Wisconsin beekeeping. Vol. IV January, 1927/December, 1927

Madison, Wisconsin: Wisconsin State Beekeepers Association, January, 1927/December, 1927

Wisconsin Beekeeping

Vol. IV JANUARY, 1927 No. 1

THE BULLETIN BOARD

WISHING YOU ALL A HAPPY NEW YEAR.

In three months the bees will be out again; are you getting your equipment in shape?

Spend your winter vacation in New Orleans and attend the Annual Convention of the American Honey Producers League, January 25 to 27, 1927.

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Wisconsin Beekeeping

VOL. IV JANUARY, 1927 No. 1

48TH ANNUAL CONVENTION WISCONSIN STATE BEE-KEEPERS' ASSOCIATION

Senate Chamber of the State Capitol, Madison Wisconsin, Dec. 2 and 3

The Annual Meeting of the Board of Managers was called to order at 7:10 P. M. in the Beekeeping Building at the University of Wisconsin, Madison, Wisconsin, Wednesday, December 1st, by James Gwin, President. Mr. Gwin appointed S. P. Elliott and A. H. Seefeldt as Committee on Credentials, and after carefully examining the credentials, they reported the following qualified delegates:—

1. Jefferson County Association—H. M. Schultz.
2. Wood County Association—Chas. Des Bullions.
3. Washington County Association—A. H. Seefeldt.
4. Fond du Lac County Association —Wm. Sass.
5. Shawano County Association—E. S. Heldemann.
6. North Western Wisconsin Association (Dunn County)—S. P. Elliott.
7. Fox River Valley Association—Geo. Jacobson.
8. North East Wisconsin Association F. F. Stelling.
9. Grant County Association—Ralph Irwin.

The Board of Managers voted to have Mr. C. D. Adams act in the place of Mr. Kneser, as the delegate from Milwaukee County, making a total of ten counties represented at this meeting. Others present were James Gwin, President, Arlene Weidenkopf, Secretary, and Professor H. F. Wilson.

The Secretary read the minutes of the meeting of the Board of Managers meeting in 1925, which were approved as read.

The following recommendations were then passed, and ordered referred to the convention at its regular business session on Friday afternoon, December 3rd:—

1. We recommend that the next annual meeting of the Wisconsin State Beekeepers' Association be held at Milwaukee, and that it be left to the Secretary to set the dates for this meeting.
2. We recommend that anyone using the State Association, or Badger Brand Label, in order to secure these labels, must hold to the State Association recommended price for honey.
3. We recommend that the State Association continue the use of the Badger Brand trademark until such time as the Board of Managers sees fit to change it.
4. We recommend that a bee tour be held in Wisconsin in August, 1927.
5. We recommend that the Wisconsin State Beekeepers' Association cooperate with the states of Illinois, Minnesota and Iowa with the meeting at Hamilton, Illinois, if such meeting be held, and any financial obligations necessary be left to the discretion of the Executive Committee.
6. We recommend that the matter of sending a delegate to the convention of the American Honey Producers' League, to be held in New Orleans, January 25 and 26, 1927, be left to the discretion of

the Executive Committee, and this Executive Committee be guided by the discussion of the Board of Managers at this time.

7. We recommend that Professor H. F. Wilson be authorized to investigate the possibility of publishing a paper in cooperation with one or more adjoining states, with the sanction of the Executive Committee to enter into a cooperative agreement for publishing the paper, but in the meantime we continue the publication of WISCONSIN BEEKEEPING, as in the past year.
8. We recommend that the Dairy and Food Commission be asked to include the inspection of honey houses in their regular inspection work.
9. We recommend that Mr. Gwin be authorized to prepare the necessary resolutions and attend to whatever other matters are necessary in securing a field man for beekeeping work through the beekeeping department of the University.
10. We recommend that the Wisconsin State Beekeepers' Association take immediate steps toward securing a suitable building for the beekeeping work at the University, at the earliest possible date.

After some discussion, it was decided that the matter of substituting a suitable term for the word "ungraded" in the Wisconsin grading rules be left, to be taken up before the convention at the business session on Friday.

The entire set of recommendations was passed unanimously by the Board of Managers, with the exception of recommendation No. 5, which was opposed by Mr. F. F. Stelling, representative from the North East Wisconsin Association.

The meeting of the Board of Managers adjourned at 10:35 P. M.

THURSDAY MORNING, DEC. 2ND

The convention was called to order by Mr. James Gwin, President, in the Senate Chamber of the State Capitol, at 9:45 A. M., at which time it was announced that Major Schmedemann, who was to welcome the beekeepers to Madison, was ill, and would be unable to attend the meeting.

Unfortunately, Mr. Harry Lathrop, was not present at the meeting to lead the singing of "The Beekeepers' Reunion Song" and an attempt to sing proved unsuccessful.

The minutes of the previous convention were then read by the Secretary and approved by the convention. The report of the Secretary which includes a report on Badger Brand stationery, labels, honey cartons, advertising in WISCONSIN BEEKEEPING, plain pails, lithographed pails, honey cook books, etc., was also read and approved.

Mr. Wm. Sass, Treasurer of the Association, followed with his report, which was approved by the convention, and, with the Secretary's, referred to the Auditing Committee.

Mr. Gwin then appointed the following committees:—

Committee on Resolutions—S. P. Elliott, Chairman, A. H. Seefeldt, and F. F. Stelling.

Auditing Committee — L. O. Brainard and Geo. Jacobson.

Mr. C. D. Adams, Chairman of the Label and Lithograph Pail Committee, then reported that this past year was one during which not a great deal had been done in connection with the labels and pails, due to the fact that there was no call for it. Mr. Adam's report included a report on the amount of labels, stationery, and honey cartons on hand, paid for, as follows—1-pound size labels, 101,600; 5-pound labels, 25,490; 10-pound labels, 13,-545; granulated honey cartons 14,-500; small sized envelopes, 14,000;

large sized envelopes, 4,000; letterheads, 8,000.

Mr. C. W. Aeppler, chairman of the Educational Committee, was not present at this session, so the report of that Committee was postponed until later in the program.

Mr. S. P. Elliott, Chairman of the Price Committee, then gave a report on the meeting of the Price Committee on August 1st, saying that little change was made from last year's recommended prices for honey, with the exception of the ten pound pails, and that a new price was being recommended for this year, namely, $2.00 for both plain and lithographed pails.

The Secretary was then instructed by Mr. Gwin to read the recommendations of the Board of Managers to the Convention, that those present might have time to think these over before the time when they were to be brought up before the convention and voted on.

The convention adjourned at 11:15, for registration and paying of dues.

Attendance—48.

THURSDAY AFTERNOON

The convention was called to order at 1:45 P. M. by Mr. Geo. Jacobson, Vice-President, at which time Mr. Gwin delivered his presidential address. In speaking of the marketing problem, Mr. Gwin said: "I have been studying agricultural marketing extensively, and have talked with experts on marketing. This is my conclusion: This rigid price-fixing is all 'bunk' and is bound to tear down our work in stimulating honey consumption—'you can lead a horse to water, but you can't make him drink.' I question very much if any of the agricultural marketing problems can be solved by groups endeavoring to fix prices on commodities. It would seem very foolish to me for us to fix prices and then increase production. There are only two solutions that will solve the marketing of any and all agricultural productions, i. e., increasing the purchasing power of the consumers and equal distribution of commodities. The solution that fits our situation is equal distribution."

Our next problem, says Mr. Gwin, is the honey-house. "The Pure Food Department has made a great change in the unsightly, odoriforous cheese factories of Wisconsin, and I hope that the Wisconsin State Beekeepers' Association can perform this reformation with our honey-house problem, without the Department's assistance. Let us leave this convention determined to improve the honey-house situation."

Mr. Gwin pointed out the necessity of better organization of the beekeepers in Dane County, and also called the attention of those present to the matter of a field man for beekeeping, and a suitable building for the department of beekeeping at the University. (Mr. Gwin's address will be printed in an early issue of WISCONSIN BEEKEEPING).

Mr. Gwin then took the Chair.

Miss Fischer, manager of the Honey Tea Room, Madison, then gave a demonstration of how honey may be used in prepared food, and told of the seasonal application of honey recipes to the daily menus, for the benefit of many Madison ladies who were present, as well as the beekeepers. Miss Fischer said, "Honey has been considered a luxury, not because of the price, but because of the uses. Honey, here-to-fore, has been advocated as a spread for biscuits, muffins, etc., and this has not stimulated a great deal, the demand for honey. 'A little bit more than a little bit is much too much,' as Shakespeare said, and the public too easily tires of it in this way of serving, and does not form a hankering for more honey."

Miss Fischer went on to say that the reason for the unpopularity of

honey in prepared food is because we don't know how to use it. "It is a delicious, healthful food, and when we think of all the wonderful qualities honey has, it is a shame that we do not use it three times a day, seven days a week."

According to Miss Fischer, the majority of housewives today do not put on the table foods which are healthy, just for that reason, but because the people they are serving like those foods. Ninety-five per cent of the people are controlled by emotion, and in order to make honey popular, those uses have to appeal to the people. We do not eat what we eat because of common sense, but because we like it. In the ancient times, honey consumption per capita was greater than it is now. Records show that honey was used in Egypt 3,000 years before sugar was known.

In Europe honey is used a great deal more in bakery than it is in this country. This is perhaps due to the fact that those people over there have more time than we have, or more than we think we have. They think nothing over there of spending days in preparing dough and aging it before it is baked. In one bakery in Italy, all of the cakes and cookies are made with honey.

Miss Fischer says that those recipes which require the least amount of time and energy and give the best results are the most popular. "Dieticians are advocating salads and the use of more fruits. Honey has a wonderful adaptation in the salad course of the meal."

Miss Fischer then told how honey may play its part in the menu for every meal—breakfast, lunch, dinner, at tea and in drinks, and also how she uses it in everything she serves—in the fruit cocktail, in the meat course, in the potatoes, salad combinations, in her deserts, with ice cream in sundae combinations, where it is particularly adaptable, in beverages, and in making candy. Miss Fischer has developed the making of honey candy to a great extent, and believes that the possibilities in this direction are great.

"I want to first convince you of the attractiveness of honey; then I can prove to you that it is so far superior to sugar from the ordinary standpoint that you will be doubly glad to use it."

Miss Fischer's message to the beekeepers of Wisconsin is as follows: "The big thing that I want to get across to the beekeepers today is the thing that Iowa beekeepers are very much interested in, seasonable application when it comes to honey. You can't afford to advertise extensively, but I know that your biggest field of advertising is right in your own locality. Wisconsin beekeepers can sell all of the honey they produce normally and more than that. It is not the price of honey which is keeping down the consumption. Cutting prices and bringing down the price of honey will not sell it. You can blaze H O N E Y all over your ads, and you won't get anything."

"Take the thing that is popular before the people at any particular time, that thing that is being talked about—and show that the thing that you are trying to sell has a particular application to that."

"Beekeepers in their community have been talking honey health value, etc., instead of saying—'You like grapefruit—or you like pineapple—well, here's something to use with it to make it a little bit better.' The whole idea is to apply your product to the season of the year. I have heard beekeepers say in meetings,—'There is no use trying to sell honey in July and August, because no one eats honey in hot weather. The time we can sell the most honey is when people need more to keep themselves warm.' In July, coolness is emphasized. You will find that if you talk

ice drinks, chill fruit salads, ice cream sundaes, and other things that are before the people in that hot season, and apply your product to it, you will have no trouble in disposing of it."

Miss Fischer then cited various applications for honey in every month of the year. Following are a few of these suggestions—

August—in picnic lunches, sandwiches, cool drinks, salads, cakes, etc.

September—in boys' and girls' lunches for school.

October—in muffins or waffles.

November—in Thanksgiving menus, foot ball season.

December—in Christmas and holiday menus.

January—waffle-time.

February—St. Valentine's day.

March—St. Patricks' day.

April—in Easter menus.

May—vegetable and fruit time.

June—sandwiches and cool drinks are adaptable in this month.

July—in ice cream sundaes, iced drinks, etc.

"It would do no good for the national organization or any other organization to buy a full page for advertising one or two times. It is the accumulated effect of repetition that puts everything over."

"There is always a different field of attack—but remember—always appeal to the public from the emotional side, and then strengthen the foundation that you have started by advocating the health side of honey. One can appeal better at first through the eye than through the ear. The majority of people forget that the first impression is through the eye. Work with honey is an educational field and applies to your work in getting honey before the public, and if you are going to get anywhere, you should start right now and get your displays to represent what the housewife is interested in, and not what you are interested in. You have got to get honey before these women in such a way that they will *want* it. You should start at the bottom and go up, but I believe that in about 50 years from now, the per capita consumption of honey compared with the per capita consumption of sugar, will be nearer half and half, instead of almost 100 pounds more of sugar consumed per person than honey."

Dr. S. B. Fracker, State Entomologist of Wisconsin, said in his talk "Progress of Bee Disease Control Work in 1926" that in most areas there has been a rapid recovery from the spread of disease caused by robbing conditions the fall of 1924.

In explaining the plan of work, Dr. Fracker said: "The plan by which counties cooperate with the state and pay part of the expenses of the control campaign is proving popular. Under this arrangement the beekeepers of a county visit the members of a county board and impress upon them the importance of the control of American foulbrood in the apiaries of the area. If the members of the county board are favorable and make an appropriation of two or three hundred dollars, the State department of Agriculture assigns to that county double the amount of the county appropriation and begins the clean-up work the following year. Appropriations for four or five successive years are necessary." (A copy of Dr. Fracker's talk will appear in an early issue of this magazine).

Mr. N. E. France, of Platteville, Wisconsin, in his paper, "For Better," gave those beekeepers assembled many important pointers, tried and true, which make for better beekeeping. Mr. France said, "As I go among beekeepers, often I meet those who are in a rut, handling bees the same as years ago. Their product shows it also. To get out of this rut, I suggest that we each ask ourselves—are we up to date? are we cutting expenses and getting all possible from our bees?

WISCONSIN BEEKEEPING

Official Organ of the Wisconsin State Beekeepers' Association.
H. F. WILSON, Editor.
Louis Alfonsus, Contributing Editor.

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OFFICERS

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Vice-Pres.____Geo. Jacobson, Kaukauna
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Annual membership fee, $1,00, which includes one year's subscription to "Wisconsin Beekeeping."

Please make remittance payable to Secretary.

Suppose we appoint ourselves as our personal critics, and when improvements can be made, make note of them, and as soon as possible make them 'for better.' Attend beekeepers' conventions, carefully read books and papers on bees, sifting out what we can adopt 'for better.' (We have a copy of Mr. France's paper, which will be published at an early date).

Prof. V. G. Milum, of the Beekeeping department of the University of Illinois, Urbana, Ill., then spoke on "Facts for Orchardists and Beekeepers." (Prof. Milum has promised us a copy of this paper for publication in WISCONSIN BEEKEEPING).

The meeting adjourned at 5 o'clock, to meet again at 7:30.

Attendance—83.

A banquet was held at the Honey Tea Room, 627 State Street, at 6:00, at which 40 beekeepers were present. Dr. R. L. Diebecker, of Madison, proved an able Toastmaster, and the program was very entertaining and much enjoyed by everyone.

After the banquet, the beekeepers returned to the Senate Chamber for the evening session of the convention.

THURSDAY EVENING

At 8:00 P. M., the convention was called to order, and Mr. F. C. Pellett gave a lantern slide talk on "A General Survey of the Beekeeping Regions of the U. S. and Canada." Mr. Pellett took us from Mexico, where beekeeping is carried on primarily for wax, through the comb honey districts of Colorado, Utah and Wyoming. We were taken next into the extracted honey districts of North and South Dakota, British Columbia, Saskatschewan, Manitoba, Minnesota, Nebraska, Indiana, Illinois and Michigan. We then inspected the queen breeding and package bee regions of Georgia and Alabama, where it is easier to raise bees than secure a crop of honey.

In spite of the great distances travelled and the large number of people we became acquainted with, Mr. Pellett gave us a very clear idea of the different beekeeping sections throughout the country.

Attendance at this session—55.

The meeting adjourned at 9:10 P. M.

FRIDAY MORNING, DECEMBER 3RD

The meeting was called to order by President Gwin at 9:30 A. M., at which time Mr. Gwin read to the convention a letter from Mr. L. T. Bishop, who, because of poor health, was unable to be present at the meeting this year. We were very sorry he could not be here, and hope that we will have him with us at Milwaukee next year.

The first number of the program was a talk on "The Wisconsin State Beekeepers' Association in Relation to the Wisconsin State Fair," by Mr. Gus Dittmer, of Augusta, Wisconsin. Mr. Dittmer said: "The bee and honey department of the Wisconsin State Fair is the largest of its kind in the

U. S., both in the number of exhibits and the amount of money paid by the state in premiums and maintenance. In 1919, when I took charge of the department, a total of $450 was paid for premiums, compensation of Judge, Superintendent and expenses. In 1926, the premium awards amounted to $1350. Compensations for Judge, Assistant, Demonstrations and Superintendents per diem and expenses, amounted to $375. Besides this, repairs, decorations and sundry other expenses amounted to about $175, a total of $1900, or more than four times as much as in 1919." Mr. Dittmer stressed the necessity of the cooperation of the State Association, the local associations, and the members of the Association themselves in helping to build up and maintain the bee and honey department at the State Fair. (A copy of Mr. Dittmer's paper will be published in WISCONSIN BEEKEEPING).

Mr. A. C. Allen, of Portage, then made a few remarks regarding the bee and honey department at the State Fair, telling of the value of that department as an advertising agency, and of the score card system of keeping records of displays from year to year.

Mr. C. P. Teubert, of Edgerton, Wisconsin, next gave a talk and demonstration on "Advantages of Packing Comb Honey in Oil Paper." In this connection, Mr. Teubert says that one of the greatest stumbling blocks in the beekeeping industry is the beekeeper with the attitude "It was good enough for my father—then it's good enough for me."

Mr. Teubert said that while everyone has been pushing extracted honey, not much thought has been given to comb honey.

He has found that the 4-inch by 5-inch comb makes a neat package, and

(Continued in February issue)

BEEKEEPERS OF AMERICA

Men Whom I have Met or Corresponded with, by C. P. Dadant, Hamilton, Ill.

(Continued from December issue)

Mrs. Ellen S. Tupper, one of the most noted women in beekeeping, who edited the *American Bee Journal* for a time, also began writing in 1867. She was an Iowa apiarist and very capable. My father associated with her for an importation of queens from Italy which was unsuccessful, owing to the great number of moths produced there. The boxes containing the queens were all riddled with moths in the four weeks that required the gathering together and transporting of 500 queens, purchased from the Italian country people.

Dr. G. Bohrer, who died only lately in Kansas, was also one of the pioneers of 1867. He was more noted by his attendance at all National meetings and his opposition to promiscuous rearing of different races than for anything else.

John Vandervort, of Pennsylvania, then of Illinois, the manufacturer of comb foundation mills, for a number of years, was also one of the beekeepers of 1867. His first contribution was in the same number as my father's first, September 1867.

Wintering bees in silos was my father's first contribution to the *Journal*. He had succeeded excellently. But one mild winter, when the ground did not freeze and the moisture kept the bees too damp, caused him to desist from this method. We are too far south for silo wintering. But it would doubtless be good in very cold climates.

Gen. D. L. Adair, of Hawesville, Ky., is but little known now. Yet he was the first man to make section boxes for supers of comb honey and he published, for 3 years, the *Annals of Bee Culture*. He wrote also a *New*

System of Beekeeping which, however, was only an advertisement of his invention.

In April 1868 the invention of the honey-extractor by Hruschka was announced under the name of "Honey emptying machine." It was my father who suggested the term, "extractor" though he wanted to call it "melextractor." The upshot of it was that only a part of his suggestion was adopted and the name "honey extractor" has survived.

Dr. C. C. Miller: Can we forget him? He had lasted in sight of the beekeepers from 1871 till this past year. His *Year Among the Bees, Forty Years Among the Bees* and *Fifty Years Among the Bees,* and his thousands of answers to beekeeping questions, during the many years of his long life; his successful producing of honey with as small a hive as the 8-frame Langstroth, doubled in size during the breeding season, his numerous editorials replete with wit and wisdom; all these things have endeared him beyond all others in the hearts of the beekeepers. It is not only in this country but abroad that he is known and he may be placed as coming next to Langstroth in modern beekeeping.

Professor A. J. Cook was one of the early educators, probably the first one to teach a course of beekeeping in an Agricultural College. The first edition of his book was published in 1876 *The Beekeeper's Guide* and it has had numerous editions. It is still extant, I believe, though somewhat behind the times.

L. C. Root, with his father-in-law, Quinby, was the author of *Quinby's New Beekeeping.* Mr. Root still lives in Stamford, Conn.

Capt. J. E. Hetherington was known as one of the most extensive beekeepers of 40 years ago, keeping at one time as many as 3,000 colonies of bees. He was living in Cherry Valley, N. Y.

G. M. Doolittle, began writing just a little before Dr. Miller. He is known as one of the most profuse writers. But his greatest achievement is the "Doolittle system of Queen-Rearing." His book on that subject is entitled *Scientific Queen-Rearing.* It has been published and republished and is still one of the sellers of the *American Bee Journal* bee library. Doolittle was best known as a breeder of excellent queens.

I was about to forget Harbison, who was indeed one of the earliest practical beekeepers. But he rarely wrote, being too busy producing honey. However he published a book *Beekeepers Directory* as early as 1861. You all know that he was the first man to take bees over to the Pacific coast. He brought some 60 odd hives in 1857-8 and another lot of 114 in 1858-9. Of this last lot he lost 11 on the way. Harbison was a great honey producer and shipped hundreds of tons of honey to the east. He died in California. I met him but once, at the meeting of the National Association at Los Angeles in 1904, I believe.

These were the early men. A little later other men came to the front: Chas. F. Muth, of Cincinnati, a beekeeper who kept quite an apiary on top of his business house in the center of Cincinnati, and a dealer in honey who handled as much of it as 500 barrels a week, at a time when honey was not so plentifully produced as it is now.

The 48th Annual Convention of the Wisconsin State Beekeepers' Association will be held in the State Capitol, Madison, on December 2nd and 3rd.

We were not able to get the program completed in time to publish it in this issue, but a copy of the printed program will be mailed to each member about the middle of November.

Several important matters will come

up at the Convention, and each member of the Association who can should be there. The question of changing the names of the present terms for honey grades will be discussed in full, and recommendations made to the Division of Markets regarding certain changes which they have in mind. It is therefore to the interest of each member to help in the discussion of this problem.

Edwin France, a well known beekeeper of this time was an extracted honey producer and able writer. His son, N. E. France, is now one of our ablest men and his grandsons L. V. France and Frank F. France are also able beekeepers.

D. A. Jones, a Canadian, was probably the only man to found a town where beekeeping was the main object: Beeton, Ontario. Mr. Jones' principal claim to fame is in having gone to Cyprus, Syria, and Egypt to import the bees of those countries to America.

We cannot mention D. A. Jones without also speaking of Frank Benton, who traveled in Europe with him and handled and shipped bees of different races. Mr. Benton was at one time the Official Apiarist of the United States, filling the place next occupied by Dr. Phillips, and now by Mr. J. I. Hambleton. Benton was a linguist and spoke half a dozen languages fluently. He wrote Bulletin No. 1 of the Bureau of Entomology *The Honey Bee* in 1899.

I might name dozens of others. However I must mention Henry Nesbit, of Cynthiana, Ky., James Heddon, of Dowagiac, Mich., who did very well writing on bees until he invented a hive; he was author of a book of 128 pages in 1885 *Successful Bee Culture.* W. Z. Hutchinson, who for years published *The Beekeepers Review* now published under the name of *Domestic Beekeeper* after 3 or 4 changes of management. His book *Advanced Bee Culture* is still published. Mr. Hutchinson has to his credit the publishing of some of the very best photographs of bees, beekeeping, and beekeepers that ever were printed.

Mrs. L. Harrison, of Illinois, Dr. A. B. Mason, of Ohio, R. L. Taylor, of Michigan, W. W. Cary, a great queen breeder, of Massachusetts, Oscar Clute, author of *The Blessed Bees,* Mrs. Frances Dunham, inventor and manufacturer of a foundation mill, and Julius Hoffman, the inventer of the "Hoffman frame," Thos G. Newman, editor of the *American Bee Journal* for some 18 years, from 1874 to 1892. The list might be made endless, especially if we were to mention the modern men, those who are still beekeepers. I do not believe that I have mentioned more than 2 or 3 who are still living and they are among our oldest men. One of the old-timers among the living is J. E. Crane, of Vermont. Oliver Foster, first of Iowa, later of Colorado, was a leader in comb honey production and wrote a little booklet: *How to Raise Comb Honey* which is quoted in the revision of the Langstroth-Dadant book. Oliver Foster has been dead many years but the name is kept before the apiarian public by his nephew, Wesley Foster, a large producer and honey dealer of Colorado.

Let me add one more name and I will close. It is that of G. W. Demaree, of Christiansburg, Kentucky, who gave to beekeeping the method of swarm prevention by putting the brood into an upper story, separated from the brood chamber by a queen excluder. This was in 1892, in the April 21st number of the *American Bee Journal.* This method is now known as the "Demareeing method of swarm prevention." . It does not always prevent swarming, but there is no such thing as an infallible method.

I suppose that I might go on for several hours and speak to you of inter-

esting beekeepers of the past and of their methods, but I believe this is enough for this occasion.

HONEY RECIPES

REV. PRIEUR

18. NOUGAT (CANDY) — 1 cup honey, ½-lb. almonds, blanched, roasted and chopped, ½ cup sugar, 3 egg whites, 2 tablespoonsful butter. Boil honey and sugar together till it forms a "hard crack" when dropped into cold water. Add one spoonful at a time of syrup to the stiffly beaten egg whites. Mix thoroughly each time before adding another spoonful. When all the syrup has been added, pour mixture into saucepan and return to the stove. *Cook very slowly, beating continuously* till the mixture forms a hard ball in cold water. Add chopped nuts, pour into buttered tins and cool until it can be cut into squares and wrapped in waxed paper. Keep in warm place in an air-tight tin can.

19. HONEY TAFFY—Boil together two cups of honey, a half cup of sugar, a fourth teaspoonful of soda and two tablespoonsful of vinegar till it forms a "hard crack" in cold water. Remove from fire and cool till it can be handled. Pull same as any other taffy. Cut and wrap in waxed paper. Keep in tight tin box in a warm, dry place.

20. HONEY FUDGE—2 cups sugar, 1-3 cup honey, 1-3 cup water, 2 egg whites, 1 teaspoon of vanilla extract. Boil together the sugar, honey, and water until the syrup spins a thread when dropped from a spoon (about 250 degrees F.). Pour the syrup over the well-beaten whites of the eggs, beating continuously and until the mixture crystalizes, adding the flavoring after the mixture has cooled a little. Drop in small pieces on buttered or paraffin paper. The vanilla may be omitted.

NEWS NOTES FROM THE INSPECTION OFFICE

By S. B. FRACKER

Last month we outlined the area clean-up results in several counties where early total eradication of the disease appears probable. In addition to the cases given there, progress is worth while in all the area clean-up counties in the southern part of the state but it will take longer to bid final farewell to foul brood in that section.

In Rock County the inspection in 1924 and 1925 covered all except the east tier of townships. In that part of the county the number of infected apiaries has been reduced from 55 in 1924 to 41 in 1925 and 27 in 1926. This means that there is about half as much disease in Rock County as was found two years ago. In the east tier of townships, covered for the first time in 1926, eight infected apiaries were found and they contained 9 diseased colonies.

Ozaukee County, which received a set-back in 1925, has now shown a marked improvement with the result that only 11 apiaries were found infected this past summer and they contained only 27 diseased colonies. The improvement is partly due to better cooperation on the part of the beekeepers who are disinfecting their combs with the state disinfection outfit. The latter was assigned to Ozaukee County last year.

The area-clean-up work carried on in Outagamie County, four or five years ago, showed excellent results. Practically no inspection has been carried on in that county since 1922. The inspectors this year report, however, that they found 333 apiaries containing 2318 colonies but that only 12 of the apiaries were found infected. This is one of the cleanest large counties we have undertaken, as less than 2% of the total number of colonies inspected proved to have dis-

ease. This is another county in which total eradication appears possible in the near future.

New areas for 1926 included Waukesha County, where the inspectors found 504 apiaries, 60 of which showed disease; and Wood County, where 208 apiaries were inspected, 36 of them showing American foul brood.

An interesting and unusual case came up in Waukesha County where a beekeeper, whose yard had been infected for a number of years, hid some used infected equipment in his house. After straightening out some legal difficulties, the inspectors finally secured a search warrant which was resisted bitterly by the beekeeper and his wife. The resistance appears to have been unnecessary for it was found that the beekeeper, anticipating trouble, had carried the material all outside and had cleaned it up.

Another unusual case which the inspectors had to handle during 1925 was one in which the ownership of a large infected apiary was in dispute. The beekeeper who had managed the yard in 1925 sold the entire apiary of 60 colonies during the winter, without a permit or inspection certificate, to a neighbor. In the spring the apiary was found heavily diseased and after considering the matter for some time, the buyer abandoned the apiary to the former owner and would have nothing further to do with it, leaving the honey crop on the bees. The seller refused to accept the return of the apiary so that it was necessary for the inspectors to make a thorough clean-up of the premises and even to extract all the honey. The honey and the bee supplies are now stored at a neighbor's, waiting for the buyer and seller to agree as to which one is the present owner.

Another quirk of human nature, which Mr. Adams reports, is that of a beekeeper who is maintaining a large yard of his own and is also looking after a neighbor's bees on a percentage basis. He is so afraid of American foul brood in his own yard that he carries nothing between the two and even changes his clothes each time he goes on the neighbor's premises. In spite of that fact, he is most unwilling to apply any clean-up measures to get his neighbor's bees free from disease and has applied every type of legal resistance toward having any clean-up measures carried on there, adding some original and illegal ideas of his own.

In spite of a few cases of this kind, the inspectors are finding the beekeepers willing and ready to do all they can to eliminate the American foul brood in their neighborhoods and the benefits of this policy are showing up clearly in the improved diseased situation in the state.

BUZZES ABOUT WISCONSIN

GEORGE E. MARVIN

The column this month will be different from its usual run and will tell about a few observations that were noted this past summer here in the station apiary. Variety is the "spice of life" so they say, and from what I have seen, beekeepers are very human, so they will appreciate this deviation from the usual routine.

During the past summer season, careful records were kept of the daily increase in weight of a hive of bees. On June 18, nectar began to be brought in at a fairly good rate. The colony increased 56½ pounds from June 18 to June 30, an average increase per day of 4.7 pounds. On June 27, 13 pounds were brought in, which is the highest increase for any one day in June and also for the whole period of the honey flow. On the 24th of June, no surplus was brought in, the day being rainy and dark and the bees confined to the hive all day. From July 1 to July 23 the increase was 61½ pounds or a

daily average increase of 2.7 pounds. On July 8, an increase of 7 pounds was noted, making it the highest increase for any one day in July. No surplus was brought in on July 1 for rain all day prevented the bees from going into the field. From July 23 to August 5, the bees gathered just enough nectar to maintain themselves, for no inroads were made on the surplus. Of course, during this period some nectar must have been stored to make up for the loss in weight due to the evaporation and ripening of the honey that was previously brought in and to make up for the honey used in broodrearing. After August 5 there was a steady decline in weight which will continue until next season. This colony will be kept on the scales all winter in order to determine the amount of stores used up during very cold spells and then over mild periods.

The increase for the season was 118 pounds. These bees were kept here in Madison with the lake on the north and the city on the south and east, leaving only one direction open for gathering nectar. From this little observation it shows that the bees gathered surplus for 35 days, a short time indeed out of a whole year. One can fully realize why a surplus is not gathered if the bees are not in the proper condition at the beginning of the honey flow. The peak of brood rearing should come in the first part of June so that by the time of the honey flow, the bees will be through their apprenticeship as nurse bees, ready to go into the field and bring in the nectar.

In another experiment we wanted to determine the number of bees ordinarily present in a hive at the beginning of the honey flow. We simply picked out two colonies standing side by side which had been wintered in that position. In order to determine the weight of the bees, they were all brushed into a previously weighed hive and after quieting down, were weighed again, so by subtraction, the weight of the bees was arrived at. The bees in one colony weighed 9½ pounds and in the other, 16 pounds. It was found that 45 bees weighed 4 grams so it was figured that there were 5,114 bees in a pound—which showed there were 48,583 and 81,824 bees in the respective hives on June 18. As to the brood present in each hive, it was found that there was a total of 1,534 square inches in the hive with the 9½ pounds of bees as compared with 2,271 square inches found in the hive with the 16 pounds of bees. Figuring 25 larvae to the square inch it was estimated that there were still unhatched 38,350 individuals in the former hive and 56,775 in the latter. From an experiment of this kind one can get a pretty good idea of the number of bees present in a hive at the beginning of the honey flow and the enormous number of bees which will come on too late for the honey flow, only to be consumers of the surplus, stored by their earlier sisters.

The hive with the 9½ pounds of bees on June 18, increased 115 pounds in weight during the season while the colony with 16 pounds of bees increased 177 pounds. This weight was not all surplus honey, for each colony was left enough honey for winter use.

Wisconsin Beekeeping

Vol. IV FEBRUARY, 1927 No. 2

THE BULLETIN BOARD

Union Meeting—Illinois, Iowa, Minnesota, and Wisconsin at the Dadant Factory at Hamilton, Ill., August 9 and 10.

If you do not receive your paper in March, you will know that you are delinquent.

COOPERATION—The strength of the Association depends upon the cooperation of its members. Use Association labels and letterheads, buy your pails and glass jars through the Association Secretary.

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Wisconsin Beekeeping

VOL. IV FEBRUARY, 1927 No. 2

48th ANNUAL CONVENTION WISCONSIN STATE BEE-KEEPERS' ASSOCIATION

(Con't from page 7 of Jan. issue.)

says that it required working sometime with a dozen different brands of wax paper before he found the one that would suit his purpose best.

In closing, Mr. Teubert said: "When the State Association is ready to put out a wrapper with the Badger Brand Trademark, I am ready to adopt it."

Mr. Teubert's demonstration was simple and rapidly enacted. The 4 x 5 sections were wrapped in sheets of oil paper, 7-inches by 12-inches, placed in a row and sealed at the ends with a hot iron, making a very neat and attractive package, as well as a sanitary one. Mr. Teubert says that he finds that his honey sells more rapidly than that which is not wrapped, and that he has no trouble disposing of his honey to the trade in his vicinity.

Mr. C. A. Wood, of South Wayne, Wisconsin, delivered a very interesting talk on "Comb Honey Production," in the course of which he said: "Comb honey production is influenced by a large variety of factors, some of which are 1) the source of nectar; 2) the proximity of the colony to the nectar; 3) climatic conditions; 4) the strength of the colony; 5) the breeding of the bees, and 6) the care and management of the colony." (Mr. Wood's paper will be printed in an early issue of this magazine).

Mr. W. Whitcomb, a graduate student of the Beekeeping Department of the University of Wisconsin, Madison, then spoke on "Water Requirements of Bees."

According to Mr. Whitcomb "water has a much greater effect on the spring brood rearing of bees than is generally supposed. During the spring period, a colony of bees may take as much as a gallon and a half of water per month. The presence of brood in a hive effects the amount of water taken to a much greater extent than the outside temperatures."

"The presence of brood in the colony and the outside temperatures are the two most important factors regulating the amounts of water taken, more water being taken during periods of high outside temperature and of active brood rearing."

"The great loss of bees during the cold spring days when water is very necessary to the colony, makes the problem of water feeding more important."

Mr. L. T. Floyd, of Manitoba, Canada, was next on the program, and spoke to Wisconsin beekeepers on "The Value of Publicity." He told how, several years ago, fur trading, grain growing and dairying were the major industries and pointed out that the people who went up into that country originally did not go to keep bees. He also said that most of the farmer beekeepers in that country are Ukranians. The crop in Manitoba was not as large this year, because the season was not as good as usual. According to Mr. Floyd, there are four beekeepers producing honey in carload lots in Manitoba, and two beekeepers produced 30,000 pounds of honey this year. One thing which beekeepers in that part of the country do not have to worry about is the wax moth, the weather conditions being such that it cannot live there.

Mr. Floyd says that in the city of Winnipeg, from five to six advertisements for selling honey appear daily in the papers, and that honey is advertised by the grocers as a *staple* product.

Mr. Floyd told how there are four circular letters sent out to the beekeepers on their mailing list each year. The first one, in April, is in the form of a demand—that the beekeepers register; according to the law, this must be done. The second one—a letter suggesting to the beekeepers the price to ask for their honey, is sent out in September. The third letter, inquiring how much their crop amounted to, is sent out in October. The fourth letter, in December, is an invitation to the convention. Mr. Floyd said: "We send every supply man a copy of our mailing list every spring. And we ask them to send us a list of all those to whom they sell supplies during the year whose names are not on that list. That is the service that we give the bee papers and supply dealers."

When our honey crop report comes in, we make out a list, and put this question to the beekeepers—'how much have you left over?' We then list all those amounts over 500 pounds, and we send all the buyers a list of the available stocks of honey."

Mr. Floyd is of the opinion that "if we can get the right kind of bees from the south, produce crops of honey and have the right kind of publicity for our product, beekeeping in the next 20 years, I am sure, will show just as much progress as it has in the past 20 years."

Mr. E. W. Atkins, of the G. B. Lewis Company, Watertown, Wisconsin, then gave a talk on "Interesting Facts Obtained from the Comb Honey Contest." Mr. Atkins told of the recent comb honey contest conducted by the Lewis Company, the manner in which the honey was judged and the prizes awarded. (Mr. Atkins has promised to send us a written copy of his talk for publication in WISCONSIN BEEKEEPING).

The convention adjourned at 12:05 o'clock. Attendance—65.

FRIDAY AFTERNOON

The meeting was called to order at 1:45 P. M., at which time Mr. F. C. Pellett spoke on "Adapting Management to Location." In this connection, Mr Pellett said "The fundamentals of beekeeping are few and easily grasped by the intelligent mind. Room, stores and protection have been shown to constitute the essentials which must be recognized under any conditions. With a proper understanding of these, it then becomes important that the beekeeper study his individual location in order that he may apply his knowledge to bringing his colonies to the peak of brood-rearing in time for the principal harvest of the year. In this connection, a brief consideration of the peculiar condition to be met in different parts of the country and the effect upon the plans of the beekeeper may be of some interest."

Mr. Pellett told of the conditions in Southwest Iowa, where white clover makes up the principal honey flow; Colorado, located in the alfalfa district; Washington, D. C., where the tulip tree is the principal source of nectar; Texas, North Georgia, etc. (Mr. Pellett's paper will be printed in WISCONSIN BEEKEEPING).

Mr. E. R. Root, President of the A. I. Root Company, was next on the program, and told those present of the importance of honey in the daily diet. Mr. Root told how honey is being advertised in connection with cornflakes by the Kellogg Company, and stressed the necessity of every beekeeper being his own advertising agent in putting honey before the public.

Mr. A. W. Pomerening, of the State Department of Markets then

spoke to the beekeepers about the Wisconsin grading rules, telling of the action taken in different counties where hearings were held, regarding the changing of the term "ungraded."

BUSINESS SESSION

The report of the Nominating Committee, which is composed of the members of the Board of Managers, exclusive of the Secretary and President, was as follows:

For President—James Gwin; H. H. Moe.

For Vice-President—Geo. Jacobson; John Kneser.

For Secretary—Miss Arlene Weidenkopf; George Marvin.

For Treasurer—Wm. Sass; E. S. Hildemann.

Mr. George Jacobson, Vice-President, took the chair during the election of president.

Mr. Gwin received 29 votes for President; Mr. Moe received 11.

A motion was made, seconded, and carried that Mr. Gwin be elected to the office of President. Mr. Gwin, in accepting the office, said: "I came to this convention with the determined mind to make this year my last. I have been prevailed on, however, to accept it another year, and I do accept it one more year, making it my 5th. I have tried to do the best to and for the Association, according to my best judgment. Our industry I have strictly at heart; I am in this with my whole soul. I only wish that I was in a financial position to do more for the organization. I thank you, ladies and gentlemen, for this compliment, and I will try to serve you one more year, and will give you the best service that I possibly can. I thank you."

Mr. Gwin then took the Chair.

In the election of Vice-President, Mr. Jacobson received 20 votes, Mr. Kneser 18.

A motion was made by Mr. Kneser, seconded and carried, that the rules be suspended, and the secretary be requested to cast a ballott for the election of Mr. Jacobson. Ballott cast. Mr. Jacobson accepted the office of Vice-President.

Miss Weidenkopf received 28 votes for Secretary; Mr. Marvin 8.

The motion was made by Mr. Marvin, seconded and carried, that the President be requested to cast a ballott for the election of Miss Weidenkopf. Ballott cast. Miss Weidenkopf accepted the office of Secretary.

In the election of Treasurer, Mr. Sass received 33 votes; Mr. Hildemann 4.

The motion was made by Mr. Hildemann, seconded and carried that the Secretary be requested to cast a ballott for the election of Mr. Sass. Ballott cast. Mr. Sass accepted the office of Treasurer.

The Auditing Committee, Messrs. L. O. Brainard, and Geo. Jacobson, then reported that they had "Carefully compared the secretary's and the treasurer's books, and find that they agree and are correct."

