp of authority. I had previously placed the percentage of loss at 70, which, in my estimation, is not too high.

In estimating the financial loss, we must remember that a great many of the combs and hives in which the bees perished have become useless, the combs having been destroyed by that enemy (and friend) of the bee-keeper -the moth. The hives sometimes find a market at a loss, but quite often the moth renders them parially valueless, carelessness and time completing the Three or four work of destruction. dollars per colony would be a very conservative estimate of the loss in bees and hives. Again, the majority of the colonies that survived were in too weak a condition to take proper advantage of the honey flow when it came, resulting in the loss through lack of workers of a large percentage of nectar which might have been harvested.

Looking at it from a national standpoint, there would be a financial loss to the country of at least half a million dollars, and a blow to the industry from which it will take years to recover. So much for the fact. Next in my address I am called upon to make deductions.

Webster's Dictionary gives as the meaning of "deduction" "that which is deducted or drawn from premises by a process of reasoning; an inference; a conclusion." Let me confess that this is a line of work I like, however feeble my powers may be to per-

Looking at bee-keeping as a form. whole, I see in many of the articles which are written for bee and agricultural papers in general, in the items in the general press, even in the addresses at conventions, and in the discussions which take place, a great many statements as to what the exponent does, or informing others what they should do, but painfully little as to how he should act under given conditions, and showing why it should be done in that way. There are laws in physics, in chemistry, in nature, which can be explained and made intelligible even a simple-minded individual. Without the above, in connection with instruction, there can be no intelligent action and no solid, intelligent progress.

Conditions studied are of prime importance and the foundation of successful action, and such a course would lead to greater harmony in our discussions, greater intelligence and greater progress in the bee-keeping industry, and vastly benefit us individually and collectively.

To learn to think truly, and not merely imitate or ape, would not only lessen the percent of winter loss, but would revolutionize many of our lives for time—yes, for eternity.

May we from last winter's experience come to the conclusion that Canada is not suited to this, the aesthetic branch of agriculure, or may we even say that it is not a safe branch of agriculure in Canada? Far be the thought from us! As to quality, wherever shown the quality of Canadian honey has proved itself to be unsurpassed. Judges, not Canadian, even foreigners, have again and again pronounced in favor of our British experts, honest men, honey. who have a love for a fostering interest in the development of bee-keeping in their own land, have told me and others that our Canadian honey leaves nothing to be desired. As far as winter is concerned, we have among us those who winter bees with as great certainty and success as the shepherd and the herdsman winters his flocks, and herds. In this respect, what one can do another may. Shall we then say that the past winter was a winter in which bees could not be wintered with success. We must admit it was the most disastrous for many years. To my recollection we have had none like it for 23 years, but both in repositories and outside bees were during the times under discussion wintered with success. Such a line of argument must then fall to the ground.

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Shall we then say that a great many do not know the conditions under which bees can be wintered with reasonable safety? If we can judge from what we see and hear, we may surely make this assertion with safety. There are many who do not know, who cannot know, the conditions under which bees can with reasonable safety be wintered. They have begun bee-keeping through the acquisition of a stray swarm, or the microbe of bee fever, which has taken root in their mind through the success of one who has devoted his time to the work. They see the returns, but not the labor. No literature upon the subject is sought: they have no proverbial "long-felt want" (or short either) for knowledge. An old hive is bought, perhaps, with foul brood germs. This neglected hive may be a breeding place for this disease and the moth During their short career as bee-keepers, if product they have, it is oftener than not taken in such a shape that when sold it depresses the market. They sell at a sacrifice. This class of bee-keepers is a menace to ap:cultural society, and cannot be too strongly discouraged. With the beginner who sees in it a business, and desires to engage in it in a business-like way, we individuals, and especially as an asso ciation having a Government grant, en trusted with public money, should have every sympathy,

Let us state the truth, that bee-keeping is an occupation full of problems, which multiply to our view as we gain experience and rise in it.

The occupation we know nothing of is the one which appears simple and easy to understand. Let us take home the wholesome lesson in spiritual, as well as temporal life, imparted when man fell: "In the sweat of thy face shalt thou eat bread." To produce good, evils must be resisted and difficulties overcome. We can easily recognize this class who do not know the conditions under which bees can be wintered with reasonable safety, There is, however, under this head another class, perhaps not so numerous, but more dangerous, who can do an immeasurable amount of harm in influencing the less-experienced and lessthoughtful bee-keeper. I refer to the blind leaders of the blind. It is a wellknown joke among veterans that when a bee-keeper has a little experience he knows more than he ever will again; he can tell you all about it; this he realizes he never can at a later stage of the game. I am fairly familiar with the various branches of agriculture. having been brought up on a farm, worked on a farm, taken a course at the Ontario Agricultural College, and kept in touch with the developments of modern agriculture since. Seeing from that standpoint, it seems to me that no class of agriculture is handicapped as bee-keeping is with such inefficient instructors and experiments in one way and another. Anything and any one is good enough to take the bee department, when in other lines it would not be offered or tolerated. These agencies, be they Government or private, by their action endorse the thought that it requires no training to keep bees, and these agencies help to swell the ranks of those who increase the percentage of winter loss, and who are a menace and a detriment to the agriculture of a country.

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Our world's Governments, if we except some countries in Europe, our public institutions, our press, in the development of our various branches of agriculture remind me largely of the unjust father who had a large family to provide for, and found it impossible to give every child a first-class education and position, so he sent some to school, college and university: they became noted men. Others, however, instead of educating them at school and university, were set preaking stones on the road. The children became marked contrasts: the former in time looked down with scorn upon the latter: the stone-breaker, as the eminent man's carriage went by, justly despised and perhaps envied his rich brother because he had been elevated by having given to him what was justly the stonebreaker's share, and the head of the family was judged for his partial action and condemned by every just and thoughtful person. Some branches of agriculture are rolling by in their carriage, whilst apiculture and apicultural markets are still in the stone-breaking stage.