The motion was then made by Mr. Jacobson that in the future all vouchers for expenditures be sent by the Secretary to the President, so that he may have a record of them in case of fire or being lost in some other way, and then forwarded by the President to the Treasurer for payment. This motion was carried.

The Secretary then read the recommendations of the Board of Managers and after some discussion, the following were adopted by the convention:

1. We recommend that the next annual meeting of the Wisconsin State Beekeepers' Association be held at Milwaukee, and that it be left to the Secretary to set the time of this meeting.
3. We recommend that the State Association continue the use of the Badger Brand trademark until such time as the Board of Managers see fit to change it.

4. We recommend that a bee tour be held in Wisconsin in August, 1927.
5. We recommend that the Wisconsin State Beekeepers Association cooperate with the states of Illinois, Minnesota and Iowa with the meeting at Hamilton, Illinois, if such meeting be held, and any financial obligations necessary be left to the discretion of the Executive Committee.
6. We recommend that the matter of sending a delegate to the convention of the American Honey Producers' League, to be held in New Orleans, January 25 and 26, 1927, be left to the discretion of the Executive Committee, and this Executive Committee be guided by the discussion of the Board of Managers at this time.
7. We recommend that Professor H. F. Wilson be authorized to investigate the possibility of publishing a paper in cooperation with one or more adjoining states, with the sanction of the Executive Committee to enter into a cooperative agreement for publishing the paper, but in the meantime we continue the publication of WISCONSIN BEEKEEPING, as in the past year.
8. We recommend that the Dairy and Food Commission be asked to include the inspection of honey houses in their regular inspection work.
9. We recommend that Mr. Gwin be authorized to prepare the necessary resolutions and attend to whatever other matter are necessary in securing a field man for beekeeping work through the beekeeping department of the University.
10. We recommend that the State Association take immediate steps toward securing a suitable building for the beekeeping work at the University, at the earliest possible date.

Recommendation number 2 which reads "We recommend that anyone using the State Association, or Badger Brand, Label, in order to secure these labels, must hold to the State Association recommended price for honey" was laid on the table by the convention, after some discussion, that it might be taken up in greater detail by the Price Committee at its next meeting.

As all were not in favor of this action, a standing vote was taken. Those in favor, 14; opposed, 9.

The Committee on Resolutions, composed of Messrs. S. P. Elliott, F. F. Stelling, and A. H. Seefeldt, then submitted the following report:

1. Be it resolved that the Association favors the increased use of official grading in the sale of honey, both wholesale and retail, and believes that selling by grade is greatly preferrable to selling by sample. In this connection, the work of the State Department of Markets in helping to maintain grade standards and staple honey markets, is appreciated, and the Association requests the Legislature to continue its hearty support of that Department. Also, be it resolved that the Association recommend that beekeepers make greater efforts to keep honey sales constant through the year and disapprove of overloading the market in the early fall.
2. Be it resolved that the Association need the assistance of the University and instruct the Executive Committee to make plans for securing a field man.
3. Be it resolved that the Association express its appreciation of the State Department of Agriculture and to the University of Wisconsin for their continued support of the beekeeping industry and ask them to continue actively pushing

bee disease control campaigns and the apicultural extension work.

4. Be it resolved that this Association looks with favor on the plan of co-operation with the State Department of Agriculture on American Foulbrood control and recommends that beekeepers in counties which have been receiving assistance from the State without county support, attempt to secure county appropriations to carry their share of their work.
5. Be it resolved that the State Fair management be requested to enlarge the bee and honey building to provide if possible, 1st, more exhibit space; 2nd, glass exhibition cases; 3rd, a booth for the State Association; 4th, a rest room in the building.
6. Be it resolved that the Wisconsin State Beekeepers' Association object to any weakening or modification of the food and drugs act of the United States, especially any provision which would authorize the use of corn sugar in food products without so labeling them, and that we request our congressmen and senators to oppose any measure of this kind.
7. Be it resolved that the Association request the authorities of the University to provide more adequate quarters for apicultural experiments and instruction in the Department of Economic Entomology.

These resolutions were accepted as read.

The matter of the secretary's salary was then brought up, and a motion was carried that her remuneration be $25.00 per month.

The matter of a membership contest was then brought up before the convention, and it was decided that a membership contest between individuals is to be held during the year of 1927, and that those taking part in the contest be credited when sending in dues for beekeepers whose dues have been delinquent during the year 1926, or previous to that, of course. Renewals of members who have been members within the past year, however, are not to be counted. The selection of prices for this contest is to be left to the Executive Committee. (These will be announced in next month's issue of WISCONSIN BEEKEEPING, with further details of the contest).

Mr. Gwin then appointed the following committees:

Label and Lithograph Pail Committee—C. D. Adams, Wauwatosa; H. F. Wilson, Madison; G. M. Ranum, Mount Horeb.

Price Committee—S. P. Elliott, Menomonie; Konrad Kruse, Loganville; A. H. Seefeldt, Kewaskum; Ralph Irwin, Lancaster.

Legislative Committee—Jas. Gwin, Madison; W. I. Painter, Wausau; W. A. Ross, Janesville; Robt. Seibecker, Madison, Wm. Sass, Fond du Lac.

Educational Committee—Mrs. C. A. Wood, South Wayne, Chairman; Miss Fischer, Madison; Geo. Marvin, Madison.

At a meeting of the Nomination Committee on the afternoon of Thursday, December 2nd, after the business of selecting candidates for the offices of the Association was done away with, this same committee, which is composed of members of the Board of Managers, exclusive of the President and Secretary, then elected the following men to act on the Executive Committee, with the President and Secretary—S. P. Elliott, Menomonie; A. H. Seefeldt, Kewaskum; Chas. Des Bouillions, Wisconsin Rapids.

The convention adjourned at 5:10 P. M.

Attendance—64.

WISCONSIN BEEKEEPING

Official Organ of the Wisconsin State Beekeepers' Association.
H. F. WILSON, Editor.
Louis Alfonsus, Contributing Editor.

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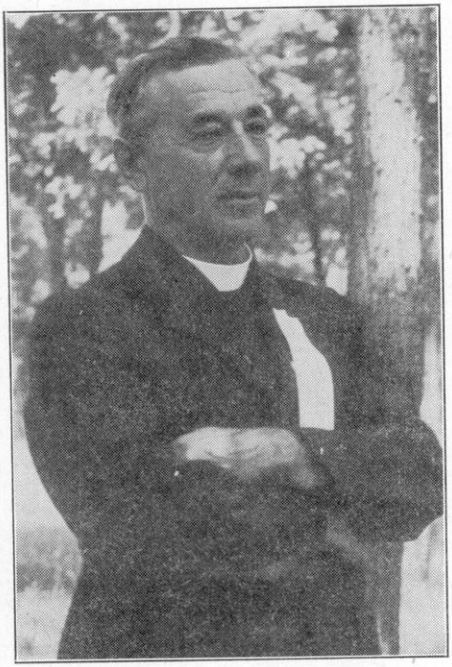
OFFICERS

President--------James Gwin, Madison
Vice-Pres.----Geo. Jacobson, Kaukauna
Treasurer---—Wm. Sass, Fond du Lac
Sec.--------Arlene Weidenkopf, Madison

Annual membership fee, $1,00, which includes one year's subscription to "Wisconsin Beekeeping."

Please make remittance payable to Secretary.



PROFESSOR FRANCIS JAGER
Beekeeping Dept., U. of Minnesota

If you are fortunate enough to have an invitation from Professor Jager to spent a night or two at his home, you will find him to be an enthusiastic beekeeper and a genial host, with a wonderful knowledge of many things.

Professor Jager has an ideal location for his bees, and the lower part of his dwelling is his workshop. Like most beekeepers, Professor Jager is proud of his beekeeping equipment, particularly his bee cellar, which is really as fine a one as anyone could wish for.

HONEY RECIPES

1. HONEY BRAN BROWN BREAD —1 cup white or whole wheat flour, 1 teaspoonful soda, ¼ teaspoonful salt, 1 cup bran, ½ cup honey, 1 cup sour milk, ½ cup raisins floured. Sift together the flour, soda, and salt, and add the other ingredients. Steam three hours or bake 40 minutes in a slow oven. If the amount of milk is increased by half, the bread is more delicate and has a somewhat higher food value.

2. HONEY BREAD—2 cups honey, 4 cups rye flour, 1 teaspoonful soda, 4 teaspoonsful aniseed, 2 teaspoonsful ginger, 4 teaspoonsful powdered cardamom seed, 2 egg yolks, ¼ cup brown sugar. Sift the flour with the spices and soda and add the other ingredients. Put the dough into shallow buttered pans to the depth of about an inch and bake in a hot oven.

3. HONEY AND NUT BRAN MUFFINS—½ cup honey, 1 cup flour, ¼ to ½ teaspoonful soda, ¼ teaspoonful salt, 2 cups bran, 1 tablespoonful melted butter, 1½ cups milk, ¾ cup finely chopped English walnuts. Sift together the flour, soda, and salt, and mix them with the bran. Add the other ingredients and bake for 25 or 30 minutes in a hot oven in gem tins. This will make about 16 large muffins, each of which may be considered roughly to be a 100-calorie portion and to contain 2 grams of protein.

4. NUT HONEY CAKE—2 cups brown sugar, 2 cups honey, 6 egg

yolks, 3 cups flour, speck of salt, 1½ teaspoonful soda, 3 teaspoonsful ground cinnamon, ½ teaspoonful ground cloves, ½ teaspoonful ground nutmeg, ½ teaspoonful allspice, 1 cup chopped raisins, ½ ounce citron cut in small pieces, ½ ounce candied orange peel cut in small pieces, ½ pound almonds coarsely chopped, white of 3 eggs. Mix the sugar, honey, and the yolks of the eggs, and beat thoroughly. Sift together the flour, salt, spices, and soda. Combine all ingredients but the whites of the eggs. Beat the whites of the eggs till they are stiff and add them last. Pour the dough to the depth of about half an inch into well-buttered tins, and bake in a slow oven for ½ hour.

BUZZES ABOUT WISCONSIN

G. E. MARVIN

At his home in the little village of Kohlsville, which was named in his honor, occurred the death of Henry Kohl, on December 9, 1926. Mr. Kohl was a well known and highly respected citizen of Washington County and actively engaged in beekeeping for many years, having one of the best kept apiaries in that county.

This month we are back to our old style again, news notes from various beekeepers in the state. Mr. A. H. Seefeldt of Kewaskum reports, "The bees seem generally quiet in their winter quarters but a few colonies are becoming restless. The temperature of the cellar varies from 32 to 42 degrees and there has been no trouble with moisture so far. There is very little demand for honey here during the winter months. Most people using honey, buy their supply in the fall. The largest part of my surplus is disposed of locally with a small percent sold through stores and the rest by canvassing in the cities. As to displays or signs along the road, I have none for the Apiary is the only attraction at the present time. The weather conditions were bad in the late fall and the bees did not get a good flight."

Mr. E. Hassinger, Jr., of Greenville, has the following to report, "The outdoor packed bees are inclined to leave the hives on sunshiny days, more so than other winters at this time. The so-called Indian Summer due in November did not arrive and there were no real good bee flight days since October. If the bees have no flight before late March, there may be some loss from dysentery and dwindling, even with good honey to winter on." He adds, "Yes, I have some trouble with moisture in weak colonies. Much moisture is shown to have been present when the hives are opened in the spring. The market is very slow as yet, both wholesale and retail. Beekeepers who are short of honey should buy from those who have honey to sell, in order to supply their trade. Extracted honey is bringing 10c per pound in 60 pound cans in wholesale lots. Most of the sales are to other producers who are short. The stores here do not handle anything larger than 5 pound pails of 6 pound jugs. The pails retail for from 95c to $1.00 with the jugs bringing from $1.25 to $1.30. The 10 pound pails shipped dierct from producer to consumer bring $1.60 mostly, although some bring $2.00. I have one large sign with the word HONEY on it to let the passer-bys know I have it."

The Washington County Beekeepers Association held its Annual Meeting at West Bend on December 21st. A. H. Kapelke was reelected President and A. H. Seefeldt reelected Secretary. Honey is moving slow, but we are hoping that 1927 will show some improvement in market conditions. One bee-keeper has reported buying honey to supply his trade and if only more beekeepers were doing likewise, the marketing situation in some localities might be improved.

Mr. George Jacobson of Kaukauna reports, "The first half of December, the bees were a little uneasy, but the

last half, they were quiet. Since New Years, they have been busy cleaning house. My bees are all wintered outdoors and I do not have any trouble with moisture condensing in the hives. The market is fair with me—I delivered some to a store yesterday (Jan. 7) and called on several others who reported honey to be moving slowly. They said an outside party had canvassed the city with cheap honey and that was the cause. Number "1" and Fancy Comb Honey is bringing 30c and 35c. Number "1" extracted honey in one pound jars is bringing 30c, 5 pound pails $1.00, 10 pound pails $2.00 with 60 pound cans bringing $9.50. I sell all of my surplus to local trade. An A number "1" product does the selling. I have two sign boards; one on each side of my place, reading 'Honey for sale at the next farm,' to give the prospective buyer time to think after seeing the sign, and if they want honey they can stop before getting past the house. The weather conditions have been fair, although the past few days have been warm during the noon hour. We have had a good coat of snow on the ground and the clovers have been well protected up to now, but as the sun has been quite warm through the middle of the day, most of the snow has been melted and the frosts at night have made large sheets of ice. If this continues for some time, it may do lots of damage to the clover fields before spring."

Mr. N. E. France states that the bees are wintering well in general, both in cellars and outside. He adds, "My special built cellars run about 44 degrees Farenheit and seldom vary from that temperature, so I do not experience any trouble with moisture. The market is fair with comb honey retailing at 25c per section and extracted bringing 15c net. I ship to consumers and have no signs or displays to help in selling honey but my son in St. Paul, sells a few tons of honey at the roadside. It is a good place to market your honey if properly done. The weather has been fairly uniform with few flight days for outside wintered bees."

Mr. France enclosed one of his letter heads which is very attractive indeed. I am sure if a prospective buyer wrote and inquired about honey and got an answer on attractive stationery like Mr. France's an order would be forthcoming by return mail.

Mr. H. J. Rahmlow, County Agent at Phillips has the following to say, "The bees seem very quiet in their winter quarters, but of course it is early yet. Beekeepers who extracted honey and didn't feed sugar are worrying. The cellar is from 42 to 45 degrees F. and very dry for there is a pipeless furnace in the basement. The market is very quiet. I believe old honey has lost some of its flavor which effects the demand. There was more 1925 honey sold here than from the new crop. There is no comb honey here, but five pound pails are bringing from 85c to $1.00 retail. I did not have a surplus this year, but ordinarily sell to grocers and to other beekeepers on commission who peddle the honey. I have signs 'Honey for Sale' on buildings or posts near the road with posters and displays or honey in the stores, which all help to advertise honey."

Walter A. Ross of Janesville writes, "I have 35 colonies of bees packed out of doors in winter cases with 4 inches of planer shavings and last Monday (Jan. 3) they were flying very strong and showed signs of good wintering as but a few dead bees were to be seen in front of the hives. Plenty of good stores and being well packed are the things that help to winter bees successfully. Honey seems to be moving fair in Rock County although I am sorry to say we have some beekeepers who think they are playing a joke on their brother beekeepers by selling at cut prices. The joke is on himself but he doesn't seem to realize it. I found some Number "1" Comb

Honey in a number of stores recently retailing at 25c a pound and I was informed by the storekeepers that they bought the honey in case lots for 18c. Most all of my honey is sold to grocers at wholesale prices. Although I did not harvest much honey last summer, I did not have much trouble in selling it at the association price. Displays are not carried out very much in Rock County, although the local association did display four floats in the recent harvest festival and won second prize. The weather has been very mild except for one or two days this winter. If the weather continues throughout the rest of the winter to be as good as in the past, the bees ought to be in good condition providing the beekeepers left plenty of stores in the hives last fall."

He adds, "The man that is honest with himself and the Association has no trouble in getting rid of his honey crop. Mr. E. .L Badger who lives here has sold all of his honey at association prices and is buying from his neighbor beekeepers in order to keep up his sales. Mr. B. F. Lampher, Chief of Police at Beloit is another sticker and a getter. He seems to have no trouble in getting the Association price. I understand he has sold all of his honey and is buying of his neighbor beekeepers. Mr. S. J. Riesterer has moved from his farm to Janesville and has some extracted honey on hand. Chas. Stone, who sold the most of 7 tons of honey in Rock County last year is getting a good start on the 1926 crop. A. N. Hjorth must be doing something as I find his honey in the stores wherever I go. The Rock County Association will hold a meeting the first Saturday in February to elect officers and collect dues for the ensuing year."

Mr. I. C. Painter reports that his bees are quiet in the cellars and that he is not troubled with moisture. In one cellar the temperature is from 40 to 45 degrees F. and in the other from 45 to 50 degrees. He adds, "The latter cellar is a little too warm at times. The honey market is very moderate and still shot to pieces by undercutting. Some of my former customers can sell at retail below the Association wholesale price;. but I am selling only at Association prices. My surplus is mostly disposed of through the retail stores but sometimes to bottlers, candy makers or to fellow beekeepers. As to helps in moving the honey, will say I have a display at the county fair each year and sometimes in store windows. A large sign at the road-side has sold a good deal at our apiary. The weather conditions this fall were the worst I have ever seen. It led to heavy consumption of stores and considerable feeding of sugar syrup in the cellar. We have had a great deal of snow and if spring is favorable, next season should be good."

Mr. S. P. Elliott of Menomonie reports, "The bees seem to be all right in the cellar where the temperature ranges from 42 to 50 degrees. I have it arranged so that I can read the temperature and give ventilation without opening the door into the bee cellar. I also have the bee cellar piped to the chimney to cause more ventilation and take off the foul air. The interior of the bee cellar is lathed and plastered, and I have never been bothered with moisture. The honey market is rather poor, although I have been sold out since October and am buying honey to supply the trade. We could all sell more if we held to the same price. I sell all mine at Association prices. Others are selling 5 pound pails for 65c and 10 pound pails for $1.50. Comb honey is selling at 25c per pound. I dispose of my surplus locally in four sizes of glass jars and 5 and 10 pound pails. I have a sign near the road at the entrance of the house and also one about a block from here."

Mr. Elliott sent in the observations from his scale hive. From July 2 to 25 they increased 150 pounds with the maximum increase of 15 pounds on

July 11. He goes on to say, "From the 26th of July they fell off every day until they were put in the cellar. I made an increase of 20 from 40 colonies and only had one swarm. The colony on the scales seemed to be about average for the yard, but was only able to get 25 pounds of surplus. The colony reared brood quite late and plenty of it, so you see it took lots of honey to rear brood alone from the 26th of July and besides the bees were home to eat all this time."

Mr. Andrew Stevens reports his bees quiet so far, with the temperature of the cellar ranging from 48 to 50 degrees with no accumulation of moisture to speak of. He adds, "The honey market is fair. Am getting from 10c to 12c in pails and 11½c to 14c in glass net for extracted. Most of my surplus is disposed of in glass. There is too much ice on the ground and clover is apt to be winter killed to some extent at least."

HONEY FOR AUTOMOBILE RADIATORS

BY E. R. ROOT

The members of the A. I. Root Company are using honey in their automobile radiators, following this simple formula: Equal parts of honey, water and alcohol, by volume. Mix the honey with hot water, stirring it well. Pour in the alcohol and stir again. It is then ready for use. The purpose of the alcohol is to thin the mixture so that it will circulate more freely, and at the same time reduce the freezing-point.

A honey mixture should not be used in a leaky radiator nor where connections to and from the engine are not perfectly tight. It is important that the cylinder head be screwed down tightly upon a good gasket, otherwise the mixture will get into the combustion chamber and cause all kinds of trouble.

Before this three-in-one mixture is put into the radiator the old solution of water should be drained out, and the engine and radiator thoroughly flushed with clean water. Any honey-and-water mixture, with or without alcohol, will stop all corrosion; and if there is any rust it will be removed. For this reason any honey-and-water mixture will go through minute openings where water or water and alcohol would not pass. It is important that everything be tight about the radiator, engine, and hose connections.

Occasionally during the winter, if the weather is very cold, the honey-alcohol-water mixture may be fortified again with a little alcohol. This serves the purpose of keeping the mixture thin, so that it will flow freely, and at the same time make it so that it will not form a semi-liquid mush when the temperature goes down to 10 or 20 degrees below zero. Under those conditions, if the machine is started in a temperature of zero or below, plain honey and water may not circulate, but burn in the upper part of the circulatory system. This can be avoided by starting the engine, allowing it to run three or four minutes, then stopping it. In five minutes more start it and then run slowly until the mixture is warmed up enough to circulate well. The addition of alcohol as proposed makes it possible to start an engine in cold temperature without danger of burning, and in this respect it is much superior to the plain honey and water alone.

The question will be asked, "If water and alcohol will be satisfactory, why put in honey?" The trouble is, the alcohol is constantly evaporating, and more must be added. After a long or hard drive the alcohol may be nearly gone before the driver knows it. When the water-alcohol solution is too weak there is great danger of cracking a cylinder or radiator. When honey is added in the proportion named this can not happen, even if all the alcohol is evaporated.

Again, the honey prevents the alcohol from evaporating too fast.

MEMBERSHIP CONTEST

The membership contest for the members of the Wisconsin State Beekeepers' Association was decided upon at the convention and certain awards will be made, although the prizes have not yet been decided upon.

A first prize will be given to the beekeepers who, by his individual efforts, is able to secure the largest number of members up to the time of the convention for 1927. Members delinquent for a year or more will be counted as new members.

In order to avoid conflict between Association members and secretaries of local associations, a prize will also be awarded to the local association which shows the greatest increase in new members for the State Association, in 1927. No provision has been made by the State Association for the local Association prize, and this will be taken care of by the Editorial Staff and Secretary.

Wisconsin Beekeeping

Vol. IV MARCH 1927 No. 3

THE BULLETIN BOARD

Union meeting—Illinois, Iowa, Minnesota, and Wisconsin at the Dadant Factory, Hamilton, Ill., August 9 and 10.

Send in your subscription to the Secretary for the New League publication—50c per year.

COOPERATION—The strength of the Association depends upon the cooperation of its members. Use Association labels and letterheads, buy your pails and glass jars through the Association Secretary.

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E. S. HILDERMAN,
Belle Plaine, Wis.

We do not know how many years Wm. Hilderman has been attending conventions, but we know of twelve and hope he will be able to attend twelve more.

SPECIAL NOTES

Concerning

THE AMERICAN HONEY PRODUCERS' LEAGUE

The American Honey Producers' League has started a new publication under the title of the AMERICAN HONEY PRODUCER, the regular subscription price of which is $1.00 per year, but affiliated members of the League can secure the journal at half price, or 50c a year.

Every member of the Wisconsin State Beekeepers' Association is now an affiliated member of the American Honey Producers' League, and the first number of the AMERICAN HONEY PRODUCER will appear in March. Send in your subscription of 50c at once, so that you will receive all of this year's numbers.

Every State member should receive the League publication, as through it you will be able to keep in touch with the national beekeepers' organization, and the important matters relating to the industry nationally.

Send your subscriptions to Miss Weidenkopf, and they will be forwarded to the League Secretary.

MEMBERSHIP IN THE AMERICAN HONEY PRODUCERS' LEAGUE

The State Association has advanced 12c for payment of membership of every individual in the State Association. In doing this we have taken 12c from your dues in the State Association and forwarded this to the League.

You should, therefore, forward to us immediately 12c to make up this deficiency. This sum can be added to the subscription price of the new League publication, making a total of 62c.

The beekeepers of America never had a better opportunity to belong to a real national organization and secure one of the main bee journals at such a low price. The program to be worked out by the League this year will be worth much more than this to every individual beekeeper, so please let us hear from you at once.

WRITE TO YOUR MEMBERS IN THE STATE LEGISLATURE ABOUT THE BEE BILL

A bill was introduced in the assembly on February 16 by Mr. J. D. Millar, of Menomonie, Dunn County. The number of this bill is————. It provides for a field agent in beekeeping, whose principal job will be to help the beekeepers with marketing.

Every beekeeper in the state should make a strong effort to see that this bill is passed, as it will give us some very needed help and relief.

Very truly yours,
JAMES GWIN, *President.*

THE AMERICAN HONEY PRODUCERS' LEAGUE

The annual convention of the American Honey Producers' League was held at New Orleans on the 25th, 26th, and 27th of January, and, without question, was the most important meeting in the history of the League.

Differences between sections of the country were, to a large extent, eliminated, and, at the end of the meeting, an excellent harmony existed. A new constitution was proposed by Mr. Hambleton and adopted by the League making it possible for every individual beekeeper to become a member at a comparatively low cost. That section of the new constitution important to Wisconsin beekeepers is as follows:

Purpose—To establish and maintain a truly national organization for the United States by:

(a) Protecting the interests, activities and rights of beekeepers in all lines in any manner not inconsistent with public policy.

(b) To publish and disseminate literature pertaining to bee culture and allied sciences in its practical and scientific aspect for the express purpose of uplifting the standards of beekeeping and lowering the cost of production of honey.

(c) To hold conventions of the membership for the discussion of any and all problems of beekeeping and to aid, encourage and foster beekeepers' meetings, public lectures devoted to beekeeping in schools, colleges and public societies in a manner consistent with paragraph (b) of this section.

(d) To aid and promote research in bee culture, nutrition of honey and honey marketing problems by the United States Department of Agriculture, the State Experiment Stations and public colleges and universities or any other agency devoted to such research.

(e) To assist in every educational and research way possible the solution of marketing problems of beekeepers, but not to enter specifically into the business of marketing honey or bee supplies.

(f) To encourage and stimulate an interest in honey through the promotion of nature study of bees.

Membership—The membership of American Honey Producers' League shall consist of two classes, viz., Individual members, organization members and life members as follows:

(a) Individual Members. Any person of good character who is interested in bee culture or any phase of the beekeeping industry is eligible to membership and may become a member by submitting proper application accompanied by the required membership fee, and agreeing to be governed by this constitution and by-laws.

(b) Organization Members. Any association, society or other organization organized in the interests of bee culture or any phase of the beekeeping industry is eligible to membership and may become a member by submitting proper application accompanied by the required fee, and agreeing to abide by this constitution and by-laws.

Application and Election to Membership—All applications for membership of whatever class must be made in writing to the Secretary and bear the endorsement of one or more members of the American Honey Producers' League in good standing. If,

in the opinion of the Secretary the applicant is worthy of admission, he may be enrolled immediately. If the Secretary has any doubt as to his character or standing, the application shall be submitted to the Board of Directors for approval or rejection. No application shall be approved unless accompanied by the required fee. Should the application be rejected, the fee shall be returned.

Fees and Dues—

(a) Individual Members. The initiation fee for any individual member shall be $3.00, which includes the initiation fee and all dues until the following November 1. At the expiration of this time, annual dues of $3.00 shall be due and payable and must be paid before the following January 1 or membership automatically lapses.

(b) Organization Members. The initiation fee for state or larger territorial organizations shall be $10.00 and $5.00 for all local organizations less than state wide, which includes the initiation fee and all dues to the following November 1. The annual dues shall be $3.00 for every twenty-five of its own paid up members or a fraction thereof over twelve and shall be due and payable on November 1 of every year, and must be paid before the following January 1 or membership automatically lapses.

This makes it possible for every member of the Wisconsin State Beekeepers' Association to become a member of the League at a cost of 12c, lacking only the right to vote, but for each 25 affiliated members, the Wisconsin Association has one vote in the League. The Executive Committee has voted to affiliate all the members of the Wisconsin State Beekeepers' Association, so that each member of our state association is now a member of the American Honey Producers' League, thus giving the Wisconsin State Association about 26 votes in the League representation.

In looking over the membership fees, our members will note that individual members may join for $3.00. All previous League members who have already paid in their dollar for this year will be entitled to individual membership and one vote. However, hereafter individual membership will be $3.00, which will include subscription to the League paper and one vote.

The officers of the League are developing a number of policies for the coming year which it is hoped will prove of value in getting the beekeepers organized and better marketing conditions.

We expect to print more concerning the new League policies in the next issue of this magazine.

BUZZES ABOUT WISCONSIN

G. E. MARVIN

Buzz-z-z

The marketing situation, as far as honey is concerned, seems to be in a deplorable condition. We hear a great deal about the agricultural surplus nowdays, and it certainly looks as if there were too much honey in one place at a single time. If we could develop some new method or market to get rid of the surplus, keeping back only enough to supply our local trade, it would help considerably. Much is being said about the small farmer beekeeper who keeps bees as a side line, who figures that it doesn't cost him anything to produce honey, so he sells for what he is offered, often taking groceries in exchange. He is selling wholesale and buying retail. How long can a concern doing business in that way hold out? There are places here in the state where good white honey has been sold for 50c per 5 pound pail, and the retailer is offering this honey for 65c, which is below the cost of production. Nice comb honey marked ungraded has been selling in places for 15 and 18c per pound. Is there any need of farmers giving away their produce like this? If we can only convince the small producer that he can get a better price for his crop of honey than he is now getting,

things might be brighter for everyone concerned. The big problem, however, is doing the convincing. Some may think that if they don't get rid of their honey at once, they won't be able to sell it at all, and so take whatever they can get for it, feeling that a dollar in the pocket is worth three or four tied up in a product in storage.

One beekeeper has the following to say—"The word 'cull' should be substituted for 'ungraded' which will get rid of nice comb honey marked 'ungraded' selling for 15 and 18c per pound. I see that nothing has been done. That's right, let it ride on until as one beekeeper has said,—'It's gone down beyond redemption.' Let's get together and do something before the next crop is ready for market."

Mr. C. W. Giauque, of Stanley, reports the following,—"During the last few days (Feb. 7) the bees have begun to get noisy. The weather has changed from cold to warm and has lasted for six days. This change is causing the bees to think spring is near." He goes on to say that the temperature of his bee cellar is from 40 to 43 degrees and so far no signs of dysentery have shown up. He adds, "No, I haven't been bothered with moisture in the bee cellar. If the thermometer drops very much below 40 degrees or should stay around 35 degrees, the moisture may begin to run out of the hives and would cause moldy combs." As to the honey market, Mr. Giauque says,—"The market has been fair with me. I am sold out of comb honey, and all I have left is extracted honey put up in 5 and 10 pound pails for my retail trade. I use the following method in disposing of my surplus:—I have customers for the bulk of my comb honey, and when it comes to about February 1st and I see that I have more on hand than I can dispose of, I have a commission firm handle the balance of my stock." As to the weather conditions he says, "The last half of January was cold and windy. February so far has been mild and the snow is thawing fast. In case this weather continues, I fear it will cause bees to get very restless in cellars before they can get a flight."

Mr. Wm. F. Pagel, of Chilton, has the following to report, "The bees seem content and exceptionally quiet at this time. There has been no dysentery worthy of mention, and this probably accounts in part for the above stated fact, 'Quietness.' The temperature in my cellar varies about 15 degrees. The lowest is 42° with 55° being high." As to the honey market Mr. Pagel says, "I fail to see any market or buyers to make a market. In order to get rid of the honey, the producer must peddle the bulk of his crop, to get a price near those set by our price committee. I have sold my strained honey at an average of 14 cents per pound—The bulk of the sales has been to grocers. Generally speaking, last year's crop has been disposed of." As to the weather conditions he adds,—"In my opinion, the winter locally, to date, has been ideal, so far as plant life is concerned. The clover stand last fall was good and the fields so far had a blanket of snow covering them. At this time, there are some blotches of ice, but, due to the cold weather, I anticipate no harm has been done."

Mr. E. A. Duax, of Chippewa Falls, reports that his bees are wintering fine and there are no signs of dysentery. The average temperature of his cellar is 45 degrees. He adds, "I had some trouble with moisture this winter. This is a new cellar which was built last summer, and a new cellar is always damper than an old one. Then, too, we had so much rain during the fall, which makes the cellar damper than usual." As to the market, Mr. Duax says,—"The honey market is shot to pieces. Some are selling 5 pound pails for 50c. We have been selling 5 pound pails wholesale to dealers at $8.00 a dozen, and 10 pound pails have been bringing $7.96 per one-half dozen. The 5 and 10

WISCONSIN BEEKEEPING

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H. F. WILSON, Editor.
Louis Alfonsus, Contributing Editor.

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Please make remittance payable to Secretary.

pound pails have been retailing at 85c and $1.65 respectively. Comb honey has been bringing 24c per pound wholesale and 30c retail. By the looks of things, we will have to cut also." He adds, "I always did ship my surplus, but it looks as if we will have to give it away now."

Mr. Jos. B. Hesseling of Potosi has the following to report, "We pack our bees outside and they seem to be wintering good for no signs of dysentery have shown up. The market is slow with comb honey bringing 25c and extracted 14c. Most of my surplus is sold wholesale. The weather has been warm and the bees had a good flight on Feb. 2, 3, and 4."

Rev. A. E. Muehlenkamp, of Athens, reports the following, "The bees were unusually quiet until the middle of January, but have shown considerable uneasiness since then. The bees, being in two stories, were unusually heavy and were not fed. No hives are spotted on the outside, but the odor indicates some dystentery. The average temperature of the cellar is around 45°, but it has been hard to maintain this of late, sometimes going as high as 50°. The cellar is bone dry, and I find that the nearer 40° the temperature is, the quieter are the bees. After March 1st, I always supply the colonies with water from the entry. Some colonies will take a pint a week from then until they are set outside, and after that time some will take a pint a day. The market is awfully slow. I have extracted, but no comb honey, and it is bringing $2.00 per 10 pound pail."

Mr. Hannemann of Cecil reports as follows: "In my cellar the temperature ranges from 45 to 50 degrees. I am not troubled with moisture, there are no signs of dysentery and the bees are quiet." He adds, "The honey market is slow, altho I have only a few pounds on hand which I will dispose of before the next crop is here. Extracted honey is bringing all the way from 10 to 20 cents per pound with comb at 20 and 30c. I am holding my honey at $1.00 for 5 pound pails and $2.00 for 10 pound pails retail. This year I shipped my surplus to a jobber, keeping back enough for my local trade."

Mr. John H. Paas, of Campbellsport, reports the following, "The bees are doing fairly well in the cellar, although a good many are leaving the hives for some reason or other. I can't attribute it to any cause unless the cellar is too dry. One thing I am never bothered with is moldy combs. I have sprinkled the floor with water to see whether it makes any difference."

"No sign of dysentery have shown up to date, for most of the colonies were supplied with combs of honey gathered during the main honey flow. The temperature of the cellar is as near 45° as it ordinarily can be held, and I try not to have it go above 50 degrees."

Mr. Paas adds, "The honey market is quiet as most of the beekeepers have disposed of their surplus as far as is

known to me. Practically no comb honey is produced here. Extracted has been selling at 18 and 19c per pound in 5 and 10 pound pails and 15c in sixty pound cans, but we have to contend with price cutting. (You supply the name.) Most of my surplus is disposed of in 5 and 10 pound pails. The fives are by far the best sellers and average about 5 to 1 of the tens. The weather conditions have been such that the bees have had no cleansing flight since the middle of November, and, with a late spring, one can expect some loss, especially where the bees went into winter quarters with poor honey."

Mr. Roy O. Wolford, of Lancaster, reports the following, "The weather conditions have been excellent here for outdoor wintering. The bees had a flight early in January. Then we had about three weeks of very steady cold weather. The first two weeks of February were very mild. The days were warm enough so that the bees could fly every few days. I am not very well posted on the general condition of bees in different parts of the country, but so far as my own yard is concerned, the bees are wintering in fine shape and all the colonies that were packed last fall are still alive." He continues, "The honey market is very dull. Little honey is moving locally and none is being shipped to outside markets that I know of. The prices of comb and extracted honey are holding steady—Comb honey in small lots sells at an average of 25c per section for Fancy or No. 1 grades—Extracted honey is bringing from $1.50 to $2.00 per 10 pound pail. I dispose of my surplus locally, selling direct to the consumer, through one or more stores giving them a 20% discount for handling and shipping the rest."

CHAS. DADANT AND SON

BY L. C. DADANT

In Europe it is not an uncommon thing for a business to pass from father to son, grandson, great-grandson, and so on down through the ages. In our own country, however, it is rather an exceptional thing to see a business remain in the same family for more than a few decades. This is, no doubt, due in a great measure to the fact that America offers greater and more varied opportunities than do the old countries and the younger generations are allowed greater freedom in every way.

At the birth of C. P. Dadant, April 6, 1851 began the partnership of Chas. Dadant and Son. Although the firm name at the beginning was not Charles Dadant & Son, there was a close relationship and understanding that existed throughout the life of Charles Dadant. This partnership lasted fifty-one years, three months, and ten days and all during that time, father and son not only were partners in business and pleasure but dwelt under the same roof.

During the twelve years that they lived together in France, no bees were kept. Charles Dadant, however, had kept bees many years before and while Camille was a lad, the empty Debeauvoy hives, stored away in a garrett were the only signs of the deep interest that Charles Dadant had in bees and beekeeping.

The unfortunate location of a new railroad near Langres, France which meant complete isolation and ruin for his home town, caused Charles Dadant to abandon his dry goods business in France and come to the United States. In May 1863 he emigrated to this country and bought a forty acre brush farm. The son, Camille, his mother and two sisters and an aunt arrived at Hamilton on the 19th of October of that year.

They had come to the United States for the purpose of growing grapes and no sooner had they settled in the log house built that summer by Charles Dadant, than they went to work and cleared ground for a few

acres of orchard and a half acre of vinyard.

Even at the age of twelve and thirteen years, the partnership was a very close one. Many times have I heard it recounted in our family that grandfather, Charles Dadant, never knew how much money was in the purse and that Camille, my father, looked after the family finances which, at that time, did not require a very extensive set of books.

The first summer was the hardest one for them as they were in a new country and were wholly unacquainted with the language, customs or farming methods. The fruit farm had not, of course, begun to produce and during the first summer, they were compelled to resort to many different strategies to earn a living. One of the things that always impressed us children was that their main livelihood that summer was gained from the picking of wild blackberries that grew plentifully in the brush of western Illinois at that time. The blackberries picked in the afternoon of one day were taken to Keokuk early on the morning of the next. It was necessary to leave home at 4 o'clock in the morning, walk to the river shore and catch the first ferry boat to cross the Mississippi River at that point. Even in after years when the partnership had succeeded and made headway, Charles Dadant and his wife would take their grandchildren and make daily pilgrimages in the woods during the late July and early August and pick wild blackberries for the use of the whole family. On these tramps in the woods and through the pastures, Charles Dadant would carry a hoe and with it would dig up all noxious weeds that he could find. The Canadian and bull-thistle, likewise the offending mullein, were the chief enemies and to this day the writer does not see a bull-thistle but that he wants to get a hoe and dig it up.

Their experiences at making a living in this new world were varied and many. The second year water melons were planted, sweet corn and other vegetables such as would find a ready market but even here, difficulties were encountered. The water melons had to be correctly judged when ripe and sweet corn should be well filled before marketing. On one occasion a quantity of sweet corn was taken to market just before it was quite ready and because it was simply "blisters" the entire load was wasted.

In those latter Civil War days, produce brought a good price but it also required much money to buy the simplest articles. For instance, sugar was at a premium and it was a great attraction for us children to listen to grandmother tell of the blackberry, gooseberry, and other pies that were made without sugar in those days but were nevertheless consumed with relish.

It was in these straits, therefore, that the firm of Charles Dadant & Son had to begin their beekeeping experience. In 1864, the year following their coming to America, Charles Dadant bought two colonies of bees in box hives. These were placed on a slope facing the sun, south of the two room log house with its frame lean-to in which they lived. This spot is directly in front of the present Dadant homestead and bees have been kept continuously there for sixty-two years. Shortly after they were bought, the bees were transferred to Debeauvoy hives such as Charles Dadant had used in France.

Shortly after this, in 1866, Charles Dadant read in the American Agriculturist that Moses Quinby had harvested 22,000 pounds of honey in one season and that it had been sold at a good price. As Quinby was author of a book, "The Mysteries of Beekeeping Explained," Charles Dadant immediately secured it. His bees which had increased to nine colonies, were transferred from the Debeauvoy hives into the hives of Langstroth pattern, Quinby size. The first hives were made with eight frames but these were

later increased to twelve and even fourteen frames and later, some with twenty frames were tried. The latter proved too large and unwieldy and finally after many experiments an eleven frame style hive (ten frames and a dummy) was adopted.

In 1866, the American Bee Journal resumed its publication after having been discontinued in 1861 on account of the Civil War and the Dadants at once subscribed to it and Charles Dadant soon became one of its regular contributors. In 1867, the first Italian queen was bought from a dealer in Ohio, Mr. A. Gray. In the spring of 1868, three queens were imported for the Dadant apiaries, these having been sent by Dr. Blumhoff of Italy. Because of the death of Dr. Blumhoff, the importation of queens was discontinued at that time to be resumed later.

In that same year of 1868, Charles Dadant constructed a honey extractor after the pattern given by Hruschka. With it, he extracted their first honey but made the mistake that most beginners do and that was to extract the honey before it was sufficiently ripened. However, the experiment showed that the production of extracted honey meant a much greater production of that article than of comb honey.

In spite of bad seasons and many winter losses, the colonies in the apiary were constantly increased. Because of the very high price of lumber and because of the straitened circumstances in which the family found itself, hives were built by using lumber torn from the ceiling and partitions of the frame lean-to which had been built to the log house in 1863. After many discouragements, the season of 1869 proved to be a very successful one and 3000 pounds of honey was harvested. A 3000 pound crop of honey in this day and age is very easily disposed of even by the ordinary producer but at that time when extracted honey was a new article and unknown, it was much more difficult to sell.