Then we see those who know how to prepare their bees, but are too busy, too careless and too indifferent to put that knowledge into practice. We know of many who undertake too much, who have too many irons in the fire; the return they get for the capital invested is a loss, a reputation for lack of thoroughness, to say nothing of added worry and annoyance. The person who is constitutionally a little behind should never keep bees. The "too many irons in the fire" man never reaches the degree of success where success gives him a stimulus and pleasure of which the ordinary man knows We are in the days of the specialist; no man is competent to lead in a variety of agricultural subjects. My last deduction that last winter's experience and

years of experience, teach us that beekeeping is a branch of agriculture which punishes sooner or later the careless, inexperienced bee-keeper, and the person who cannot give it due attention. And it rewards liberally the careful, energetic, thrifty and studious performer, or in other words, it is worthy the attention of our brightest minds and dispositions. This last deduction is sound and the more we blazon abroad this fact the better for bee-keeping and the better for The more successful beecountry. keepers we have the less of the dangerous elements there will be. Beekeeping is an occupation peculiarly dangerous to one of a slothful or improvident disposition. Action has to be taken when present circumstances would not spur us to that action. To prepare for a honey flow, weeks, yes, months before, when cold would rather draw us to the fireside; to prepare for a rush of honey when scarcely a bee is stirring in the apiary requires energy and foresight. The life history of the bee, a knowledge of the best implements, mechanical training, botany, chemistry, entomology, physics and meterology, the nature of soils, physical strength, mental endowments, and business acumen possessed and applied, all will be rewarded when one engages in bee-keeping. This is more or less true of all branches of agriculture. In choosing a life profession the parent and child often choose a calling where the means, financial, mental and otherwise, can give no hope of being in anything but the vanguard of the profession; desire in this should be governed by solid sense. The careless and thoughtless and the poorly equipped and shiftless better not follow agriculture as a business, but select something which does not require so wide a range of information and powers. It would be better for him become a lawyer, a doctor, a merchant, a poli-

tician or the like. Strictly speaking, my subject ends here, and yet I venture an addition to what has been said, to say a few words upon the additional prevention of these winter losses. Seeing that every colony has a fertile queen, of the best wintering strain, and thirty pounds of winter stores, would reduce the percentage of winter loss very much. The colder it is the more compactly bees cluster. If stores do not reach the cluster they may not be able to break the cluster to reach the stores, and starve. This is frequently the case during prolonged cold spells, and only a moderate amount of stores in the hive.

The moisture given off by the bees should be expelled from the hive. After allowing in outside wintering sufficient packing to protect from cold, there are two methods advocated. By means of one the fresh air is brought in at the entrance of the hive, and the air laden with moisture and carbonie acid gas carried off at the same opening. The other method is to bring in the pure air at the entrance and carry the foul air by the pressure from the fresh air entering the hive, and the natural tendency for the warmed air to rise, by these means to carry the exhausted air through the packing above.

Arthur C. Miller in The "Review," lays down in no uncertain tones that the entrance is the proper opening for fresh air, and also the outlet for foul. In a stove we have the place where the fresh air enters, as in the hive we have the entrance to the hive In the wood we have combustion and oxidation, as with the bees and honey we have combustion and oxidation. When the fresh air entrance becomes the natural outlet for the smoke and carbonic acid gas, then the entrance to the hive will be the natural outlet for the exhausted air of the hive.

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we have what is known in science as a friction of air currents, the bees wasting energy in expelling it, as they do in forcing the warmed atmosphere down. Another objection is that more or less of the exhausted, impure air, must be drawn back into the hive by what is known as diffusion of gasses. But what makes this advice so dangerous in colder climates, and I have no doubt that this advice has led to the loss of many a colony of bees during the past winter, is that as the moisture-laden air returns to the colder parts of the hive it condenses and freezes, the distance inside the hive the moisture condenses depending upon the cluster, the size of the hive, size of the entrance, and the efficiency of the packing. Such conditions were common, and the cold and damp atmosphere with the frozen entrance destroyed the bees. Let me say that cold alone rarely kills bees. I saw in Norfolk during the latter part of March bees alive and apparently in fair condition, that had been standing out all winter in hives with upper stories and a 7-8 inch hive cover, the combs and the bees in lower chamber of the hive did not even have a thin cloth above them, the nearest protection was the warped 7-8 board at the top of the upper story. Cold was there surely abundance, but no moisture in the atmosphere about the bees.

The right method is the chimney principle; the foul air carried away at the top, packing enough to keep the bees warm, but not so abundant or so compact that the foulair could not rise through the packing of the hive. Here where the moisture leaves the hive the hive is warm, the heat of the cluster and the air rising, and no condensation takes place until the moisture reaches the top of the packing, or until it strikes the under side of the outside case cover. Here it can be disposed

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of at favorable periods, by allowing moderate ventilation under this cover. The common opening ventilator is wrong in principle in any climate, but particularly injurious and dangerous in a cold climate. I trust I have made this clear.

In inside wintering there have been heavy losses, chiefly in repositories which could not maintain an even and sufficiently high temperature. The moisture above mentioned has also not been carried off, this combination with low temperature resulting in heavy losses.

Our own repository, which will hold 1,000 colonies, and has this winter 700 in it, is specially built with the object of securing a uniform but sufficiently high temperature. The fresh and the foul air is not brought in at the same entrance, but for convenience and economy of space the back of the hive is raised two inches on the stand and 3-8 inches from the bottom board. Through this rear opening the foul air escapes.

In conclusion let me say, not alone will these periodic attacks occur to bee-keeping but the cheapest production and the best goods will not be secured, neither will we have our markets developed to their best until we secure that recognition for bee-keeping and that aid in the development of the industry which has been given to other branches of agriculture. We may bluster, we may make statements that beekeeping does not require such aid, but it cannot be shown by a line of logic that in this respect the principles which govern its development are different to other branches of agriculture. Dairymen would not go back to the days before it had no fostering care. Fruit growers value the help they are getting; the poultry industry has been put upon a more profitable footing; and so might bee-keeping have a new

era of prosperity under proper guidance.

Mr. Darling-I have listened attentively to the paper all through. I think the subject has been treated quite exhaustively, and yet in my opinion there has been one point that has been entirely overlooked. I don't think I ever saw a winter since I had anything to do with bees that the losses were so heavy as last year, but, outside what has been stated in that paper altogether, I think there was one great primary cause, and that was the dearth of nectar the season before. I will give you my reasons for saying so. I am one of those who lost very heavily. I had about 140 colonies a year ago last September, and this summer I went into clover with 16. I attribute the greater part of my loss to two thingsone that I had a little too much to attend to last year; the other was that our queens stopped breeding when the nectar stopped flowing and we went in o winter quarters with bees too old to pull through. The most of those colonies that dwindled left brood in all stages in the hive, but only a small quantity of it, and there were not enough of young bees left behind to take care of themselves, to say nothing of the eggs and larvae that was left. There was a man who had not so many colonies as I had, who lived eight or nine miles from where I was; he had doubled up to about 66. He fed 600 pounds of sugar before putting his bees away, and he lost nine out of the 66. I was out at his place in May, and he had them in fine condition. The fall feeding overeame to a certain extent the difficulties that had been caused by the dearth of honey in the summer, but a short, sharp feeding will not produce it. I don't know that he extended his feeding over a great length of time, but in our locality a few miles makes a great difference in the honey flow. I didn't get to pounds from over 100 colonics. He took a small quantity, but not much, and was wise enough not to rob his bees.

Mr. Hall-Mr. Darling allow me to state my experience; it is somewhat different from yours. We have three apiaries; the home apiary shut down last year about the 20th July: they didn't gather their food; they kept shrinking until the fruit bloom this spring. Out of 110 colonies of bees at home we lost two in the home yard, in the cellar, with abundance of honey. The reason of that loss was, they had no mother. The others were old bees, which hatched somewhere about the middle of July. Those old bees that did not breed, and consumed their honey, came into the honey harvest in grand condition. Some of them had foelishly started breeding in the cellar and came out very strong and hadn't sufficient honey to carry them through. I supplied their wants with a few pounds of syrup fed at the entrance. Another apiary we have a few miles from home we winter outside. Mr. Mc-Evoy advises us to shake them off upon small combs. His are small. Mine are 101/4 inches inside measure. I don't know how many we wintered of those. They gathered a large lot of honey last year. The 40 colonies gathered 4,800 pounds of white honey and increased to 70, and they were all of them heavy for the winter. Some of them we shook off upon combs with honey solidly capped. I lost 20 of these colonies from starvation. I was sick last spring and went out with my wife and assistant, thinking I could stand by and give them a little assistance, but I couldn't; I had to go to work and make myself sick again. Out of those 20 that died, allow me to tell you there was only one on the four combs that died, and that one was queenless; couldn't live if it had 50 combs. The secret of it was they couldn't breed in the winter. They didn't seem to exhaust the selves the

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same as yours did and some of mine, in breeding very hard in the spring. You know as well as I do the fellow with the grey hair very often gets that way with the big family he has to support. He raises them, and it uses up his vitality and he becomes prematurely old, and he leaves them behind. That was the way with your bees; they commence raising babies, and those babies required all their attention and made them get old sooner than they would otherwise have become, and therefore they died from exhaustion before the babies could come on to take their places. I rather encourage your idea of having young bees. We have an apiary nine miles east in the buckwheat region, and they went into winter quarters with 50 pounds without the hive, most of them. They didn't come out any better than the home bees practically, but they had the wherewithal to go to and feed their family, and they came into the honey harvest booming; they gave us abundance of honey, and they are in grand shape for wintering this season. the north the bees have given us no surplus this year, and we have had to take honey from that east aplary, 14 miles, to this north apiary to get those bees ready for winter.

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Mr. Chadwick--In reference to the ventilation on the tops of the hives. winter my bees in the cellar. My cellar temperature stands about 45 degrees almost constantly from the time they go in till they come out. I have been using cushions on top. Last fall I had more bees to put in than I had cushlons for, and I used the honey board. Invariably my bees came out with the honey board equally as good as those with the cushions with no ventilation whatever in the top. The front of my hive is something the same as the Langstroth, only it has 7-2ths of an inch in front left open for ventilation. Wouldn't it be advisable for me to take

off the honey board and bore a hole in the top of it, and put a little wire cloth over it? I haven't put my bees in winter quarters yet. Furthermore, I put in 76 colonies last winter—I think it was on the 20th November—and they were in the cellar five months and nearly a half, and I brought out 75.

Mr. Hall—And you are not satisfied with that?

Mr. Chadwick-Yes.

Mr. Hall—Keep at it, man. Don't ask advice from these fellows that don't succeed.

I have over 200 stock of bees, and there is not a cloth on one of them; there has not been for six years. I have 192 colonies; I lost two, and am satisfied with that.

Mr. Chadwick—For the summer season I have a cap that goes over the honey board, with a galvanized top in a framework, and it is possibly two inches above the honey board. I leave that off.

Mr. Hurley-Last fall, after I had treated my bees for foul brood, they were all fed were weak; they with sugar, and they had no honey only what I fed them. I put them in drygoods boxes ; I left the honey board on top; I used no cloth; I covered them with shavings about six to eight inches and they came out in the spring alive without a bit of mildew and as dry as could be.

Mr. Sibbald—My idea of ventilation in the hive is something like this, if our cellar or our packing case will keep the temperature high enough the bees will throw off moisture at the entrance all right, but if the temperature gets too low either in the cellar or outside we ought to have some upward ventilation so that it will pass off that way and be absorbed; put something over the top to take the moisture. You wont find any trouble with a good cellar and a good top board, and I do not think you will find any trouble outside; the heat of that colony at the entrance

will melt away everything; not even snow will stay there. An hour or after a snow storm the front will be open. The weaker the colony and the lower the temperature the more danger.

Mr. Heise—I think Mr. Sibbald has struck the vital point. I believe my loss was from that very cause. The temperature got very low and it continued there for weeks and weeks at a time and there wasn't sufficient heat. The bees couldn't generate sufficient heat to dispel the moisture and the result was their vitality was so reduced that while they came out clean and fine in the spring yet all of a sudden they went to pieces.

Mr. McEvoy—Did you winter these outside?

Mr. Heise-Yes.

Mr. McEvoy—Was that top fast on the brood chamber?

Mr. Heise—It was simply sitting on the rabbit on top of the rim. I use a hive for wintering outside without any packing whatever at the bottom or sides, but I have abundance of leaves on top; and while I have wintered successfully in those hives for a number of years I am ready to admit that in a winter like last that hive is not sufficient. I have yet in my yard possibly about seven or eight sawdust-packed hives that came through without a loss, while in the others I sustained a loss of about 40 per cent.

Mr. Purvis—De damp cellars have anything to do with loss of bees over that of dry cellars?

Mr. Holterman—The more moisture there is in the atmosphere the greater necessity of having higher temperature. The next thing a great many people make a mistake about is what they call a moist cellar. There may be moisture in parts of the cellar and yet the atmosphere not so very moist. One danger in connection with low temperature is condensation of moisture on the walls instead of passing off

through a proper channel of ventilation. It stays there and the atmosphere stays moist.

Last year we tried some stocks leaving the cover on, and that is five-eighths inch wood and a galvanized top; we set them up at the back so that they had ventilation, too. Those stocks seemed to winter with perfect success in the cellar and I have almost decided to put all in the cellar next winter leaving the cover on.

Mr. Purvis—And give no ventilation at all?

Mr. Holtermann-Not from the top.

Mr. Chadwick-My ventilation to the bees is all in front. I have a foundation five inches from the cellar bottom. I put down the first five then the next on top of the honey boards of the one below, five feet deep. I have a room about twelve by sixteen feet that I expect this year to put 100 in. Last year I had a chain pump log with a hole of about an inch and a half. had that extending from the cellar through the window and outdoors; all around it at the window was thoroughly packed with sand and loam. The Saturday before Easter I got a three-inch pipe to go through there. I thought probably they would require more air in the cellar. I govern that from the outside; if it is extremely cold I shut it up tight from the out-Would a three-inch bore be side. sufficient in ventilating a cellar out through the window that way ?.