Up to this time, the son had so far taken very little care of the bees but had instead looked after the farm and worked at making a living for the family in that direction. However, in this season 1869, Charles Dadant took sick and it was necessary that the son look after the bees. The big crop made an enthusiast of him as it has made of many of us who have seen bees harvest honey during a heavy flow. From that year on, father and son were a unit in the beekeeping business and year by year increased their colonies and their production.

In order to keep their own colonies of pure Italian stock, they Italianized those of their neighbors at a nominal charge of $1.00 per colony and in this way kept their stock of bees up in quality.

In 1872, Charles Dadant, made a visit to Italy to import Italian queens and succeeded in making arrangements to get queens of the finest quality from the apiaries of Signor Guiseppe Fiorini of Venetia.

A special packing was devised. Each queen was placed with 50 young bees that had already had one flight in a box containing two combs, one of light colored honey or sugar syrup, the other comb entirely dry. These combs measured about three by four inches. The combs were prepared in advance and fastened in the frames by bees in strong colonies. The queen boxes were arranged in a pile of pyramidical shape with air between them to prevent suffocation and the entire package had a rope handle at the top to prevent it from being turned over. This proved a very successful venture and the importation and sale of these queen bees enabled Charles Dadant & Son to erect a new home which by that time was very much needed.

It may be of interest to some of you to know that in 1871 it was largely through the efforts of Charles Dadant,

that queen bees with attendants in cages were admitted to the mail. They were, therefore, among the first, if not the first to send queen bees by mail.

On March 20, 1872 Charles Dadant was offered the editorship of the American Bee Journal. While this was highly complimentary, it was impossible for him to undertake this task. Little did they think at that time that forty years later, the American Bee Journal would be taken over by C. P. Dadant and his sons. In 1874, when Thomas G. Newman took control of the American Bee Journal, Charles Dadant was asked to conduct the question department which he did for several years. The experience that was being gained in their apiaries daily and the knowledge of European beekeeping helped greatly in conducting this department.

In 1875 the junior member of the firm was married and it was at this time that a substantial increase in their apiaries was made and that the first outapiary was established.

This first outapiary was located at the home of a French friend, Mr. Peter Champeau, some seven miles north of their home apiary. This apiary was very fortunately situated, being in reach of much pasture land and also in reach of a flat prairie that produced fall flowers in abundance. From that time on, their crops of honey gave them comparative independence and although during some seasons there was harvested more than they could sell, this was carried over in barrels to be sold during seasons when the crop was short. It was at this time, too, that they inaugurated the sale of extracted honey in tin pails. Previous to that time, no extracted honey had been sold in the smaller tins such as 2½, 5, and 10 pounds. Their first large sale was to a grocer in St. Louis who bought that first season 1200 pounds of honey where previously he had bought only 100 pounds in smaller packages during the entire selling season.

In 1878 at the Western Illinois Beekeepers' Convention, they circulated a petition for a pure food law as adulterated honey was then a rather common thing on the market. A resolution was drawn and 10,000 signatures secured. The resolution was printed and published by some of the

(Continued in April Issue)

PACKAGES & QUEENS IN CONNECTION WITH THE TRIALS AND DIFFICULTIES OF THE PACKAGE SHIPPER

T. W. BURLESON

Fellow beekeepers and friends, and Mr. President—it gives me great pleasure to be with you, especially since it is a fact we have in our midst those of world-renown, the Dadants, and are being entertained in the home town of Mr. France, one of the oldest and best known beekeepers in America.

Wisconsin, it seems to me, with its great clover fields, beautiful wood lands and lakes, is quite the place for the beeman to come and rest and sweeten his disposition after the big package and queen rush is past in Dixie Land.

The writer comes from the home of the great package and queen industry, Central Alabama. It is here, I believe, where the original commercial package business really made its successful start or had its beginning. The writer and speaker I believe is the second oldest successful package shipper in Alabama and perhaps the South. From this immediate section, in a radius of forty miles of Montgomery, Alabama there has been shipped this season upwards of 25,000 pounds of bees and at the close of the season we estimate an output well over 50,000 queens.

Being located in what I consider the greatest queen and package section of the Sunny South I wish, in behalf of the package shippers, and especially myself, to tell of some of the ups and downs of the late package season just gone. Being located in the so-called Black Belt of Alabama, where but little honey comes in until after the

shipping season, we have just enough to stimulate brood rearing. This condition gives us bees with all their reserve strength, ready for the buyer to use in building up strong colonies to gather large crops of honey in the North Land. In other words, our bees never have a chance to wear themselves out gathering a large crop of honey for their owners before shipment, as our honey flow does not start until about June first. Therefore, as stated above our bees are in "A No. 1" condition to serve in a big honey harvest. We therefore claim as the beekeepers of this section are so favorably located it behoves them to take advantage of the situation and furnish package bees for the growing northern and western markets, especially since our honey flow from sweet clover is always an uncertain factor.

As in the production of honey, you find in the package and queen industry sunny places as well as the dark cloudy ones. The Spring in this part of the South very often opens up warm and delightful even as early as the last of February. The speaker has seen all fruit trees in full bloom at this time, and all other vegetation likewise quite as much advanced. In fact, I have seen the bees just boiling over and commencing to swarm when this spring-like, almost summer condition would change and wintry winds and rain commence and continue for weeks. Can you imagine possibly the feelings of the package man when this occurs and it happens all too often? Just think of the thousands of colonies of bees boiling over and all stores nearly consumed, and you can grasp the situation in a way; feeding must be done and done at once to save the day. Again consider the roads; and, here in the South you find some of our very best locations on our worst roads. Yet, after all, we get around some way, feed the bees and save the most of them. In the meantime, broodrearing is greatly hindered, and in cases stopped entirely just at a point when things should be humming, at opening of the shipping season. the meantime the queen yards have be built up from a few nuclei to thousands, which takes hundreds of pounds of bees and thousands of square feet of worker brood. Everybody including the Boss is kept busy and, well the Boss, he never gets through. Correspondence of course is left till the last and when, after about fourteen hours with the bees and on the roads, possibly you can imagine the condition of the one that is to handle this neglected business. Well, after writing a few letters he falls asleep in the chair and finally gives up and to bed he goes to be up at five in the morning and again out with the bees.

You probably will say why in the world don't you return the customer his money when you see you cannot fill such order on stipulated date. Yes, this would be an easy way out if the weather would give us fair warning in advance, relative to length of such bad spells. However, as a rule it breaks on us out of a clear sky and we keep hoping and looking daily for a change for the better. Again if we should finally return cash deposited with us the chances are, nine out of ten by the time the customer has been able to place his order elsewhere he will receive shipment weeks later than if we had kept and filled it. Here is just a case where the customer is going to be displeased in a way, no matter what cause we may persue and it is just up to us to do the best thing possible, everything considered. In cases of this kind, we always give extra good measure in weight, etc. In fact, we try in every way possible to make up as far as we can the loss coming from such uncontrolled weather conditions.

You are no doubt wondering if these conditions come every year. No sir, not by a lot. Last year, 1925 the package shippers were able to ship in advance of stipulated dates and in cases had to place large shipments of pack-

ages by offering special inducements, relative to price for immediate shipment. By so doing they were able to keep swarming largely in check. All orders for packages were therefore filled on the minute and satisfaction reigned full sway. Well this was just one of those sunny spots of the package industry.

Taking all in all, I feel quite sure this is a true statement of the conditions that the greater number of our big package shippers were up against in 1926. To be sure there were just a few, because of their very favorable locations, were apparently little effected by weather conditions and accordingly were able to fill all orders quite promptly, this no doubt being quite a feather in their caps. But the majority were up against the worst weather conditions of many years. But of course, we cannot have just what we would desire. Mankind would soon tire of warm weather and sunshine if now and then some of the other kind did not come along. We package fellows are getting where we say with the Hoosier Poet Reiley, "It ain't no use to grumble nor complain, its just as easy to rejoice." When God sorts out the weather and sends rain, why rain is our choice.

Wisconsin Beekeeping

Vol. IV APRIL 1927 No. 4

THE BULLETIN BOARD

UNION MEETING—

The American Honey Producers' League is a national organization of beekeepers and can be successful only through the cooperation of a large proportion of the beekeepers of the United States.

Send in your subscription at once for the new League publication, the AMERICAN HONEY PRODUCER, 50c per year.

COOPERATION—

Do not delay making a request immediately to your Assemblyman and Senator, asking for their support of Assembly bill 455 A., which provides for an appropriation for a field man in beekeeping for the state of Wisconsin.

SPRING AND SUMMER MEETINGS FOR LOCAL ASSOCIATIONS—

are now being scheduled. If you are planning to hold a meeting during the spring or summer, please let us know, so that we can arrange our schedule of speakers.

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HARRY LATHROP
Bridgeport, Wis.

Harry is one of the men who has seen service with the Association since its initiation.

Besides being a beekeeper, he is a historian, a bow and arrow expert, a poet and a musician. We hope Harry may continue to work with the Association for many years to come.

PRESIDENT'S ADDRESS

Dec. 2, 1926 Convention

Another year has passed since I last presented to you the conditions of,—and recommendations for,—our Association. Speaking in general terms, I consider the beekeeping industrial condition in Wisconsin today more satisfactory than a year ago, which in reality means that we should redouble our efforts to attain an ideal situation.

Marketing

Marketing is the big problem that confronts us today. This is true along all agricultural lines. But the peculiar thing about our condition is that the beekeepers have it in their power to put the marketing of honey on a far better basis. But they have not done so.

I will be assailed by some of our members for my further remarks. I have been studying agricultural marketing extensively, have talked with experts on marketing. This is my conconclusion: This rigid price-fixing is all "bunk" and is bound to tear down our work in stimulating honey consumption. You can lead a horse to water, but you can't make him drink. I question very much if any of the Agricultural Marketing problems can be solved by groups endeavoring to fix prices on commodities. It would seem very foolish to me for us to fix prices and then increase production. There are only two solutions that will solve the marketing of any and all agricultural productions, i. e. increasing the purchasing power of the consumers and equal distribution of commodities. The solution that fits our situation is equal distribution.

In localities where there is a large surplus, it is imperative that we move it. That bumper crop of ours last year nearly ruined us. I question if a crop failure would have been more disastrous. I favor a regular retail price of twenty cents per pound for honey. This we can never expect to secure all over the state unless we make arrangements for equal distribution. I therefore recommend and urge this convention towards securing an extension or field man.

Honey

We place great stress on the food value of our product. We are putting honey on the market in a far better condition. Our honey exhibits are largely responsible for this advancement. In some localities this attractiveness is still lacking. Let me urge you to use greater care with your exhibits. A poor exhibit is worse than none at all.

The honey-house is our next problem. At this time I may rile the disposition of some of my good friends. They may imagine I am rather rough-shod, insinuative, etc. I have been your president for four years, and have seen a great number of places called honey-houses. Some of them, I must say, are a poor advertisement for good honey. I would like to say more at this time, but I fear that some reporter may misquote me, and a wrong impression be conveyed to the public. But I feel it my plain duty to advise you that this unsightly, topsy-turvy honey-house problem be taken up at this convention and be given a thorough renovating.

The pure food department has made a great change in the unsightly, odoriferous cheese factories of Wisconsin. I hope that the Wisconsin State Beekeepers' Association can perform this reformation with our honey-house problem, without the Department's assistance. Let us leave this convention determined to improve the honey-house situation. They need not be expensive, but they should be clean and attractive. "Cleanliness precedes Godliness."

Inspection

Here I may fall from grace. We are not making the progress that could be made toward eradication of American foul-brood. The Department of Agriculture is doing all that it can under the present conditions. They need more money to carry on the work as well as better cooperation from the beekeepers. You are too careless with treatments. You are wasting Public dollars to save personal pennies. We will never get a corner on the disease situation until we use more gasolene and matches. I am no friend of any other method of extermination. Fire is a wonderful germicide. This is the first time I have expressed my views on this subject in open meeting.

I have nothing but praise for Dr. Fracker and Mr. Adams for their work and management. But as I have previously stated, they could do better and get farther if they were blessed with better finances and cooperation.

Again allow me to fall from grace. I feel it my duty to mention the beekeepers of Dane County. This county with its wonderful honey flow, a county wherein is located our great State Capital, a county blessed with the environments of our great State University, and yet the beekeepers are making no move whatever towards cleaning up the foul-brood situation, which is becoming very critical. I say it is nothing short of a shame to have such a condition all within a few miles of the Capitol dome. Don't you believe, Dane County Beekeepers, that it is about time you put a little more pep in the county organization and go after a cleanup? The disease has cleaned up a few of you now. Bank on me being with you to the last ditch if you go after an honest-to-goodness cleanup.

University

This is the first time I have ever singled out one of our departments and commented upon it. I hope you will get my meaning. This educational institution is the pride of every loyal, red blooded Badger. To us as beekeepers, we become at once interested in the College of Agriculture. In this branch of the University all our bee problems are handled. Here all our research and experiments are performed. We cannot estimate the value our industry receives from this college. Figuratively speaking, our Association would resemble a ship at sea without a

mast, were it not for the College of Agriculture. It is an admitted fact that all Agricultural industry has gone through a slump. Boys are not taking agricultural courses, due to this slump. Make a note of this Mr. Reporter. The University regents, each legislature year, are cutting down the Agriculture budget, due to this falling off in attendance. If a halt is not called immediately, our college of Agriculture will be in the third class, instead of the first. I recommend that this convention go on record as condemning this regular biennual trimming and slashing the agricultural college budget. Agriculture is coming into its own slowly, the way it should come to prevent empty stomachs.

The Economic Entomology department needs larger quarters. This department resembles a fifteen year old boy crowded into an eightyear old pair of pants. Our beekeeping equipment is scattered from the Historical Museum to the Stock Pavilion. There is no question about the immediate need of a Bee Building, but I do want to impress upon you that we never will get one by nodding our heads saying, "Sure, we need one." We've got to get out and work and talk; yes, and keep talking, and be sure you say something when you do talk.

Chautauqua

I would lack good judgment indeed if I failed to comment upon our enjoyable meeting at Platteville in honor of that remarkable Dadant family. I was very much disappointed with the attendance. I realize, however, that the weather man was responsible for that. Those who were unable to attend certainly missed a regular love feast. Everything possible for our comfort was done by the pastor and ladies of the Methodist church.

C. P. Dadant and his three sons were present. The mother and sisters were unable to attend. Say, Folks, that is a wonderful family. Those boys look after Dad's welfare as he used to look after their's. Those grandsons have all the beekeeping attributes of their grandsire. I predict our children's children will be paying those tots honorary tribute in future years.

N. E. France proved a wonderful host. Our evening at his home was more than enjoyable. Brother France is a natural mechanic, and he uses that mechanical genius towards lightening his work. His memory is very keen. With these qualities he is a regular walking encyclopedia of bee-keeping shortcuts.

Conclusion

As in previous years I want to thank you for your cooperation. Practically all my correspondence with you, whether encouragements or complaints, have that underlying cooperative spirit, a spirit that is bound to win in the end. I hope you will take the message that I have brought to you this afternoon in the spirit that I have given it, but I feel the time is ripe that you should see conditions as they are. The thing for us to do is to go after a field man and a bee building.

JAS. GWIN, *President.*

CHAS. DADANT & SON

By L. C. DADANT

(*Continued from page* 33, *March*)

bee magazines although some of them were in doubt as to its practicability. It was not, however, until twenty-eight years later that the pure food law now in existence was passed. This law, of course, has been of invaluable help to beekeepers as well as to other producers of pure food. In the circularization of this petition, they were greatly helped by such men as L. L. Langstroth, T. F. Bingham, G. M. Doolittle, C. C. Miller, Mrs. Frances Dunham, Prof. A. J. Cook, and others.

Meanwhile, the Dadant apiaries were growing. They still had sixty hives with twelve to fourteen Debeauvoy size frames or the frames which were then called the American frames.

The bulk of the apiaries, however, were composed of the Dadant-Quinby size containing eleven frames. In 1876, they undertook the care of 110 colonies in 10-frame Langstroth hives belonging to an old beekeeper by the name of Barlow. These bees were moved from Missouri to Illinois and it was while manipulating them side by side with the regular Dadant-Quinby hives, that Charles Dadant and his son became convinced of the necessity of hives larger than the Langstroth. So it was that their tests of the different sized hives was made not in pairs or groups of four or five or a dozen but in apiaries of one hundred or more at a time side by side.

In 1878, they began the manufacture of comb foundation. The first was made for their own use and it was manufactured under great difficulties. Their work shop was located in front of the old log house under a hickory tree so that the first Dadant factory was in the open with only the sky as shelter. Later the log cabin itself was used as a factory. Then later in 1881 their first real comb foundation factory was built, a one and one-half story building 30x40 feet with a cellar underneath it.

As some of you know, the original Dadant homestead and Dadant factory is located some 2½ miles north of Hamilton. For years, all shipments of beeswax and foundation were made to and from the Hamilton and Keokuk stations by wagons. In spite of this handicap, however, the business grew from year to year until it has reached its present proportions.

Their first foundation mill was bought from A. I. Root but later they secured their mills from several different sources, the most important one being John Vandervoort of Lacyville, Pennsylvania.

The art of comb foundation making at that time was, of course, far different from present methods used in modern factories. The beeswax was melted and cleaned of impurities. It was remelted again and made into sheets by dipping dampened boards in it until the wax became of sufficient thickness to run through the mill. The boards were trimmed on the edges and the wax peeled off and stacked in piles. This was then cut into strips just a little wider than necessary for making surplus and brood foundation. This sheeted wax had to cool before being run through the mill and during the rush of the warm months the piles were carried down the cellar where they would cool more quickly. Then they were carried back up again in a day or two later to be immersed in lukewarm water so as to be of the right temperature for milling.

There are a few things that stand out in the writer's recollections of those days. In melting beeswax, flaring copper tubs were used and when not full of hot beeswax, they were sometimes used for holding water. The writer then a boy of only three or four years of age, happened to be standing with his back to one of these small tubs. Stepping back suddenly, his feet flew out of under him and he sat down squarely in the tub of water wedged down into it so that he could not get out. I can still remember the great sport that the workmen had at my predicament and while it was so very funny to them, it was not at all funny to me.

Many interesting characters were employed from time to time, not only in the manufacture of foundation but in the caring of the vineyard which was of considerable size by that time. The melting room for beeswax was located in direct view of the home of the man who had charge of the melting of beeswax. Beeswax was melted up periodically as there were no telephones, signals were used to let the man know when there was sufficient wax on hand to melt a batch. A red bandanna handkerchief would be hung on the east side of the melting room and this could be plainly seen by the employee who resided on his farm a

half mile away. Then, there were two Frenchmen, Delarue and Gilton, both of them as excitable as Frenchmen are apt to be. They were employed in the dipping process and although neither of them could speak English, they got along remarkably well with the other workmen. Delarue had a little fruit farm of his own and his wife would pick the fruit in the daytime and he would take it to town at night after working hours. Sometimes in the summer time, he would work till very late at night and during the day, he was more or less sleepy when at work in the dipping room. The dipping of wax required the pouring of hot wax from a ladle into the receptacle where the boards were dipped. Delarue would sometimes almost go to sleep because of the monotony of this work. One day through accident, at least let us hope it was accident, one of the men in pouring the hot wax into the receptacle accidently poured it on Delarue's arm. The explosion and yells that followed sounded like those of a Comanche Indian and everyone came running to see what was wrong. It is needless to say that Delarue did not go to sleep on the job after that experience.

In 1881, Charles Dadant and his son published a small treatise on extracted honey. This gave their methods of production, extraction, and sale. This described their methods in detail for, at that time, they were the largest producers of extracted honey, having made a specialty of it as early as 1874.

The implements they had to work with were very clumsy. The extractor was made after the Peabody type, one of the early ones, and the outer can revolved and the baskets were stationary in it. A revolving socket in the center with a faucet in it allowed the honey to run out when the machine stopped. For uncapping, a kitchen butcher knife was used, a bread pan with a sieve on it to receive the cappings, and a few jars or a barrel for the honey, made up all of the apparatus that they had. It was at this time that the Dadant uncapping can was devised which allowed the cappings to be caught on a screen and the honey drained away into a receptacle below.

The outapiaries were run on a share basis. The farmer at whose place the bees were kept furnished a spot for the bees, also a place for the storage of combs and a place to extract the honey. It very often was necessary to use the housewife's kitchen as an extracting room. 20% of the honey was given as the farmer's share. This may look like quite a large quantity but in those days when one figures that the farm house had but little spare room and considering the crude methods involved, the farmer fully deserved the honey that he secured as his share.

In 1885 because of their many writings in the bee journals and because of their close friendship with Mr. Langstroth, they were asked to undertake the revision of his book "The Hive and Honey Bee." Mr. Langstroth's health had failed and it was impossible for him to undertake the revision of the book. Besides because of ill health, he had not been able to keep up with the more modern methods of honey production.

The book was revised and publication of the first revised edition made in 1888. This book was translated by Charles Dadant into French and the first edition published at Geneva in 1889 under the supervision of Mr. Edward Bertrand. This work was translated into Russian in 1892 and into Spanish in 1906.

Throughout these years, the writings and arguments of the Dadants were for the larger sized hives. In 1888 W. Z. Hutchison began the publication of his excellent magazine "The Beekeepers' Review." Both W. Z. Hutchison and James Heddon were champions of the small hives. Their views and those of Charles Dadant and his son did not agree and the position of the Dadants has been largely vindicated as practically everyone will agree

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Annual membership fee, $1,00, which includes one year's subscription to "Wisconsin Beekeeping."

Please make remittance payable to Secretary.

now that a larger brood chamber than the single story 8-frame or 10-frame is needed for production of honey on an extensive scale.

In 1896, a great improvement in the sheeting of comb foundation was invented by E. B. Weed. A few years previous to this, he had written to the Dadants, telling them of his invention for making continuous sheets of beeswax. Weed came to Hamilton with his machinery which was then very incomplete and a big attempt was made by him and by the Dadants to produce satisfactory sheets with it. The machine was something like a sausage making machine. The hot wax was poured into a receptacle and was then forced through an opening, cooling as it came through. Much difficulty was experienced because of the pressure behind the hot wax. If a slight hole opened, the hot wax would squirt all over everything and everybody.

Mr. Weed was treated with so much consideration that when he left Hamilton, he promised that the Dadants should have one of the very first machines for making of endless sheets if he ever perfected the process.

Shortly after 1896, the first Weed sheeter was received and used in the Dadant factory and from that day until this, the Weed process of sheeting beeswax is the most successful and most practical way of making blank sheets for comb foundation.

NEWS NOTES FROM THE INSPECTION OFFICE

No apiary inspectors' examination is being held this spring as more applicants took the examination last year than have ever been done so before and there are still a number of inspectors who have passed the examination and are available, who have not yet been appointed. The register will probably be exhausted this year, however, and it is expected that a new examination will be given in February or March of 1928.

There are now local inspectors in every section of the state and it is possible to make a special inspection of almost any apiary in Wisconsin without having an inspector go more than thirty or forty miles.

Cooperative apiary inspection with one-third of the cost being paid by the county is proving more and more popular and by the time another legislature meets it will probably be necessary to ask for additional funds to meet those appropriated by the counties.

Four new counties will be started this year, partly at county expense. They will be the first ones to be undertaken on the west side of the state, being Barron, Dunn, Pierce and La Crosse. We understand that the matter is being considered also in Portage, Chippewa and Pepin Counties and in one of these areas it was proposed last fall but failed of passage in the county board by only one vote.

This means that area clean-up campaigns will be carried on in the following counties during the summer of

1927: Barron, Clark, Dodge, Dunn, La Crosse, Marathon, Outagamie, Ozaukee, Pierce, Rock, Washington, Waukesha, Waupaca and Wood.

Several other counties in which a small amount of recheck work will be done include Richland, Green, Jefferson, Fond du Lac, Shawano and Langlade but no general survey will be made in any of these areas.

All the worst infected counties are now being or have been covered with the exception of one or two in the extreme southeast part of the state and three or four in the west central section. In fact, there are only two counties containing large commercial apiaries and at the same time rather a general infection of American foul-brood, in which no inspection is being done. They are Sauk and Vernon. The beekeepers in these two counties should arrange for clean-up campaigns at the earliest possible dates because they are suffering severe losses from disease and will continue to do so until a general campaign will be started which will cover the area.

According to the Beekeeper's Item, laws requiring the certificate of all honey imported into the state as to freedom from disease are now pending in about nine states and it is clear that rapid progress in disease eradication in Wisconsin is of the utmost importance to the beekeepers, not only to prevent losses but to be sure of future markets.

On March 15, application blanks were sent to the beekeepers known to be maintaining outyards in order that inspections can be arranged promptly where necessary. Any beekeepers who did not receive blanks at that time are requested to write the Chief Apiary Inspector, State Capitol Annex, at once in order that there may be no delay in arranging for permits for moving the bees to the outyards.

Mr. Adams will make the usual trip inspecting the apiaries of queen breeders during May and all those who wish certification covering the shipment of queens should make application before May 1. Queen breeders are issued inspection certificates instead of the usual form of permits.

BUZZES ABOUT WISCONSIN

G. E. MARVIN

Buz-z-z-z-z-z

What well appointed commonwealths! where each
Adds to the stock of happiness for all;
Wisdoms own forms! whose professors teach
Eloquent lessons in their vaulted hall!
Galleries of Art! and schools of industry!
Stores of rich fragrance! Orchestras of song!
What marvelous seats of hidden alchymy!
How oft, when wandering far and erring long,
Man might learn truth and virtue from the Bee.

—Bowring

By the time this article reaches you most of the readers will know more about the condition of their bees than they do now. (March 12). From all indications, the bees here in the state wintered fairly well and the prospects, as far as a honey crop goes, look good. Will marketing conditions improve any? What would be the effects if we have another large crop like in 1925? Reports continue to come in of comb honey retailing in the stores at from 15 to 20 cents per pound and extracted honey in 10 pound pails bringing $1.00 with Badger Brand honey retailing at $1.25 for the same sized pail. There is one consolation, and that is the fact that not all of the beekeepers are selling at these figures. There are many beekeepers here in the state who continue to get good prices for their honey and they are not complaining much about the marketing situation, but, if this period of price cutting continues, where will it land us? Finally, honey will be so cheap no one will buy it. One beekeeper sent in the follow-

ing, relative to this condition: "I was talking with a storekeeper a few days ago and he said in all the years that he had been selling honey, it had never moved as slowly as this year. He gave as the reason for this that a great many beekeepers have been trying to sell honey very cheaply. One is trying to sell cheaper than the other until the price is so low that the public would not buy honey. The grocer added that in his experience in selling honey, he could take two different beekeepers' honey and place them on the shelf side by side, both being the same grade and mark one a higher price than the other and he could always sell the higher priced one, better than the lower priced honey."

I might mention the fact here that the Educational Committee of the State Beekeepers Association is sending out articles on honey and recipes to the different papers of the state. We have no way of checking up on just how papers publish these articles so will appreciate it if beekeepers who see these articles will write in mentioning the fact that they saw them. We are also working on a plan whereby we can introduce the use of honey into Domestic Science Departments of the high schools. If some local beekeeper would donate to them a pail of honey and then let me know about it, I will send to the school mimeographed copies of tried and proven honey recipes, together with articles on the food value of honey. The committee feels quite sure that by working with the younger generation in this way, we can introduce the use of honey into a great many homes where it would not otherwise get.

Mr. Wm. Michaelson, of Pepin County, has the following to report, "The bees seem quiet and where cellars are not too damp, the bees are wintering excellently. There are very few, if any, signs of dysentery. Colonies that have young queens and sufficient stores are in excellent condition, but colonies that have old queens have lost quite a few bees, presumably from old age. It is possible that there will be heavy losses this spring from starvation, due to a lack of stores. The bees wintered outdoors had excellent flights on February 21 and 22 with the temperature around 50 degrees. The honey market is very quiet and prices are lower than a year ago. Honey is pretty well disposed of and very little, if any, will be carried over." As to the prospects for this season Mr. Michaelson says, "Many beekeepers appear to be discouraged and some are trying to sell their bees. Weather conditions have been such that there is plenty of moisture in the ground and clover is in good condition. The snow is all gone, and there is a possibility of much of the clover being killed by alternate thawing and freezing."

Ivan Whiting of Plymouth reports the following, "Outdoor wintered bees are in fine shape showing almost no signs of dysentery. They have been flying some, although the weather has not been very favorable for flights. There are almost no dead bees in front of the hives, and most bottom boards are practically clean."

Mr. A. L. Kleeber of Reedsburg reports, "I winter my bees entirely in the cellar and no signs of poor wintering are apparent. The market is slow with extracted honey bringing 10 cents and comb, 20 cents per pound if one can find a sale for it. I will have to hold some honey over unless it moves faster. Prospects look good, with clover in fine condition."

Jules Jansen, of Green Bay, has the following to say, "The bees are very restless. Some beekeepers had to take their bees out of the cellar on a fairly warm day for a flight and then put them back again, with some losses in doing the same. Quite a little dysentery is showing up even among those bees that were fed sugar syrup and the best of white honey late in the fall." As to the market, Mr. Jansen reports, "The honey market is fair. Most of the small bee men are fairly well or en-

tirely sold out on honey even with a surplus carried over from last year. Most beekeepers are getting $1.10 for 5 pound and $2.00 for 10 pound pails retail, with glass somewhat higher in proportion to sizes. Along some highways it was reported that honey was being sold for 12c and 15c per pound and even lower."

Mr. L. T. Bishop of Sheboygan writes the following, "And now comes that man Marvin with a long list of questions (some job) but we ought to do the best we can at it." As to the bees he reports, "Some beekeepers are having lots of trouble keeping their bees quiet in cellars. One beekeeper told me his bees were raising the dickens and he was going to take them out. Now I don't know just what that is to raise the dickens, but certainly he did not mean that they were raising brood. Some have taken their bees out of the cellars and report much dwindling, which no doubt is caused by old bees coming out and not having enough energy left to return to the hive. As brood rearing stopped very early last fall, it would naturally leave the colony weak. Giving these weak colonies a I pound package of bees from the south about May 1st or sooner, if possible, will work wonderful results. On February 22, 23 and 24 outdoor wintered bees had a fine flight, the first they have had since November 1st and they seemed to be strong at that time. Bees have consumed an unusually large amount of stores and many colonies will starve if not fed." As to the market, Mr. Bishop adds, "There is not any change in the market. Quantities of extracted honey are on hand but comb honey is in demand. I will probably have some extracted honey left over, but it will keep. It is a little early to forecast prospects. Up to the present time clover is in fine condition; but what will tomorrow bring?

Mr. W. J. Barlow of Waupaca reports the following, "Bees are wintering on white honey as we had no fall flow. Consequently there are no signs of dysentery. The honey market is a problem. The fall sales were brisk at from 16 to 20 cents in ten pound pails and 1 and 2 pound jars retailed at 30 or 35 and 50 cents respectively. Later 5 and 10 pound pails retailed for 65c and $1.25 respectively. Too cheap! The product of a large producer is retailing at 25c in pound jars. It is a fancy article too, both as to appearances and quality. As I am equipped, I don't feel that I can produce honey at that figure. However, I am satisfied that it can be done and we will always have that competition. It seems to me that the solution of the honey market problem is partly based on cutting the cost of production as some producers are evidently doing. With most of us in this section, beekeeping is a side line and there is a lack of equipment, as well as too little time spent on the bees. The time is really spent in hiving swarms rather than in manipulating to prevent them."

Mr. W. R. Abbott of Fort Atkinson reports as follows, "Bees wintered in the cellar are in fine condition with no signs of dysentery. Those packed outdoors have had nice flights during February and the first part of March. Comb honey is selling at 30c with a short crop. Extracted is bringing 15c with an over supply."

Mr. Claude Moll of Ashland has the following to say, "Bees around here are wintering fine, although they have had no flight since the first week in November, with very few signs of dysentery. We wintered outdoors mostly and the snow came early in November, tucking the bees in nice and warm. Honey is moving better now than at any time during the winter. Five pound pails are selling for $1.00 retail, but there is no comb honey on the market here. As a rule the bees will have to wait until about St. Patrick's day for a cleansing flight."

Mr. George Jacobson, of Kaukauna, sends in the following, "The bees

seem to be wintering quite well. They had good flights on February 21, 22, 23 and 24, and all seemed to be strong in bees. Honey has not been moving at all this past month. If the beekeepers would only try to get the public interested in cooking with honey it would be an easy matter to dispose of it. I have been experimenting in using honey for cooking and notice a big difference in the flavor of the food so prepared. I do all of my cooking and canning with honey and if the beekeepers would use their product themselves in everything that required sweetening, live and talk honey, conditions might be remedied some. Creating a desire is selling a product."

Miss Mathilde Candler, of Cassville, reports the following, "I expect to take the bees out of the cellar tomorrow (March 14) as the outside wintered bees are carrying pollen. The honey market is very poor. The local market is ruined by price cutting. The wholesale market price is also very low. One shipment of nice light honey netted me less an 5½c after the commission and freight were paid. Am I getting rich? I received $4.25 per case for Fancy No. 1 comb, delivered. That is too low for that grade of honey. All of my honey will be sold, I think before the new crop comes on."

HAVE YOU SEEN YOUR ASSEMBLYMAN AND SENATOR ABOUT THE BEE BILL? (No. 455a)

We do not believe that the beekeepers of Wisconsin will agree to not have any assistance for holding meetings and for keeping up the organization work. Also, if any help is to be secured in marketing, the appropriation of $3,000 asked for in this bill must be secured.

For the first time in ten years, Wisconsin is likely to be without a full time field representative and the help available will be only that which can be given at odd times by Mr. Adams and Professor Wilson. The beekeeping industry is badly disorganized throughout the entire United States at the present time and the price of honey is such that it hardly pays to keep bees.

This condition can only be improved by continued efforts for organization, honey publicity and work among the beekeepers to get them to ask for better prices. It is important that each beekeeper take it upon himself to make a plea for this bill to his assemblyman and senator.

News of the County Associations

The Milwaukee County Beekeepers held their spring meeting recently in the Trustees room of the Public Museum, Milwaukee. Mr. A. J. Niesen of the Milwaukee County Agricultural School was elected President; John Kneser of Hales Corners, Vice-President and John A. Krause of Thiensville, Secretary and Treasurer. Five dollars was pledged for the Miller Memorial Library Fund.

ANNUAL SUMMER MEETING WILL BE HELD AT HAMILTON, ILLINOIS

August 9 and 10

Following a plan adopted last year for alternating the summer meeting, a union meeting of beekeepers from Minnesota, Iowa, Wisconsin, and Illinois will be held at the Dadant factory on the above dates. Wisconsin beekeepers should plan their vacation trips to take in this meeting.

Hamilton, Illinois, where the Dadant factory is located, is also the site of the great Mississippi River Dam, and it is an interesting sight to see a concrete work extending clear across and daming the greatest river in America.

Details of the program will appear in later issues of WISCONSIN BEEKEEPING.

CORRECTION

An article appearing in March issue of WISCONSIN BEEKEEPING on page 33 was by Mr. M. C. Berry, of Montgomery, Alabama, instead of Mr. T. W. Burleson, of Texas.

FOR SALE—Sixty pound cans and cases; 100 cases of two cans each, never used, 95c per case; 500 cases of two cans each, used once, in first class condition, 30c per case. C. W. Aeppler, Box 145, Oconomowoc, Wis.

FOR SALE— 14 colonies of bees, 26 supers, 1 two-frame reversible extractor and other equipment at half price. A. H. McDougall, 1375 41st St., Milwaukee, Wis.

BOOKING ORDERS NOW—How about those package bees and Italian queens you are planning on getting in May or June, 1927? We have them for sale right here in Illinois. A card will get our price list. Safe arrival and satisfaction guaranteed. Health certificate. Bank reference furnished.
Benson & Walton Bee Line,
612 Hill St., Galena, Ill.

QUEENS, PACKAGE BEES

AND NUCLEI FOR SPRING DELIVERY 1927

Our very best honey-producing stock of gentle three-banded Italians.

One 2-lb package with young laying queen, $3.75; 5 packages, each, $3.60; 10 packages, each, $3.50; 25 or more, each $3.40. For the 3-lb packages, add $1.00 per package. Two-frame nuclei same as 2-lb packages; 3-frame nuclei same as 3-lb packages. F. O. B. Luverne.

Queens, one, $1.00; six, $5.00; twelve, $9.50; one hundred, $70.00. Tested queens, $1.50 each, or $16.00 per dozen; 20 per cent books your order. Begin shipping April 15. We guarantee safe arrival, satisfaction on everything we ship.

TAYLOR APIARIES
Lock Box, Luverne, Alabama

AMES HATCHED CHIX

From flocks of Tom Barron strain, females mated to Tom Barron cockerels, from 250 to 270 egg hens at $18.00 per 100.

Tom Barron White Leghorns, Buff and Brown Leghorns, $13.00 per 100.

Tom Barron Barred Rocks, Wyandottes, Reds, $15.00 per 100.

All flocks inspected for color and heavy laying type.

We know our Ames hatched chix will prove very satisfactory to you, and we are quoting lowest possible prices.

Will take extracted honey in exchange for chicks.

Ames Hatchery,
R. 2, Deerfield, WIS.

QUEENS & PACKAGE BEES—Italians, Goldens and Carnolians. Send for FREE Circulars giving prices and valuable information. For years have been shipping thousands of pounds of bees all over U. S. A. and Canada. AULT BEE CO., Box 98, WESLACO, TEXAS.

1000 PACKAGES of bees for sale in March, April and May. Two pound package and queen, each $3.60; three pound with queen, $4.75, 5% discount in lots of 100 or more packages. Queens: Each $1.00 in any number until May 10th, after that date 12 for $10; $85 per 100. Breeding queens, none better, $5.00 each. No disease—nothing but light thre-band Italians. I have been shipping bees and queens since 1889. W. H. Laws, Box 505, Wharton, Texas.

BOOKING ORDERS

for High-grade three-banded Italian bees and queens; 2-lb package with select untested queen, $4.50; discount on quantity. Select untested, $1.00, $10.00 per dozen; select tested queen, $1.50. Inspector's certificate with each. Reference—The Selma National Bank, Selma, Ala.

J. ALLAN, Catherine, Alabama

HIGH GRADE BEES AND QUEENS

2 pound package, $2.50; with 1927 Spring Queen, $3.50

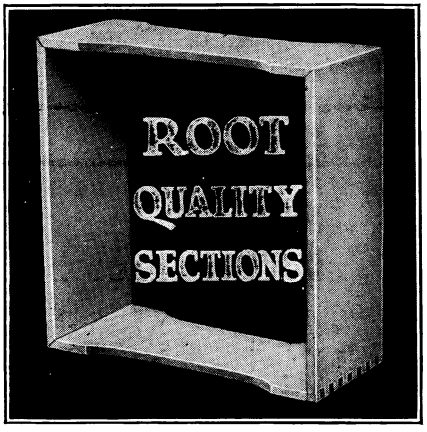
Have 800 colonies, but will only book orders that are absolutely certain of prompt shipment. Safe delivery and satisfaction guaranteed.

Disease has never existed here.

For REAL bank reference write VALLEY BANK, Globe, Arizona.

W. A. WALSH
Pima, Graham Co., Ariz.

Why Some Comb Honey Commands More Money



The large honey markets demand comb honey in light cream or white sections. This has made it difficult to sell very large amounts of comb honey stored in dark sections—which has made a deep impression on some of the comb honey producers. The harvesting of a large crop of unsalable honey is not profitable, and the severe losses from sections broken in transit is also not profitable.

Root sections are a great help in marketing honey. Their beautiful light color and their very strong corners insure the best returns on the beekeeper's comb honey business.

Root Quality Sections are honestly manufactured. The material is a full ⅛" thick. The beeway section is 1⅞" wide. The sides measure 4¼" long when folded, so that four of them fit the second-holder properly.

Buy Root Sections

Apply This Test to the Sections You Buy

How thick are the Sections? Root Sections measure eight to the inch.

What is the width of the Sections. Root Sections are full width as shown in the catalog.

Is there any space between the Sections to be propolized? Root Sections are full size and fit tightly in the section-holder, eliminating the propolis on the side.

How expensive are thin Sections to the beekeeper? Root sections, being thick, have very strong corners and the breakage is practically nothing, therefore reducing the cost per section to the minimum.

Are the Sections white or light cream in color? Root Sections are white or light cream in color, made from clear basswood, and help bring the very best price for the honey.

A. I. ROOT CO. OF CHICAGO
224-230 W. Huron St.,
CHICAGO, ILLINOIS

A. I. ROOT CO. OF ST. PAUL
290 E. Sixth St.,
ST. PAUL, MINNNESOTA

Root QUALITY BEE SUPPLIES

"The 20,000 sections I received from you this spring are the finest appearing and the best sections I have received from any manufacturer in twenty years. Last year I used over 20,000 of your sections and was satisfied."—S. D. Ensign, Fowlerville, N. Y., June 23, 1926.

Root QUALITY BEE SUPPLIES

Wisconsin Beekeeping

Vol. IV MAY 1927 No. 5

THE BULLETIN BOARD

Do you wish a spring or summer meeting in your local Association? If so, let us know at once.

UNION MEETING—to be held at the Dadant Factory, Hamilton, Illinois, August 9, 10 and 11. Mr. Lloyd Watson will be the principal speaker.

BUY YOUR SUPPLIES through the State Association.