Mr. Holtermann—Our cellar is specially built and there are no openings in it as there are generally. The wall is not built tight and the ventilator runs about 100 feet, eight feet under ground, it enters a central chamber, from which it is distributed and the cellar can be heated when necessary, by means of a stove which stands in this central chamber. If you have taken your bees out of winter quarters without signs of breeding then I would

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say never mind what anybody else does, go on and do it in that way.

Mr. Pettit-Mr. Holtermann and tried the same experiment, without consulting each other. My usual method has been to have a chaff cushion on top of the hive. I use white duck for a cloth. I turn the edge of this back a few inches and put common cotton over that space. That allows upward ventilation through the chaff Every hive has that and cushion. they are piled up in the same way Mr. Chadwick mentioned. Besides this they are raised up at the back off the bottom board three-eighths of an inch, which gives free ventilation at the bottom and this small amount of upward ventilation through the cushion. Last winter I tried several hives with the cover clamped on tight. The cover was three-eighths of an inch of board and half an inch of felt paper and painted cotton over the top, which I consider made a warm and practically air-tight cover, so that the top of the hive was practically air-tight, but it had the bottom ventilation all round. The hives I put in that way came out fully as well, if not a little better, than those that had the upward ventilation. The temperature in the cellar ran from 38 in extremely cold weather, to 42.

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Mr. Hall—Our temperature in the cellar runs from 44 to 48, and I winter them without top at all and it doesn't seem to make any difference.

Mr. Darling—I have been in Mr. Hall's cellar and I think he has one of the best-ventilated cellars I ever saw. I don't think there is very much variation of temperature. I used to use sawdust cushions, and I was very particular to get very fine sawdust. I used common factory cotton to make the tick of, and I was very particular not to have any propolis sheets on and I was careful in other ways. I found if I laid a piece of lath on top of that cushion there was a wet streak about

the width and length of that lath all the way on the cushion. About three years ago I was not able to put the bees away myself and I got a pretty strong man to carry them in, there was a storm likely to come on and they went in in a hurry; I thought I would get them straightened up afterwards. We got about half of the hives put away, and the other half were carried in and I intended to put them on the racks afterwards which I have up from the floor nearly the height of these chair bottoms, so that they might not be in the way of the bad air. The hives were piled up one on top of the other, three or four high. It transpired that it was along in the winter before I was able to touch them. had examined them three or four times without disturbing them at all, and they were getting along so nicely thought I would leave them alone. left them there till spring and took them out, and some of the best colonies that went out of that cellar went out of those piles that had been set right on the floor, and it wasn't the top ones either. There is not a cushion on my bees to-day. I put them away last week. I have left the propolis sheets on some of them; I have put a nice seven-eighths inch cover laid on top, on others I have just picked up any stray piece of board I had and laid on until every hive has a board on top of that sheet. Those hives that came through successfully last winter were covered up in the same way. Unless something changes me I don't think I will ever make another cushion.

Do not pound a tin pan when the bees swarm. It may injure the pan, and does no good, unless it may be to let your neighbors know your bees are swarming.—Modern Farmer.

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EDITORIAL NOTES.

One of the most favorable symptoms we have noticed of the growth of intelligent bee-keeping is the increased interest that is being taken in local Associations. The Provincial Association has in these affiliated societies a valuable and fruitful field for working out many of the problems of the industry, if properly handled.

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We had the pleasure of attending the Middlesex County Association meeting on May 6th at London. Reports there of wintering were good and prospects for the season said to be very favorable. The president, Mr. R. H. Smith, gave a sketch of his visit to Jamaica, and his bee-keeping experiences there, which was very interesting. He also exhibited samples of the famous logwood honey.

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Brant County Association meeting, May 23rd, was favored with a visit from Mr. Wm. McEvoy, Woodburn; Mr. F. A. Gemmell, London; Mr. James Armstrong, Cheapside; Mr. Jacob Alpaugh, Galt, and Mr. Morley Pettit, Belmont. A very helpful time was. spent discussing subjects of bee-keeping. Judicious, stimulative feeding in spring was favored by most of those present. Mr. Alpaugh gave his experience of supplying artificial pollan. Discussion showed that a deficiency in pollan was often a great drawback to brood rearing in early spring.

Under the title of "Producing both comb and extracted honey from the same super," Mr. E. D. Townsend of Remus, Mich., contributes a seasonable and very valuable article for comb honey producers, in "Gleanings in Bee Culture." The value of the system described, to our mind, consists not so much in the possibility of producing comb and extracted honey in the same super, as its advantages in inducing the bees to work in the sections. The principal objection to raising comb honey has been the difficulty of getting the bees to enter the section super. They will sulk and hang out in front of the hive, and often swarm rather than enter the sections, and any plan that will overcome this will be hailed with delight by the comb honey producer. Mr. E. D. Townsend gives the credit of the origin of the system to Mr. C. H. Townsend of Otsego, Mich., which is as follows:

In arranging the super, use two super springs to each super, one at each end: and when I speak of extractingcombs I mean those that are white and nice-no brood ever raised in them. The first super given each colony at the approach of the honey-flow is arranged with one shallow extractingcomb at each side, and one in the centre; the rest of the super is filled with clean sections, with full sheets of foundation; then when this super is partly filled with honey, the usual time for giving a second super, in fact, all the supers given after the first are placed under the previous one, and are always arranged with one comb at each outside of the super

Now, when we guess we shall need only one more super to hold the rest of the honey-flow, a super of all drawn

combs is given on top.

Doesn't it begin to appear to you that there are great possibilities for this system in the future? Mr. Townsend claims for this system much more comb honey, and quite a quantity of the finest grade of extracted per colony.

The great point in favor of this system is the stimulus the extractingcombs give a colony, causing them to tra one nes but our their like or cent the

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ences rop c go above immediately, as soon as there is just a little honey in the field; thus the brood nest is kept in almost the same condition that is secured in the production of extracted honey, this causing very much less swarming, and keeps the colony in that condition so essential to the best results in honey production. Then the bait-comb nuisance is done away with. This in itself is enough to make it worth while to adopt this new system.

Mr. Townsend uses a closed-end extracting-frame that fits his super. Any one can figure out the size and thickness of frame that will fit his super: but we prefer 1 3-4 inch spacing in our extracting operations, but of course there are no separators used in them. If separators are used, as would be likely in a comb-honey super, 1 7-8 or perhaps 2 inches from centre to centre would be nearer right. Likely the width of one's super would determine to quite an extent the spacing he would have to adopt. Make them Isn't this a grand fit your super. idea, this using an extracting-comb in the outside of each super, making this part of the super that is usually finished last the first that is commenced with this condition secured. Is there any question in the mind of the experienced comb-honey producer that the rest of the super containing sections will be drawn out with astonishing rapidity, thus securing that ideal finish so much sought after, and heretofore secured in only a lavish honeyflow? I predict a great future for this system.

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We would like to have this thoroughly tested and reported upon within the next few months, for the benefit of readers of the C. B. J. Editor Root, of "Gleanings," commenting favorably on the scheme, suggests that it can easily be carried out by appliances which bee-keepers have already on hand, for instance a sectionholder could be readily made into an extractng frame by nailing in a top bar between the two ends, so that it would ome flush with the top of the ends. rom this top bar might hang a full heet of foundation, one could even put ences on either side. After the honey rop cut out the comb as so much chunk honey, or better perhaps extract and save the empty comb for bait on the Townsend plan for the following season.

HOSHAL'S SYSTEM—AN EXPERI-

Editor Canadian Bee Journal:

Dear Sir,-No doubt there are a great many beginners in bee-keeping who have read Mr. Hoshal's address in your 'journal. I will add a little of my experience for their information. He says (page 61) "You raise the cover and a few puffs from the smoker will send the queen down out of the upper into the lower case, then place a queen excluder between." I have tried this with two-story, eight-frame L hives, and in every instance it started swarming in a few days. If a case of empty combs is placed between the two parts of the brood nest they will still act the same. I find it better to place the top story on the bottom board and the lower on top with a queen excluder on that, this will send what honey there is into the extracting combs, but these stocks are hard to handle for a beginner with eight-frame L hives. I find a colony that fills that size will give a very good crop of honey. My season lasts about from June 10 or 12 until July 15 or 20, so suppose my bees requires about the same treatment as Mr. Hoshal's.

Another matter—How many of us have had our home market for honey literally killed by corn syrup, 20 lbs. for a dollar? Can the O.B.K.A. not do something to persuade the government to have this stuff sold under its proper name—glucose—as has been done with artificial butter? If we could have this done we would not have so much difficulty in finding demand for our honey C. B.

Lanark Co.

Canadian Bee Journal, two years' subscription, \$1.50.

NOTES AND COMMENTS

By a York County Bee-Keeper

Finding Queen Cells Without Opening Hives.

Some time ago Editor Hutchinson, in the "Bee-keepers' Review," stated that a bee-keeper in New York state had a plan of detecting when queen cells were started in a hive without going to the trouble of opening the hive or moving frames. The discoverer of the plan refused to give the secret to the fraternity without remuneration, and Editor Hutchinson asked for a number of bee-keepers to forward a dollar each and if enough money was raised, the plan would be published in the "Review." Nothing further has been heard of the plan, and we have been wondering if the hive-tipping clamp written of in May "Review" is the plan before referred to. Clamps are so constructed as to hold supers fast to the hive body, then a lever is attached and the hive is tipped up from the bottom board, allowing the apiarist to "squint" up among the combs and see if any queen cells are started. Suppose it would work all right with small hives ran for comb honey, but with my "barns," with extracting supers on, block and tackle would have to accompany the outfit.

Unripe Honey-A Dealer's Opinion,

Glad to note that that extensive honey handler of Chicago, Mr. R. A. Barnett, in no uncertain tones condemns the practice of putting unripe honey on the markets. In an interesting article in "Gleanings in Bee Culture," among other things, he says that the green stuff has done more than all other things combined to kill the extracted honey market. Surely it is

time for the "green goods" man to call a halt.

Jottings From the Apiary.

Having just finished clipping over 200 queens, a few remarks as to how to do it may not be out of place. Previous to this season have been used to catching queens with right hand, transferleft and then clipping the ring to wings with the scissors. This plan has the objection of sometimes causing the bees to ball the queen, as I found out last year with at least two good queens. During the winter I read of some one who clipped the queen on the comb without touching her with the fingers at all. When I first tried the plan, I thought it simply impossible but after a little practice came to the conclusion that it is the plan pur excellence. Hold the comb with the left hand and with a small pair of scissors in the right catch the wing or wings, and the job is done without the queen or bees hardly being aware of the fact. Re the advisability of clipping, believe it would pay some bee-keepers if they were forced to practice clipping; at least one thorough examination of the brood chamber is made each year, and foul brood is not likely to make such headway as it does in some cases I have known where the hives were hardly ever opened.

Shall We Kill Off Queens When Two there

A difficult question to answer. At one yard queens of all ages were left and nearly all are in first-class condition. At the other two yards, in like condition last fall, just 12 per cent of the queens falled this spring. Some one says "Spring dwindling." No; the bees are mostly in good condition. A goodly number, although in big hives are storing in supers from apple bloss soms. As to ages of queens, am reminded that I have a Carniolan queet that is six years old this summer, and is now at the head of a rousing colony. A year ago, when clipping, the hive

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was marked "Old, failing queen," and naturally expected she would be superseded during the honey flow. Imagine our surprise at finding her still on duty this spring. She is very decrepit, and hardly looks like a queen, being barely able to walk; nevertheless, the colony is strong enough to store from apple bloom, Said hive is only equal to 12 Quinby frames, with super of like capacity. Wonder if it would not be a good thing to breed from a queen like that? If there is any virtue in longevity her stock ought to fill the bill.

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A Visit to Victoria Co.

It was our privilege to spend the Easter holidays in the splendid beekeeping districts of Mariposa township and town of Lindsay. This part of the country is unique in the fact that it is a splendid alsike district, as well as a fair buckwheat section. A combination which very rarely exists. Lest some might think of moving there allow me to say that there are already there probably more bees to the square mile than in any other county in Ontario. Victoria association held their annual meeting on Good Friday in Little Britain. There was a fair attendance and much interest taken in the discussions, considerable time being given to the "unripe honey" question. Bees have wintered well up there and prospects are of the brightest for a good crop of honey.

We spent the following Saturday visleft ting the veteran bee-keeper, Mr. Storer ndiof Lindsay. Mr. Storer runs some like 200 colonies bringing them all home to it o winter in the cellar. On the day of Some my visit he had 50 colonies in the celthe ar yet, which appeared to be in splenid condition, in fact they were so ives ulet that one had to listen closely to ear the very low hum they were mak-1 re ng. Of the 150 taken out of the cel-|uee ar nearly all appeared to be in exan ellent shape. Mr. Storer uses lon' uinby frame, has an inch hole bored hiv

through the front of every hive, about the centre, and leaves this open for cellar or outdoor wintering. Mr. Storer was for a number of years foreman in the G. T. R. shops at Lindsay, being a thorough mechanic in every sense of the word. Knowing this, we naturally expected to find a pretty neat outfit. Needless to say, we were not disappointed, and from what we saw would place Mr. Stover among the first list of Ontario honey producers. Let me whisper that, while somewhat of a bungler myself, we do like to run across nicely conducted apiaries, so of a necessity my advice to others will always have to be rather "to do as I say not as I do."