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Wisconsin Beekeeping

VOL. IV MAY, 1927 No. 5

THE AMERICAN HONEY PRODUCERS' LEAGUE

The first issue of the AMERICAN HONEY PRODUCER, the official organ of the American Honey Producers' League was mailed out the first of March, and copies of this issue have been sent direct from this office to all those who have sent in the subscription price of 50c.

Every beekeeper in Wisconsin should subscribe for the AMERICAN HONEY PRODUCER, since it will contain full and up to date information concerning the national policies relating to the beekeeping industry. The subscription price of 50c is very small, and there will be many numbers from which every beekeeper can get information worth many times the amount of the subscription.

A national campaign for honey publicity through the beekeeping associations will be carried on during this coming year.. This campaign is similar to the one which has been carried on in Wisconsin, and should prove very successful in bringing honey to the attention of the general public. About forty of our members have already subscribed, but we should at least have two or three hundred subscriptions in the state of Wisconsin. Please send subscriptions in to the state secretary.

LEWIS BEECAUSE

This little publication contains eight pages and instead of being sent free to our beekeepers, a price of 15c per year is being charged. However, we believe that the information contained in this publication will be well worth the small sum of 15c, and we recommend that all of our members subscribe for it.

LLOYD R. WATSON WILL BE PRINCIPAL SPEAKER AT THE SUMMER CHAUTAUQUA

The summer chautauqua committee is glad to be able to announce that arrangements have been made with Mr. Lloyd R. Watson of Alfred, New York to give a demonstration of his method of mating queens by hand on the afternoon of August 10th at the Union Chautauqua of Beekeepers, Minnesota, Wisconsin, Illinois, Iowa and Missouri.

This will probably be Mr. Watson's first demonstration before a large public audience, and every beekeeper who is interested in attending the Chatauqua this summer will have something to look forward to that is entirely different from anything that we have been able to present at previous meetings.

We hope to be able to publish the complete program in the next issue of WISCONSIN BEEKEEPING, but in the meantime we would like to have you thinking seriously of attending this meeting, which will be one of the most important ever held in the upper Mississippi Valley.

Not only will the beekeepers have an opportunity to see Mr. Watson give his demonstration, but they will also have an opportunity to visit the Dadant Plant, and observe how wired foundation is made. And don't forget that between Hamilton and Keokuk, Iowa, there is a large dam built completely across the Mississippi River. This in itself is quite an interesting sight to see.

BUZZES ABOUT WISCONSIN

"For, lo,
The winter is past,
The snow is over and gone;
The flowers appear on the earth,
The time of the singing of birds is come,
And the voice of the dove is heard in our land."
—Sharp's "Spirit of the Hive."

"Bees in Price County seem to be in in very good condition so far as strength of the colonies is concerned, but there has been quite a winter loss with some beekeepers, due to starvation. This has been practically the only cause for any winter loss, outside of queenlessness and other problems that naturally would tend to make a colony die out," states Mr. H. J. Rahmlow, of Phillips. He continues, "I have not noticed any dysentery whatever among bees here during the past two winters.

Practically all the honey has been sold in this section, and there has been little inquiry lately for it. The price of honey has dropped a little over the past two years, and the beekeepers are asking anywhere from 70 to 75 cents for a five pound pail from the storekeepers, who are selling anywhere from 85c to one dollar per pail at retail.

The weather turned exceptionally warm about the middle of March, in fact, we had the warmest week we have ever experienced here, which led some beekeepers to take their bees out of the cellar. The weather turned colder again and there have been very few days when the bees could fly. As there was no dysentery in the cellars, if the cellars could have been cooled down, the bees would have been much better in doors. I have recommended that beekeepers never take their bees out until after April 1st, unless there is some very good reason for it.

It seems from inspecting the colonies that there are more bees this year than usual, due to the fact that we had a very rainy fall and the bees did not fly and wear themselves out. This, however, has led to a large consumption of stores and starvation with some beekeepers."

Claude Moll, of Ashland, reports as follows: "On April 12th, the bees were in very good condition here, with a winter loss of between 5 and 10 per cent, caused by keeping old queens too long. The marketing situation is about normal. Most of the honey produced in this locality is absorbed by the local trade. Some beekeepers have considerable honey on hand, but we expect it to be all sold before the next crop is harvested. Five pound pails sell for 90c. Jars containing 1½ pounds which are the biggest sellers in the stores are 40c. There have been only four days so far this spring when bees could fly, and no pollen has been brought in as yet. The snow left early in March and there has been some damage to the clover, but, on the whole, it looks fairly well."

Harry Borcherding, of Lafayette County, writes. "The colonies are strong due to bees rearing more brood in the cellar than usual. The loss is from 5 to 10 per cent, due to queenlessness, starvation and poor queens in the hive. Retailing of honey is very slow, with five and ten pound pails bringing 75c and $1.50, respectively. Fancy comb honey is bringing $5.00 per case, with number 1 at $4.50. The season, so far, has been unusually wet, with either rain or snow four days a week. The roads are impassible for cars. Clover is looking good, and with so much rain, it gives us hope of having a big crop of honey this year. No new beekeepers are starting up, but older ones are going out of the business, on account of the small profits. The bees had at least a half dozen good flight days during March."

R. A. Schwarzkopf, of Shawano County, reports the following: "The conditions of the bees is good. Some

removed their bees from the cellar around March 20th, when the weather was more springlike than now (April 6). This seems a little too early to ascertain just what the winter loss has been, but from present indications, it will not be heavy." As to the marketing conditions, he says, "Not so good, though I have seen them worse. As far as I know, there is not much honey left in the hands of producers in this county. Ten pound pails are bringing from $1.25 to $2.00. After the fine spring weather we had the middle of March, it turned cold and raw. The snow that fell the last week in March has all disappeared, but it has been too cold so far for the bees to fly. Prospects for a crop this season are good so far."

Walter A. Ross, of Rock county, has the following to say—"As far as I can find out, the winter loss in this county has been very small, but there is some possible chance of loss from spring dwindling. The marketing conditions seem to be picking up some, for honey seems to be selling very well. The local association has had a warm time with the price cutters, but I believe they have that thing pretty well straightened out now. One good thing about Rock County is that we have a lot of good members with spring steel backbones and these beekeepers will not break down in a Honey War. The local association is going to have a honey booth during the Janesville Food Show, to be held here May 4th to 7th. They will advertise honey to the extent of $125. The committee is working on a program to have speakers, demonstrations and contests of various kinds to attract the crowd. The plan is to buy the honey of the beekeepers in this county and sell it at the booth. The profits will go to pay for advertising and the rent of the booth. Only the State Badger Brand label will be used in the booth."

William Pember of Comath, Rusk County, reports, "The bees are all in the cellar yet (April 9) in this part, and they are not uneasy. Those wintered outside are in good condition. The marketing situation is very poor. There will be the biggest share of the last year's crop left over. Some have scarcely sold any. I have been selling honey at $1.50 per ten pound pail, and some have sold it for as low as 90c. Beekeeping is absolutely overdone. I have 4,000 pounds of honey on hand for which I will be willing to accept 9c per pound."

S. P. Elliott, of Menomonie, reports as follows, "Most of the bees are in fairly good shape, at least much better than last year. Some of the bees have not been taken out of the cellar yet (April 9). Some beekeepers have reported losses from 25 to 50 per cent, due to starvation and foulbrood. The marketing situation is rotten, and the beekeepers can blame themselves for the biggest part of it. They sell at any old price, in any kind of a container, retail and wholesale, all the same—no grade. If there is any honey still on hand, I guess the beekeepers will have some time in getting it moved before another crop. Prices have ranged from $1.50 to $2.00 on ten pound pails, 65c to $1.10 on 5's, 35c to 45c on pints, and 1 pound jars from 25c to 35c. Bees have flown six or seven times since the 8th of March. Clover seems to be in good shape so far, and several have told me that it is better than they have seen for some time."

Charles N. Roy, of Sparta, has the following to say, "Outdoor wintered bees used up a lot of stores, but a very small amount of dysentery was noticed. The loss was around 25 per cent, due mostly to starvation. The market is rather slow for extracted honey. It has been cold and wet lately, but the bees worked on maples during the mild, sunny weather in March."

WISCONSIN BEEKEEPING

Official Organ of the Wisconsin State Beekeepers' Association.
H. F. WILSON, Editor.
Louis Alfonsus, Contributing Editor.

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Annual membership fee, $1,00, which includes one year's subscription to "Wisconsin Beekeeping."

Please make remittance payable to Secretary.

HISTORY OF BEEKEEPING IN IOWA

N. WILLIAMSON, *Bronson, Iowa*

When Mr. Wilson asked me to talk to you on the history of Iowa beekeeping, it seemed like a subject easy to prepare; when I went at the job I found it quite a different matter.

While Iowa is full of men who can tell you much of the history of the state regarding beekeeping, very few have taken time to write it down for permanent reference.

In 1912 our present State Association was formed and records have been kept since then. Not very many go back of that time. While there is evidence that other organizations were formed, none of them were ever made a matter of permanent record, and we have only the statements of individuals for the fact that they once existed.

Mrs Ellen S. Tupper tells us that in 1865 there was (according to the Department of the Interior) 87,118 colonies of bees in Iowa, and that they produced 1,117.833 lbs. of honey. I wonder, after reading that statement, if there wasn't an awful cry raised as to what was to be done with all that honey. At least we would if a crop equally large per colony were produced now.

Mrs. Tupper also gives some comparisons with some of the foreign countries in regard to the number of bees kept. She tells us (and gets her authority from Government reports) that East Friesland, a province of Holland, maintained 2000 colonies of bees to the square mile and did it for twenty years while Iowa had only two, or a trifle less, for each square mile at that time and produced 131½ pounds per colony as against their 30 pounds per colony in the Holland province. So it seems that we have a long way to go yet in this country before we reach our limit in producing honey, and in consuming it as well.

In 1875 there was an organization formed and two meetings held, then discontinued because of lack of attendance. I think there was another attempt made at organizing before our present Iowa State Beekeepers Association was formed, but I have no data and can tell you nothing about it.

We are inclined to believe that all the well enlightened beekeepers have lived in our time, but I am sure that if we would give a little time to the study of some of the men who were prominent from the early eighties to about 1900, we would change our opinion. It is true we have gone ahead beyond them in many ways, but we have had their knowledge to work with; without that we quite possibly would not have gone any further than they did.

There have been many gold rushes in and out of Iowa, and many of our best beekeepers have been taken away from us by these rushes. A man in California reports a large yield of honey: everybody wants to go there and many do go, afterwards finding they are not so well off as they were in Iowa.

Then too, someone would report a large yield in Iowa and there would

follow a rush for our state. I *think* folks have never been disappointed when they came as we have always delivered the goods.

There are still rushes on and many are leaving our state for better places. We have lost one of our largest beekeepers from Woodbury county within the last year; another tells me he is going, and then another; all these from our county to that "land of milk and honey." 'I understand it is mostly milk *this* year.) I myself have been bitten by the same bug and have made a trip through that Promised Land, spying it out.

Afterwards I told Mr. Pellett that he and E. R. Root made me think of the two Irishmen who went to church. After they sat down one of them said, "Where is the preacher? I can't see him." The other said, "Can't you? I can see two of them."

I am sure that the men who have made the most money from bees are the men who have settled down in Iowa and stayed there. Iowa, one year with another, I believe, will produce as much honey per acre as any state in the union. Any place that will produce more for a season or two will be so full of bees in a short time that no beekeeper would want to locate there.

To illustrate how we have progressed I want to give you a little item that appeared in "Gleanings" in the '80's. It seems that Mr. Doolittle and Mr. Miller had been having some discussion in the papers as to who had the best paddle for getting rid of the scolding bees; an Iowa man brought one out made from a shingle that he thought was much better. He had made a nice little paddle from his shingle with a few holes in it and he guaranteed that it would get them every time.

Some years ago I was visiting one of our beekeepers north of Sioux City and he told me of a plan which he thought would beat that older one. He got an armload of hay and set it afire and he assured me that the scolders (my wife calls them the ones that swear at you. I thing she is comparing them with me when one slips under my veil and gets me on the end of the nose. Of course I don't swear but she thinks I am trying to. I have seven of those scolding kinds of bees in one of my yards that I am starting to requeen. I think I need them all in the hive and I haven't time to spend killing them.) would attend very soon to their own destruction.

Iowa has had many prominent men among the leaders in beekeeping of which I will mention only a few.

Mrs. Ellen Tupper was the first teacher of bee culture at Ames, and one of the first to attempt to raise Italian queens. She and another woman did a general queen business at Des Moines though Mrs. Tupper's home was at Brighton. I think they started their queen business about 1871. I do not know how long it continued but it was alive for several years.

Mr. Eugene Secor of Forest City was one of the leaders of Iowa from some time in the 80's up till about the time of the present organization's forming. I never had the pleasure of meeting him, but I can't help but place him among the Swedes, coming from the town he did.

O. O. Poppleton of Williamstown was very prominent through the bee journals for many years. Then he got to spending his winters in Florida, and soon moved there and made that his home for the rest of his days.

Edward Kretsmer of Council Bluffs tells us that he was the first to bring an Italian queen across the Mississippi river, and the first to keep Italian bees in Iowa. He secured his queen from a Mr. Parson of Long Island, who, he says, was the first to bring Italians into the United States. He gives us some notion of how uncertain the honey crops were in those early '70's—for four years he secured only about 10 pounds per colony; then the fifth year

he got an average of 400 pounds; thus for the five years he averaged 90 pounds per colony. I know of one beekeeper who would be obliged to move to that large brick building belonging to Woodbury County if we went four years without a honey crop.

There are many others of whom I will mention only a few. Mr. Strong of Clarinda was for many years among the best posted of beekeepers in the state though not well known, because of his unassuming disposition. A Mr. Bliven of Leon, later of Des Moines, I think; Mr. L'Hommedieu of Colo; Mr. L. M. Brown of Woodbury county and the first of our large beekeepers of that county. It is said of him that if he was to go across our state as I have done to attend a meeting of this kind, he would walk, and that he did actually walk across the state three times. Do you blame those old timers for not being very enthusiastic about attending meetings of beekeepers?

In making a list of Iowa beekeepers the Dadants should not be left out, though they have lived across the river in another state. They have always taken a very active part in Iowa affairs and have had much to do with the shaping of Iowa beekeeping. Very few programs have been given that did not include some of the Dadants.

I am sure that no Iowa audience has ever been disappointed in any of them; and we hope that we will be permitted to enjoy many more meetings with them as the years go by.

Then coming to the beginning of our present century, one man stands out so much above the beekeepers of the past and present that you could not well think of Iowa without thinking of him. In everything pertaining to beekeeping that we must mention him as the leader in Iowa bee matters, Mr. Frank C. Pellett of Atlantic, Iowa, now at Hamilton, Ill. It was he who was responsible for the present state organization and he has been a faithful supporter of it ever since.

He was the first State Inspector we ever had, holding the office for five years and laying the foundation for the work that is now being done by Mr. Paddock. I am sure it is easier for Mr. Paddock to do the work now because of Pellett's efforts at that time.

The present Association was organized in 1912 and has been doing good work for the beekeepers of the state; but as with all organizations, it is hard to get the support of the beekeepers. During the war it was easy to get an attendance out at our meetings but when the slump came in prices, the men who lost interest in the meetings—and the business— were the fellows who had gone into it thinking they could make lots of money with little work, and when they saw that chance disappear they had no more interest in the bees and could think of nothing but the stings; because of that the attendance at our meetings has dropped off. But we still have the men who are in the work as a business and who stick to the Association work because they see in it the only chance to better conditions for their work.

We Americans are a peculiar people and will spend our time and efforts only where we can see a chance to make a profit out of it for ourselves. So when a beekeeper can't see any chance to make an immediate profit out of bees, he will spend no more time or money to attend the Association meetings. In spite of that fact I believe the Associations are becoming stronger and will continue to grow, some of our congressmen are beginning to tell us that the only way for the farmers to get any place is by co-operation. I believe the only way for the beekeepers to make any progress is by the work of the Associations. If we could have the support of the beekeepers of Iowa we could go to our Legislature this winter and ask for an appropriation large enough to enable us to clean up our Foul Brood in ten years. (And

get the appropriation too, because of our strength.)

Our cleanup work of the past year has convinced some of the most sceptical of our men that a *thorough* job can be done, *statewide*: I feel sure that with our present State Apiarist in charge it *will* be done and Iowa will be free from Foul Brood.

MARKETING THE HONEY CROP

RORERT SCHOONOVER

The first step in successful marketing is to produce a good quality article, and to put it up in a neat and attractive form. Too much importance cannot be attached to careful and uniform grading, if one is to find a steady market for honey at profitable prices. One of the worst drugs on the market is the great amount of honey sold in leaky and rusty cans, and in dirty and propolized sections, so the more carefully the grading and cleaning is done, the easier it will be to find a steady and ready sale.

The beekeepers east of the Great Plains will find it most profitable to develop their local markets to the fullest extent before selling to the wholesalers. To advertise, the producer may have an observation hive and other exhibits at the county fair where the bees will attract attention, and people may see them carrying on all their household operations. One should have a good display of honey in the different containers, attractively arranged around the observation hive, along with a supply of leaflets, giving information about bee life, and a number of ways in which honey may be used. Another way to advertise is to have a lot of small stickers, bearing the words "Eat More Honey," or something like that, to be placed on envelopes and packages. It is believed that this will bring inquiries from many people who would not otherwise be reached. Advertising may also be done by the use of postcards, usually with an appropriate picture—perhaps giving a honey recipe or two, and quoting the price of the goods in different forms.

One of the best ways of selling is to develop a fancy retail trade through the local grocers. To do this, the producer should guarantee to take back without question any unsatisfactory goods, and to allow the grocer a good commission for handling.

In shipping to wholesalers or others, great care should be used in packing, in order that the honey may arrive at its destination in perfect condition. Wood shipping cases have been found the best, and it is desirable to enclose high grade sections in paper cartons so that if one section breaks, the balance of the case will not be spoiled. The cartons may also be used to an advantage to carry some good advertising matter.

There are some commission houses that handle goods honestly and at a fair price, while others employ all the tricks of the trade to take advantage of the seller. This puts it up to the producer to use at least ordinary business judgment, and not consign honey to anyone, without some knowledge of the standing of the firm.

When the production is large enough the co-operative plan of selling has many advantages, if the members will stick together. One way of obtaining continued support would be to have each member buy one or more shares of stock, at a cash price of say, $50.00 each, as it is likely that with a financial interest involved, the producers would not see the movement fail on account of the crop being marketed through other channels. A co-operative affair should be in the hands of a competent manager or managers, capable of placing the honey in the best markets, at the best prices.

In the Colorado Honey Producer's Association each member packs and marks his honey according to the Association rules, and ships it to headquarters, while if he had car lots, the

Association inspects and grades, and the car is then shipped direct from the apiary to the buyer. The beekeeper gets the full amount of cash from the sale less commission and expenses, so that as far as he is concerned, it is practically a cash sale. Under this plan, the greatest care is used to have all grades of comb and extracted honey of uniform quality, and the Association brand soon becomes known on the market.

Many beekeepers just dump the whole crop on the market rather than go to the trouble of organizing a co-operative, or developing a retail market, even though this would probably bring at least a 50% increase in the price. The apiary that produces from $1,000 to $1,500 could thus be made to pay from $1,500 to $1,800 a year with further advantage that every man who develops his own market helps the general market to that extent, thus steadying the prices, or even helping to advance them.

REPORT OF THE 1926 CONVENTION

(Continued from page 17)

Secretary's report for the year of 1926.

Report of the Use of the Badger Brand Trade Mark

Labels sold:

	Number	Estimated lbs. of Honey
1 lb sizs	48,600	48,600
5 lb size	24,000	120,000
10 lb size	14,000	140,000
	86,600	308,600

Comb honey labels, 750. 40 for shipping comb honey.

Lithographed Badger Brand Pails

	Number	Estimated lbs. of Honey
5 lb sizs	3,000	15,000
10 lb size	950	9,500
	3,950	24,500

Plain pails

	Number	Estimated lbs. of Honey
5 lb size	10,900	54,500
10 lb size	8,025	80,250
60 lb cans	1,395	83,700
	20,320	218,450

Advertising in Wisconsin Beekeeping

Total cost of 11 issues	$ 610.00
Total cost of cuts	23.61
Total cost	$ 633.61
Advertising receipts	530.56
Net cost of 11 issues	$ 103.05
Net cost per issue	$ 9.37

Extracted Honey cartons

Cartons on hand at beginning of year (Paid for)	16,500
Cartons sold during year	2,000
Cartons left on hand	14,500

Also, 14,500 paper sacks on hand at Dept. of Entomology Bldg. (Paid for)

Total amount received for cartons	$ 40.00
Total amount paid for imprinting	12.00
Profit	$ 28.00

Other Supplies Sold

Received for honey cook books	$ 9.00
Posters	12.00
Honey sales commission	6.75
Glass jar commission	61.12
Stationery receipts	30.90

ASSETS OF ASSOCIATION AT TIME OF CONVENTION

Labels

On hand at Democrat Printing Co. (Paid for.)

1 lb size	101,600
5 lb size	25,490
10 lb size	13,545

Cartons

On hand at Democrat Printing Co., (Paid for.) ---------- 14,500
Paper sacks for cartons ---------- 14,500

Envelopes

On hand at Democrat Printing Co.
6¾ inch size ---------- 14,000
9 inch size ---------- 4,000
Letterheads ---------- 9,000

Honey Way Menu Books

On hand at Economic Entomology Building—152 honey way menu books at a value of 60c each (Paid for.)

Secretary's Stenographis Report

Association letters ---------- 1,809
Circular letters ---------- 4,579
Stencils cut ---------- 29
Pages manuscript ---------- 308

Making a total of 6,388 letters sent out from the Secretary's office from December, 1925 through November, 1926.

SECRETARY'S FINANCIAL REPORT

Month	Rec'es. for Mo.	Amt. to Treas.	Total direct expend. of Sec'y. for Mo.
Dec. 1925	$ 295.17	$ 155.24	$ 139.93
Jan. 1926	151.26	129.10	22.16
February	182.37	142.87	39.50
March	334.63	166.50	168.13
April	243.14	159.34	83.80
May	127.00	101.39	25.61
June	418.02	131.62	286.40
July	1421.80	274.40	1147.40
August	767.54	279.45	488.09
September	676.81	219.35	457.46
October	159.71	100.17	59.54
November	238.70	134.32	104.38
Rec'd from M. Candler, old account	25.00	25.00	
		$2,018.75	$3,021.40
TOTALS	$5,041.15	$5,041.15	

TREASURER'S REPORT FOR 1926

December 1			
Balance on hand		$ 320.87	
December 17			
By H. F. Wilson			$ 55.62
By Jay Smith			15.00
January 14			
By Democrat Printing Co.			49.75
By St. Louis Button Co.			13.95
By Gladys Bryant			2.60
By E. Michelson			10.00
January 16			
By Democrat Printing Co.			82.00
By Brock Engraving Co.			16.45
To Arlene Weidenkopf		155.24	
By Antes Press			199.03
February 19			
To Arlene Weidenkopf		129.10	
By Arlene Weidenkopf			25.00
By Edith Mickelson			5.00
By Helen Proctor			30.00
By H. F. Wilson			55.78
March 12			
By Arlene Weidenkopf			25.00
By Edith Mickelson			5.00
To Arlene Weidenkopf		142.87	
By Antes Press			57.00
By Democrat Printing Co.			24.50

By Brock Engraving Co.		3.11
By James Gwin, Conv. Expenses		12.80
March 24		
By Democrat Printing Co.		4.50
April 17		
By H. F. Wilson, Miller Memorial Library donation		25.00
By Irene Utzerath, prtg. of Wis. Bkpg. envelopes and cutting mailing stencils		4.70
To Arlene Weidenkopf	166.50	
By Brock Engraving Co.		6.27
By Antes Press		57.00
April 24		
By Arlene Weidenkopf		25.00
By E. Michelson		5.00
May 17		
By Arlene Weidenkopf		25.00
By E. Mickelson		5.00
May 19		
To A. Wiedenkopf	159.34	
May 25		
By Brock Engraving Co.		3.23
June 6		
To Arlene Weidenkopf	126.39	
July 1		
By Arlene Weidenkopf		25.00
By E. Mickelson		5.00
July 12		
By Brock Engraving Co.,		3.33
July 13		
By A. Weidenkopf, petty cash acc't.		18.51
By Antes Press		57.00
July 22		
To Arlene Weidenkopf	131.62	
July 23		
H. H. Reim, expenses		5.00
A. J. Schultz, expenses		8.02
Helen Proctor, Wis. Bkpg. Env. & Prtg.		27.00
By A. Weidenkopf		25.00
By E. Mickelson		5.00
By Carl Hopkins, expenses		5.00
By Antes Press		126.00
August 17		
To A. Weidenkopf	274.40	
September 2		
By S. P. Elliott, expenses		16.40
By H. F. Wilson, expenses		10.55
By M. D. Fischer, expenses		21.01
By Democrat Printing Co.		146.95
September 4		
By James Gwin, expenses		20.30
September 9		
By M. D. Fischer, cookbooks		100.00
By E. Mickelson, salary		5.00
By A. Weidenkopf, salary		25.00
September 14		
To Arlene Weidenkopf	279.45	
November 10		
By A. Weidenkopf, salary for 3 months		75.00
November 16		
To Arlene Weidenkopf	219.35	
November 22		
To Arlene Weidenkopf	100.17	
November 29		
By Democrat Printing Co.		149.25
November 30		
To Arlene Weidenkopf	134.32	
	$2,339.62	$1,727.61
Subtract bal. on hand at 1st of year	320.87	
Net amt. sent Treas. by Sec'y.	$2,018.75	

WRITE TO YOUR SENATORS AND ASSEMBLYMEN TODAY REGARDING THE BEE BILL. (Bill No. 455-a)

Assembly bill 455, providing for an appropriation for a field man in beekeeping has been approved by the Agricultural Committee and was also approved by the Assembly on the first reading by a vote of 40 plus to 30 minus.

This bill will now need to go before the Finance Committee and every beekeeper who is interested in having help along marketing lines, as well as in the general phase of beekeeping, should write to his Assemblyman and Senator.

Even though you have already written, it will not hurt to do so again!

BEEKEEPERS' MEETINGS

Beekeepers' meetings have been arranged in the different counties, according to the following schedule:

May 5—Clark Co. Dorchester in Village Hall.

May 6—Marathon Co. Wausau in the City Hall.

May 7—Shawano Co., at home of Mrs. Hanneman, Cecil.

May 18—Barron County.

May 19—Washington Co., field meet, at apiary of Mr. Geo. Semfleben in town of Erin.

May 19—Pierce County.

May 20—Dunn County.

The meeting at Shawano County on the 7th of May is of special interest, as it is to be a memorial meeting, held in honor of Mr. E. S. Hildemann, of Belle Plain. Mr. Hildemann is one of the Pioneer beekeepers of Shawano County, as well as Wisconsin.

Beekeepers desiring to make arrangements for a meeting of their local association should write in at once, so that proper arrangements may be made.

WINTER PROTECTION FOR THE HONEY BEE COLONY

This is the title of a new bulletin just issued from the Department of Economic Entomology at the University, explaining the winter activity of the honey bee cluster and also giving the results of a series of observations concerning the value of packing materials for winter cases.

Wisconsin beekeepers should be particularly interested in this bulletin, and copies will be mailed on request.

QUEENS, PACKAGE BEES

AND NUCLEI FOR SPRING DELIVERY 1927

Our very best honey-producing stock of gentle three-banded Italians.

One 2-lb package with young laying queen, $3.75; 5 packages, each, $3.60; 10 packages, each, $3.50; 25 or more, each $3.40. For the 3-lb packages, add $1.00 per package. Two-frame nuclei same as 2-lb packages; 3-frame nuclei same as 3-lb packages. F. O. B. Luverne.

Queens, one, $1.00; six, $5.00; twelve, $9.50; one hundred, $70.00. Tested queens, $1.50 each, or $16.00 per dozen; 20 per cent books your order. Begin shipping April 15. We guarantee safe arrival, satisfaction on everything we ship.

TAYLOR APIARIES
Lock Box, Luverne, Alabama

Classified Advertisements

25c per line for 1st insertion, 15c per line for subsequent insertions. Not less than two lines.

PACKAGES, QUEENS—Immediate Shipment. Why take chances? Days count. If you have been disappointed in the time of delivery and quality of packages and queens, why not join our group of satisfied customers. 1-2lb package with queen $4.50, 1-3lb package with queen $5.50. 1 untested queen $1.00. Safe arrival and satisfaction guaranteed. Health certificate with each shipment. Write for circular and price list, also prices on quantities.—J. M. Cutts & Sons, R. 1, Montgomery, Ala.

1000 PACKAGES of bees for sale in March, April and May. Two pound package and queen, each $3.60; three pound with queen, $4.75, 5% discount in lots of 100 or more packages. Queens: Each $1.00 in any number until May 10th, after that date 12 for $10; $85 per 100. Breeding queens, none better, $5.00 each. No disease—nothing but light thre-band Italians. I have been shipping bees and queens since 1889. W. H. Laws, Box 505, Wharton, Texas.

FOR SALE—Sixty pound cans and cases; 100 cases of two cans each, never used, 95c per case; 500 cases of two cans each, used once, in first class condition, 30c per case. C. W. Aeppler, Box 145, Oconomowoc, Wis.

FARM FOR SALE—35 acres suitable for bees and poultry raising. C. F. Hansen, Maiden Rock, Wis.

NO DISEASE

EVER KNOWN IN MY COUNTY

Ship under State Inspection

Nuclei a specialty and satisfaction guaranteed.

2 lb. or 2 frames with Italian Queen $4.00
3 lb. or 3 frame with Italian Queen $5.00

Can ship any time after the first of April

J. D. SHIELDS

Route 2

Natchez - - - - - Mississippi

BOOKING ORDERS

for high-grade three-banded Italian bees and queens; 2-lb package with select untested queen, $4.50; discount on quantity. Select untested, $1.00, $10.00 per dozen; select tested queen, $1.50. Inspector's certificate with each. Reference—The Selma National Bank, Selma, Ala.

J. ALLAN, Catherine, Alabama

BOOKING for May and June—My golden and three banded Italian bees and queens. 1 to 10 two pound packages with queen, $3.25 each; each additional pound $1.00. Liberal discount on quantity. Shipped on frame of Dadant's foundation comb of brood and honey. Hoffman frame. Frame neuclie same price as pound packages. Satisfaction guaranteed. Health Certificate attached. 10% books your order. Circulars sent. Remember Kellogg's cereal. Address J. L. Gaspard, Hessmer, La. Reference: People Saving Bank & Trust Co., Hessmer, La.

BEEKEEPERS THEMSELVES GIVE

10 REASONS

WHY YOU SHOULD USE

Three-Ply Airco Foundation

1 Maximum number of worker cells
"Three-ply has given straight combs of worker brood clear to top-bar."
—B. F. Kean & Son, New York.

2 Drawn out quickest by the bees
"Bees drew out Three-ply very rapidly. Use 4 horizontal wires."
—F. W. Churchill, New York.

3 Non-sagging
"I consider it the correct solution to the problem of sagging."
—Leslie Burr, California.

4 Wiring made easier
"It is cheaper for me. It is handled faster when placing in new frames."
—C. N. Ballard, New York.

5 Least gnawing around wires
"It handles better, is much easier to imbed wires, and, best of all, the bees don't gnaw it down around wires."—Grant Girley, New York.

6 Shows no bad effects even after three years
"My oldest combs are three years old and show no signs of sagging."
—L. Luczak, Ohio.

7 Not melted down in hot weather
"Three-ply only foundation that would not melt down."
—V. R. Thagard Co., Alabama.

8 No breaking-down in extractor
"It will stand up in the extractor with no breakage at greater speed."
—The Silsbee Apiary, New York.

9 Last word in comb foundation
"Believe Three-ply last word in comb foundation."
J. R. Pinkham, North Carolina.

10 Cheapest foundation per perfect comb
"Three-ply would be cheap to any beekeeper at $2.00 per lb."
J. E. Brown, Indiana.

BUY THREE-PLY IN 1927

A. I. ROOT CO. OF CHICAGO
224-230 W. Huron St.,
CHICAGO, ILLINOIS

A. I. ROOT CO. OF ST. PAUL
290 E. Sixth St.,
ST. PAUL, MINNNESOTA

Wisconsin Beekeeping

Vol. IV JUNE 1927 No. 6

THE BULLETIN BOARD

A Bee Tour Across Northern Wisconsin Will Be Held During the Third Week in August.

Plan to Attend the Union Meeting at Hamilton, Ill., August 9 to 11.

Don't forget the Membership Contest.

Buy your pails and labels through the Association.

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Wisconsin Beekeeping

VOL. IV JUNE, 1927 No. 6

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPERS' ASSOCIATION
H. F. WILSON, Editor.

Entered as second class matter, March 2, 1927, at the postoffice at Evansville, Wisconsin, under the act of March 3, 1879.

Address all communications to 116 E. Main St., Evansville, or the Wisconsin State Beekeepers' Association, 1532 University Ave., Madison, Wisconsin.

Advertising rates given on application to Editor.

Annual membership fee, $1.00, which includes one year's subscription to "Wisconsin Beekeeping."

Please make remittance payable to Secretary.

UNION MEETING AT HAMILTON, ILLINOIS

The beekeepers of Wisconsin should by all means plan to make the trip to Hamilton, for the Union Meeting on August 9, 10 and 11, as arrangements have been made to have Mr. Lloyd R. Watson there to show his method of fertilizing queen bees by hand. It is also quite likely that we will be able to arrange for Mr. Quinn's nephew to come from La Belle, Florida to demonstrate his method of fertilizing queens by hand. If these two demonstrations can be secured, we will have the most important meeting that has ever been held in America, and a very heavy attendance is expected.

BEE TOUR WILL BE HELD IN AUGUST

Because of the demand from a large number of beekeepers, a Bee Tour will be held in northern Wisconsin from either Green Bay or Appleton to Barron county, during the week of August 15 to 20. Because of the meeting at Hamilton on the 9th, 10th and 11th of August, we did not believe it advisable to hold a Bee Tour in Wisconsin this summer, but many of the northern beekeepers have requested a meeting or some kind of a tour, as they do not feel that they can attend the meeting at Hamilton, and so it has been decided to arrange for the tour in northern Wisconsin. Program and schedule will be published in the next issue of Wisconsin Beekeeping.

MR. ALFONSUS DIES AT MILWAUKEE

I am sure that Wisconsin beekeepers will be very sorry to learn that Mr. Louis Alfonsus, one of Austria's most famous beekeepers died at Milwaukee, on May 11, following an operation for gall stones.

Mr. Alfonsus was born in Austria in 1871, and has for over fifty years been interested in beekeeping. Mr. Alfonsus, was, at one time, editor of "Bienen Vater," and has written many books on the subject of beekeeping. At the time of his death he had nearly completed a book on "American Beekeeping" for German speaking people.

Previous to the World War Mr. Alfonsus was considered a wealthy man, but during the war he gave his all, both in money and service to the Austrian Government, and with the end of the war he found himself but with little to show for his efforts, except a few citations for valorous work. In 1923 he came to America to recuperate his fortune, and, after working for some time with Professor Francis Jaeger in Minnesota, he came to work for the Pabst Corporation at Manitowoc, with the intention of later entering the bee business in northern Wisconsin.

The funeral services were held at St. Joseph's Church in Milwaukee on Saturday, May 14. A very few people in America were sufficiently acquainted with Mr. Alfonsus to understand his splendid qualities. Suffering more or less at times with his sickness he was always cheerful and apparently happy. In order to support his family in the home land—besides working all day for the Pabst Company he arose early in the morning and retired late at night writing articles for European journals, and working on manuscripts for several books. He had a splendid knowledge of beekeeping and dairying, and was well read in arts, sciences and literature. At the time of his death he was a member of one of the German song organizations in Milwaukee.

It is hardly enough to say that Mr. Alfonsus was a wonderful man of very strong character, and with a brilliant mind—could he have lived and taken up the beekeeping work he would no doubt have contributed a great deal to Wisconsin beekeeping.

PAN AMERICAN CONFERENCE STUDIES HONEY STANDARDS

On May 10th, the delegates to the Pan American Standardization Conference which holds its sessions at the Pan American Union Building at Washington, D. C., studied the exhibit of standardization work in the United States made by the Bureau of Agricultural Economics. Among other exhibits was that of honey which was made in cooperation with the Division of Bee Culture Investigations under Jas. I. Hambleton, Apiculturist. The operation of the United States standards for comb and extracted honey was illustrated by the use of the standard color grader for extracted honey, by samples of extracted honey of the various color grades, and by the color prints showing the different grades of comb honey.

Circulars were also distributed giving facts regarding the standard grades of honey, and stating that the standard color graders are now located at the principal ports in this country as well as in the ports of England and Germany, thus making it convenient for buyers and exporters to use the United States standard grades.

In order to receive the highest prices, it is desirable that producers of honey throughout the United States should use the United States standards in grading all their honey. Information concerning grading may be obtained from the Division of Bee Culture Investigations, Department of Agriculture, Washington, D. C.

BUZZES ABOUT WISCONSIN

GEORGE E. MARVIN

I happen to be in the depot at Cameron around 4:30 this morning (May 17), and will have to wait several hours before the train arrives for Barron, where a meeting of Beekeepers is to be held today. The outside air is very chilly and one is quite satisfied to sit here in the depot near the big soft coal burning stove. It became necessary to leave Madison rather hurridly last night and I thought it best to take the reports along and write up "Buzzes" on the way, so that they will be out of the way. Besides, this will be a good way to pass my time while I am waiting for the train.

The warm days during March (Madison conditions) had us thinking that we might possibly have an early spring this year for a change. It didn't take long for us to change our minds. April and the first part of May have been cold, rainy, windy and thoroughly disagreeable; very poor bee weather. The dandelions have been out for several weeks, but the bees could not get out to work them on account of the bad weather conditions. For the last few days the fruit bloom has been out and unless settled warm weather comes along, the bees will not be able to profit by them to any extent.

Mr. C. W. Giauque of Stanley, reports as follows on May 10: "The winter loss was very light around here, perhaps 5%. The spring loss is going to be heavy unless the beekeepers look after their bees closely for they have had few flight days and are running very low in stores. I wouldn't be surprised if there would be a spring loss of 25 to 30% where the bees are not looked after carefully. The bees are in fairly good condition where feeding was done, even in spite of the cold backward spring. The market just now is very dull, the honey being pretty well cleaned up." As to the prospects of this season Mr. Giauque says, "They are good so far. The clovers are looking well. The ground is saturated with moisture and if the weather warms up, we ought to get a fair flow of clover honey in June."

Mr. Wm. F. Pagel of Chilton has the following to say. "As for Calumet County, will say that no honey is on the hands of the producer at this time. Last year at this time most of the beekeepers had more or less honey on hand. Somehow producers have decided to sell early this year regardless of the price. Locally, there is no market for honey. At this time of the year, honey does not move for home consumption. The stores have a supply on their shelves and get a fair price for the one pound jars which retail in most places at 25c. The winter loss in bees was unusually small due to the fact that there was little or no dysentery among bees. However, since putting bees out, many swarms have been lost and more suffered for the want of spring feeding. The weather conditions have been very favorable with a late spring. Bees have dwindled a lot during the last two weeks due to lack of stores. The stores in the hives are about consumed. I have noticed where bees are destroying brood and the want for food is the cause for this condition, which is quite general in apiaries throughout this country. The prospects for the coming season in the honey game are very good. Clover came through in excellent shape as did all other plant life which produces nectar. If the bees get up to full strength per colony, a good crop will be looked for."

Mr. Andrew Stevens of Stockbridge reports as follows, "I have less honey on hand than a year ago and do not think there is much honey on the beekeeper's hands around here. The market is fair but with a lower tone owing to underbidding. The winter loss was around 12%, mostly due to granulated stores. Bees are in a poor condition on the average. The prospects are good for a honey crop if the bees get up to strength."

Mr. Glenn O. Bosche, who took over Eli Baldwin's bees at Hingham in Sheboygan county reports as follows: "The bees came through the winter with a loss of 20 colonies out of 228. The market is slow with almost no honey on hand. The bees are in good shape and prospects look bright for this season."

Mr. Martin Krueger of Brillion has the following to say as to conditions: "About 20% of last years crop is still on hand with little demand. Some beekeepers are selling as low as 10c a pound in pails. The bees came out of the cellar in fine shape with hardly

any loss. The bees now are not in as good a condition as last year at this date, it being too cold and wet with colonies short of stores. The prospects are very good with clover looking fine providing the weather becomes favorable for rapid building up the colonies."

Mr. A. C. F. Bartz of Jim Falls reports about 15% of last years crop of honey on hand which is about the same as the year before with the market poor. The winter loss was around 20% with the conditions of bees below the average season.

Mrs. Hannemann of Cecil, Shawano County reports: "Last season's crop is just about cleaned up. At this time last year about 25% of the 1925 crop was unsold. The present market is slow. The winter loss was light, except in cases where the bees ran short of stores. The bees are in fair shape now where they are being fed. Prospects look good providing the weather warms up. Just now (May 12) the days are cool with the bees unable to fly. The trees are just beginning to bud and so far the bees have had nothing to work on."

Mr. France of Platteville writes on May 7: "The owners of few colonies are sold out of honey. Commercial beekeepers have 10 to 30% of the 1926 crop not sold as yet. On the average, this is more honey on hand than last year with the present market slow. The winter loss was from 5 to 15% with the present condition of the bees from fair to good and the prospects for 1927 looking good."