A Correction.

In April "Notes," page 92, don't know who is at fault, the printer or myself, but that senseless phrase at the bottom of the pages will nevertheless stand correction. It should read: "Mr. Dadant says do not overboil and Mr. Townsend says don't boil." Presume it would be quite a job to render wax without "melting" it.

A Peculiar Season for the Bees.

Spring with us has been cold and backward, and at this date (May -1) cherries, plums and apples are all in bloom at once—something that has never come under our notice before. Clover is correspondingly late, and with bees ready for business we are not yet feeling "blue" as to prospects for a honey crop. As "there is many a slip 'twixt cup and lip," will defer sending in crop reports until a later date,

York Co., Ont.

Do not get the notion that beekeeping is a good thing for the lazy man or woman, or for one who has made a failure of everything else. You cannot sit at your desk with a telephone near at hand and keep bees like some men run their business, by proxy.

Modern Farmer,

MAKING PROFITABLE INCREASE AND CONTROLLING SWARMING.

(By E. W. Alexander, N. Y.)

This subject has received perhaps as much thought and study as any other one thing connected with bee-keeping, and I will try to show that, with proper management, you can have two colonies, each nearly equal to what the mother colony would have been, for the clover harvest, if not divided, and fully equal for a later harvest.

In calling your attention to this matter I take it for granted that you keep bees (like myself) for the purpose of making the most money out of them that you can, regardless of increase or the number of colonies you may have. Simply make what increase will add to your present season's crop of honey. In the first place, let me impress upon your mind the importance of doing everything in your power, not only to build up all your colonies as strong in bees as you can after taking them from their winter quarters, but to keep them in that condition to the end of the season; for without strong colonies we cannot expect much surplus. As the day is now past when natural swarming is desired by any progressive beekeeper we will turn our attention to some practical way of making artificial increase.

The most common way of doing this is either forming nuclei and afterward building them up into strong colonies. or dividing a strong colony once by putting a greater part of the bees with their queen into an empty hive on the old stand, and setting the old hive containing the brood away some distance in a new place. of these methods has some serious faults. The nucleus method usually requires so much time that frequent-

ly the best part of the harvest is past before they are in a condition to take advantage of it. They also require much work and attention; and the other way of dividing the strong colony is all wrong in every respect. I think I hear some of you say, "Yes, but that is about the same as natural swarming, only the old hive is set on a new stand." I will admit it is something the same, though not half so good; for in natural swarming, the old hive on its old stand retains a part of its working force, and matures all its brood; whereas, if divided, as is frequently done after its queen and most of its working force are left on the old stand, and it finds itself in a new place without its queen, the greater part of the bees that have ever been out to fly will return to the old stand and join the swarm, leaving the old hive with all its brood in a deserted condition Then the few remaining bees will destroy every egg and nearly all the uncapped larvae. Here you lose enough brood, many times, to make nearly a swarm.

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After studying on this subject for many years, and trying everything I could think of to prevent this loss of brood in making our increase, and at the same time avoid the loss of valuable time in fussing with nuclei, and at all times keeping every colony in good condition to take advantage of any unexpected harvest that might have come, I hit on what I consider the most all y practical way of making increase of whol anything I have ever tried or heard of color It is this:

Go to the colony you wish to divide: lift it from its stand, and out in its place a hive containing frames of com or foundation the same as you would put the swarm in, providing it had jus swarmed. Now remove the centre comb from your empty hive and put it its place a frame of brood, either from the hive you wish to divide or som

other colony that can spare one, and be sure you find the queen and put her on this frame of brood in the new Now put a queen-excluding honey-board on top of this new hive that contains the queen and frame of brood with their empty combs; then set your full queenless colony on top of the excluder; put the empty comb or frame of foundation wherever you got your frame of brood and close up the hives except the entrance. Now leave them about ten or eleven days in this shape, during which time the queen will get a fine lot of brood started in the lower hive, and every egg and particle of larva that was in the old hive on top will have matured so it will be capped over and saved: then separate them putting the old hive on a new stand. It will then be full of mostly young bees and capped brood. and in about 24 hours they will accept a ripe cell, a virgin, or a laying queen, as they will realize that they are hopelessly queenless. I would advise you to give them a laying queen. as I never like to keep my full colonies a day longer without a queen than I can help. In this way you have two strong colonies from one, as you have not lost a particle of brood or checked the laying of your queen; and with me it almost wholly prevents swarming. This is the way we have made our increase for several years, and we like it much better than anything else we have ever tried. In doing so you keep all your colonies strong during whole summer, and it is the strong d of colonies that count in giving us our surplus. The mere fact of having a vide: large number of colonies does not amn its ount to much unless they are strong in comb bees and well cared for at all times. vould This is a fact that many have sadly 1 jus everlooked: and when the season entr omes to a close, giving them a small out i surplus, they feel disappointed, and lay fron he fault on many things that have

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had but litle to do with their failure.

In making your increase in the above way your new swarm on the old stand is in fine shape for a clamp of sections. as it has a large working force backed up by having its hive nearly full of brood, and but little honey, as the bees have been in the habit of storing their honey in the old hive that was on top, so they will soon go to work in the sections and have no notion of swarming. Then the old hive that has been set away can usually spare 15 or 20 pounds of honey, which can be taken with the extractor, giving its new queen plenty of room to lay, and in a short time will be one of your best colonies, and also have no desire to swarm. Now, if you have done your duty by your bees since taking them from their winter quarters you can have two good strong colonies in the place of one, ready to commence work on your clover harvest, which here commences about June 15.

From an extensive experience along this line I find I can get nearly twice the amount of surplus by dividing as above stated over what I was able to acquire either by letting them go undivided or dividing in a way that caused the loss of a greater part of their brood. This losing of brood we must guard against at all times, if we expect to secure a fine surplus. It costs both time and honey to produce it, and it is the principal factor in obtaining those strong colonies that gives us tons of honey

Far too many bee-keepers think that the value of their apiary consists in the number of colonies they keep. This is so only to a certain extent: for if you had 1,000 colonies, and they were all weak in bees, so they would give you no surplus, they would not be worth as much as one good strong colony that would give you two or three hundred pounds of honey.

Several years ago one of my sons

bought nine colonies of bees in common box hives about the first of June. He brought them home and transferred them at once to movable-frame hives, and in about three weeks divided them. making 20 colonies of the nine bought, using some queen-cells I had on hand for his surplus colonies. He then attended to those 20 colonies so they were all strong at the commencement of our buckwheat harvest. I then lent him 20 hives of empty combs to put on top of his colonies to extract from. He took 2849 pounds of extracted honey from those nine colonies and their increase, and left them in good condition, so every one came out the next spring in fine order. Another son, the same season took one colony, divided into three, and received 347 lbs. extracted honey. They also came through the following winter in good condition.

I speak of these cases simply to show that it is not necessary to keep hundreds of colonies in order to get a little honey. If you will only keep strong colonies, and give them the best of care, you will soon find both pleasure and profit in bee-keeping.

-Gleanings in Bee Culture.

THE GERMAN WAX PRESS.

In the "Leipziger Bienen-Zeitung" is asked and asnwered a question which shows that the thought of some of the German bee-keepers is running in a direction the same as some of our own.

Question—Is it possibly profitable, when one is rendering wax through the steam wax press to boil the comb in a large kettle before turning them into the press.

Answer—I do not think that the above method has any manifest advantage. If the wax press is considered in a rational way it is not necessary. The steam will plentifully melt all the wax so there will be no loss. Of course, we at once admit that if the comb is heated before putting into the press a large quantity can be pressed at a

time. But when one counts the time and inconvenience of such a previous cooking it is less trouble to heat the comb in the steam press. It also appears to me that one may get less wax by previous boiling, as in the larger quantity there is greater likelihood of the material forming in lumps or balls."

I would strongly favor previous melting, life is too short for me to melt the comb in the German wax press, and if by any means the pressure is applied before the comb has been melted there is great delay waiting for the steam to penetrate the now solid-pressed mass.

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THE HONEY PRODUCERS' LEAGUE

Editor Canadian Bee Journal:

In the April 15th number of "Gleanings" I see that what is called "The Honey Producers' League" has been formed on the other side. In the centre of the preamble a paragraph reads as follows: "A large share of last year's honey crop is still unsold, while the market is practically dead, as is easily shown by reference to the market reports. The crop of the coming season will soon be here, and should it prove a bountiful one, with last year's crop still unsold, where will prices go then? We may as well face the situation Then comes the all-importsquarely. ant question: "What shall we do about it ?" This is really a deplorable situation for the bee-keepers of the United States to find themserves in.

I see that W. Z. Hutchinson has been appointed secretary. A few years ago he was advising bee-keepers through his paper to "keep more colonies." This, along with a few other things, of minor import, has, no doubt, brought about the present state of affairs in his coun-I took exception to his advice over a year ago, in the columns of the Canadian Bee Journal, and I noticed some other bee-keepers on the other side did also, in the American bee papers. I have no fault to find with the new organization, and hope it will be a long time before a similar one will be needed in Canada.

Bees have wintered fairly well in this locality, with one or two exceptions where they did not get the proper care. The spring has been cold and backward so far and will cause some spring dwindling.

W. H. KIRBY,

Oshawa, April 24, 1905.

The Honey Producers' League

Prospectus and Constitution

A crisis has been reached in beekeeping. The time is now here when bee-keepers must band together, as never before, fight an insidious foe, and cope with the conditions of modern imes, In short, the wide-spread ignorance regarding the value of honey as a ood (its deliciousness, cheapness and ligestibility), coupled with an almost miversal belief in its adulteration, ars which belief is fostered by the conthe inued publication of untruthful stories sily so-called cncerning manufactured re-LSOn omb honey, to which may be added rove he fact that cheap syrups are being crop ushed upon the market with great ien? igor-all these combined are depresstion ig the honey market beyond all preceortbout ent; and, unless something is done to tuaounteract these influences, our occuiited ation, or, at least, a good share of its rofitableness, will soon be gone. been

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is practically dead, as is easily shown by reference to the market reports. The crop of the coming season will soon be here, and, should it prove a bountiful one, with last year's crop still unsold, where will prices go then? We may as well face the situation squarely. Then comes the all-important question, What shall we do about it?

Three or four of us began recently to discuss this question, privately, by mail, and we decided to act promptly, to the extent of summoning (some by telephone and telegraph) to a conference in Chicago some eight or ten representative manufacturers. publishers and honey-producers. As a result such a meeting was held March 14th and 15th, the whole two days being occupied in forming an organization, and in discussing ways and means whereby said organization can increase the demand for honey.

The first step was the drafting of a constitution, which reads as follows:

Constitution

Art. I-Name and Headquarters. the Sec. 1-The name of this organizaother n shall be "The Honey Producers' paague.'

Its headquarters shall be Chigo, Ill.

Art. II-Objects.

ts objects shall be to create a larger this mand for honey by popularizing its ions among the consuming public care ough advertising in newspapers and rack gazines its great value as a food, I by such other methods as may be pring sidered advisable by the Executive ard. Also by publication of facts cerning the production of honey to counteract any misrepresentation of the same.

Art. III-Membership and Dues.

Sec. 1-Any bee-keeper may become a member by paying to the Manager an annual fee of \$1 for each 20 (or fraction of 20) colonies of bees (spring count) he owns or operates.

Sec. 2-Any honey dealer, bee-supply de ler, bee-supply manufacturer. bee-paper publisher, or any other firm or individual, may become a member on the annual payment of a fee of \$10, increased by one-fifth of one (1) per cent of his or its capital used in the allied interests of bee-keeping.

article.

Sec. 3—The annual dues shall be payable in advance, on or before May 1 of each year.

Sec. 4—Membership shall cease when dues are in arrears three months.

Art. IV—Executive Board.
Sec. 1—An Executive Board consisting of seven members shall be elected by mail ballot annually in the month of March (after the first election), the ballots to be sent to the membership between March 1 and 5, the polls to be closed at noon April 1. They shall be the seven members receiving the highest number of votes cast. In case of a tie-vote the other members of the Board shall decide it.

Sec. 2—The votes shall be mailed to the Secretary, who, with another member to be selected by the balance of the Executive Board, shall together count the votes and certify the result to the Manager, who shall then forward copies of the same to the United tates beepapers for publication, and also give same in his annual report.

Sec. 3—The Executive Board shall have the general management of the League, and shall elect from their number the officers named in Article V, Sec. 1, who shall execute the orders of the Board, and hold their several offices until their successors are elected and qualified.

Sec. 4—The Executive Board shall meet annually, on the third Wednesday in April, in Chicago, for the election of officers, and for the transaction of such other business as may regularly come before it.

Sec. 5—Special meetings of the Executive Board shall be held when called by the President upon request of three or more members of the Board.

Art. V-Officers.

Sec. 1—The officers shall be a President, Vice-President, Secretary, Treasurer and Manager.

Sec. 2—The duties of the President and Vice-President shall be such as usually devolve upon these officers.

Sec. 3—The duties of the Secretary

shall be to keep a record of the meetings of the Executive Board, and to count the ballots of all votes of the membership, as provided by Art. IV, Sec. 2, the result of which he is to forward at once to the Manager.