Mr. George Jacobson of Kaukauna has the following to say: "The past month was hard on the bees with too much cold and wet weather. Where stores are plentiful the bees are building up good. My bees are all in their winter cases and will stay there until the weather warms up. Honey is beginning to move good for this time of the year."

The meeting is over in Barron and there is still some time to kill before train time so will add a paragraph—This morning an interesting meeting was held before a class of eighteen students in Domestic Science at the high school. The story of honey, its use in cooking, etc., was talked about. In the afternoon a meeting of beekeepers was held with 17 present and with high school people, the beekeeper's wives and others, the number was swelled to 45.

THE LEWIS HONEY COOKING CONTEST

Congratulations are indeed due Mr. Atkins and Mr. Hawkins, of the G. B. Lewis Company for the honey contest developed by the G. B. Lewis Company during March and April.

There is but one criticism that I might offer and that is that too few people, particularly beekeepers had an opportunity to see the exhibit as it was being judged by Miss Barber. Fortunately, I received an invitation to look over the exhibit during the time of judging. and had an opportunity to see some of the fine honey fudge and candies made wholly, or in part from honey. Photograph of the samples as laid out for judging is shown. A great many of the samples were not particularly good, but on the other hand, some of them were excellent. 9,708 pieces of fudge and cookies were shown in this display. The list of prize winners and prize recipes are included as submitted by Mr. Atkins of the G. B. Lewis Company.

RESULTS OF LEWIS HONEY COOKING CONTEST

Sixteen hundred and eighteen entries of honey cookies and an equal number of honey fudge were received in the Lewis honey cooking contest. Miss Mary I. Barber, Director, Home Eco-

The Lewis Honey Cooking Contest
9,708 pieces of fudge and cookies in one exhibit.

nomics Department, Kellogg company, Battle Creek, judged the contest.

The prize winners are:

HONEY COOKIE CONTEST

1st Mrs. Henry Hilker, Spalding, Neb. $100.00
2nd Mrs. Rud. Luedloff, Cologne, Minn. 25.00
3rd Mrs. N. B. Querin, Bellevue, Ohio 10.00

HONEY FUDGE CONTEST

1st Miss Goldie Bixby, Lisbon, N. D. $15.00
2nd Mrs. O. B. Tollifson, Dalton, Minn. 10.00
3rd Mrs. C. Walter, Altoona, Iowa 5.00

Winners of the honorable mention $1.00 prizes in Cookie contest are Ruth Gladys Lee, Mitchellville, Ia.; J. H. Teague, Silver City, N. D.; Anna Hadenfeldt, Davenport, Iowa; Verna Senn, Campbellsport, Wis.; Mrs. Mina P. Cowles, Ashville, N. Y.; Mrs. Hawk Woodruff, Port Barre, La.; Mrs. L. A. Schultz, Reedsburg, Wis.; Mrs. D. Baasch, Tower City, N. D.; Lucile Bartlett, Kalamazoo, Mich.; Mrs. H. O. Kiehne, Kensington, Minn.; Mrs. A. E. Wusslund, Paxton, Ill.; Mrs. R. J. Rood, Waupun, Wis.; Mrs. L. Eberle, Chatham, N. Y.; Mrs. George Caflisch, Simpson, Minn.; Mr. F. J. Barker, Bloomville, N. Y.

Winners of the honorable mention $1.00 prizes in Fudge contest are:

Neola Skrove, Dalton, Minn.; Rose E. Kelly, Menomonie, Wis.; Mrs. H. A. Carpenter, Moorhead, Miss.; Mrs. Ralph R. Wallace, Nitro, W. Va.; Alice Kelly, Menomonie, Wis.; Mrs. Austin Briggs, Calamus, Ia.; Mrs. K. Mikkelsen, Nome, N. D.; Mrs. Jens. Christensen, Montevideo, Minn.; Mrs. R. A. Ritterbush, Bismark, N. D.; Mrs Frank Rasmussen, Greenville, Ella Schneider, Polaski, Wisconsin; Mrs. Frank Rasumssen, Greenville,

Mich.; Mrs. G. R. Kennedy, Sioux City, Iowa; Ella E. Mueller, Muscoda, Wis.; Margaret Funk, Watertown, Wis.; Clara Maass, Templeton, Wis.; Mrs. E. J. Morey, Velva, N. D.; Marjorie Pouse, New Hampton, Iowa; Mrs E. L. Lorshbough, Clark, S. D.; Amy J. Youngs, Tracy, Minn.; Mrs. Edna McGuire, Nelson, Mo.

As to the quality of the entries, Miss Barber who has had a wide experience in judging food products at state and county fairs, said that she has never seen a more uniformly attractive collection of food products.

At the close of the contest the entries were turned over to the American Legion Auxiliary. This organization distributed two large baskets of the cookies and fudge at a home for unfortunate children. The remainder was sold by the Auxiliary for over forty dollars and the proceeds used for charitable work such as the Southern flood relief.

From tht results obtained it would appear that this contest created a good deal of additional interest in the use of honey. Home Demonstration agents in a number of counties held honey cooking contests and the best entries from these contests were sent to the Lewis contest. Many beekeepers also interested their customers to enter this contest.

In order to obtain additional publicity for honey it is suggested that beekeepers interest their local newspapers in publishing the results of this contest and the recipes of the winning entries.

PRIZE WINNING HONEY COOKIE RECIPES

First Prize Recipe

MISS FISCHER'S HONEY COOKIES

3 eggs well beaten
1 cup honey
1 1-3 cups flour
1 teaspoonful vanilla
1 cup chopped nuts
1 lb. chopped dates
1 teaspoonful baking powder

Mix honey and well beaten eggs together. Add baking powder and flour sifted together, then chopped nuts and chopped dates. Bake in long flat tin; mixture should be ¼ inch high in the pan and ½ inch high after baked. Cut into strips ½ inch wide and 3 inches long and roll in powdered sugar before serving. Pack away in crock.—Mrs. Henry Hilker, Spalding, Neb.

Second Prize Recipe

CARAMELIZED HONEY COOKIES

2 cups caramelized honey
1 cup sorghum
1 cup lard
½ cup butter
1 tablespoonful ginger
½ teaspoonful salt
4 teaspoonfuls soda dissolved in 10 tablespoonfuls boiling water
1 tablespoonful vanilla
Four enough to roll. (Mix ginger with flour.)

To Caramelize Honey—Put 2 cups of honey in a saucepan and cook until a little dropped in cold water forms a soft ball, let cool a little. (I do this because hot honey boils over easily when hot water is added.) Now add ½ cup hot water to honey, let boil for about five minutes, again let cool. This should equal 2 cups.—Mrs. Rud. Luedloff, Cologne, Minn.

Third Prize Recipe

ECONOMY HONEY COOKIES

1 cup honey, light or dark
2 eggs
1 teaspoonful soda
½ teaspoonful cloves
1 pinch salt
½ cup shortening
2½ cups flour
1 teaspoonful cinnamon
½ teaspoonful ginger
1 cup raisins

Heat honey, add soda and shortening. Then flour, spices, and salt sifted together and beat hard. Then add the eggs well beaten, last and raisins, or

any fruit you wish.—Mrs. N. B. Querin, Bellevue, Ohio.

PRIZE WINNING HONEY FUDGE RECIPES

First Prize Recipe

HONEY FUDGE

2 cups granulated sugar
1 square chocolate
¼ cup cream
Butter the size of a walnut
¼ cup honey
¾ cup milk
1 teaspoon vanilla
1 cup nuts

Boil sugar, milk and chocolate for five minutes. Add honey and butter, and boil until it forms a soft ball when dropped into cold water. Let cool, then beat until ready to harden and add vanilla and nuts. Pour on buttered pan and when hard cut in squares.—Goldie Bixby, Lisbon, N. D.

Second Prize Recipe

MISS FISCHER'S HONEY FUDGE

½ cup condensed milk
¼ cup honey
1 cup brown sugar
1 pinch soda
1 pinch of salt
1 cup cane sugar
1 square chocolate
2 tablespoonfuls of butter

Mix sugars, condensed milk, and chocolate and salt together. Cook slowly for about five minutes. Then add honey and pinch of soda. Cook until firm ball is formed when dropped in cold water. Remove from heat, add butter and beat vigorously until soft enough to form flat cakes when dropped from a spoon. Pour onto buttered plate and when set cut into pieces two inches square.—Mrs. O. B. Tollifson, Dalton, Minn.

Third Prize Recipe

HONEY CHOCOLATE FUDGE

2¼ cups sugar
1 cup cream or rich milk
½ cup honey
1½ squares of chocolate
1 cup nut meats chopped fine

Cook until it forms a firm ball when tried in cold water. Take from fire and stir until it starts to grain. Pour out at once, mark in squares when cold.—Mrs. C. Walter, Altoona, Ia.

PROGRESS OF BEE DISEASE CONTROL IN 1926

By S. B. FRACKER
Madison, Wisconsin

It is my plan to take only a few minutes this afternoon to review the progress in bee disease control for 1926. You may remember that at the Association Convention last year at Milwaukee we spoke, with some discouragement, of the set-backs of the previous season. These were due to unusual robbing conditions in the fall of 1924 and I am glad to say that in most areas there has been a rapid recovery from the spread of disease at that time.

The plan by which counties cooperate with the state and pay part of the expenses of the control campaign is proving popular. Under this arrangement the beekeepers of a county visit the members of a county board and impress upon them the importance of the control of American foul brood in the apiaries of the area. It the members of the county board are favorable and make an appropriation of two or three hundred dollars, the State Department of Agriculture assigns to that county double the amount of the county appropriation and begins the clean-up work the following year. Appropriations for four or five successive years are necessary.

Fond du Lac County was the only one which took advantage of this the first year that it was authorized by law. The reduction of disease was so rapid that the area surveys were continued for only three or four years. Since then, Messrs. Schultz and Sass, working in different parts of the county, have been keeping in touch with any

isolated cases of disease which develop and have been cleaning them up at a very small expense.

Each year the number of counties cooperating with the state has increased in number. Neither Mr. Adams, nor I, has appeared before a county board on the subject since the first appropriation was made by Fond du Lac County a number of years ago. Since then, all such plans have been presented to the county board by the local beekeepers and this is believed to be much the better scheme.

This past summer work was started under the cooperative plan in three new counties—Outagamie, Waukesha and Wood. Waukesha was almost surrounded by area clean-up counties and it is fortunate the campaign was started there at this time as a heavy percentage of disease was found in the northern townships. Wood County was also found heavily infected.

Outagamie County in which many well-known beekeepers are located at Appleton, Kaukauna, Greenville and New London, was fortunate in having had several partial campaigns in past years. One of these had cleaned up an infection center in the vicinity of Shiocton and another had helped out in disease control near New London. As a result the inspectors who covered all except the southeast quarter of the county found only 12 diseased apiaries among the 333 inspected. These 12 contained 41 diseased colonies. 29 of the 41 were destroyed and 12 treated. As the county has already made an appropriation for next year, it is probable that these few infection centers will be thoroughly cleaned up and the disease permanently wiped out in the county.

Word has already reached us that for the year 1927 we will have at least three new counties to undertake, all of these being on the west side of the state. 1927 will be the first year in which any extensive areas have been covered along the Mississippi River. The three new counties are Pierce, La Crosse and Barron.

Directing our attention now to the counties in which the beekeepers have been trying for several years to get rid of disease, we find the most notable success in the face of difficulties has taken place in Washington County. When Mr. Seefeldt first undertook this area in 1923, 96 apiaries were found infected. This is a larger number of diseased yards than has been found in any other county during the past four years. The beekeepers in the area are also particularly conservative and rather economical in tendency.

In spite of these obstacles, the number of diseased yards have been reduced to 64 in 1924, 41 in 1925 and only 25 yards were found infected in 1926.

There is still a great deal of work to be done in Washington County but the progress has been at least as rapid as one could have expected.

Dodge and Ozaukee Counties, adjoining Washington to the west and east respectively, have shown less rapid results. In the former it has been nesessary to change inspectors several times so that each had to become acquainted with the beekeepers and the territory anew. In the latter, the bees located in the cities of Port Washington and Cedarburg seem to have found some sources of infected honey in the fall of 1924 with the result that in each of these two cities several newly diseased apiaries were found in 1925. This gave a set-back to the progress of the campaign as each new infection had to be cleaned up separately.

The results were that in Dodge County the number of infected yards has been reduced since 1923 from 82 to 53 in 1926 and in Ozaukee County from 22 in 1923 to 11 in 1926. These figures do not show as rapid an increase as one might desire but there is hope for more rapid improvement in the future.

There are two areas in which the work has been carried on for the past

three years. The first of these is all that part of Rock County, omitting the east tier of townships. In this west 3/4 of Rock County 55 infected yards were found when Mr. Ross and Mr. Mommsen first went over the area. These were reduced the following year to 41 and in 1926 only 27 yards were discovered with American foul brood.

The other area with a three-year record is the eastern 2/3 of Marathon County. This is a large territory, almost twice as big as many other counties, but the bees remained comparatively free from disease while infection was developing both east and west of them. At the close of the war, however, a returned veteran is said to have purchased a number of apiaries, including one or two which were infected, and dividing them into outyards, moved them from place to place, later selling them and leaving the state. This was not discovered until just after he had left so that he has never had any form of punishment for all the trouble he caused by his selfish indifference. Largely as a result of his actions, 22 apiaries were found infected in this area in 1924. Fortunately, the beekeepers realized the seriousness of the situation and gave such good cooperation that this number had been reduced to 5 in 1925 and we had hoped to have a clean record for 1926. One small apiary at the extreme east side of the county was found to have carried over two diesased colonies, however, so that the record for the season is not quite clean.

In the meantime, in the west third of the county there exists a district which has been a center of heavy infection for a generation or more. Disease was introduced into this neighborhood by a beekeeper moving from Dane County about 35 years ago. The first survey of the western third of the county was made in 1925 and showed 33 apiaries diseased. This number had been reduced to 11 in 1926 and there is, therefore, hope that the entire county, large as it is, may be freed from American foul brood within the next two years.

Other areas begun in 1925 were Clark and Waupaca. Like western Marathon County, Clark has had the infection since it was brought into this neighborhood 35 years ago. In the east half of the county, Mr. Dalton found 46 diseased apiaries in 1925 but the beekeepers did excellent clean-up work and only 17 carried the disease over to the season of 1926. Some additional diseased apiaries were, however, found in the west half of the county so that it will be several years yet before the beekeepers can be freed from this menace.

A few minutes ago I spoke of Washington County as having the heaviest infection discovered anywhere during the last four years. Its nearest competitor in this regard is Waupaca. Some fragmentary inspection has been carried on in that area, especially in the vicinity of Clintonville, from time to time in the past, but the first complete survey was undertaken when the county board made an appropriation for the year 1925. Mr. Ivan Whiting pitched in and was able to cover more than 3/4 of the county that one season, although he had no help. He found 83 apiaries infected.

As he teaches school in Plymouth he had to discontinue the work in September and Mr. Ehrgott did some of the rechecking to be sure that the clean-up measures had been carried out by the beekeepers. Both of them must have done their work well because when Mr. Kuckuk went over this section during the past summer, he found that only 33 out of the 83 still had American foul brood in their yards. He also covered most of the townships which Mr. Whiting had not reached and if the same rapidity of improvement continues in that county, they will not need to worry about American foul brood very much longer.

You will also be interested in some of the counties in which some inspection is being done to check on the re-

sults of previous area clean-up campaigns. These are not shown on the chart as the inspections are not complete and the figures might, therefore, be misleading.

Richland County was one of those which appeared to be in fine condition in the summer of 1924 but in which there were several outbreaks that fall arising from exposed infected honey and combs. As a result the figures for 1925 were most discouraging but there was again a rapid improvement and only 8 apiaries were discovered with disease this past summer.

Our old friend, Jefferson County, the source of all our trouble, as it is the county into which American foul brood was introduced in 1870, is still on the map with plenty of disease. 23 yards out of the 99 inspected were found infected in 1926. Green County also still has a great deal of infection, 21 yards having been found diseased this past summer. Some survey work has also been done recently in Sheboygan, Langlade, Calumet and Manitowoc Counties and the results are encouraging. 7 yards were found infected in Sheboygan, 1 in Langlade and none in either Calumet or Manitowac this past season. So little inspection was carried on in the latter two, however, that these results are not significant.

The state disinfection outfit has been kept busy in Ozaukee County during the past winter and is still at the yard of Frank Eickstedt at Cedarburg. When it was located near Janesville, Mr. Ross moved it from apiary to apiary as it was needed and gave the beekeepers instructions as to the method of handling the disinfection. In Ozaukee County, on the other hand, it has been maintained by Mr. Eickstedt and the combs brought to the Eickstedt yard for disinfection. It will be another year before we can compare the results of these two plans, but apparently, either is satisfactory if there is a careful and efficient manager to look after the disinfection work. Mr. Eickstedt reports that in Ozaukee County they have disinfected 4838 combs at a cost of $105.75 for solution and $133.05 for labor. The total amounts to $238.80 or about 5c per frame. Mr. Eickstedt must have discovered some way of being economical with solution for less of it seems to evaporate when he is looking after the equipment than when it is in the hands of anyone else.

In conclusion I would suggest that any who are in attendance and desire to have bee disease clean-up work undertaken in their vicinity, discuss the matter with Mr. Adams or me before leaving. It is also highly desirable that some of the counties, started before the cooperative plan was put into effect, arrange for help with the finances. This has already been done in Outagamie and Dodge Counties and the beekeepers of several other locations can serve the industry in a very fine way by arranging for cooperation of this kind. This suggestion applies, particularly, to Richland, Green, Jefferson, Calumet and Manitowoc Counties where a great deal of work has been done entirely at state expense but where we have not been able to give quite enough time to finish the job as it should be done. If any of these counties will make appropriations of $300.00 a piece, we shall try to find state funds to match them with double the amount and I feel that in this way a final clean-up can be obtained.

ADAPTING SYSTEM TO LOCALITY

(By Frank C. Pellett, Author of Practical Queen Rearing, American Honey Plants, Productive Beekeeping, Etc.)

Locality is a badly overworked word in our beekeeping literature. It is too often used to explain away differences of opinion due to careless observation or improper manipulation. While differences in bee behavior are not usu-

ally to be credited to locality, a different system of manipulation is often necessary to make the most of the flows arising under different conditions.

The fundamentals of beekeeping are few and easily grasped by the intelligent mind. Room, stores and protection have been shown to constitute the essentials which must be recognized under any conditions. With a proper understanding of these, it then becomes important that the beekeeper study his individual location in order that he may apply his knowledge to bringing his colonies to the peak of brood-rearing in time for the principal harvest of the year. In this connection a brief consideration of the peculiar condition to be met in different parts of the country and the effect upon the plans of the beekeeper may be of some interest.

In Southwest Iowa, where the writer kept bees for several years, there was but one principal honeyflow—from white clover. This flow lasted from ten days to six weeks. If the bees were not ready when the flow came there was little chance of securing a crop from a later flow. Usually there was sufficient fall flow to fill the hives, and put the bees into good condition for winter, but no surplus worth while was secured. In a location like that the beekeeper must bend every energy of the entire year to bring his bees to maximum strength at the beginning of June and to prevent swarming till the brief flow is over. If the bees winter poorly there is little time for coddling the bees and building up weaklings to profitable strength. Good wintering becomes essential. It is also important that no time be lost in building up the colonies in spring. It was found that by wintering the colonies in two stories with the upper brood chamber well filled with honey that it was usually possible to turn the surplus of food into young bees and have the two stories well filled with brood and bees by the close of fruit bloom, always providing that the bees wintered well. With careful attention it was possible to get from two to four times as much surplus as the average farmer with bees in the neighborhood was able to secure. There was seldom a season when it was possible to make increase ahead of the honey flow to any extent, without reducing the crop.

In contrast to this location there are places in the alfalfa districts of Colorado where the main flow comes in August, where it is the practice to make increase from the early flow. There some beekeepers practice wintering in two stories and as soon as the two stories are filled with brood in spring the upper story is removed and given a ripe queen cell. With the late flow it is possible to have two colonies instead of one for the gathering of the crop. In a situation of this kind, poor wintering is not nearly as disastrous, providing of course that the bees come through alive, as it is where there is only one flow and that very early.

In the vicinity of Washington, D. C., tulip-tree, often spoken as "poplar" is the principal source. Because it blooms so early that the bees are seldom ready for the flow, it is genearally regarded as a poor location for beekeeping. Yet an average of something like 100 pounds of surplus honey per colony is gathered at the Government apiary where careful wintering is practiced.

In the lower Rio Grande valley of Texas there are frequent flows from many sources. These flows are likely to come at almost any time after a rain. Heavy flows are infrequent and light flows coming so often it is difficult for the beekeeper to harvest much surplus, since the honey is largely consumed in the almost continuous brood-rearing. The writer found the bees to be very strong in well-kept apiaries in early March. There were reports also, that bees sometimes swarmed as late as December and found sufficient support to carry them through. In a location like this, commercial honey production is less profitable than the production of

bees and queens to supply the demand of northern beekeepers. In North Texas, at Waxahachie, local beekeepers report that the bees are ready for business by April, yet the main flow does not come till June. They find it very difficult to keep down swarming during the intervening period. One man, T. W. Burleson, has solved his problem by selling his early bees in packages and still giving his colonies time to build up for the honeyflow from cotton. Until the demand for bees developed he found great difficulty in overcoming the swarming problem.

In such locations beekeepers often are very indifferent about giving attention to wintering. They say that no matter how weak the bees are in spring, there is still time to build up for the flow and that strong colonies in early spring are of no particular advantage.

There are other factors besides the time of the honeyflow that enter into the consideration of locality. The source and nature of the flows also determine to a great extent the system which is best suited to the conditions. Comb honey cannot be produced to advantage except under specially favorable conditions. A slow or intermittent flow will result in poorly finished sections and a short crop, where a good crop of extracted honey might be secured. In some sections of Colorado there is much gum-weed (Grindelia squarrosa), which granulates very quickly, sometimes even before the honey is sealed. Where this honey is mixed with the alfalfa, granulation is sure to follow within a short time and as a result the comb honey market gets a black eye. Granulated comb honey is a drug on the market and in such a situation extracted honey only should be produced. At least comb honey supers should be replaced with extracting supers during the flow from gum-weed. Enough of this gum-weed alfalfa mixture has gone to eastern markets to create a prejudice against Colorado comb honey in some places.

In several of the southern states, bitterweed (Helenium tenuifolium) is quite common. The honey is absolutely unpalatable and should never be placed on the market. Even a small quantity of this bitter honey is sufficient to spoil a whole tankful of good honey. There the beekeepers should remove all the good honey from the hive when the bees begin to work on bitterweed and give them empty supers of extracting combs. When the flow is over, if other flows are still to come, the bitter honey can be taken off and the other supers replaced. When the season is over the bitter honey can be given back to the bees for winter stores. No adverse reports have been found from the use of bitter honey for wintering the bees.

The available pasturage determines the number of colonies that can be successfully kept in one yard and this in turn influences the system of management. In North Georgia there is a large area where not more than twenty-five colonies are profitable in one apiary. There is a variety of sources of nectar available, but not enough of anything to support a large number of colonies. One beekeeper in that region keeps 800 colonies of bees in thirty yards. This requires a large amount of travel, but his returns are more nearly constant than in any other locality with which I am familiar. In contrast there are numerous locations in

(Continued in July Issue)

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Our very best honey-producing stock of gentle three-banded Italians.

One 2-lb package with young laying queen, $3.75; 5 packages, each, $3.60; 10 packages, each, $3.50; 25 or more, each $3.40. For the 3-lb packages, add $1.00 per package. Two-frame nuclei same as 2-lb packages; 3-frame nuclei same as 3-lb packages. F. O. B. Luverne.

Queens, one, $1.00; six, $5.00; twelve, $9.50; one hundred, $70.00. Tested queens, $1.50 each, or $16.00 per dozen; 20 per cent books your order. Begin shipping April 15. We guarantee safe arrival, satisfaction on everything we ship.

TAYLOR APIARIES

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PACKAGES, QUEENS—Immediate Shipment. Why take chances? Days count. If you have been disappointed in the time of delivery and quality of packages and queens, why not join our group of satisfied customers. 1-2½ package with queen $4.50, 1-3lb package with queen $5.50. 1 untested queen $1.00. Safe arrival and satisfaction guaranteed. Health certificate with each shipment. Write for circular and price list, also prices on quantities.—J. M. Cutts & Sons, R. 1, Montgomery, Ala.

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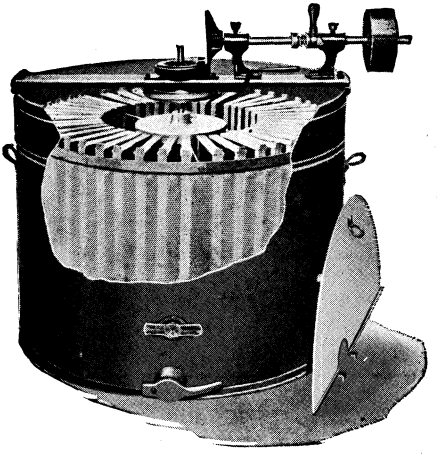
Greatest Selling Extractor
on the Market

Why?



Capacity

45 frames, any size, requires only one-fourth of operator's time.

Speed

Will average 180 combs per hour or 10,000 lbs. per day.

Efficiency

Extracts more honey, thick or thin, cold or warm out of the comb in a given length of time than any other extractor.

Price

The lowest priced large extractor made anywhere.

Simplicity Extractor $190.00

TWO, FOUR, AND EIGHT FRAME REVERSIBLE EXTRACTORS IN STOCK. SELECT YOUR EXTRACTOR NOW

A. I. ROOT CO. OF CHICAGO
224-230 W. Huron St.,
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Wisconsin Beekeeping

Vol. IV JULY 1927 No. 7

THE BULLETIN BOARD

Wisconsin Bee Tour

August 15 to 20, across northern Wisconsin. Watch for details in the August issue. Perhaps Mr. M. C. Berry, of Alabama will give one queen to every beekeeper who comes to the Eggers-Berry Apiary, at Birchwood, on August 20.

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Wisconsin Beekeeping

VOL. IV JULY, 1927 No. 7

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPERS' ASSOCIATION
H. F. WILSON, Editor.

Entered as second class matter, March 2, 1927, at the postoffice at Evansville, Wisconsin, under the act of March 3, 1879.

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Please make remittance payable to Secretary.

PROGRAM

UNION BEEKEEPERS MEETING

Hamilton, Ill. Aug. 9, 10, 11, '27

TUESDAY, AUG. 9

10 to 12 a. m.—Registration and assignments

Afternoon

James Gwin, President Wisconsin Beekeepers' Association, Charman.

1:00—Address by Chairman

1:15—Address by Dr. A. C. Baxter, President Illinois Beekeepers' Association

1:30—Address of Welcome, C. P. Dadant

2:00—Facts for Orchardist and Beekeeper, V. G. Milum, U. of Ill.

2:30—Beekeeping Investigation under way at the Bee Research Laboratory, University of Wisconsin, H. F. Wilson.

3:00—Huber Root, A. I. Root Company, Medina, Ohio.

3:30—The Cause of Honey Fermentation, G. E. Marvin, Wisconsin.

4:00—Trip to Dadant Apiaries.

WEDNESDAY, AUG. 10.

Morning

N. Williamson, President, Iowa Beekeepers' Association, Chairman.

9:00—Address by chairman

9:15—Studies in Nectar Secretion, Dr. O. W. Park, Ames, Iowa

9:45—Results with Package Bees in Manitoba, L. T. Floyd, Provincial Apiarist, Winnipeg, Man., Canada

10:15—Beekeeping in the South, Prof. Francis Jager, Minnesota

10:45—Visit to the Dadant factory

Afternoon

Mr. S. M. Mommsen, President of Minnesota Beekeepers' Association, Chairman.

1:00—Address by chairman

1:15—Work of the Bee Culture Laboratory at Washington, J. I. Hambleton

1:45—Importance of Queen Rearing to the Commercial Honey Producer, Geo. S. Demuth, Editor, Gleanings in Bee Culture

2:15—The Fundamentals of Queen Rearing, Jay Smith

2:45—Demonstration of Controlled Mating of Queens, Dr. L. R. Watson.

3:45—.....?

Evening

8:00—Special Entertainment. Hancock County Club House

THURSDAY, AUG. 11

Morning

A. B. King, President Missouri State Beekeepers' Association, Chairman.

9:00—Address by chairman

9:15—The New Apiary Inspection Law in Missouri, Arthur Allen, State Apiarist.

9:45—Grading Honey to stabilize the Market, C. D. Adams, Wisconsin Department of Markets

10:15—The County Inspection System of Illinois, A. L. Kildow, State Inspector of Apiaries.

10:45—Apiary Inspection in Minnesota, C. D. Blaker

11:15—A Case against the Italians, F. B. Paddock, Ames, Iowa

Afternoon

Adjournment and continuation of apiary visits, etc.

NOTE—This meeting will be the most important held in the central United States this year, as Dr. Watson will be at the meeting, and will demonstrate his method of fertilizing queens by hand. I am quite sure that it will be well worthwhile for our Wisconsin beekeepers to plan a vacation trip for this time. You should be able to gather more information from this one series of meeting than can be secured any other place during the year.

HONEY-HOUSE RULES

The Dairy and Food Department announces that it will give some attention to honey houses during the coming season. The commissioner states that he considers the use of all premises and utensils used in handling honey during the process of extracting, straining or preparation for sale which are unclean, or the sale of honey in any form which is kept in an unclean or filthy or noxious condition insanitary and contrary to Section 352-15 Wisconsin Statutes. He calls especial attention that honey should not be extracted or strained from combs in which are unhatched or hatching bees. The department expects that any room in which honey is being extracted, strained or prepared for the market be either screened or otherwise well protected from flies and vermin.

C. D. ADAMS

BEES ARE LISTED WITH WISCONSIN FARM LIVE STOCK

That the beekeeping industry in Wisconsin is becoming more prominent is evidenced by the fact that the Wisconsin Crop and Live Stock Reporter for May, 1927 contains an estimate of the value of Wisconsin farm live stock on January 1, 1927.

Milk cows are valued at $149,000,000, Horses and Mules, $56,000,000, other cattle, $27,000,000, Swine, $27,000,000, Poultry, $14,000,000, Sheep, $4,000,000, and bees $1,000,000. If the equipment in use were also taken into consideration, the value of bees in Wisconsin and equipment necessary to produce a surplus crop may be conservatively set at $2,500,000.

DR. FRACKER RESIGNS AS STATE ENTOMOLOGIST

We are very sorry indeed to announce that Dr. Fracker has accepted a new position in the Department of Agriculture at Washington, and will no longer be connected with beekeeping work.

Dr. Fracker was sorry to leave Wisconsin, but felt compelled to do so

because of better opportunities and an increase in salary. He has asked us to tell his friends in the State Beekeepers' Association that he was sorry he could not tell them all goodbye individually, and he assures them of his continued interest and good wishes. He extends an invitation to all his Wisconsin associates to look him up in the Federal Horticultural Board when in Washington.

Dr. Fracker was in charge of Entomological work and Beekeeping in the State Department of Agriculture, since 1918. Previous to that he was in the Entomological Department at the University. Dr. Fracker's successor has not yet been chosen, but we expect to make an announcement of this fact in the next issue of the magazine.

FLOOD RELIEF FOR SOUTHERN BEEKEEPERS

THE BEEKEEPERS' ITEM has started a flood relief campaign for beekeepers in the flood areas along the Mississippi River in the south. According to Mr. Anderson, State Entomologist, of Louisiana, the best beekeeping territory in that state was in that section covered by water.

The G. B. Lewis Company has donated 500 10-frame hives to the Flood Relief and Dadant & Sons are donating 500 pounds of brood foundation, and offer to work over any wax secured from salvaged combs, without charge.

The Wisconsin State Beekeepers' Association plans to give $25, and any of our beekeepers who wish to help may send their offerings either to this office, to THE BEEKEEPERS' ITEM. or to Mr. W. E. Anderson, State Entomologist, care of the State Department of Agriculture, Baton Rouge, Louisiana.

The major part of beekeeping in Louisiana has been completely swept away, and this is a serious loss, not only to beekeepers who lost all of their holdings, but also to the beekeepers in those areas where package bees are used, and we hope that many of our readers will feel it worthwhile to help out in this small effort.

BEEKEEPERS' LAW BOOK NOW AVAILABLE AT REDUCED PRICE

Through the kind efforts of the Dadant Company and the A. I. Root Company, the available supply of law booklets has been bound, and are now available at a price of $1.00 for bound copies and 75c for the few remaining unbound copies.

During the past year there have been a number of cases in the courts relating to bees, and so far as we know, every case of judgment has been returned in favor of the beekeeper. We know of two cases in Wisconsin where our beekeepers have been saved a great deal of trouble and money through the information available in this book, and we believe that every beekeeper should have a copy available in any case where court proceedings develop. In many cases where suit is planned it can be prevented entirely by presenting the proper information to the plaintiff.

Copies of this book can be secured through the State Association office, from the G. B. Lewis Co., C. P. Dadant & Sons, or the A. I. Root Co.

BEEKEEPERS' ITEM OFFER TO STATE ASSOCIATION MEMBERS

Members of the Wisconsin State Beekeepers' Association who desire to do so can now secure the BEEKEEPERS' ITEM at 75c per year by subscribing through the State Association Secretary. The regular subscription price is $1.00 per year.

WISCONSIN BEE TOUR

Complete arrangements have not yet been made in connection with the Wisconsin Bee Tour, but the start will be made from the apiary of Mr. George Jacobson, at Kaukauna. A meeting will be held at Mr. Jacobson's yard at 9 a. m., August 15th.

The route from Kaukauna to Wausau has not yet been definitely laid out, but a second meeting will be held at the yard of Mr. I. C. Painter on August 17th. A third meeting will be held at the yard of Mr. C. W. Giauque, at Stanley, on the morning of August 18th, and another meeting will be held at the yard of Mr. A. C. F. Bartz on the afternoon of the 18th. On the 19th, the journey will be made from Chippewa Falls to Barron, and an afternoon meeting will be held at one of the bee yards in Barron County on that date.

From Barron County, the tour will go south, and arrangements will be made to have an afternoon meeting either in Dunn County or Pierce County the afternoon of that day.

WESTERN HONEY CROP REPORT

Information just received in this office from California and the west indicates that the California crop will be very short this year, and this should have a very decided effect on bringing about a higher price for honey from the Rocky Mountain States. Wisconsin beekeepers should take this into consideration in determining the price for Wisconsin honey this season.

BUZZES ABOUT WISCONSIN

GEORGE E. MARVIN

Doctor Edward Blumer, of Monticello, Green County, reports as follows, "The market conditions are fair with plenty of honey on hand to meet the same. The bees are in fair condition, although brood-rearing progressed slower than normal because of the cold wet weather. The soft maples, box elders, dandelions and fruit bloom as sources of pollen and nector were practically nil. On June 13, alsike and white clover started to bloom."

On June 6, B. J. Thompson, of Rock Elm, Pierce County, sent in the following, "The market is very slow and weak. There is not much honey in the hands of beekeepers. Some report colonies in very poor shape and others say they are in good condition. The weather has been cold and wet a good share of the time and the bees could only get out to work part of the time. During the spring when the dandelions and fruit trees were out we had cold wet weather and not a great deal of nectar seemed to be in the flowers when the bees could get out. The prospects are not the best, but a change in weather conditions will improve them greatly."

As to the conditions in Sheboygan County, Ivan Whiting has the following to say, "There is not very much honey on hand at present and the market is very dull. The bees are in average condition. The weather has been rather cool for good flights and honey gathering. During the dandelion and fruit bloom the bees got out about half of the time. Strong colonies stored lots of honey but the weak ones got very little. Prospects look good for strong colonies, but these are scarce. Bees are generally very weak and short of stores. I have examined about 300 colonies and have found few apiaries where all the colonies are strong. Winter losses were heavy."

Ralph A. Irwin, of Lancaster, Grant County, reports as follows, "There is no large quantity of honey on hand at the present time with the market very poor. The weather has been cold and rainy and most bees are very short on stores. The white clo-

ver started blooming June 10, and on the 15th the bees seemed to be gathering honey. The abundance of rain this spring has made the white clover grow beautifully. Beekeepers are buying very few new supplies as most of them seem discouraged."

Chas. Broman, of Bristol, Kenosha County, has the following to say about conditions there, "The market is fair with hardly any honey to supply the demand. The bees are in fair condition considering the unusually cold and wet spring, which continued up to the middle of June. White clover and alsike are in bloom now (June 10). Prospects as far as the honey plants go look good, but the colonies are not any too strong. During the dandelion and fruit bloom the cold wet weather kept the bees in most of the time."

Reuman Brothers of Poplar, Langlade County, report as follows. "There seems to be no honey on hand at the present time and what the dealers have is shipped in from other localities. So far, we have not been able to supply the demand for our honey. Bees that have had plenty of stores are in normal condition but those that were short have been at a standstill until this last week (June 9). So far it has been cold and rainy and everything but spring weather. During May, the average temperature was 45 degrees. The clover is in good condition now and all we need is warm weather. The dandelions have been in bloom about a week (June 9) and the fruit trees are just starting to bloom.

SHIPPING AND CARE OF PACKAGE BEES

T. W. BURLESON
Waxahachie, Texas

The package bee business is no longer an experiment, but a reality. If this branch of bee keeping is properly handled both the seller and the buyer find it a profitable business. Great care must be exercised preceeding and during the shipping season. Preparations must begin in the autumn before the shipping season. The following are the preparitory steps:

First: A shipper should re-queen all colonies that have queens over one year old or younger if the queen is not prolific or pure.

Second: All colonies must have not less than sixty pounds of good stores for the winter.

Third: During the winter months, all inside work should be done, such as making cages, etc. (Cages with wire screen on all four sides and crated about four inches apart prove to be the best shippers). All arrangements for queens to be shipped with the package should be made. If the climate will not permit the shipper to raise his own queens, contracts should be made with some reliable queen breeders for the necessary queens. The best queens obtainable should be purchased and a shipper should never accept more orders than he can fill.

After all the above preparations have been made the shipper is ready for the spring rush.

When the actual shipping dates arrive the activities of the shipper are as follows:

First: All empty cages that are needed for orders that day are loaded into a large screened in cage that fits into the truck in such a manner that all cages get plenty of air.

Second: After arriving at an apiary take off the supers leaving some of the bees in them. Set these aside. Place a queen excluder over the brood nest, over this place a super which has a wire screen top. This super should contain a few empty extracting combs securely fastened. Ten or fifteen colonies can be fixed at a time. Smoke the colonies at the entrance until the bees run into the supers prepared for them. Then remove the supers, shake the bees from them through a funnel into the cages. The

packages are weighed, allowing for honey contained in the bee's stomach, then place caged bees in the shade or directly into the large screened cage on the truck.

Third: After arriving at the packing room, or honey house, the bees are unloaded and fed sugar syrup, all they will take, made of two parts of water and one part sugar. The queen is then securely fastened in the mailing cage, and placed together with feed cans containing a mixture of one half water and one half sugar placed in the package. The packages are then crated, addressed, and sent to the railway station.

If instructions are followed by the carriers as printed and attached to each lot, shipping bees by the package will be certain.

No drones are shipped, only young worker bees. These bees have their honey sacks full, are contented, and in an ideal condition to accept a strange queen. The queen is so caged that she cannot be liberated and killed in transit. By using combless packages and feeding the bees sugar syrup there is no danger of contracting any of the brood diseases. This is one of the best and safest ways to ship bees successfully. If for any reason the bees do not reach their destination in good condition, when a statement is received from the Express agent at the receivers end of the line, satisfactory adjustment is made. Bees are sent to replace the loss or their money is refunded. Just as much care should be taken by the receiver of package bees, in handling them, as has been taken by the shipper. If the instructions furnished each customer are followed, the shipment will prove satisfactory.

The *best* and most inexpensive advertising agency to be found anywhere is one composed of satisfied customers.

THE BEE AND HONEY DEPARTMENT AT THE STATE FAIR

GUS DITTMER, *Supt.*, Augusta, Wis.

Although the repetition of a fact may in time become monotonous, I have never tired of making the positive statement, that the Bee & Honey Department of the Wisconsin State Fair, is the largest of its kind in the U. S. both in the number of its exhibits, and the amount of money paid by the State in premiums and maintenance.

In 1919 when I took charge of the Department, a total of $450.00 was paid for premiums, compensation of Judge, Superintendent and expenses.

In 1926, the premium awards amounted to $1350.00, Compensations for Judge, Assistent, Demonstrations for Judge, Assistent, Demonstrations, and Superintendents per diam and expenses, amounted to $375.00. Besides this, repairs, decorations, and sundry other expenses, amounted to about $175.00, a total of $1900.00, or more than four times as much as in 1919.

The number of entries made in 1926 was 225. This looks big on the face of it, but these 225 entries were made by thirty exhibitors and their families, or approximately one exhibitor to each County association, and at that, these thirty exhibitors came from only seven county associations, the other local associations not participating in any way. Of these 225 entries, about 200 were for quality goods, and the balance, large association and individual exhibits, representing classes, on, two & four.