Sec. 4—The Treasurer shall keep a record of all moneys received from the Manager, giving his receipt therefor; and he shall pay out funds only on bills approved as per Sec. 5 of this

Sec. 5-The duties of the Manager shall be to conduct the actual business of the League as directed by the Executive Board; to keep a list of the membership; to account for all moneys received, and turn same over to the Treasurer, taking his receipt therefor; to prepare and mail in March of each year, to the membership, an annua report containing a financial statement and such other matters as would be o interest to all concerned, including all ballots and amendments; and to issue orders on the Treasurer for payment of all bills, when countersigned by the President.

Sec. 6—The Treasurer and Manage shall each furnish such bond as shall be satisfactory to the Executive Board

Art. VI—Selaries and Expenses. Sec. 1—No salary shall be paid an officer of this League, but the acturexpense of holding meetings of the Executive Board (when they deem succeedings) shall be paid from the general expense-fund.

Sec. 2—There shall be an allowant of five (5) per cent of the cash receipt to cover all general expenses. such a printing, meetings of the Executing Board, etc., the remaining ninety-fit (95) per cent to be applied on the advertising proper.

Art. VII-Amendments.

This Constitution may be amend by a two-thirds vote of the membersh at any regular election, provided su proposed amendment be first submitt to the Executive Board and approvby it.

Minutes of First Meeting

A temporary organization was effected and the foregoing Constitution adopted, when, upon motion of Ralph W. Boyden, the following members were elected as an Executive Board:

Dr. C. C. Miller, W. Z. Hutchins Arthur L. Boyden, George W. Yo C. P. Dadant, N. E. France and George C. Lewis.

A permanent organization was the

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formed, and the following officers elected: President, Dr. C. C. Miller; Vice-President, George C. Lewis; Secretary. W. Z. Hutchinson; Treasurer, Arthur L. Boyden; Manager, George W. York.

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Before adjourning it was resolved to do no general advertising until there is at least \$5,000 in the hands of the Treasurer; the Manager was instructed to take the necessary steps for securing the incorporation of the League; and the Secretary and Manager were appointed a committee to prepare the necessary literature for use in soliciting membership.

Some Questions Answered

While the Constitution quite clearly outlines the aims and objects of the League, a few questions will naturally spring to the lips of one who contemplates joining its ranks, hence it may be well to answer in advance as many as possible of them.

Naturally, the first question asked will be: "Why form a new organization, when the constitution of the National allows the use of its funds for such work?" Principally, because the National has not enough money at its command to do the work effectively, and it could not raise enough without a change in its Constitution, as, at present, only one extra assessment of \$1.00 per member can be made each year, while the work of advertising, to be effective, requires thousands of dollars at once.

Perhaps some will ask why the matter was not discussed in advance in the bee-papers, and a public meeting called. Why was the matter kept quiet, and the work done with apparent secrecy? It was done so quickly, simply to save time. When the true situation had fairly dawned upon the three or four who were first discussing the matter, it became equally apparent that only by the most prompt and active work could anything be done that would help the sale of the last year's honey crop before the coming of this year's crop.

Some may wonder why the members of the Executive Board were all chosen so near Chicago. They were thus chosen that they might quickly and cheaply attend Board meetings. an important question requiring immediate action come up, telegrams sent every member in the afternoon would enable them to be in Chicago the next If any mistake has been morning. made in the choice of officers, it can be corrected at the next election. As it is, however, it is doubtful if a set of officers can be chosen who would have more completely at heart the success of the undertaking. Besides this, they are all friendly to one another, and will work harmoniously as a unit.

It may be asked why no salaries are paid the officers. If these men are willing to give so freely of their money, they should be equally willing to give their time; besides, if they were paid salaries, many might be inclined to look upon the whole thing as a scheme on the part of the officers to put money into their own pockets. As it is, these men are really putting in their time, money, and energies, expecting no reward except such as will come to them from the improved conditions of bee culture. Only as honey-producers are any benefit come to benefited, will manufacturers, dealers and publishers, yet a heavier burden is placed upon them than upon the actual honey-producer. The contributions of the Boardmembers alone will reach nearly \$1,000.

Every one will, of course, be interested in knowing what forms of advertising will be adopted. Mainly that of advertising in the daily papers and

magazines. (No advertising will be done in the bee journals, as that would be simply a waste of money.) Probably the first feature will be that of killing, or removing, the false beliefs regarding the manufacture of artificial comb honey. Large space, perhaps one-fourth, or one-eighth page, will be used in leading dailies, a large heading reading something as follows:

\$10,000 FORFEITED!

Then will follow an explanation and refutation of the matter, and the offer of \$10,000 as a forfeit to any one who can show a sample of comb honey that has been produced artificially. course, care will be taken to word the offer properly, so that no technical advantage may be taken. The bee talent of the country will be employed in preparing and placing the advertising. Many papers that publish these advertisements will probably be willing also to publish articles on bee-keeping written with a view to increasing the demand for honey. Possibly firms that print "patent insides" for other newspapers may be induced to use such articles.

At fairs and exhibitions, it may be advisable to have educational honey exhibits, together with the distribution of suitable literature. Possibly it may be well to put stereopticon lecturers in the field; but, as has already been stated, newspaper advertising will be the main feature.

An Encouraging Incident.

Let me tell just one little incident: On the train while going home from the meeting, I fell to talking with a young man who occupied the seat with me. As we became somewhat acquainted I told him of the object of my trip to Chicago, going somewhat into detall. In reply he said, in substance:

"At our home we are fond of biscuit and pancakes, with honey or maple syrup. We send down to Vermont, to an acquaintance, to get the maple syrup, as that is the only way we can feel certain we are getting the pure article. We don't buy honey very often, because, while I had never heard how the story started, as you explain it. I had been led to believe that a good share, even of comb honey, was manufactured stuff (mostly paraffine and glucose), and I didn't care to eat it. I am very glad to have met you and to have it proved to me so conclusively that I can eat comb honey, and feel that it is the genuine article."

Friends, there are millions of men and women just exactly like my chance acquaintance, and, in the language of the street, it is "up to us" to convince them of the error of their belief. If we could induce one million of them to step into the groceries to-morrow and each buy a pound of honey, what do you suppose would happen?

This is the work for us to do, and it is the most important work that has been taken up in our line in many a Every other industry is long year. pushing its products upon the markets by every means imaginable; are we to sit supinely down and let ignorance, misrepresentation, and business-er erprise push our product off the arth? See how new and unknown thir is are pushed to the front by the force of idvertising; let us not lag behind, but use this new force in modern business -advertising- to push our delicious product into the position it so richly deserves.

Just a parting word: Don't wait to "see how it is going to turn out." I others are putting in their time and money for the good of the cause—to accomplish something that will help you—meet them half way, join hand with them, do it promptly and success is assured.

Flint, Mich. Secretary

Address all business correspondence membership dues, etc., to the Managet George W. York, 334 Dearborn St Chicago, Ill,