Seven of the large exhibits were County Association exhibits. It is not too much and within reason to expect, that not less than one half, or 15 Local Associations should at least try to take an active interest in the Bee & Honey Department of the State Fair. There should be one or more members in each association, to take this matter up every summer, and plan to

take charge of placing a county association exhibit. There is more than enough in it, to pay all expense connected with it, to say nothing of the pleasure and satisfaction they get out of it for about ten days. The association should in such a case vote to place an exhibit, and then place it in charge of one or two persons, and let them make all they can out of it, for their trouble and time. The association would be nothing out, and have the satisfaction of having done their duty as a representative body of beekeepers.

Besides making entry for the Association exhibit, entries can also be made independent of that class, in class No. 3 for quality goods, and some extra premiums secured, without extra expense aside from the entry fee. Such entries can also be made by other members through your representative having charge of the Association exhibit. The amount set apart for each County Association exhibit, is $80.00 and may be raised to $85.00, and you are sure to get at the very least, $65.00 and may get as high as $100.00. I would like to see at least 10 County exhibits at our next State Fair, for 1927, and provision will be made for that number. It should be an easy matter, for the County Associations represented here, by the Board of Managers, to assure to me three exhibits, in addition to the seven already assured, for 1927.

There has been more or less talk the last few years, about more room being provided for the bee & honey department.

In 1920 the state fair built an extension on the south of the old Bee & Honey building, 40x60, which gave us more than three times as much room as we had in 1919. While we have at times been crowded, we have at other times been obliged to spread our exhibits, in order to fill up and make a good showing. In order to secure more room in any department, there must exist an absolute necessity for it, which in our case is not always in evidence. In the Cattle Department, the number of entries the past few years have been such, that the overflow had to be housed in tents and other temporary shelter, and the necessity for more permanent room is in evidence.

The same condition must prevail in the bee & honey department, before the State Fair will take into consideration, the necessity to furnish us with more permanent room, or give us a larger building.

To attain this end should be the ambition of Wisconsin Beekeepers, and of the Wisconsin State Beekeepers Association, who represent them, in particular.

What are the facts in the case? The State Association is composed of about 600 to 700 members. The policies of this association are governed by a board of managers, composed of duly authorized representatives from all the affiliated local associations, and out of this membership and management, only about thirty persons as exhibitors, are actively engaged and interested, to maintain the prominence, the bee & honey department has attained. Supposing, that out of the membership of this association, 100 beekeepers would assume the same interest that the 30 have shown? If this supposition could be consumated, we would be in the very same predicament as the cattle department and this is the very thing that must happen, to make the State Fair Management realize the full importance of the Bee & Honey Industry of Wisconsin, and its relation to the State Fair. If we had 100 interested beekeepers for the 1927 State Fair, we could fill either the Dairy or the Horticultural building, but I do not look for such a crowded condition at this time. We can however stand quite a bit of crowding for next year, and we ought to have it. What we must secure for next year, is three more

County Exhibits, and we will manage to place them. This will make us ten county association exhibits, which would be a creditable showing for the Beekeepers of Wisconsin, and which with the Individual and quality entries, would eclipse any bee & honey exhibit ever placed anywhere.

I tried my best to secure three more county exhibits for the last state fair, by sending out 30 form letters to as many association officials, and out of the lot I secured one exhibit, but not a single reply from any of the others, which certainly lacked common courtesy, and was very discouraging to me.

When our Secretary asked me to furnish a paper for this convention, and choose my own subject, I concluded after thinking the matter over, to appeal to you directly, and present to you the subject, The Wisconsin State Beekeepers' Association, and its relation to the State Fair, and I hereby appeal to this convention, and to the Board of Managers in particular, to take this matter into serious consideration. It should be an easy matter, for the representatives of the local associations, to secure three more association exhibits, and thus show an active interest in what other beekeepers have done, to build up and maintain our bee & honey department.

Much has been said and written in the past, about advertising honey, from advertising to window and counter displays. The A. I. Root Co. some years ago carried a full page ad in the Ladies Home Journal, which cost them thousands of dollars for every issue. The Wisconsin State Beekeepers Association has several times arranged to have a display at the Milwaukee convention. Has it ever occured to you, that the display put up at the State Fair, is the largest display of bees & honey ever put up anywhere? and that as an advertisement for honey to the people of Wisconsin, it stands head and shoulder above anything ever offered? Thousands of people pass through our building, not only every day during the fair, but actually every hour on some of the days, especially on childrens and Milwaukee days. Of course it is only once a year, but that is the very reason why we should make the best of it for one week each year. Someone may say, what good will it do me to sell my honey, the other man will get all the benefit, while I am doing the work, each of us may be doing the same thing right now. Out of the thousands of beekeepers in the state only six or seven hundred are members of this association. Out of this membership about fifty or more make a business of attending these conventions. We are certainly doing some good and accomplishing something, and all of the beekeepers, and especially our members are getting the benefit, while some of us may not be getting any special benefit out of it. But will anyone of us for that reason, regret that we are spending our time and money attending this convention? I think not.

And now don't loose sight of the very important fact, that the State of Wisconsin pays for it, and asks you to avail yourself of a standing offer, and make yourselves as important as any other department of the State Fair.

We have two other special attractions, both of which are not only entertaining, but highly instructive. They are intended to give the general public the right idea and understanding, first of the handling and manipulation of live bees, and second, of the manner in which extracted honey is taken from the combs.

The first is in charge of Mr. Jos. M. Barr, and takes place in a large wire screen cage in front of our building, twice daily. Mr. Barr always has a large and attentive crowd, who ask all manner of questions, all of which are fully answered.

This demonstration and lecture, has become so popular, that it would be impossible to dispense with it, without

a seriousconsequence to the now well known popularity of the Bee & Honey department.

The demonstration of uncapping and extracting honey is in charge of Mr. Charlie Pritchard, who is practically giving his whole time to it, as he will stop and demonstrate, explain and answer questions if only one person comes along. But he usually has a number of persons ot entertain, who take great interest in the matter, and go away convinced, that extracted honey is sanitary, pure and wholesome.

This demonstration was put on for the first time this year, and has been so satisfactory, that it will again be a part of our program for 1927.

Another, and perhaps the most important phase of our exhibits, is the personal attention, which all of our exhibitors give to the success of the Bee & Honey department. All of them with their families and interested helpers.

Sample Premium List No. 1

BEES AND HONEY

	1st Prize	2nd Prize
1. White comb honey—12 sections	$3.00	$1.50
2. Light amber comb honey—12 sections	3.00	1.50
3. Amber comb honey—12 sections	3.00	1.50
4. Extracted white honey—6 one-pound jars	3.00	1.50
5. Extracted light amber honey—6 one-pound jars	3.00	1.50
6. Extracted amber honey—6 one-pound jars	3.00	1.50
7. Best display, extracted granulated Langstroth honey	3.00	1.50
8. Three Langstroth extracting combs filled with honey	3.00	1.50
9. Three banded Italian bees with queen, in single frame, observatory hive, with glass on both sides	5.00	3.00
10. Best display of beeswax	3.00	1.50

Sample Premium List No. 2

BEES AND HONEY

	1st Prize	2nd Prize
1. White comb honey—12 sections	$4.00	$2.00
2. Light amber comb honey—12 sections	4.00	2.00
3. Amber comb honey—12 sections	4.00	2.00
4. Extracted white clover honey—6 one-pound jars	4.00	2.00
5. Extracted basswood honey—6 one-pound jars	4.00	2.00
6. Extracted buckwheat honey—6 one-pound jars	4.00	2.00
7. Extracted mixed white honey—6 one-pound jars	4.00	2.00
8. Extracted mixed light amber honey—6 one-pound jars	4.00	2.00
9. Extracted mixed amber honey—6 one-pound jars	4.00	2.00
10. Best display, extracted granulated honey	4.00	2.00
11. For the best display of graded comb honey, consisting of 3 sections each of fancy, Wisconsin No. 1 and Wisconsin No. 2, all of one color with the proper grade, labeled or stamped on each section	4.00	2.00
12. For the best display of graded extracted honey, Wisconsin No. 1 in the five colors, water white, white, light amber, amber, and dark. One one-pound jar of each color. Each jar to be labeled or stamped with the proper grade	4.00	2.00
13. Golden Italian bees, with queen, in single frame observatory hive with glass on both sides	6.00	3.00
14. Three banded Italian bees, with queen, in single frame observatory hive with glass on both sides	6.00	3.00
15. Three Langstroth extracting combs, empty	3.00	1.50
16. Three Langstroth extracting combs, filled with honey	4.00	2.00
17. Best display of beeswax	3.00	1.50
18. One cake, honey sweetened, with recipe, weight not less than one pound	3.00	1.50
19. Twelve cookies, honey sweetened, with recipe	3.00	1.50

20. Assortment of canned fruit, jelly, preserves, etc, with honey only, in new clean glass containers, with recipes	4.00	2.00
21. Pure honey vinegar, one-half gallon glass jar	3.00	1.50

(Omit any entries not desired)

Sample Premium List No. 3

BEES AND HONEY

	1st Prize	2nd Prize	3rd Prize
1. White comb honey—12 sections	$5.00	$3.00	$1.00
2. Light amber comb honey—12 sections	5.00	3.00	1.00
3. Amber comb honey—12 sections	5.00	3.00	1.00
4. Extracted white clover honey—6 one-pound jars	5.00	3.00	1.00
5. Extracted basswood honey—6 one-pound jars	5.00	3.00	1.00
6. Extracted buckwheat honey—6 one-pound jars	5.00	3.00	1.00
7. Extracted mixed white honey—6 one-pound jars	5.00	3.00	1.00
8. Extracted mixed light amber honey—6 one-pound jars	5.00	3.00	1.00
9. Extracted mixed amber honey—6 one-pound jars	5.00	3.00	1.00
10. Best display extracted granulated honey	5.00	3.00	1.00
11. For the best display of graded comb honey, consisting of three sections each of Wisconsin fancy, Wisconsin No. 1, and Wisconsin No. 2 all of one color with the proper grades labeled or stamped on each section	5.00	3.00	1.00
12. For the best display of graded extracted honey, Wisconsin No. 1 in the five colors, water white, white, light, amber and dark. One one-pound jar of each color. Each jar to be labeled or stamped with the proper grade	5.00	3.00	1.00
13. Golden Italian bees with queen, in single frame observatory hive with glass on both sides	6.00	4.00	2.00
14. Three banded Italian bees with queen, in single frame observatory with glass on both sides	6.00	4.00	2.00
15. Carniolan bees with queen, in single frame observatory hive with glass on both sides	6.00	4.00	2.00
16. Best display of full colony bees in 8 or 10 frame hive with glass sides	6.00	4.00	2.00
17. Queen rearing outfit showing virgin queen and queen cells in different stages of development	5.00	3.00	1.00
18. Three Langstroth extracting combs, empty	3.00	2.00	1.00
19. Three Langstroth extracting combs, filled with honey	3.00	2.00	1.00
20. Three perfect brood combs, empty	3.00	2.00	1.00
21. One ten pound cake of beeswax, must be one solid cake, and contain no cracks	3.00	2.00	1.00
22. Most attractive display of beeswax, including moulds and special designs	3.00	2.00	1.00
23. Best original exhibit of tools and devices used in any work connected with practical and professional beekeeping. Patented and standard articles listed in manufacturers' and dealers' catalogs are excluded	3.00	2.00	1.00
24. One cake, honey sweetened, with receipe. Weight not less than one pound	3.00	2.00	1.00
25. Twelve cookies, honey sweetened, with recipe	3.00	2.00	1.00
26. Assortment of baking with honey. Not less than 4 kinds with recipes	5.00	3.00	1.00
27. Assortment of canned fruit, jelly, preserves, etc., with honey only, in new clean glass containers and with recipes	5.00	3.00	1.00
28. Pure honey vinegar, one-half gallon glass jar	3.00	2.00	1.00
29. Sweepstakes to exhibitor making the best showing in the foregoing entries	15.00		

(Omit any entries not desired.)

THE BEHAVIOR OF BEES IN COMB BUILDING

By H. C. DADANT, Hamilton, Ill.

There is nothing bees like as well as honey, unless it is beeswax. It forms their home and cradles for their young. Regardless of the location, whether it be in a box, log, rock cavity, a modern beehive, or even in the open, their wax combs form their home. Their behavior in building them is an interesting and worth while study. In fact, to secure the most from the behavior of bees in comb building in the modern beehive, one must manipulate of the bee in comb building.

Honey is a carbohydrate, or form of grape sugar, composed principally of carbon, hydrogen and oxygen, and which the wax-producing organs of the honey bee transform into a carbohydrate compound we call beeswax, which is also composed mainly of carbon, hydrogen and oxygen. It is necessary that bees keep their stomachs filled with honey about twenty four hours to start secreting much wax, and this explains why a steady honey flow is so necessary for good comb building. About ten pounds of honey is needed to produce a pound of beeswax. Some pollen is necessary for food but little if any enters into the wax making as proved after careful experiment by Huber who confined bees on honey and water. Wax scales are frequently found on bees while working on the blossoms during a good honey flow.

A few weeks ago I was struck by the great liking bees have for beeswax. Some very old frames, from Poppleton Long Idea hives, were being put into use, as we have started an old-fashioned or museum apiary consisting of several kinds of old time hives. The Poppleton frame is a deep one and requires foundation about 11¼ inches square. The greatest width foundation we had on hand was too narrow and lacked about¾ of an inch of reaching the bottom bar. The man in charge of the job didn't like the idea of fitting them up that way, as they were to be drawn in the brood nest. We all know from experience that unless a very good, steady honey flow is on, combs will seldom be completed to the bottom bar unless they are drawn out in supers. In fact, having combs drawn out above the brood nest is practiced whenever possible by the best beekeepers.

Since the Long Idea hive contains 25 frames, they are seldom used with supers and I began to wonder how Mr. Poppleton secured good full sized combs and avoided the defects and promient rounding corners on the combs hanging at the entrance. This cannot be avoided entirely, but is worth preventing as far as possible. It was necessary that something be done at once for the package bees were just at hand and there were no drawn combs of the proper size. Spring was late, with no honey flow to date, and feeding was necessary. The attraction beeswax always offers bees gave me the right idea. So I suggested using the shallow comb foundation and dipping the bottom bars of those frames in liquid wax (a little wax added to the bottom of sheets would also have helped.) This was soon done and it has been quite interesting to watch the bees building combs down to the bottom bars.

Another example of the behavior of bees toward beeswax is shown by the satisfactory results secured in practicing the Vogeler method of painting liquid wax on sheets of foundation. This method was advocated to prevent sagged combs but is probably just as valuable, if not more so, in offering the bees fresh surplus wax to work on, thereby preventing many imperfections in combs when the honey flow fails.

It is well known that some drawn comb placed in supers of foundation induces the bees to work there much more readily than if "bait combs" as

they were named by Dr. Miller, were not used.

An interesting experiment in comb building on foundation was that first performed by the Foloppe Brothers of France. A sheet of deep red colored wax, given to a strong colony when there was no honey flow, resulted in a red-colored comb drawn to about half depth. Later, with a honey flow, white wax is added to complete the comb and a cross section of this shows the progress of comb building. If the red wax sheet is given them during a honey flow, the color will show fading by the addition of newly secreted wax while they are building out the red wax. Prof. Wilson has been conducting some experiments along this line at Madison recently and found the same results.

The best way to study the behavior of bees in comb building is to watch virgin comb in the making and to examine combs in a bee tree or box hive where no frames or comb foundation have been used. If not given foundation to build on, they will start building worker comb and continue to do so as long as the queen keeps the new comb occupied by her laying.

(*Continued in August Issue*)

ADAPTING SYSTEM TO LOCALITY

(By Frank C. Pellett, Author of Practical Queen Rearing, American Honey Plants, Productive Beekeeping, Etc.)

(*Continued from June Issue*)

the sweet clover districts and some in the buckwheat regions where three hundred or more colonies do well in one location.

The presence or absence of a supply of pollen for brood rearing is also an important factor. In some places where there are heavy flows pollen is scarce and the beekeepers find it necessary to take the bees elsewhere to build up. This requires long distance moving which is tiresome and expensive.

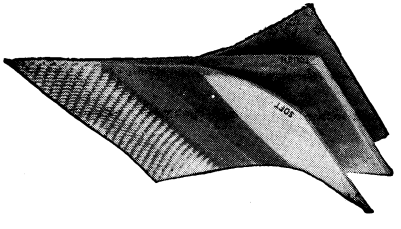
The dependability of the forage is also to be considered. There are many places where good crops can be gathered occasionally with frequent seasons of failures. This necessitates migratory beekeeping if the apiarist is to harvest a crop every year. There are numerous California beekeepers who make long moves from one to three or four times in a season, moving to such locations as promise an immediate harvest. This is practiced to a lesser extent in some of the Central and Eastern states. The Dadants find it frequently to their advantage to move their apiaries to the lowlands along the Mississippi River when the crop is a failure on the uplands. This requires a move of something like thirty miles, which can easily be accomplished in a day with their big trucks.

The above examples could be multiplied indefinitely, but are sufficient to show how necessary it is that the beekeeper be fully informed as to the conditions peculiar to his location and that he develop a system of beekeeping best adapted to those conditions.

A MANUFACTURER OF FOUNDATION SAYS:

Permit me to congratulate you for having developed a comb foundation of superior quality. Some of the time, during the past 61 years I have kept bees. I have also manufactured tons of comb foundation. To my mind, your three-ply Airco comb foundation is the most important and far reaching improvement that has been made since the introduction of movable frames. This statement was not solicited, but was made for the good of the order."

May 19, 1927. Name on request.



Non-sagging, Non-stretching, Non-warping, Maximum number of worker cells, Less gnawing around wires, Non-breakable in extractor.

BUY THREE-PLY FOR SATISFACTION

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A. I. ROOT CO. OF CHICAGO
224-230 W. Huron St.,
CHICAGO, ILLINOIS

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290 E. Sixth St.,
ST. PAUL, MINNNESOTA

Wisconsin Beekeeping

Vol. IV AUGUST 1927 No. 8

THE BULLETIN BOARD

Honey Prices Recommended by the State Association—

Extracted Honey		Comb Honey Per Section	
5 lb. Pails	$1.00	Fancy	35c
10 lb. Pails	1.90	No. 1	30c
60 lb. Cans	9.00	No. 2	25c

(See Report of Price Committee in September Issue)

Two beekeeper's Meetings Which You Should Plan to Attend—
The Union Chautauqua at Hamilton, Illinois August 9, 10 and 11.

The Wisconsin Bee Tour—August 15 to 20.

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Wisconsin Beekeeping

VOL. IV AUGUST, 1927 No. 8

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPERS' ASSOCIATION
H. F. WILSON, Editor.
Published the First of Each Month.

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Annual membership fee, $1.00, which includes one year's subscription to "Wisconsin Beekeeping."

Please make remittance payable to Secretary.

NORTHERN WISCONSIN BEE TOUR, AUG. 15-20 1927

I hope that many of our Wisconsin beekeepers will be able to take the trip to the Hamilton meeting, but many of our northern beekeepers feel that the distance is too great, and a tour for these beekeepers will be conducted, starting at Kaukauna and taking in the territory between Kaukauna, Cecil, Wausau, Stanley, Mr. A. C. F. Bartz's apiary near Jim Falls, Birchwood and Barron. The distance to be covered seems somewhat great, but each day's travel should not be more than about seventy-five miles, so that those who wish to take part in the tour for several days will not find the tour burdensome.

A *special business session* will be held at the *City Hall at Wausau*, on Tuesday evening, *August* 16, *at* 7:30 *p. m.* in connection with a meeting of the Marathon County beekeepers.

It is impossible to tell beforehand the exact route to be followed, because of possible detours and some required changes, but in general, the tour will follow the schedule as given.

MONDAY, AUG. 15

We will plan to leave George Jacobson's yard promptly at 10 o'clock. The first stop will be at the yard of Edward Hassinger, at Greenville. Then the route will be through Shiocton, Binghamton, following route 47 to Bonduel and route 17 from Bonduel to the yard of Wm. Hanneman, near Bonduel. A meeting of the Shawano County beekeepers will be held at the Hanneman home about 7 o'clock in the evening. Mr. Hanneman promises to furnish milk, ice cream and coffee.

TUESDAY, AUG. 16

Meet at the yard of Theo. Gentz, Shawano, and the tour will start from that point promptly at 10 o'clock, and will follow route 16 to Wausau where a meeting of the Marathon County beekeepers will be held in the City Hall at 7:30 p. m.

WEDNESDAY, AUG. 17

The tour will start at 9 o'clock from the City Hall, Wausau, on State Trunk 10 to Junction with County Trunk A. Follow County Trunk A

and B to Abbotsford and State Trunk 16 to Stanley. A meeting will be held at 2 o'clock p. m. at the bee yard of Chas. Giauque in the edge of Stanley.

THURSDAY, AUG. 18

The first stop will be at the home of Mr. A. C. F. Bartz, near Jim Falls. Mr. Bartz will be able to show the visitors some new methods in queen rearing. From Mr. Bartz's place, return to Chippewa Falls and follow State Highway 11 to Rice Lake.

FRIDAY, AUG. 19

Follow County Trunk C to Birchwood and inquire for the Apiary of Henry Eggers. This will be the RED LETTER day of the week. Mr. M. C. Berry, one of the large queen breeders of the south, located at Montgomery, Alabama, is going to give one queen free to every beekeeper who is present and registered at the Eggers yard.

Mr. Berry, who is in partnership with Mr. Eggers, will be present, and will explain how and when the queens are to be shipped.

Bring your lunch.

SATURDAY, AUG. 20

Return to Rice Lake, and then to Barron, where a meeting of the Barron County Beekeepers will be held at the apiary of Forest Buckmaster, or George Stowell, at 2 p. m.

WISCONSIN FLOOD RELIEF FUND

In time of need, Wisconsin beekeepers may be depended upon to lend a helping hand for any worthy cause. We wish that we had the time to write and thank everyone of the beekeepers who have helped the sufferers in the south, but we feel quite sure that you will be willing to accept our acknowledgement through WISCONSIN BEEKEEPING.

All donations received since the date of this letter, July 18, will be acknowledged in the next issue of WISCONSIN BEEKEEPING.

Arlene Weidenkopf.

Madison, July 18, 1927—Enclosed please find check for $111.50 to cover the following donations for your relief fund for the beekeepers in the flooded districts:

Wisconsin State Beekeepers' Association (as an organization)	$ 25.00
Donations from individual members	
Harry Lathrop, Bridgeport	10.00
T. H. Latham, Mt. Hope	5.00
V. G. Howard, Milwaukee	5.00
E. M. Johnson, Blue Mounds	5.00
H. F. Wilson, Madison	3.00
A. H. Kapelke, West Bend	3.00
Sid Lyon, New London	3.00
Gus Dittmer, Augusta	2.00
Peter Van Dyke, Midway	2.00
F. W. Fox, Bristol	2.00
John Kneser, Hales Corners	2.00
Wilfred Perrot, Antigo	2.00
Miss E. T. Mueller, Waukesha	2.00
Mr. J. B. Richter, Waukesha	2.00
Rev. B. July, Campbellsport	2.00
Andrew Stevens, Stockbridge	2.00
Oscar Hildebrandt, Oshkosh	2.00
J. Schultz, Van Dyne	2.00
Mrs M. Hanneman, Cecil	1.00
Edw. Hassinger, Jr., Greenville	1.00
Frank Yansky, Yuba	1.00
S. R. Phillips, La Valle	1.00
B. J. Thompson, Rock Elm	1.00
A. L. Kleeber, Reedsburg	1.00
R. A. Schwartzkopf, Bowler	1.00
Fred Machmuller, Birnamwood	1.00
Geo. Senfleben, Colgate	1.00
Wendel Berg, Elkhart Lake	1.00
G. J. Lengst, Prairie du Chien	1.00
Chas. F. Haselen, Waterloo	1.00
Olof P. Olson, Wauwautosa	1.00
E. W. Atkins, Watertown	1.00
A. E. Jaeger, Watertown	1.00

Albert Schmidt, Gresham	1.00
C. W. Radloff, Cecil	1.00
L. F. Stark, Hunting	1.00
R. E. Schoonover, Tomahawk	1.00
C. F. Lang, La Crosse	1.00
George Jacobson, Kaukauna	1.00
W. T. Sherman, Elkhorn	1.00
Wm. F. Pagel, Chilton	1.00
Jos. Kurth, Mineral Point	1.00
Wm. Lewis, Stevens Point	1.00
R. T. Bagnall, Sturgeon Bay	1.00
H. M. Schultz, Waterloo	1.00
B. C. Handy, Richland Center	1.00
Loy Gavin, Holmen	1.00
Benjamin F. Goehring Random Lake,	.50
Arlene Weidenkopf, Madison	1.00
Total	$111.50

As soon as any other donations are received in this office, they will be forwarded on to you.

THE BEHAVIOR OF BEES IN COMB BUILDING

By H. C. DADANT

(*Continued from p. 84, July Issue*)

After the queen is fully supplied with worker cells, the bees are likely to start building drone comb to the extent of 15% or more of the total comb area. This is a detriment to the welfare of the beekeeper who is not in the honey business for the sake of feeding a lot of lazy drones. Very little regularity in their work will be found, compared to what is wanted in a modern beehive. Straight rows of cells and flat straight combs are the exception, not the rule. The normal comb built without foundation is firm, fastened heavy at the top, wavy, irregular in size with ill shaped combs and cross combs fastened together before reaching the bottom, with a rounded tapering or thin edge bottom which has no fastening or bottom support. Rows of stretched or irregular cells occur and much useless drone comb is always present. Irregularity often results from the fact that the working force of a colony divides into groups and the various combs started are gradually enlarged and fastened together along any line they happen to meet.

Some absurd, apparently erratic acts of bees are frequently found. For instance, much drone comb will often be built by queenless colonies on one side of a sheet of worker foundation. A good, normal colony may also do this to a lesser extent when no combs are sagged and some drone comb cannot be had otherwise, as each colony will have some. Nuclei and bees shaken from combs, if short of food, cannot be expected to do satisfactory comb building, since they cannot secrete much wax then. Comb is sometimes removed to the bare midrib over several square inches of surface for various reasons. For instance, combs may be spaced too closely together or damaged by accident. Removal of hard pollen, granulated honey or other material may cause side walls to be torn down. Rebuilding in such places is done with new wax or wax borrowed from other combs, according to circumstances.

I have often wondered why all colonies do not show the same behavior. I sometimes think they must be absent minded, yet their reputation is that of good workers. Perhaps they are like the professor who waded out beyond his depth and was about to drown. Someone finally fished him out of the water. After regaining the shore, the professor happened to remember that he was really able to swim. Speaking of professors reminds me of the evening Professor H. F. Wilson, of Wisconsin, was called on by the toastmaster at the banquet of the National Beekeepers' Association at Cincinnati last winter. He immediately launched into a well chosen response and, when about through, it occurred to him that he had not recognized the toastmaster and members by the usual greeting, "Mr. Toastmaster,

Ladies, and Gentlemen," when he began. I have learned since that the good professor has been studying bees so long that he has acquired their absent minded habits. In fact, his wife reminded him one day recently that it was just twenty-five years since they became engaged. And this is what he answered. "Twenty-five years? You should have reminded me before, dear, it's certainly time we got married."

In commercial honey production, we must see to it that bees build better combs than they do in nature. Good full sized sheets of foundation, properly installed in the frames given to the bees as they need them or as comb building conditions permit, go a long ways toward securing the results desired. The amount of wax secreted and combs built is in direct proportion to the honey flow. With no honey flow or feeding done, little or no wax is secreted and no normal comb building results. In this case, we simply have comb foundation drawn out so far as the wax furnished in it will supply. Such comb building is undesirable, as it frequently results in bees carrying wax from such frames to others where they are clustered. Under such conditions, therefore, only a very few frames of foundation should be given them. A light honey flow results in only a little wax secreted, and as but little normal comb building proceeds, this condition does not warrant giving the bees many frames in advance. If they need room and ventilation, empty supers and a larger entrance will relieve their crowded condition. A moderate honey flow means more wax secreted followed by more combs built, which justifies several frames or a super of additional room. A good honey flow means much wax secreted and best comb building conditions calling for plenty of room in the hives and frames to build on. When the honey flow ceases, the reverse is true and unoccupied foundation or even combs should not be left on the hives for weeks. So the behavior of bees in comb building responds to the existing conditions. If there are no clouds, there is no rain. If bees are not making honey or being heavily fed, there is no normal comb building.

"Just a hair" is a common expression when we talk of something very small. Put a hair in a micrometer and you will find it to measure about 2 thousands of an inch. Side walls of bee combs, whether built out of foundation or in a bee tree, are just about a hair, 2 or 3 thousands. The bases are a little heavier, just about two hairs, 3 or 4 thousands of an inch. While the side walls are always the same, wherever fresh built ones are found, the bases are heavier in combs built on foundation, about 8 thousands. In order to make these measurements with accuracy, I altered a micrometer to suit the purpose and by taking measurements out-of-doors in winter where wax kept hard and the instrument cold, satisfactory results were obtained.

About fifty years ago, brood weight foundation, only, was used. This foundation was soon found to be unnecessarily heavy for comb honey, as it produced a heavy wax midrib called fishbone, which did not please the consumer, as there was too much wax to chew and swallow with the honey. To meet this objection, a lighter weight foundation was made. Since the first comb foundation mills in those days were rather crude affairs, my father spent several days recutting one machine by hand and succeeded in altering this first machine to make thin surplus weight. This weight foundation is about 10 thousands thick in the base which the bees reduce about half. This still leaves it about 50% heavier than that built in nature. Brood foundation is made about 20 thousands thick in the base, which is reduced by the bees to a weight still much heavier than in comb honey or about 8 thousands in the midrib. With this variation in the thickness of the midrib, it is remarkable how regu-

lar the side walls are always built under all conditions, being just about a hair, 2 or 3 thousands thick as mentioned before.

The mathematics of the hexagon is interesting and that of the honey comb remarkable. The hexagonal cells are not placed directly opposite others on the other side of the midrib, but the cells are staggered instead, which produces the greatest strength and economy in wax. Each cell has three rhomboid bases sloping at about a 35 degree angle from flat base and one of the bases on one side forms one base of a staggered cell on the other side. By this scheme, the three bases of one cell form one third of the total base of each of three other cells on the opposite side. In building comb, bees first build one rhomboid base on which two side walls are erected, followed by the second base and two more walls, further finished by the third base and last two walls.

We have often wondered why the hexagon shaped cell is used by bees but there is no doubt it is the best one for economy and strength and it becomes rounded after many years of brood rearing. The thickness of the cell structure increases very slowly with time, even though many successions of brood occur. Cocoons were carefully removed and found to be 2 or 3 ten-thousands thick. After years of use in the brood nest, walls and bases increase in thickness, about 1 or 2 thousands and it is likely that parts of cocoons are sometimes removed by bees. It is possible to do so by hand although they are extremely fragile.

Some time ago I was gazing into a kettle of wax and was amused to find that the bubbles of foam on part of the surface were arranged in remarkably regular form. As the beeswax boiled, round bubbles came chasing over to a group already located and being compressed were forced into hexagon outlines. So some of the reasons for the hexagon seem to be contraction, economy, and pressure.

I have already spoken in regard to the variations in the shape of the comb and sizes of cells. The average size of cells built in nature vary a little with different colonies and different measurements have been recorded from time to time. Since Dr. Merrill found that the honey sacs of some colonies are larger than others, we may expect a variation of a few thousands of an inch in average size of cells built. Langstroth and Charles Dadant have left identical records of almost exactly 27 cells per square inch of worker cells. An observer in Europe a few years ago claimed cells should be much larger than this, only 23¾ cells per square inch but further reports and investigation of his work proved this to be unreliable. In fact he advanced the idea that bees could be gradually increased in size by furnishing them larger worker cells. In practice, however, drone eggs were often laid in them, resulting in abnormally small drones instead of abnormally large workers. The size used in this country for many years has been 27 2/3 while one manufacturer at the present time is using 28¼ cells and some foundation in Europe is made as small as 29 cells per square inch to accommodate the small black German bee. The measurements of Langstroth and Charles Dadant of 27 seem to be probably cvorrect to accommodate the larger size. It is not out of the way, however, to use 27 2/3 for the reason that comb foundation stretches some when pulled off of mills which increases it in size a little and is not objectionable if not badly stretched. This is equivalent to 5 cells measuring about 1 1/16 inches in the row.

In conclusion, let us take advantage of the behavior of bees in comb building under the most favorable conditions whenever possible. The kind of foundation used is not altogether important. There is a manufacturer here in Wisconsin, Mr. Gus Dittmer, and there are dealers handling other makes. Use whatever kind you like

best, the kind most suitable for your needs and success but use foundation under the most favorable combbuilding circumstances. Let it be above the brood nest whenever possible, furnished as they need it and during a honey flow, then the behavior of bees in comb building is a satisfaction.

MILLER MEMORIAL LIBRARY

The Library is progressing in splendid shape, and many new additions have been secured during the past year. However, we are entirely dependent upon contributions for its progress, and the beekeepers of Wisconsin must help.

We do not ask a great deal, and if every beekeeper of the state would contribute a ten pound pail of honey, or its equivalent in money for a few years, we would be able to have, without question, the finest beekeeping Library in the world.

I feel that the members of the State Association should be willing to help out to this small extent, since the University is providing the clerical work without charge to the State Association for the carrying on of the State Beekeeper's Association. In addition, through this office, advertising for WISCONSIN BEEKEEPING has been secured to such a large extent that the cost of the journal is practically nothing to the State Association. This permits the dues received from the State Association members to be used in a number of different ways in helping the State Association and its members.

The indications are that there will be a very fair crop in most parts of the state. Why not help in the perpetuation of a monument to International beekeeping? A ten pound pail of honey is not very much, but it will help buy material for the Library.

Why not send us a ten pound pail of honey as soon as your crop is taken off?

For the benefit of the members of the Association who wish to know something about the size of the Library and the books and journals necessary to be secured for a complete Library, the available information is given.

The Library contains about 1500 books and pamphlets without duplicates.

The bee journals number 2184 complete and 261 incomplete volumes.

Approximate total number of serial volumes of bee journals published in all countries of the world.

1. Volumes in the Dr. Chas. C. Miller Memorial Library of University of Wisconsin.
2. Incomplete volues of from 3 to 12 numbers.
3. Estimated volumes still to be secured
4. Total estimated number of volumes of bee journals from all countries of the world.
5. Number of bee journals (dead and active) that have been published in the respective countries named.

	1	2	3	4	5
Algeria	27	0	12	39	1
Argentine	0	4	2	6	2
Australia	36	16	8	60	6
Austria and Hungary	152	21	243	416	20
Belgium	135	13	18	166	9
Brazil	6	6	3	15	3
Bulgaria	0	1	24	25	2
Canada	29	19	13	61	5
Chile	?	?	?	?	1
Czecho-Slovakia	74	1	116	191	12
Denmark	36	0	46	82	3
England	118	1	5	124	8
Esthonia	?	?	?	?	1
Finnland	10	0	?	10	2
**France	301	32	126?	459	60
Germany	565	29	717	1311	80
Greece	7	2	20	29	2
Ireland	20	6	26	52	2
Italy	66	12	30	108	7
Japan	12	0	40?	52	7
Jugo-Slavia	46	2	84	132	9
Latvia	5	1	1	7	1
Luxemburg	46	7	1	54	5
Netherlands	47	0	0	47	3
Norway	5	0	37	42	2
New Zealand	3	4	8	15	3
Poland	5	0	77	82	6
Roumania	?	4	20?	26	12
Russia	8	9	100?	117	16
Scotland	?	0	5	8	2
South Africa	6	1	0	7	2
Spain	5	0	20?	25?	6
Sweden	14	0	40	54	2
Switzerland	109	0	50	159	12
Tunis	2	2	22	26	1
United States	284	74	125	483	70
Total	2184	261	*2019	*4464	405

*The total number of volumes of bee journals cannot be determined upon at this time because of a lack of information concerning some journals of which we do not have a single number. However, it is safe to estimate that between 4,500 and 5,000 serial volumes of serial publications, relating to apiculture, have been published.

**A large number of French bee journals seem to have been run in combinations, particularly with L'APICULTURE FRANCAISE and L'APICULTEUR, and information is not available for the determination of the distinct or separate journals.

At least 156 serial publications on the subject of beekeeping are being published at the present time, and 125 of these are coming regularly to the Miller Library.

H. F. WILSON, *Custodian*

BUZZES ABOUT WISCONSIN

GEORGE E. MARVIN

"All laborers draw home at even
And can to others say,
Thanks to the gracious God of heaven
Which made this summer day."
—Spirit of the Hive.

Being Sunday night, I didn't think anyone would be around the office, so I'd get a chance to write up what reports I had for this column before tomorrow morning, at which time all of the material for the magazine is supposed to be in. No one else but the Eidtor himself was on the job ahead of me, and it didn't take him long to come in and inform me that the material should be on time, so here goes—

There are some bees in the state which appear to require the absolutely undivided attention of their masters, for some of the latter failed to send in a report from their locality for this issue. Too bad the stamped envelope was addressed to myself, but then I suppose it can be used for some other purpose.

Right now, July 17, we are in the midst of the honey flow. It seems good to walk about the yard after dark and listen to the busy activity within the hives. I believe one could be blind folded, and by listening at the roar of the different colonies, be able to pick out those colonies storing the most surplus.

I was at a meeting and picnic of the Milwaukee County Association on July 16. At least 65 were present, counting the beekeepers, their wives and children. After a very interesting program, lighter diversions ruled, with a womens' clothes pin race and a smoker contest for the opposite sex. Mr. H. V. Wilson, of South Milwaukee was the winner in the latter and won a big shiny new smoker.

Mr. S. P. Elliott, of Menomonie, reports the following: "Weather conditions are rather dry and windy now. White and alsike clovers are fine, but a good rain would give us a bumper crop.

The bees are in good condition, but seem to be very cross. Up to July 7, my scale colony had increased 92 pounds in weight. Ten pounds for any one day was the highest increase. I have some colonies in the yard which are doing better, and some poorer.

Number 1 comb honey is selling retail around here for 25c, while extracted honey is at 15 and 20c.

We have prospects for a very good crop, if it doesn't get cold and rainy again like it did last year."

Mr. R. A. Schwartzkopf, of Bowler, Shawano County, has the following to say—"The weather conditions have not been favorable so far. Too much rain and cool cloudy weather.

The honey plants are in very good condition, but the bees are not so good. It being too cold during the dandelion and fruit bloom, so that brood rearing came to a standstill just when it should have been nearing the peak. For this reason, the colonies do not

have the working force they should have.

Not much of the 1926 crop is left in the beekeepers' hands. Extracted honey is bringing 15 to 17½c a pound in ten pound pails.

The season is too far advanced to look for much of a crop, especially since there is no flow from basswood in sight this year."

Mr. George Jacobson, of Kaukauna, reports as follows—"It looks as if the honey crop will be light around here this season. There never has been so much white clover in years as there is this season, but the weather has been unfavorable for the bees."

Mr. A. H. Seefeldt, of Washington County, reports on July 10, "In my work, I find bees not up to full strength for the honey flow. Most beekeepers had heavy spring losses. There is plenty of clover and the last week the bees have been bringing in honey. There should be absolutely no reason for reducing prices on honey this season."

Mr. C. W. Giauque, of Stanley, has the following to say--"Weather conditions have been favorable for the clover flow and colonies that are strong enough with bees of the right age are doing fairly well.

Honey plants are looking well, but the late white clover isn't as plentiful as I expected. Basswood looks as if it won't have many blossoms this year.

As to the condtion of the bees, many colonies seem to be very weak for this time of the year, and didn't seem to build up rapidly until now. However, the bees are storing honey fairly well in spite of their weakened condition.

A few of my best colonies are capping their second super of sections. During ordinary seasons, I have 4 or 5 supers by this time.

Honey is selling wholesale at 16c, put up in 5 and 10 pound pails.

I don't think I'll have more than half a crop of white honey. The fall flow may be good for the plants seem to be in fine shape at present. Everything depends on the weather conditions while they are in bloom."

Mr. C. A. Wood, of LaFayette County, sent in the following report—"Weather conditions are favorable so far for the flow and the honey plants are in good shape.

The bees were in poor condition the early part of the season, but are strong now, so are bringing in a good surplus.

In this locality, number 1 comb honey is bringing $4.50 per case with fancy at $4.75, to the stores. There is no market for extracted honey, but what little is moving is bringing 9c in 60 lb. cans and 15c in 5 and 10 lb. pails.

The crop will be about normal in this vicinity."

Mr. L. T. Bishop, of Sheboygan, writes as follows—"I thought that the long cold wet spring had busted plants, bees and everything else, but it didn't. Just now, there is a heavy flow from white clover and alsike. Sweet clover is just beginning to bloom. Basswood will be very light and it is hard to tell at this time how the fall plants will produce.

Many beekeepers report heavy spring losses and many weak colonies. In my own yard, about 75% of the colonies are very strong, in fact boiling over, 20% medium or light, and 5% weak. It doesn't pay to fuss with them, they are an eyesore.

I am selling my honey at $1.10 per 5 lb. pail and $2.00 for 10 pound pails. There is lots of cheaper 'stuff' on the market. So far, I haven't heard of any new crop being sold, but soon the price cutter will be selling his unripe honey. Oh! why can't we get the beekeeper to produce a better article?

The fact was, we were all beefing around the first of June, but it looks different now, as the colonies built up surprisingly fast. At the present time, It looks as though I would have three

times as much honey as I expected six weeks ago."

Mr. Andrew Stevens, of Stockbridge, says, "Alsike is mostly ripened and white clover is still fresh where there has been planty of rain, but in some localities, it is fading.

The bees are in good condition now, but were not up to strength at the beginning of the clover bloom.

During favorable weather, the bees are bringing in a good amount of surplus, which is only part of the time. If good weather keeps up, we will have a fair crop of honey this year. No new honey is being sold, as yet."

WHO SHOULD USE FORMALDEHYDE DISINFECTANTS; HOW AND WHY

By S. B. FRACKER

A former apiary field man used to say that a beekeeper's first love is his old comb.

I do not know whether any members of this association think more of the combs than they do of the living bees but sometimes it seems so. When a beekeeper has accumulated several thousand combs, he unquestionably hates to part with them, even though they may be infecting his bees with American foulbrood every season.

When foulbrood is found in an apiary, it is necessary at once to take care of the living diseased colonies, the honey on hand, and the wooden and metal equipment. Then some plan must be worked out to see that a new outbreak does not start from (a) the apparently healthy colonies, and (b) the extracting and brood comb which is not known to be diseased.

It is in the disinfection of these last that Hutzelman's solution and the water-formaldehyde solutions are of value, being even more important as a safety measure than as a direct disinfectant of known diseased combs. When the owner of a commercial apiary has half a dozen infected colonies one year, two or three the next, six or eight the next and one or two more a year for several years after that, it is certain that some disease is being carried over in the extracting combs. At the same time, while he may not object to killing off the diseased colonies, he may feel very much put out at the idea of sacrificing from two to ten thousand extracting combs just because some of them have had infected honey in them and because he cannot tell which they are.

In circumstances like this, the chemical disinfectants are the only solution. We believe that they are scarcely worth while for the beekeeper who has less than three or four hundred combs on hand. The bee journals have published descriptions of small ten-frame tanks for the use of beekeepers who have only a few frames on hand but the original cost of solution is so great and the labor of geting the tanks ready and transferring the frames every second day is so tiresome that the chemical disinfection of a smaller number of combs is not recommended as efficient.

It is scarcely necessary to outline at this time the method of using Hutzelman's solution or water-formaldehyde. It consists, as you know of several steps:

1. Uncapping every cell in all the combs and carefully extracting any honey which may be found in them.
2. Soaking the combs twenty-four hours in water.
3. Extracting the water.
4. Soaking them forty-eight hours in the formalin solution.
5. Extracting the formalin solution and saving it for future use.
6. Airing or rinsing the combs in clean water to make them attractive to bees again.

Dr. Sturtevant has shown in recent publications that a mixture of commercial formalin, such as can be secured through drug stores, with water in the proportions of four parts of water to one part of formalin, is just

as successful as Hutzelman's solution, provided every cell in every comb is carefully uncapped. In either case the solution ought to be analyzed after it has been used with two or three thousand combs, in order that the formaldehyde which has evaporated may be replaced in proper amount.

Chemical disinfection adapts itself to community work very nicely. In Wisconsin it has been tried in different ways in two different counties. The State has prepared an outfit with a capacity of one hundred combs in formaldehyde and one hundred more in water at any one time, enabling the beekeepers to handle six or seven hundred combs a week. An extractor is included with the outfit so that there may be no danger of mixing honey with the solution. This equipment is mounted on a trailer and may be moved from place to place by towing.

In Rock County it was moved from yard to yard, the county inspector taking it to its new location as soon as each beekeeper had finished with it. The county inspector also gave instructions to the beekeepers as to the method of use and started them off with their first batch of combs. In Ozaukee County, on the other hand, a permanent station was established and the combs were brought to the apiary at which the equipment was set up and were treated there. In the latter case it was, of course, necessary for them to pay a small charge for the labor of transferring the combs from one solution to the other and extracting them twice, as well as paying the cost of solution.

In Rock County 2900 combs were treated. It took 65 gallons of liquid to cover the 100 combs and they found it necessary to add about 4 gallons of fresh solution to each new batch of combs to bring the volume up to the required amount. The Rock County beekeepers used 150 gallons of solution for the 2900 combs and had enough left at the end to cover 50 combs. The material cost about $1.50 a gallon and the average amount of combs amounted to 6 1/3 cents.

Analysis of the remaining solution a few weeks ago showed that the work had weakened the liquid somewhat and that it was necessary to add one part of commercial formalin to every twelve gallons of solution still on hand. This addition brought the disinfectant up to the original strength.

In Ozaukee County 4838 combs have been disinfected to date. The cost of the solution was $105.75, consisting of 70½ gallons at $1.50 per gallon, and the labor cost was $133.05. The total amounted to $238.80 or about 5 cents per comb. Apparently, there was less waste of material where all the work was done by one man at one location.

In the case of community disinfecting plans the problem of financing the work is the most difficult one. The method used by Rock county was for the beekeepers to put up an initial assessment of ten or fifteen dollars apiece in a special fund in the hands of the secretary or treasurer of the County Beekeepers Association. The solution was purchased with this amount and all the solution used on the premises of one beekeeper was charged against him. If he used more than would be paid for by the initial investment, he paid the balance into the fund.

The state equipment is of such shape that enough solution is needed to cover at least fifty combs. At the end of the work this amount was on hand, although it had deteriorated and discolored somewhat. It was sold at a reduction to one of the beekeepers and the fund closed out by distributing all that remained to those who had made the original investment.

If one of the beekeepers is willing to take over this entire work and look after it himself, the simplest way is for him to finance it and to charge not only for the original cost of the solu-

tion and the labor but a small margin to make up for the decreased value of the solution after the work in his locality has been completed.

The writer considers the use of disinfecting solutions for the treatment of all combs in infected apiaries one of the most valuable of recent contributions to beekeeping methods. They are recommended to every beekeeper who has enough combs on hand to justify their use and in all cases every comb on the premises which it is worth saving should be treated. All others should be destroyed before the work begins. The only exceptions are combs that are, in fact, inside the hive with living, healthy colonies of bees at the time the treatment is being carried on. After the treatment is concluded every infected colony and every comb which has been in a hive or super with it should be immediately destroyed. If the work has been done well and if other sources of infection in the apiary have been cleaned up, the number of infected colonies to be destroyed will be very small.

DEMONSTRATION APIARIES IN IOWA

N. WORTHING, Iowa

The object of a demonstration apiary is to put into local practice the theory which is given with the project work. If the principles given in the lecture can be put into operation their results will be much more effectively impressed on the local beekeepers. If the work which we give will not do better than local methods we want to know it as much as anyone. On the other hand we want to be able to actually prove that the work given in the project will do better than local practices.

The demonstration was made just as practical as possible resulting in a complete popularization of the work. In presenting the work during the five seasonal meetings, seasonal phases of beekeeping were discussed and demonstrated just previous to its application in the apiary. Then at the organization meeting during the winter the seasonal meeting of assimilating equipment, purchase of supplies and the demonstration apiary was organized as follows: First it was necessary for the beekeepers to request the work through the County Farm Bureau. The specialist would then attend a general meeting of the beekeepers and after a discussion on demonstration methods a vote was taken from the beekeepers as to the advisability of locating the demonstration apiaries. If the vote was favorable a beekeeper was chosen who was willing to cooperate. The requirements of the cooperation being—first, that he will turn over to the specialist five colonies of bees equipped in Jumbo, Modified Dadant or Ten-frame Langstroth hives. Second, that he will assist in handling the five colonies according to specialist instruction and also do everything in his power to interest the neighboring beekeepers in the project.

The program for the season's work consists of a series of five meetings. The schedule dates and subjects for lectures and demonstrations are somewhat as the following: First, December 1 to March 1, preparation for the season's work. At this meeting results of demonstrations are discussed, demonstration apiaries established, and slides, films and charts are used to make the summer work as clear as possible. Second, March 15 to May 15, Spring Management. Here a practical demonstration of spring management is given. The subject is discussed emphasizing the following points: Importance of good queen at head of colony; plenty of stores; abundance of bees reared since the last harvest; and adequate protection. The third meeting, May 15 to July 15, Marketing and Bee Diseases. At this time the bee diseases are discussed, using samples of disease to demonstrate

symptoms. The treatment of disease is demonstrated. Marketing is discussed emphasizing the following points: Cleanliness; neat attractive packages; uniform prices; advertising and grading honey. The fourth meeting, July 15 to September 30, Fall Management. At this meeting the crop is removed from colonies, extracted and placed in neat containers. The colonies are carefully examined and such colony having poor or inferior queen is requeened with an untested Italian queen secured through the Iowa Beekeepers' Association. The different methods of finding the queen and introducing queens was discussed and demonstrated. The fifth meeting and last of the season is held from October 1 to November 15. The Wintering Problems are discussed. The essentials of wintering namely; ample stores of excellent quality, large force of young worker bees, and proper protection. An Iowa packing case was built and the demonstration colonies put away for the winter.

Two to four demonstration apiaries were conducted in each county applying for bee work. One half day being given to lecture, demonstration and care of demonstration apiary at each meeting. The Extension Department furnishes a list of beekeepers' names and publicity matter. The county agent advertises the meeting through the press, his directory and by sending mimeographed letters to each beekeeper. The expense of the specialist being paid jointly by the state and county.

Results of Demonstration Apiaries

The production of honey in Iowa was increased 15,177 lbs. in 49 demonstration apiaries conducted in 18 counties. The average apiary where the demonstration was conducted was 15 colonies. Five colonies being used as demonstration colonies, 5 colonies as check colonies and the remaining colonies handled the same as check colonies. The increase yield for the check colonies and remaining colonies in apiary was 15 lbs. per colony or a total gain of 1680 lbs. in 840 colonies.

THE PROPER SPACING OF FRAMES.

By C. P. Dadant, Hamilton, Ill.

The question of frame spacing was called to my attention in the summer of 1916, by Allen Latham, when he remarked, at the Connecticut meeting at Storrs, that the one and three-eighths spacing of combs, from center to center, is the greatest promoter of swarming.

The one and three-eighths spacing of brood combs, from center to center, has been practiced for years, on a large scale, since practically all the manufacturers of bee hives use this spacing. They certainly investigated fully the opinion of many of the educators as well as that of the practical beekeepers before they adopted this standard. But there are differences of experience even among the best authorities.

If we go to nature and examine the naturally built combs, in logs, gums or box hives and skeps, we find that, unless a guide has been given—and this would be no longer natural—the bees build their combs at varying distances from each other; in some cases the combs being built so closely that there is not room for brood and the bees have to use only one side, while in other cases and especially when honey storing is in progress, the combs may be built two inches apart and even farther.

Dzierzon gave 1½ inches as the right distance, from center to center. Berlepsch and others disagreed with him and proved that in a majority of cases the brood combs were built one and three-eighths inches apart. Following these masters, our early teachers, Langstroth and Quinby disagreed Langstroth made his 10-frame hives 14⅛ inches wide inside, allowing for each frame a fraction over 1⅜. The spacing of 1⅜ would require only

13¾ inches of room. Quinby accepted the Dzierzon spacing of 1½ inches. Adopting the Quinby system, we adopted also the Dzierzon spacing of 1½ inches. In our revision of Langstroth we advised the use of this spacing for two reasons:

1.—It facilitates the removal of the frames, giving a little more room to handle them, and thus aids in interchanging combs which may have slight irregularities. Of course with the use of comb foundation there is now very little irregularity in combs. Yet I have often seen beekeepers who use the narrow spacing crush bees in removing combs from the center, on account of the narrowness of the space.

2.—It gives more room between brood combs for the bees to cluster in the winter, and a greater thickness of honey above them, thereby placing the bees in better condition for winter. Strange to say, this point which we consider as a benefit was looked upon as a detriment by Mr. Julius Hoffman, inventor of the Hoffman frame, who wrote:

"If we space the combs from center to center 1½ inches, instead of 1⅜, then we have an empty space of ⅝ inch between two combs of brood instead of ½, as it ought to be; and it will certainly require more bees to fill and keep warm a ⅝ than a ½ inch space. In a ½ inch space, the breeding bees from two combs facing each other will join with their backs, and so close up the space between the two brood combs. If this space is widened to ⅝ the bees cannot do this, and more bees will be required to keep up the needed brood-rearing temperature. What a drawback this would be in a cool spring, when our colonies are still weak in numbers, yet breeding most desirable, can readily be understood."

So it will be seen that, although we agree with Mr. Hoffman upon the fact that more bees will have occasion to cluster between the combs with wider spacing, we disagree upon the effect this will have on the success of the bees.

(Continued in September Issue)

Wisconsin Beekeeping

Vol. IV SEPTEMBER, 1927 No. 9

THE BULLETIN BOARD

ANNUAL CONVENTION DEC. 8 and 9

City Auditorium, Milwaukee

Wisconsin Beekeepers are the best advertising agents for Honey. Strain clean, put it up in clean containers with neat labels and it will not be difficult to sell at Prices recommended by the Association.

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VOL. IV SEPTEMBER, 1927 No. 9

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPERS' ASSOCIATION
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Please make remittance payable to Secretary.

STATE ASSOCIATION CONVENTION TO BE HELD IN MILWAUKEE, DECEMBER 8 AND 9

The dates for the annual convention of the State Association have been set by President Gwin, and since the convention of 1925 voted to alternate between Milwaukee and Madison, the next convention must be held in Milwaukee.

The place of meeting will be announced in the next issue.

All locals should meet prior to December first and elect delegates for the Board of Managers. The Board of Managers will meet on the evening of December 7.

SUBSCRIPTIONS TO THE FLOOD FUND SINCE THE AUGUST ISSUE

Mr. and Mrs. Wm. Sass, Fond du Lac	$5.00
Miss Clara Jones, West Bend	5.00
Washington Co. Bee Association	5.00
Frank Schaefer, West Bend	3.00
Louis Tischer, Cedarburg	2.00
Gus Gust, Kaukauna	2.00
W. E. and H. H. Reim, Watertown	2.00
Wayne Dockhorn, Janesville	2.00
J. Harold McMurry, Madison	2.00
Mrs. Albert Eberhardt, Random Lake	1.50
A. R. Dehmel, Cedarburg	1.50
Frank Garner, Chetek	1.00
Miss Anna Taylor, Lancaster	1.00
Nathan Paddock, West Salem	1.00
A. H. Seefeldt, Kewaskum	1.00
Chas. W. Stone, Janesville	1.00
Ralph Irwin, Lancaster	1.00
Emil Yahna, Watertown	1.00
Theodore Qualley, Blair	1.00
C. M. Madson, Manitowoc	1.00
O. Kazmeier, Kiel	1.00
F. E. Matzke, Juda	1.00
Herman Feenje, Monticello	1.00
Edgar Patterson, Monroe	1.00
E. Blumer & Sons, Monticello	1.00
R. D. Adams, Reedsburg	1.00
Wm. Frings, Theresa	1.00
Mrs. A. K. Bradley, Ashland	1.00
J. A. Doerr, Viroqua	1.00
Schumacher Bros., Fall Creek	1.00

H. J. Verick, Tomah	1.00
C. D. Adams, Wauwatosa	1.00
H. F. Maeder, West Bend	1.00
Edith Mickelson, Madison	1.00
Joe Zwirlein, Allenton	.50
John Blank, Allenton	.50
Fred Dettwiler, Monroe	.50
A. C. Allen, Portage	.50
Harold Pardee, Eagle (5 lbs. Dadant Brood Foundation)	
Total	$56.00

The following letter has been received from Mr. Anderson:

Miss Arlene Weidenkopf, Sec.
Wis. State Beekeepers Ass'n.,
Madison, Wis.

Dear Miss Weidenkopf:

This is to acknowledge receipt of your letter of August 6th enclosing check for $56.00 to cover donations to the Relief Fund for the beekeepers of Louisiana who are in the flooded territory.

In behalf of the beekeepers of Louisiana we wish to thank you and the donors for this very generous donation.

Yours very truly,
W. E. ANDERSON,
State Entomologist

BUZZES ABOUT WISCONSIN

By G. E. MARVIN

Leaving Madison at an early hour Monday morning, August 15, we arrived at George Jacobson's apiary, located on U. S. Highway 41, northeast of Kaukauna. Mr. Jacobson has an ideal location for tourist trade. When a prospective customer stops there and goes through the extracting room, looks at the observation hive and above all, hears George's convincing talk, he usually goes away with a larger amount of honey than he originally planned on buying. Quality goods and cleanliness are the points stressed by Mr. Jacobson in putting honey on the market. After talks by Messrs. Gwin and Adams and a round of honey sundaes with cake, we journeyed on to the apiary of Mr. and Mrs. Edward Hassinger.

You notice I mention Mr. and Mrs. Hassinger's apiary—Well, they are in partnership, sharing all the work. There we had a chance to see the large hive idea in actual operation. The brood chamber is just twice as big as a standard hive, being like two hive bodies placed side by side. Two stacks of standard sized supers are placed above for the surplus.

Mr. Hassinger claims he can produce just as much honey as when standard hive bodies are used with about one-half as much work. Swarming is cut down to about 3 to 5%.

After we left Hassinger's apiary, we traveled on to Bonduel and Shawano. From there, we visited the Menomonie Indian Reservation. The scenery was well worth the time it took to go out of our way to look it over. We saw Keshena Falls and others at Bear Trap. At Keshena there is a large government school and a mission. Many of the Indians had small farms, but I didn't notice any beehives around. Probably the Indians rather rob a bee tree for their honey. We stopped at one shelter to admire the little black haired, black eyed Indian children.

After our pleasure trip at the reservation, we traveled back to Shawano and thence to the Hanneman home. Through some misunderstanding, we came about two hours late and missed the excellent picnic supper that the Shawano County Beekeepers had prepared for us. About thirty were present at the meeting, and after a good many interesting talks, we wound up the evening by listening to some true "bee-bear" stories by Mr. Adams and Mr. Schwartskopf.

About halfway between Bonduel and Shawano, there is located a splendid tourist camp, Pinehurst, where some of us stayed for the night. Those with camping outfits used them and

there were cottages for those without.

Tuesday morning, we met at the apiary of Theo. Gentz. Mr. Gentz's yard is kept in fine shape and everything in his honey house is very serviceable and neat. Mr. Gentz raises quite a few queens each year. The morning was cloudy, but everyone went into the apiary and no one got stung. I must say, Mr. Gentz's bees are the most gentle I have seen for sometime, and they appear to be very good honey gatherers.

We went from there to the home of Mr. and Mrs. R. A. Schwartzkopf, at Bowler. The drive from Shawano was certainly enjoyable. We went through some of the heaviest stands of timber that we had seen so far on the tour. In that area the honey flow had been quite light, due to the slow building up of the colonies in the spring and the failure of the basswood flow.

Through the kindness of some of the wives of Shawano County beekeepers, a lunch was served to us there before we departed for another beauty spot, the Dells of the Eau Claire River. One thing that made this bee tour different from the other was the combining of pleasure with observations of how other beekeepers carry on the game of honey production. Whenever there was a beauty spot just out of the way of the regular tour, we usually went out of our way to see it. I am sure many who were in northern Wisconsin for the first time received a much better impression of that area.

Leaving the Dells, we traveled on to Wausau. One is struck forcibly with the beauty of the approach to that city. The highway one comes in on, is way up in the hills and the city appears to nestle in the peaceful valley below. After going through the city and to the east, we came to Mr. and Mrs. D. M. Cranston's Apiary.

The Cranstons do all outdoor wintering and have had wonderful success, losing only three colonies in five years. A great deal of their success comes from leaving each colony a super of their early honey. The colonies are wintered in two hive bodies—They are pushed close together. Six stakes are driven into the ground, one at each end with one in front and one in the rear. Laths are nailed to these stakes and tar paper placed around inside. Six inches of planer shavings are used for insulation on all sides and on top. Tar paper is then put over the top and lapped over to prevent water from getting in. A rope or two tied over the top prevents the wind from lifting the cover.

Leaving Wausau the following morning, we tried to follow the lead of Mr. Adams. But it seemed that he took us almost everywhere except the right place. Finally, about noon, we pulled into Stanley amidst a downpour of rain. And who said Fords can't travel? I was giving the Buick almost all she would take to keep up to Mr. Adam's Oldsmobile and still Mr. Gwin and Charlie Stone were continually blowing their horns for us to get out of their way, so that they could show us what real speed was.

After dinner, we visited Mr. Chas. Giauque's apiary where a meeting of the Wisconsin State Beekeepers' Association was held in a room of his spacious honey house. Yes, the afternoon was so cold and damp that we had to have a fire to keep warm.

Mr. Giauque is one of the largest comb honey producers in the State, but, due to the backward spring, his early crop is not very large. From most indications, it appeared that the fall flow at time would be heavy if the weather conditions would permit the gathering of nectar. After the meeting, we disbanded, to meet at the home of Mr. A. C. F. Bartz, the following day.

From Stanley, Mr. S. P. Elliott, of Menomonie, and myself traveled up to the Flambeau, Chippewa County, where a real log cabin awaited us.

After laying in a supply of groceries at Flambeau and purchasing a loaf of real home made bread from a farmer's wife nearby, we were all set for an enjoyable stay. For breakfast, we had bacon, coffee, wheat cakes and honey—something one can't get around at restaurants.

On Thursday morning, we all met at the home of Mr. Bartz at Keystone. Mr. Bartz was more than surprised at seeing us, for he didn't know we were coming. Mr. Bartz has been in poor health all spring and summer, so it has been impossible for him to do anything in the apiary. However, his son is ably looking after the colonies, which number somewhere above 300. Mr. Bartz, Sr., has devised a method of queen rearing, whereby no larvae need to be handled and possibly injured. The method is quite unique and probably at some future time when more space permits, I hope to say something about it.

On Friday a meeting was held at the home of Henry Eggers at Birchwood. We visited one of the yards near town of Henry Eggers and Mr. M. C. Berry, of Montgomery, Alabama, was present. Later, we visited another yard, where all the colonies were started from package bees this spring. These colonies had done nearly as well as the over wintered bees. The clover flow wasn't as large as it should have been, due to the inclement weather during the spring, but a good fall flow is looked for. After a delightful satisfying lunch on the lawn at the home of Mr. and Mrs. Eggers, Mr. Berry presented each of the beekeepers with a queen bee.

The tour ended at Birchwood for me. I had a long drive ahead of me back to Madison, but here is where the hard luck story comes in. I got down as far as Augusta in fine shape, stopped there to get some gas, but when I stepped on the starter, it wouldn't turn the engine over. However, being on a slight incline, I coasted down and on letting out the clutch the engine started. The car took me as far as Fairchild where trouble with the generator was encountered. If this could have happened in Augusta, I might have called on Gus Dittmer, for it was just about supper time, but, as it was, I had to lay over in Fairchild until the following morning. Yes, I got back to Madison all right, but the train brought me.

Having several hours on my hands before train time, the following morning, I inquired for beekeepers within walking distance, and I was informed that Mr. C. F. Brown lived not far away.

On walking into the apiary, I spied an elderly gentleman sitting on an empty super in the shade nearby, who proved to be none other than Mr. Brown. He has quite a unique record, for he has kept bees since 1871, and is now 73 years old. He said he intended to keep bees as long as he could tend to them.

Mr. Brown told me some very interesting things about himself and the country years ago. In 1849 his father came here from New York State and C. F. was born in 1854, near Berlin in Green Lake County. When he was a boy, his mother kept the bees. They were in hollow logs and boxes. Each fall, she would brimstone certain colonies and take their honey. Hating to see the bees thus die each fall for the sake of their honey, he drilled four 2-inch holes in the top and placed boxes a foot square over them, with glass in one side. The bees came up through the holes and filled these boxes with surplus, which were removed on being filled. The comb was cut out and the boxes put on again to be refilled.

Three years ago Mr. Brown was quite ill, so his apiary decreased in size, but now with better health, he has increased it again to its normal size, of about fifty colonies.

Mr. Brown's apiary is located in an area where the farmers raise a good deal of buckwheat, so naturally, he raises buckwheat comb and extracted honey.

THE PROPER SPACING OF FRAMES

By C. P. Dadant, Hamilton, Ill.

(*Continued from August Issue*)

In commenting upon this the A B C and X Y Z of Beekeeping remarks that:

"Where wider spacing is adopted there is apt to be more honey stored in the combs, and less of worker (but more drone brood). Close spacing 1 3/8 on the contrary, tends to encourage the rearing of more worker brood, the exclusion of drone brood and the storage of less honey below."

We agree with this also, but we disagree as well on the ultimate effect upon the bees. We believe that a thick comb of honey where the cluster is located for winter will make for better wintering, even though it may mean a little less honey in the sections. As to the building of drone comb and rearing of drone brood in a wider space, it is of no importance when we use full sheets of comb foundation, or when we take pains to remove the drone combs in early spring to replace them with worker combs as it should be done by energetic beekeepers.

But until the summer of 1916, when the writer was in New England attending bee conventions, we had never given a thought to the possibility of this spacing having any influence upon the swarming instinct. But Mr. Allen Latham, who is a wideawake apiarist and who has tried both wide and narrow spacing, when he made the remark to which I referred at the beginning of this address, gave a very important item on the subject of swarm prevention. In an 8-frame hive, the wider spacing increases the room during swarming time, one-eighth inch between all the frames. In other words, an 8-frame hive has 8 spaces or the equivalent of one whole inch of additional ventilating and clustering room of the height and length of the hive body. This amounts to about 160 cubic inches of additional space. This suggestion was a revelation to me. I often wondered why our method of swarm prevention was so little successful with others who used 2-story, 10-frame hives, or 2-story 8-frames. We had never given any thought to this point. Yet the wisdom of Mr. Latham's contention is very apparent. In summer the bees are overcrowded in their quarters, and they often have to cluster on the outside. Clustering space on the inside, more ease of ventilation, both tend to remove a part of the pressure. If conditions are otherwise favorable, the hives with the wide spacing will have less swarming than the others.

When it comes to a consideration of comb spacing in the supers, we find less disagreement. Our old master, Mr. Langstroth, placed 9 frames, instead of 10, in the upper story of a hive measuring 14 1/8 inches in width, therefore giving nearly 1 9/16 inches for each frame. Our leaders in the production of section honey began with sections 1 7/8 wide and this size is still the standard. In our own practice, we use only 10 frames in a 16 inch super. Mr. Baxter, president of the Illinois society, who is a very successful producer of extracted honey, uses only 9 frames in his 16 inch supers. This gives 1 25/32 inches for each comb.

As I prepared this address, I received a letter from a Vermont apiarist whom I met when this question of frame spacing was uppermost in my mind. I had urgently advised him to use large hives and wide spacing. He now writes me as follows:

Arlington, Vt., Oct. 10, 1917

Mr. Dadant,

Dear Sir:

Probably you have forgotten me

and the pleasant day we had at Mr. Crane's last summer, in Middlebury, but I have not. I have had another pleasant summer with the bees, got nearly 2000 pounds of honey from 15 colonies, spring count, 1500 pounds extracted and 500 pounds of comb. My best colony gave me nearly 400 pounds of extracted honey. I had only 3 swarms and they all went back.

How did I do it? By following your wise suggestion, of wider spacing of frames, with plenty of ventilation and abundance of super room.

To get the wider spacing—mine being all 10-frame Hoffman-frame hives, spaced 1⅜—I just pulled out one and divided the room between the others. I wonder whether I can succeed again. But I feel very grateful to you and the Journal for the advice you gave me.

C. H. CROFUT.

This man is not the first man to use the method of keeping one frame out of the ten-frame hive. It has been tried before. I believe that, as a rule, those who have tried it have not been displeased with the results. However, the use of only 9 frames in a hive gives just that much less space for the queen to lay. But nowadays, when so many beekeepers are recognizing the necessity of large brood chambers for the breeding season, there is a tendency to use two stories for breeding, especially when extracted honey is in prospect. So the standard hives, as manufactured, do not need to be discarded by the men who wishes to try wide spacing.

Now a few words as to the greater number of bees required in spring to keep the brood warm, when the wide spacing is used. I do not wish to minimize this requirement. But my experience, with very large hives, indicates to me that powerful colonies that have had the benefit of the wide spacing during the season, have avoided swarming, have placed more honey in the center of the brood chamber and have been in better condition to winter. They are therefore, usually, enough stronger in the spring to be able to take care of the brood, in spite of the additional space and reach the honey season in better condition than the colonies with the narrow spacing.

One more word. While I believe I find 3 points of advantage in the wide spacing of frames as follows: More honey in the center for winter; more room for bees to cluster in the same space and less tendency to swarm; yet I do not wish to be understood as holding this point as infallible in reducing swarming. A number of other conditions have to prevail, in order to avoid swarming and the spacing of frames is only one of them.

In giving you these arguments, I do not wish to set myself up as a teacher, or to claim infallibility. In fact I must insist upon the statement that the principal advantage of wide spacing, swarm prevention, was entirely overlooked by us until Mr. Latham incidentally mentioned it. But it explained to me one of the reasons of our greater success in this direction.

The older I get, the more I perceive that what we know is but a grain of sand on the shores of the ocean of the unknown. Or as Josh Billings remarked: "What's the use of knowing so much, when half of what we *do know* ain't so?" I never attend a beekeepers' meeting without recognizing the truth of that joke; for many things which I thought I knew prove to be falsehoods. When I think I have some wonderful discovery to disclose, I find some stranger who discovered it long before I did.

The only thing one can do, in addressing a convention of specialists, is to call their attention to some particular subject in the hope that they may discuss it and sift the arguments on both sides thoroughly. The greatness of America comes from the impartial way in which every one is given a hearing and the best methods are se-

selected without regard to routine, former custom, or the source of information, provided it contains useful points. It is the amalgamation of the dozens of races of men united under one flag and seeking progress without restriction that is producing the hardy nation that we have been in the past and hope to remain.

INTERSTATE MEETING PROVES SUCCESSFUL

That cooperative meetings between beekeepers of different states is well worthwhile, has been proven by the meetings held at Platteville in 1926, and the recent meeting held at Hamilton, Ill.

Representatives of the Missouri State Beekeepers' Association present at the Hamilton meeting were so enthusiastic over the good will developed by the beekeepers of the visiting states that they have asked to become a part of the new plan, and would like to be included with Iowa, Minnesota, Wisconsin and Illinois in an Upper Mississippi Valley organization.

Complete harmony existed throughout the entire meeting and no program has been more satisfactory. In addition to the meeting, the fact that Hamilton is the home of the Dadant Family and the plant, as well as the big Mississippi dam, added considerable interest to the meeting.

Presumably, the next meeting will be held near Dubuque, Iowa, in connection with the Iowa State Beekeepers' Association.

We are sure that Wisconsin beekeepers will be interested in an abstract of the proceedings, and so it has been decided to publish this in WISCONSIN BEEKEEPING.

Dr. Lloyd R Watson, of Alfred, New York, was at the meeting, and gave several demonstrations of artificial mating of queens. It is strange that during the centuries of beekeeping known to exist, some one had not discovered this process so simple, when one has the proper apparatus and knowledge of how to use it. For special breeding queens, even queen breeders themselves can use Dr. Watson's method with reasonable success. Fortunately, Dr. Watson has been employed by the Genetics Department of Cornell University, and will be able to carry on some important research in the breeding of queens.

The meeting was officially opened on Tuesday morning, but the program did not start until 1:30 in the afternoon.

The meeting was opened at 1:30, by Professor Wilson.

Announcements.

Mr. J. M. Davis, of Spring Hill, Tennessee, Dean of American Queen-rearing was introduced and seated on the speakers' platform.

The meeting was then given in charge of James Gwin, President, Wisconsin State Beekeepers' Association, Madison, Wisconsin.

Mr. Gwin, in his address, said—"Every successful beekeeper must have certain fundamentals in his mind when he goes into the bee business. I believe those who fail never had these fundamentals in mind. The first fundamental is, Successful management of bees. The second fundamental is, How to produce high grade honey. The third is, How to dispose of the crop, or the marketing problem."

Mr. Gwin went on to say—"I don't believe that the marketing situation of honey will ever be solved as long as the beekeepers market their own honey. I don't believe the marketing problem will ever be solved until our product is handled by big business concerns. In other words, I believe that every beekeeper would be far ahead if he would sign a contract and sell all his honey to big business concerns for five years, and guarantee never to sell a pound of honey to his neighbor. It is time for big business

to get hold of the beekeeping industry."

Mr. C. P. Dadant then welcomed those assembled to Hamilton, Ill.

Mr. V. G. Milum, of the University of Illinois, Urbana, Ill., in his talk "Facts for Orchardist and Beekeeper," said, "The flowers of our fruits, like other plants, are so constructed that in order to produce fruit, pollen must be transferred from the stamens to the pistils of the flowers to complete the process of fertilization of the female egg-cell which grows to form the fruit. Some fruits are self-fertile, that is, they may be fertilized by similar pollen of the same variety; while other fruits are self-sterile, that is, they require pollen from the flowers of some other variety. Besides this, certain varieties of fruit are inter-sterile; that is, only pollen from some other particular varieties is suitable for pollination. Two thirds of all varieties of all apples are self-sterile, that is, only pollen from some other particular varieties is, they will not pollinate themselves. There are different degrees of self-pollination, this varying with one locality, with the conditions in that locality and growth and vigor of the plant."

Mr. Milum stated that other orchard fruits have variable conditions of self-sterility, which cannot be given here because of the lack of space. Mr. Milum referred to Bulletin 163, of the Agricultural Experiment Station, of the State of Washington, and went on to say that "Wind does not carry a great deal of fruit pollen from plant to plant, due to the stickiness of the pollen. Honey bees are not entirely responsible for fire blight. It has been proved that other insects are more instrumental in carrying fire blight. There are a number of insects besides honeybees which are common in the orchard in the springtime, such as syrphids, beetles, bumble bees, the latter of which are especially prevalent when close to tracts of waste land in dry years, yet the honeybee is the only one that is under the control of man in that its numbers can be increased to forty or fifty thousand per colony by the time of the fruit blooming period."

In speaking of the spray poisoning question, Mr. Milum said—"This has caused considerable trouble this year in Illinois. Orchardists say that the trees should be sprayed when 75 to 90% of the blossoms have dropped. All trees do not bloom at the same time; all the limbs of the same tree do not blossom at the same time. It has been found that 0.0004-0.0005 of a milligram of arsenic is necessary to kill a bee, but I believe that less arsenic than that will kill bees.

As to whether all cases of suspected spray poisoning are really spray poisoning, is a doubtful question. Enough arsenic was found in a sample of 100 bees supposed to have been killed by arsenical sprays during the apple blooming period in Illinois in 1927 to actually kill two bees according to our present knowledge of the fatal minimum dose of arsenic. These findings suggest that a less amount than 0.0004 of a milligram is fatal to a bee or else some other adult bee disease is responsible for the death in many cases of spray poisoning. It is apparent that further investigation along this line is necessary."

Mr. Milum mentioned the increased use of dust for dusting orchards. He said that in New York and other places, bees are carrying this dust into the hives as pollen, causing the death of the brood and young nurse bees.

Also, he is of the opinion that "Bees in the orchard should be placed at the rate of one colony to the acre, which is one colony at every 210 feet, as not many bees fly beyond one hundred yards in the orchard during some seasons when the weather is bad for bee flights. Spray poisoning may be cut down somewhat by always keeping a supply of water near the

apiary. The use of repellants has been practiced by different beekeepers, but nothing satisfactory has been found up to the present time.

From the standpoint of the beekeeper and the orchardist, I believe that it will have to be a case of cooperation. It is necessary to pass out more information to the orchardists. Tell them that they must keep bees properly and not by the 'let-alone' system, if they are going to secure the most benefit."

Professor H. F. Wilson, of the University of Wisconsin Beekeeping Department, Madison, Wis., then talked on "Beekeeping Investigations Under Way at the Bee Research Laboratory at the University of Wisconsin." (This paper will be printed in a later issue of WISCONSIN BEEKEEPING.)

At this time Mr. James Barr, of West Allis, Wis., was introduced as judge of the mock court to be held Wednesday evening.

Mr. Huber Root, in his talk "New Facts About Honey," said—"The youth of today complacently views the work done by the trail blazers, and accepts it as a matter of course. I am proud to be standing on the same platform where Mr. J. M. Davis is sitting. Mr. Davis is a trail blazer. If it had not been for his work that he mentions so modestly, some of the rest of us would not be having things quite so easy. And we have another trail blazer. I am most happy to mention him. A few years ago we heard of 'One Hundred Percent Americans.' A 'One Hundred Percent American' is one who, being successful himself, successfully raises a fine family of boys who follow in his footsteps. Mr. Dadant, I am happy to recognize you as the real 'One Hundred Percent American.' While you are a competitor of mine, that counts not. It gave me real satisfaction as I stepped into that fine office for the first time in my life, to see the monument that he has builded and that his sons will carry on. So we do well to honor these trail blazers.

Milk is a staple food. There is no competition. We do not have to urge mothers to feed their infants milk. Honey, whether we like it or not, is a luxury. At least, so the world feels. Also, no packer of honey that I know anything about has made any considerable amount of money packing and selling honey. The average packer of honey has had to put back into advertising any profit that he made packing honey. In the last three months, I have tried to find how much honey is being packed by the so-called large packers of honey. Many of them hesitate just a little bit and do not like to tell when they are asked—'Don't you think it is a fact that the so-called large packers of honey pack less than 20% of the country's output of honey?' But they agreed.

Most of the so-called large packers agreed that less than 10% was put out of the entire group. If the combined effort of those who are in the business of packing honey on somewhat of a large scale amounts to only about 10% of the country's output of honey, then we will have to agree that in the long run there are some very, very grave complications in the business of marketing honey. I think that the time may come when we may agree with Mr. Gwin. However, I believe that 90% of the country's output today has to be sold by the producers themselves. Struggling against an indifferent public in many localities, and yet, inspite of all that, the chances are that the honey producer has not been hit as hard as the fruit growers or cotton growers.

We are facing two great difficulties in the marketing of honey, and I am going to try and tell you something new if I can. This morning, I ordered honey on the dining car. I doubt whether there has ever been a time in my life when I have had a chance to order honey in a large dining car or hotel, when I have not done so. This

morning, they brought in a pitcher of half granulated honey. I turned it up, and I had to pound the underside of the pitcher before I could get it to pour. Then it all came at once. That is one of the things we are up against. A fact, I think, new to some of you. Also, battled honey often contains too much microscopic air. The average honey pump is run too fast. Under normal conditions, a honey pump will pump more honey if it is run at half the speed, and with the introduction of less air. Honey that is properly prepared and properly settled may not need this additional treatment that I am now about to relate to you. Too often our honey contains air bubbles that are larger than microscopic air normally contained in liquids of all kinds. Skim and heat it, and more air will arise to the top. Each successive heating darkens the honey slightly. So it does not pay to keep heating each day.

If you exhaust the atmosphere on top of the honey, the gobules of air rise ten times faster than they will rise with the atmosphere on top of the honey, so we use vacuum tanks for heating honey. If the honey is crystal clear, this is not necessary. A small gobule of air in honey becomes a nucleus around which crystals are formed. Honey that is nearly a year old is far more cloudy than that which is new. There is no secret on keeping honey liquid. By careful heating, careful control of temperature, and exhausting the air on top of honey in order to remove the greatest possible part of what might be called gobules of air, honey will remain liquid for long periods of time."

Mr. Root cited many new uses for honey. He said, "Honey has almost all the physical properties of glycerine, but, of course, not chemical properties. We need not care where honey goes if so it goes. I would rather it should be used on the table, for edible purposes, but we must be up and doing, and get honey substituted in the manufacturing arts, wherever possible.

For people who are not careful, do not recommend the use of honey in radiators. It is the safest anti-freeze, aside from glycerine, when made with equal parts of alcohol, honey and water. You do not have boiling on top, with frozen liquid below. The alcohol will not evaporate because the honey prevents evaporation.

Bakers are using a surprising amount of honey. Bakers of the United States today, with comparatively little sales effort on the part of the producers, are using approximately 3 to 5 times the honey that all the packers are putting up. However, bakers want a uniform honey that will respond each time in the same way. So the honey sold to bakers must be uniform in regard to the amount of moisture it contains. Give attention to the density of honey for bakers. I see no sign of relief until a hydrometer is perfected that the beekeeper can use and clearly read. It is difficult for laymen to clearly read hydrometers, and we must have a means for finding out the exact amount of moisture in honey before bakers can use more honey."

Mr. Root then told how the candy consumption in the United States is falling off, and how the slogan for the candy manufacturers is to be "Let your children eat a mouthful of candy each day." "The reason for this falling off in the consumption of candy is due to the fact that dentists and doctors all over the country have been pointing out that so much cane sugar causes cavities in the teeth of children, and some physical disorders. Dr. McCallum, of John Hopkins University, said that we ought to be ashamed of being American citizens and having white sugar put over on the American public. So things are shaping for us to go ahead with honey—Honey the Health Sweet.

We ought to honor the Hershey Chocolate Company for putting out a Honey Chocolate Almond Bar."

Mr. Root then told how his company had approached a manufacturer of rubber gaskets and pointed out to this man that honey might be used instead of glycerine in these gaskets, as long as honey had all the physical properties of glycerine, and was a much cheaper material. This man, one of the smallest manufacturers of rubber gaskets, now uses on the average of a ton of honey a week. Honey, he says, prevents oxidation better than glycerine.

The Larkin Company, of Buffalo, according to Mr. Root, will bring out a honey shaving cream in the very near future. "Take any good lathering hand soap, shave it with a knife, put in the sun for one or two days until it is brittle. Pulverize, and get in the form of a powder. Take the pulverized hand soap, mix honey with it, and cut it with honey until it is a thin paste, and you will find you will be delighted with it. It will give a much smoother shave than the ordinary shaving creams on the market today. Make up a mixture from your favorite soap, and keep on hand for a toilet soap."

Mr. Root said that it has been proven that a week old baby can be fed honey in moderate quantities without giving it the colic.

"We have a duty to perform. Ultimately, some large concern, when the public knows more about honey so that there is less sales resistance, will take honey and make of it a great commercial product. I believe that it is impossible today, but that the day is coming. We are all to blame for the situation of people not using much honey. The future, however, is brighter than the past.

In all probability, there is less than 1/5 of the honey standing in the mid-mountain states than was there a year ago at this time. I cannot believe that the unnecessary panic will occur that occurred last winter."

Mr. G. E. Marvin, of the Department of Beekeeping at the University of Wisconsin, Madison, Wis., in his talk "The Cause of Honey Fermentation," brought out some new information on the cause of honey fermentation, which will appear at a later date in a paper on this subject.

Attendance—147.

At 7:30 in the evening, an informal meeting was held at the home of Mr. C. P. Dadant, and short addresses were delivered by Mr. John M. Davis of Spring Hill, Tenn., Mr. C. P. Dadant, Mr. J. F. Diemer, and Harry Lathrop.

WEDNESDAY, AUGUST 10

The meeting was called to order at 9:30 Wednesday morning, by H. F. Wilson, who then turned the meeting over to Mr. N. Williamson, of Bronson, Iowa. Mr. Williamson is President of the Iowa Beekeepers' Association. Mr. Williamson suggested that the summer meeting next year be held at Dubuque, Iowa. He also said that he believed these meetings would help solve many problems. "I would like to see the States of Illinois, Minnesota, Wisconsin, Iowa, and also South Dakota and Nebraska publish a honey market bulletin, as the A. I. Root Company commenced to do at one time. I would also like to see these six states leaders in adopting the Government Honey Grading Rules."

Dr. O. W. Park of the Iowa Agricultural College, Ames, Iowa, in his talk on "Studies in Nectar Secretion," said—"We are all here to study problems of beekeeping in one phase or another. We are after new knowledge and the truth. And we are finding that progress is somewhat slow. I think that we can expect that it will continue to be slow, and we must recognize the fact that we are not going to find answers to all the questions that are puzzling us.

You all know that honey differs from nectar in at least two respects. First, in a chemical sense, honey is invert sugar, whereas nectar is very largely sucrose. Second, in a physical sense, honey is a concentrated mixture of sugar. Nectar is frequently a very dilute secretion varying from almost none to 60%, or almost better. Ordinarily, nectar will probably run in the neighborhood of 30%. I have analyzed many samples in the past few years. Some run as high as 60%. In the chemical and physical phase of ripening of honey, the change of the cane sugar to the invert sugar apparently is started in the honey stomach of the field bee which collects that nectar. I feel that, by the time the bee has gotten to the hive with its load of nectar, a very large proportion of what had been cane sugar in the blosson, is inverted by the time the bee reached the hive in a time probably not to exceed 30 or 40 minutes.

With regard to the concentration of nectar, so far as I am aware, there have been two theories advanced for the explanation of how nectar becomes concentrated and thickened into honey. The two theories which have been advanced are—First, an excretion theory, Second—an evaporation

PRICES RECOMMENDED BY THE STATE ASSOCIATION PRICE COMMITTEE

The State Association Price Committee met at Riverside Park, Watertown, Wisconsin, on Sunday, July 24, at 1:00 P. M., and the following prices are recommended for State Association members this season (1927):

EXTRACTED HONEY

Retail—Direct to the Consumer.

			Glass Containers		
	5 lb.	10 lb.	½ lb.	1 lb.	3 lb.
Lithographed pails	$1.00	$1.90	20c	30c	75c
Plain pails	$1.00	$1.90			
Sixty pound cans	$9.00				

Prices to the Grocer.

All honey sold to grocers will be at retail price less 20%.

	5 lb.	10 lb.	60 lb.	½ lb.	1 lb.	3 lb.
Lithographed pails	.80	$1.52		per case (24)	per case	per case (12)
Plain pails	.80	$1.52	$7.20			
Glass containers				$3.84	$5.76	$7.20

It is understood that the grocer will take at least 6 or more pails of one size or a case (24 of the ½ lb. size and 1 lb. size, and 12 of the 3 lb. size).

The Price Committee refuses to recommend a wholesale price on honey.

COMB HONEY

	To the Consumer		To Storekeeper	To Wholesaler
	Per Case	Per Section	Per Case	Per Case
Fancy	$7.00	35c	$6.50	$6.00
No. 1	$6.50	30c	$6.00	$5.50
No. 2	$5.00	25c	$4.00	$3.50

GRANULATED HONEY (In Cartons)

To the Consumer, per package	To the Storekeeper, per package
40c	32c

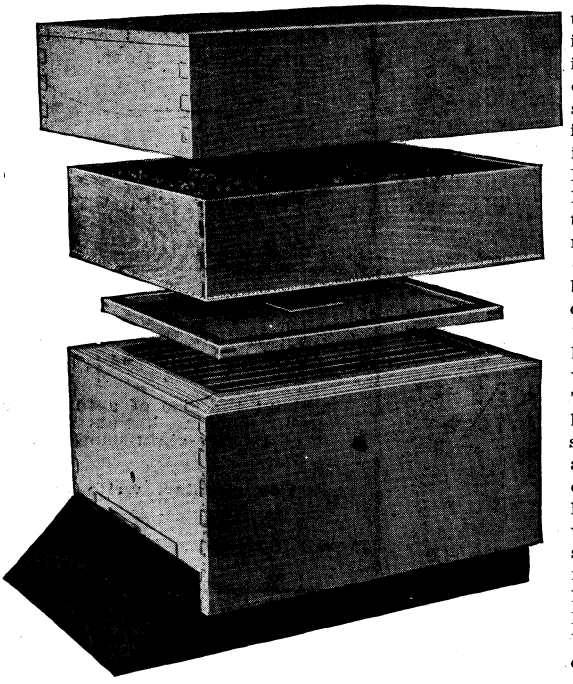
theory. I believe that the evaporation theory has been quite widely accepted, whereas the excretion theory has been less widely accepted, but strongly championed by some.

Considering first the excretion theory, I may say that it is based largely on circumstantial evidence, as I see it. There are two points in particular—1. Many have observed, and particularly pointed out, that nectar newly deposited in the comb is already considerably more concentrated than the nectar obtained from the flowers direct. 2. Close observers say that during a heavy honey flow, if the nectar is quite thick, bees starting for the hive, or anywhere between the field and the hive may be seen to spurt out a bit of colorless liquid. The theory has been advanced by different ones that the source of this liquid is the surplus water, separated from the nectar by some unknown physical process inside the bee, between the field and the hive. This is particularly interesting, since a Swiss investigator, Dr. Brunich, has advocated a further explanation of this theory, which I may refer to as a rectal gland theory. He reports after microscopic studies that it is the rule for the bee to eliminate part of this water from the nectar while enroute to the hive, and it is accomplished like this. Briefly stating, he is of the opinion that the wall of the honey sack acts as a sort of strainer which permits part of the water from the thin nectar to pass through into the body cavity of the bee. The blood is loose in the body cavity, and the water passes into the blood of the bee. This water becomes a part of the blood, and by diluting, makes the blood too thin. Then he reports that this set of so-called rectal glands function by taking up this surplus moisture from the blood and discharging it. That is a very ingenious explanation of the situation.

(Continued in October Issue)

Save Wintering Troubles

YOU CAN WINTER YOUR BEES SOMETIMES WITH VERY LITTLE PROTECTION—BUT IF YOU TRY IT YOU WILL GENERALLY PAY FOR IT WITH A SMALL COLONY OF BEES THE NEXT YEAR TO GATHER THE HONEY CROP.



Protect your bees this winter by giving them some packing. Winter cases are effective, but expensive and inconvenient. Instead of buying winter cases, buy Buckeye hives, at least a few, and transfer a few colonies this fall. The old hive-bodies can be used for full-depth supers. When you buy Buckeye hives you solve the wintering problem. The new Buckeye hive with its packed sides and bottom, and also its sides made of full thickness lumber, is a real winter hive. It also shelters the bees from the heat of the hot summer sun. The Buckeye hive is the best hive for every day in the year.

TEST A FEW BUCKEYES THIS YEAR

The slightest additional cost of the Buckeye hive takes care of wintering problems for years to come.

"QUALITY THAT LASTS"

A. I. ROOT CO. OF CHICAGO
224-230 W. Huron St.,
CHICAGO, ILLINOIS

A. I. ROOT CO. OF ST. PAUL
290 E. Sixth St.,
ST. PAUL, MINNNESOTA

Wisconsin Beekeeping

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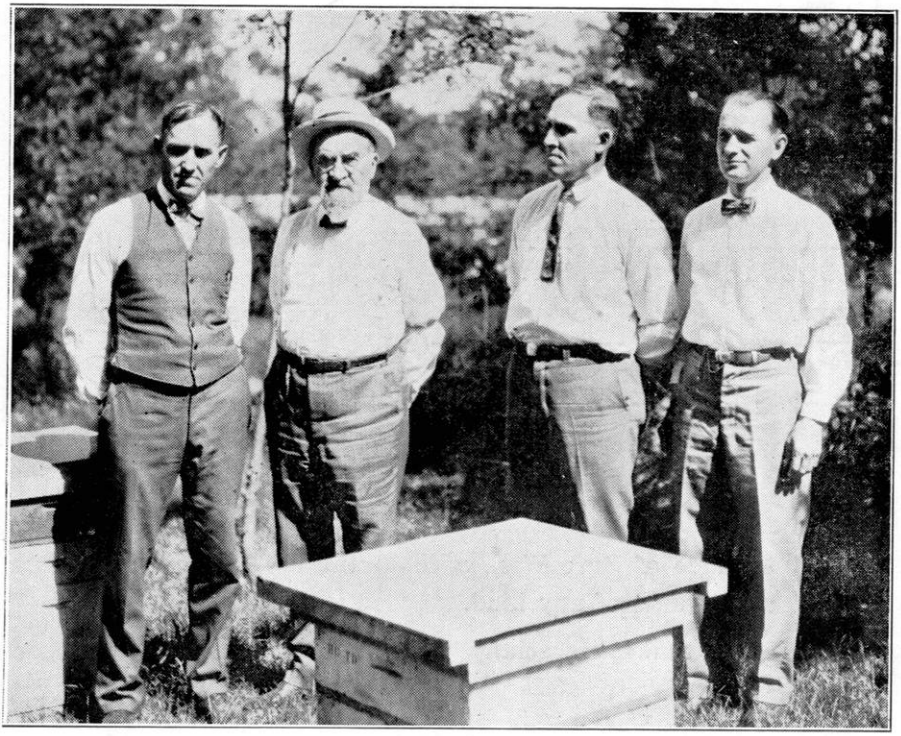

C. P. DADANT & SONS AT THE INTERSTATE MEETING AUG. 17-1927
From left to right, Maurice Dadant, C. P. Dadant, Louis Dadant and Henry Dadant

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Annual membership fee, $1.00, which includes one year's subscription to "Wisconsin Beekeeping."

Please make remittance payable to Secretary.

A PRELIMINARY REPORT ON THE CAUSE OF THE FERMENTATION AND SOURING OF HONEY

BY G. E. MARVIN

We usually consider that only unripened honey will sour. So far, we have found several samples of honey souring with a moisture content about equal to that of ripened honey which ranges from 14 to 20%. We must therefore be able to determine definitely what constitutes properly ripened honey before we can state that only unripened honeys ferment and sour.

The fermentation or souring of honey is undoubtedly caused by yeasts. We have isolated five strains of yeast from samples of fermenting honey. All were able to grow in very concentrated solutions of honey. We have found out that these yeasts which ferment honey will not grow in cane sugar. The yeast evidently does not contain the enzyme necessary to break down cane sugar, but grows readily on the simpler sugars found in honey.

From observations that we have carried on so far, it it seems that yeast cells are found in almost all honeys. We know yeasts are very widely distributed everywhere in nature and possibly they find their way onto the pollen grains and into nectar and are carried to the hive by the bees. During the process of the ripening of honey, the yeast cells are not killed and and so are found in most honeys in a dormant state, when the right conditions are brought about in the honey, the yeast cells begin to multiply and cause the honey to ferment.

Honey is made up of two kinds of simple sugars, dextrose and levulose. When honey candies, it is the dextrose which crystallizes and the levulose which is left in solution. A sample of honey which had a moisture content of 16.3% was used in order to get experimental evidence.

The dextrose settled out in large crystals with the levulose forming the liquid part. Under these conditions, it was a simple matter to separate the two. The moisture content was run on the crystals and on the liquid part of the honey. A big variation was no-

ticed. For instance the moisture content of the liquid portion of honey is 20.8%. The moisture content of the crystals is 11.75%. From these figures, we see that the moisture content of the liquid portion is about equal to the moisture content of fermented samples we have been working with.

Thus, it appears that when honey candies, the moisture content of the levulose in honey increases. If yeasts are present in the honey, they will be able to grow.

Yeast cells are easily killed by heat and will not bud or multiply under cold conditions as ordinarily found in an ice box. Some of the yeasts we have found in honey form spores, but they are not as resistant as bacterial spores and appear to be killed as readily as the growing cells.

FLOOD RELIEF FUND

Additional contributions to Sept. 15.

Mrs. C. P. DesBouillons, Wisconsin Rapids, Wis.,	$1.50
Mr. A. W. Pomerening, Madison, Wis.,	1.00
Mr. F. B. Sherman, Edgerton, Wis.,	2.00
	$4.50
Total received	$176.00

THE MILLER MEMORIAL LIBRARY

Through the kindness of Mrs. Walter Campbell Lyman, of Downers Grove, Illinois, we have received the complete library of Walter Campbell Lyman. This collection consists of over one hundred volumes of the GLEANINGS IN BEE CULTURE, the AMERICAN BEE JOURNAL and THE BEEKEEPERS' REVIEW.

Mrs. Lyman has also given us a number of items of old beekeeping equipment for our museum and a number of interesting photographs.

She has also signified her possible intention of arranging for a small endowment in behalf of Mr. Lyman, and I am sure that, although most of our beekeepers may not have known Mr. Lyman personally, some of you must have met him at the national meetings.

Mr. Lyman led an exceedingly interesting life and did much to contribute in a quiet way to the beekeeping industry. The following brief abstract has been prepared by Mrs. Lyman at our request, as we wish to place Mr. Lyman's name and photograph as permanent records in the Miller Memorial Collection.

WALTER CAMPBELL LYMAN

1854-1926

Walter Campbell Lyman, born on the Lyman homestead, Downers Grove, Illinois, February 8, 1854, was for more than 40 years a bee-keeper, on the old farm, and was identified with the early honey industry of the northern part of the state, not only as a producer, but as a faithful, interested member of the various organizations promoting bee culture, and contributed some of the results of his study and experiments to the American Bee Journal and other professional papers.

Last year he spoke several times of the coming Platteville meeting in August but his severe illness which began July 13th prevented active plans to attend, and while the meeting was in progress he passed into the fuller life on August 19th, 1926. It was a brave fight of five weeks which he made against the heart attack, during which time he planned for future days of more quiet work and the reducing of his bee activities, but on the 19th about sunset, which he dearly loved, he slipped away on the great adventure, leaving with his many friends gentle memories of true friendships and his joy in God's wonderful world which to him was a most

enticing revelation of God's love for his human children.

Life of all kinds interested him, especially animal, flower and insect life, but to the bees he gave not only keen, alert attention as a practical bee-keeper, but as a philosopher and student. They meant much more to him than he himself realized, during the long years of burden bearing and self sacrifice which were his share. As he worked and studied and experimented among them, life brought its deeper messages and revelations to his mental vision. It was with keen regret that he began to realize that his work with them was growing too heavy and that he must reduce his bee family to a colony or two. I am thankful that he was spared this trial, and that in the well-ordered bee-yard close to the home, the 40 colonies of the summer stood when he was carried away.

His accidental beginning as a bee-man was kin to hundreds of others—a runaway swarm which alighted at the homestead in the summer of 1881. Being entirely ignorant of what to do, an uncle helped him hive the runaways in a barrel for a temporary home. From that date to 1926 is a long story, forty years in all, and the years included acquaintance with many of the pioneer bee-keepers in this part of the country, inventions of a practical nature, and participation in the Illinois honey exhibit at the World's Fair in Chicago 1893. To this he came bringing his honey contribution and remained to help install the exhibit and later was on duty as a booth attendant while the Fair remained open. Before me lies the bronze medal and letter from the U. S. Dept. of Agriculture, the award for the best extracted honey from the State of Illinois exhibited at the Fair, and the only one bestowed on Illinois for honey.

He wrote little, but lived much, and it was a common sight on Spring and Summer Sunday mornings to see him chatting in his bee-yard with those who brought to him their bee problems—it was always as a brother and not as a teacher, and sooner or later the talk drifted to allied subjects and deeper things. In his bee-work as in his social relations, his was a quiet retiring part, so few people knew the rare soul that lay hidden by New England shyness and reserve or felt the rich experience that lay back of the unassuming manner, both having so much to give to the world, but the world was too busy to discover the gold close at hand.

After a long life time, life's reward in human happiness came to him and the three years of joy were lived with a zest and wonder that only patient years of waiting and loneliness could give. And now on the old homestead where he was born and died, and which his Grandfather purchased from the Government in 1839, I am to continue and "Carry On" his work and plans with the little creatures who made a trial for him into a delightful country of experiment and study which gave new meanings to life and work, and brought to him rewards of the spirit which were priceless.

JESSIE WOODFORD LYMAN
(MRS. WALTER CAMPBELL LYMAN)

INTERSTATE MEETING PROVES SUCCESSFUL TO BEEMEN

(Continued from September issue.)

I had become all but convinced that such was the case. It seemed to me that was probably the case, so I have been working to get further light on this subject. Let me point out first that, if this theory is correct, then the nectar which one would recover from a bee entering a hive should be more concentrated than the nectar that is obtained directly from the flower. I secured nectar directly from flowers and also secured honey from the honey sack of bees entering the hive, and analyzed for sugar content. That in

the hive should be more concentrated than that from the flower, but such was not the case. Results point the other way. Very little change takes place, and what change there is seems to be a dilution rather than a change. I am not saying that I can explain the condition to you, or even to my own satisfaction, but I can suggest one thing that might enter into this matter. In order for the bee to start inverting of sugar, it must have something which will start this chemical reaction. We know that invertase has been recovered from the bee, and I do not know just where it is located, but invertase is a substance which, when added to a sugar solution, will cause cane sugar to become invert sugar. We know that the finished product, honey, is almost all invert sugar. I am wondering if the bee does not add saliva to the nectar between the flower and the hive.

Dr. Brunich has published some data which he thinks shows that evaporation in the hive plays a very insignificant part in the concentration of nectar. The proof which he submits is of a very indirect nature. It has been my effort to get to the problem as directly as possible, so that what I have been doing is to fill clean empty small combs with invert sugar solution. The invert sugar solution would compare more with the natural product, and using various dilutions of invert sugar for comparison, I placed small combs inside a hive, protected by a small wire screen, so the bees could not touch the sugar solution. I knew the concentration that I put into those samples, and weighed them at intervals of four hours during the daytime, beginning about six o'clock in the morning and stopping about nine o'clock in the evening. These tests showed that at the end of 48 hours, the sugar solution, no matter what the percentage, had reached the concentration of almost ripe honey.

If they are within 10% of the concentration of ripe honey at the end of 48 hours, we know that it is not going to take them long to go the rest of the way.

For this set of samples, the cells were filled about ¼ full of nectar—that is, approximately the amount that is apt to be put in empty cells by the bees during the course of a day, provided the bees have all the space they want to spread out in. Another set run at the same time, with the same conditions, and filled ¾ full, had progressed with their concentration in proportion to only about half that of the smaller amounts, at the end of 48 hours. We can see that the amount of nectar in the cell has a very great deal to do with the rate at which evaporation will take place in the cells, when no manipulations by the bees themselves, other than the currents of air produced from fanning, are given.

It seems to me that evaporation from the cells progressing at such a rapid rate would indicate that nectar could become thoroughly ripened at the end of three days under favorable circumstances. That is about the length of time that we know it does require. I do not consider that this is the only means by which evaporation or concentration is accomplished within the hive, in fact, I am very sure that it is not. I have simply showed by this experiment that it would be possible for the concentration to be accomplished by the fanning method within the time it requires for ordinary ripening.

My own observations have shown that when the nectar gatherer comes to the hive with that load, she does not herself deposit that load in the cell. She turns it over to the house bee, which in turn does not deposit it in the cell at once, but keeps it in the honey sack by running it out over the tongue, and exposing it to the most ideal conditions for rapid evaporation.

After being manipulated for about 15 to 20 minutes, it is then deposited in the cell. That is the explanation of how one observer arrived at the conclusion that deposited nectar was somewhat concentrated. Whether or not that nectar is again taken up by house bees, I am unable to say. Evaporation which takes place from the tongue of the house bee must be quite rapid, and although we cannot say to what extent this method is concerned in relation to the amount of evaporation, evidently both methods are important.

One other way by which evaporation within the hive takes place, is this. During the time when thin nectar is coming in rapidly, the house bees cannot find time to work the honey with their tongues at once. They receive it just as always, and deposit it almost right away in the cells. One bee will distribute its load through about 3 or 4 cells. Those cells may be anywhere in the hive. After a while, the house bee comes back and gathers up this nectar. In the meantime, they have been exposed and some evaporation goes on. We have, then, three different phases of evaporation in the hive.

1. Concentration accomplished while nectar is spread out on the tongue of the bee.

2. Concentration accomplished while the small droplets hang from the roof of the cell.

3. Evaporation from the full, or partly full, cells."

Professor Francis Jager, of the University of Minnesota, St. Paul, Minn., then talked on the subject of "Beekeeping in the South."

Professor Jager said "The northern beekeeper depends on the southern beekeeper for early quens and package bees. People just commencing in the beekeeping business need package bees and queens. They also are needed to make up the winter losses of our northern beekeepers, and this winter loss in the north amounts to about 30%. They are needed to strengthen weak colonies, which otherwise would be unfit.

The orders for package bees and queens are increasing each year. The complaints from the northern beekeepers to the southern beekeepers are numerous. Some of these are—the package bees that are gotten from the south are frequently half or completely dead; queens coming from the south are frequently superceded, sometimes such supercedure running as high as 30%.

The northern beekeepers do not care to have bees shipped on combs because of foulbrood, and the same rule applies to the queen cages. Also, the north is calling for sugar syrup for feeding the bees."

Professor Jager then told of his two months' trip last spring, visiting the beekeepers in the south. "I tried to spend as much time as possible in the southern bee yards, and also tried to get the southerner's view point. I studied his methods and ways. The men themselves are a wonderful lot of kind gentlemen.

The package men and queen rearers in the south are mostly self made men. Experience and slow work year after year have developed their system of queen rearing. Practically every man has his own system and method of queen raising. Some are more successful and some less successful. The outhern beekeepers are just as anxious to please us a we are to be pleased. They wish as much as we do to ship us package bees on sugar syrup, free of disease. The majority of them are beginning to adopt sugar syrup. Southern beekeepers are just as anxious to please us as we are to be pleased. Queen raisers are adopting the system, too. I believe that the time is coming when honey will be eliminated in all shipping of bees."

Professor Jager stressed the point that they are anxious to please, and

will leave nothing undone to please their northern customers. He also pointed out that in many cases, the northern beekeeper is unreasonable, and blames the southern shipper for many things for which he is himself to blame.

"Every man has his own system of queen raising, and many are far behind in the problem.

We have no standards, either Government or private, as a means of grading bees to determine whether they are Italian. It is about time that we agree in this country what pure Italian bees are. We need a standard of breeding.

The queen raising in the south is done largely by grafting. Some use new cells, and some use those which have been used before. Some graft in the warm house, and some do not. Some use honey in queen producing colonies, and some use sugar syrup. About 20% of the queen raisers use honey for this purpose, and 80% use sugar syrup. They feed, feed, feed—in order to obtain beautiful queens. In their own term, they "Juice them" often and plentifully.

I believe that the Universities of the south should investigate certain phases of shipping bees which are to the advantage of both the north and the south.

With regard to the superceding of queens—What causes this? Such prblems ought to be taken up and studied. We must be mutual friends —there is no reason why the business relations of the north and south should not be pleasant."

Professor Jager told of his visits to the beekeepers in the flooded districts of the south, just three days previous to the breaking of the levees. He begged that the northern beekeepers be patient with these unfortunate beekeepers in the matter of lost orders, refunding of money on orders, etc. "They need our cooperation, sympathy and help."

Wednesday Afternoon

The meeting was called to order at 1:45 p. m. by H. F. Wilson. After the announcements, the program was turned over to Professor Jager, who was chairman.

Mr. J. I. Hambleton, of the U. S. Department of Agriculture, Washington, D. C., in his talk on "Work of the Bee Culture Laboratory at Washington" said—"The matter of standards for honey is not new. The government at one time almost prepared a set of standards for honey, but people could not come to an agreement of what the different grades should be.

Today honey is one of the few products produced on the farm which has not a standard and all business had to be done with samples. Any number of foreign shipments have been lost because we have not a standard or a Government Inspector for honey. Comb honey should be well attached if it is going to be a success in the market.

Mr. Sechrist has visited many beekeepers. He discovered that many of the good graders could tell to a very definite degree where the sample belonged, and if you asked him to point why he graded it as he did, he then could not tell why.

Grading comb honey is very complicated. Why should we have a fancy grade of extracted honey? The difference between that and the No. 1 is in the amount of foreign material that it contains. The only way we can find how much foreign material is allowable in any grade is to pass it through a standard screen. So we have our standard bolting cloth. In the ordinary commercial practice, by careful straining, etc., practically all of the honey is going to be fancy. No one has to grade his honey or use Government grades, but we are hoping that the states will adopt government grades so that we will have uniform grades throughout the United States. There is no premium put on

color. You can have a fancy black honey. In order to make the thing a success, the beekeepers must get back of it. I hope that the men who buy honey will specify 'honey graded according to Government standards.' I am sure that the foreign buyers will demand honey of that grade.

I wish to say that one of the hardest things that we have to contend with at Washington is that we never know whether we are working on the right problems, as we very seldom get an opinion on them, from beekeepers. We are working, at the present time, on certain bee disease work, also on experiments dealing with the food of the bee, and the food of the queens.

We want an expression of opinion from the beekeepers. Many beekeepers fail to realize what the Government is doing for the various industries of the United States.

Our office would go along much better and make better progress if the beekeepers would show a little more interest.

The Department of Commerce is continually finding markets for all the products produced in the United States. But they are doing very little for honey, because they never hear from the beekeepers. No beekeeper or association has ever written in and asked them to look for a market for honey.

One reason that big business is not interested in honey is that they don't know there is any such industry. It is a shame if this situation is allowed to continue. We should have a man in the Bureau of Agricultural Economics to spend his entire time working on honey markets.

My parting word is that we have a lot coming, if we can get it."

Mr. Jay Smith, of Vincennes, Ind., speaking on "Fundamentals of Queen Raising," said—"Without a good queen, a colony of bees is worthless, no matter what kind of hive, foundation, or combs. I believe more and more that we must pay more attention to the queens.

I have studied bees for twenty-five years, and all summed up, about all I have learned is to *feed* bees. In regard to queen rearing, we have got to get back as closely as we can to Nature. We have got to follow the natural instinct as far as possible.

Getting back to Nature as far as we can—in the spring of the year, the food from the field is a little pollen. After a long, cold spell, there is no pollen. Then a little pollen and a little nectar starts the bees rearing worker bees. As this progresses, they start drone cells. The drones hatch and when a few of them are on the combs at a certain age, and with more nectar coming in, queen cells are started. Later swarming takes place, and then gets less, with some late swarming. When the honey flow stops, feed, and feed heavily, to keep things going. If we expect to rear good queens, we have got to watch that point to rear under the same conditions as in Nature.

Some think that the reason for superceded queens is hard handling in the mail. Hard and rough handling is important, but I believe that the greatest factor in queens being superceded is that they do not have food enough when they are in the larval stage.

There are two ways of seeing that the queen gets plenty of food. 1. Feed all the time. 2. See that the larva gets food just as early as possible.

The food of a worker larva and queen is the same. The only difference is that one is fed oftener.

In the worker cells, it is clear and transparent. 'Royal Jelly' should be called 'Bee Milk.' A worker bee is just as much of a female as a queen. The queen only lays eggs; the workers bring up the young and supply them with food.

The 'Bee Milk' makes the differences in the queens and in the worker bees. Everything depends on the right food, at the right time in the right amount.

Almost the only practical method of queen raising today is by grafting.

We dip our own cells. We use a galvanized wire arrangement with 20 dipping bars. They are dipped all at once, and then are mounted on bars. We then pour a little wax about them; when they are ripe they are cut off and stuck on the comb, and introduced. This method is simple and fast.

Is it necessary to use 'Royal Jelly'? I used to say it was, and now I say it isn't. We have better acceptance with royal jelly than without it. When you give them a cup with jelly in it, they don't like it.

Put a wet towel over them when grafted to keep moist. When we graft, we put in as little as possible, but they must be kept moist. If it is too dry, the larva in the comb will dry out. We use larvae just as small as we can see them.

'Royal Jelly' is a secretion of the glands. In feeding bees to produce this milk, you have got to feed 2, 3, 4, 5 or more days previously, depending on how much they are getting. Sometimes, it takes five days to notice it. We feed colonies several days in advance. We have a two story colony we built up. I put in about 20 frames of brood, jumbo frames, with young bees and nurse bees. I found the young bees to be good for nothing but to eat. Young bees are consumers and developers. The first work the worker does is to gather pollen.

I wonder if anyone knows how to break bees from sucking eggs? In one colony, they eat the eggs just as fast as the queen can lay them.

Old bees are good nurses, and I don't think young bees are good for anything as nurses until they are a week old.

Build the colony up about 20 days before you wish to graft. The upper story should have nothing but sealed brood. Then there are 20 pounds or more of bees in this hive. They have been fed 5 days in advance, and are producing lots of milk. We can give this colony over 200 queen cells as successfully as if they were given only 3. Leave them until sealed. Then double them up. I bring the colony back again, and feed them again, and this takes the swarming impulse away.

Be sure to feed—and feed all the time. The one thing in queen rearing is food. We do not use queen cell protectors. If a colony is well fed, they will accept a queen cell; if they are not well fed, the cell protectors won't make any difference. They will not destroy the cell, but they will kill the virgin when she emerges. The whole system of queen raising from start to finish is merely a matter of feeding. Bees have an instinct to know whether the honey flow is coming or whether it is going away. I do not know whether they can tell by the load of nectar that is brought in. The fundamentals of queen rearing and raising bees and building them up is just feeding."

198 people present at this session.

H. F. Wilson, President of the American Honey Producers' League then gave a brief address about the League, asking for the support of the beekeepers in the national organization.

Those present then adjourned to the theater where Mr. W. E. Anderson, State Entomologist of Louisiana, Baton Rouge, La., and who is in charge of the relief work for the unfortunate beekeepers who suffered from the flood, gave a brief talk, describing the damage done by the flood, and asking for the support of the northern beekeepers in the relief work. Two reels of movies of the flooded districts were then shown, to give

those present some idea of the seriousness of the situation.

The evening of Wednesday, August 10th, a Beekeepers' Court was held on the lawn of Mr. Henry Dadant. There were about 175 people present. Mr. J. M. Barr acted as Judge. The fines imposed were to go to the southern relief fund, and the sum total collected was $107 and a few cents.

The Velie ,Quartet of Hamilton entertained the crowd with many "charming" (to use Judge Barr's own term) songs.

THURSDAY, AUGUST 11

The meeting was called to order about 9:15 a. m.

Mr. A. B. King, President of the Missouri Beekeepers' Association, acted as Chairman.

After the Chairman's address, Mr. A. Allen, State Apiarist of Missouri, in his talk "The New Apiary Inspection Law in Missouri" told of how the beekeepers in his state are taxed 15c for each colony of bees. Mr. Allen said that to date $3,000 had been collected, for this work. He said also that a certain amount of extension work is being attempted through this Department.

The regulation is practically the same as that of Wisconsin, except that the law includes certification of honey.

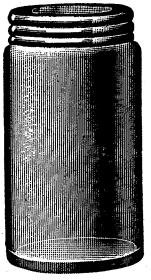
Following is an extract from the law—"Section 12107h. *Shall File Application for Regristration—When* —Every person, firm or corporation owning or possessing bees shall on or before the first day of July, 1927, and on or before the first day of April of each year thereafter, register with the State Apiarist by filing with the State Apiarist an application for registration, which application shall set forth the exact location of his or their, apiary or apiaries, the number of colonies of bees owned by him or in his possession or under the control together with such other information as may be required by the state apiarist, and such person, firm or corporation shall pay the State Apiarist by draft or money order made payable to the State Treasurer at the time of registration for the use of the state of Missouri the sum of fifteen cents per colony for all colonies contained in such apiaries, and it shall be the duty of the State Apiarist to issue and deliver to such applicant a certificate declaring that the holder thereof is duly registered and has paid the fees required by law."

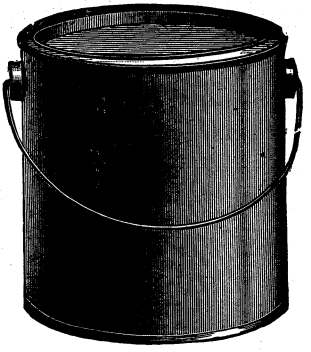
Mr. C. D. Adams, of the Wisconsin Department of Markets, Madison, Wis. in talking of "Grading Honey to Stabilize the Markets" explained the Wisconsin grading system and pointed out how the Federal Grades for honey could be used to improve marketing conditions.

THURSDAY AFTERNOON

The afternoon of Thursday was devoted to a visit to the Dadant Apiaries.

The Extra Few Cents Per Pound





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Wisconsin Beekeeping

Vol. IV NOVEMBER, 1927 No. 11

THE BULLETIN BOARD

The State Convention will be held in the Milwaukee Auditorium, Dec. 8 and 9.

The American Honey Producers' League will meet at San Francisco January 25 to 27,1928. Special rates will be available, with stop-over privileges.

Cooperate with the new Marketing Agent to Improve the Marketing Situation in Wisconsin.

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Wisconsin Beekeeping

VOL. IV NOVEMBER, 1927 No. 11

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPERS' ASSOCIATION
H. F. WILSON, Editor.
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49th ANNUAL CONVENTION WISCONSIN STATE BEE-KEEPERS, ASSO.

Dec. 8 and 9, 1927

City Auditorium, Milwaukee, Wis. In The George H. Walker Hall, first floor, corner Fifth and State Street, entrance at 501 State St.

PROGRAM

Board of Managers' Meeting, Wednesday, Dec. 7, 7:00 P. M. in the City Auditorium, Director's Room (Entry door at 500 Cedar Street, second floor, first door to right).

THURSDAY, DECEMBER 8

Morning

9:00 a. m. Registration—Paying of Dues—Social Meeting.

9:30 a. m. Call to order — Announcements.

9:45 a. m. Minutes of last convention—Secretary's Report (Including report on Badger Brand stationery, labels, posters, pails, honey cartons, advertising in WISCONSIN BEEKEEPING, honey cookbooks, etc.)

Treasurer's Report

Report of Standing Committees.

(Label and Lithograph Pail Committee, C. D. Adams, Chairman). (Price Committee—S. P. Elliott, Chairman).

(Educational Committee—Mrs. C. A. Wood, Chairman).

Report of the Board of Managers.

Appointment of Committees.

Afternoon

1:15 p. m. President's Address—James Gwin, Madison.

1:45 p. m. Cooperative Beekeeping—W. A. Duffy, Com-

Missioner of Agriculture, Madison.

2:15 p. m. Honey Candies—W. L. DuBois, DuBois Candies, Inc., Milwaukee.

3:00 p. m. Some Honey Sales plans, E. W. Atkins, G. B. Lewis Co., Watertown.

3:30 p. m. "Angling for Customers" C. A. Thacher, So. Milwaukee Journal, So. Milwaukee.

Evening Program

6:00 p. m. Banquet—
Music by the Honey Bunch Orchestra of South Wayne, Wisconsin.
Report on the Work Done by the Educational Committee—Mrs. C. A. Wood, So. Wayne.

FRIDAY DECEMBER 9

Morning

9:00 a. m. Social Meeting.

9:15 a. m. The Causes of Fermentation and Souring of Honey—G. E. Marvin, University Beekeeping Department, Madison.

9:45 a. m. Area Clean-up Campaign Progress Report—E. L. Chambers, State Entomologist, Madison.

10:15 a. m. E. R. Root, Medina, Ohio.

11:00 a. m. Beekeeping from a Woman's Stand-point, Mrs. Clara G. Jones, West Bend.

11:15 a. m. Representative of the Kellogg Company, Battle Creek, Michigan.

Afternoon

1:30 p. m. How the Department of Markets plans to Help the Beekeeping Industry —C. D. Adams, Madison.

2:00 p. m. Business Session.
Election of Officers, etc.

THE STATE CONVENTION

The State convention will be held in Milwaukee on December 8 and 9. The Board of Directors' meeting will be held on the evening of Wednesday, December 7.

At this meeting, Mr. Gwin and Mr. Adams are going to ask our beekeepers for suggestions as to the best methods for carrying on the work of the marketing agent.

It is desirable that every single member of the State Association be present to enter into this discussion. However, we do not expect that every member will be able to attend, but each members who can possibly do so should be there to help in the development of the program for the coming year's work.

THE STATE ASSOCIATION

The State Association is the most important unit in the development of the beekeeping industry of this state, and it has done much to help the beekeeping industry. The latest achievement in the securing of a special field agent through the Department of Markets. Without the Association, this could not have been accomplished. The success of this work is impossible without a strong organization.

The present members of the Association must not only renew their memberships, but they must go out and secure new members.

As a special inducement in securing new members, we have secured a number of copies of Miss Fischer's Honey Recipe Books and a copy of this book will be given free to each member who turns in 5 new members, and as a special inducement to the new members, a copy of Miss Fischer's book and membership in the State Association, including WISCONSIN BEEKEEPING, will be given for $1.25.

Subscription to all members who renew before January 1st, a special

rate of $1.70 will be given which will include a subscription to the AMERICAN BEE JOURNAL. $2.00 will give you membership in the State Association, the AMERICAN BEE JOURNAL and a copy of Miss Fischer's Honey Way Menus. This same offier holds good for all new members.

SEND YOUR SUBSCRIPTION IN AT ONCE, and don't forget that with this plan you can get the AMERICAN BEE JOURNAL at 75c per year and a copy of Miss Fischer's Honey Way Menus at 25c.

As a special offer, the Editor of WISCONSIN BEEKEEPING will give an enlarged picture for each new subscription sent in by a member of the Association. A selection from the following may be made—Dr. C. C. Miller, A. I. Root, Chas. Dadant, C. P. Dadant, Moses Quinby, Dr. Dzierzon, Adam Grimm and N. E. France.

THE AMERICAN HONEY PRODUCERS' LEAGUE

The annual convention of the American Honey Producers' League will be held in San Francisco on the 25th, 26th and 27th of January.

A special tourist rate has been secured from the Southern Pacific Railroad, and a special car will leave Chicago in time to arrive at San Francisco for the convention.

The return trip can be arranged so that individuals may take any route they wish, either across the northern United States or by way of the south. The southern trip will include New Orleans and those beekeepers or their friends who wish to take advantage of the League convention can enjoy a very nice trip through the south during the winter months, at the same rate as a direct trip from Chicago to San Francisco and return.

All beekeepers who may be interested in this trip should write to the Secretary and special information giving the details of the trip and arrangements for the return journey will be sent to them.

Special information regarding tourist trips can be secured from Mr. J. H. Desherow, General Agent, Southern Pacific Lines, 33 West Jackson Boulevard, Chicago, Illinois.

NEW MARKETING AGENT APPOINTED

The members of the Association will, I am sure, be pleased to learn that our worthy President, James Gwin, has been appointed to the position of special marketing agent in the Department of Markets, to carry on the work provided for by the last legislature.

No doubt, many of our beekeepers will immediately think that the marketing problem for Wisconsin beekeepers is now settled, and that it will only be necessary to notify Mr. Gwin in order to immediately dispose of the honey crop at desirable prices. However, our beekeepers cannot expect any such condition to exist without their full cooperation. As long as beekeepers insist on disposing of their honey locally in retail containers at wholesale prices, there will be no possible chance for Mr. Gwin, nor the whole Department of Markets, to help very much with the situation.

As will be noted from Buzzes, honey is being peddled at prices as low as 10c per pound. This being the case, the retail price for all beekeepers is going to be forced down to the point where there will no longer be any profit for anyone. The beekeepers themselves are gradually killing their honey market and the honey business, so that, if present conditions continue, it will only be a matter of a few years until there will be no honey industry. Twenty cents per pound should be the retail price for honey in Wisconsin in five and ten

pound pails. If this price is maintained, it will make it possible for all beekeepers to get out and boost honey and make a greater effort to dispose of it. At ten cents a pound, retail, there is no stimulus for any beekeeper to increase honey sales, for none of our Wisconsin beekeepers can make beekeeping pay at that price.

We note in the report from Mr. Reim this statement—"Apparently quality no longer counts. People seem satisfied with any kind of honey, as long as it is cheap." To a very large extent, this is true. This condition has been brought about by our beekeepers. Because, instead of boosting honey, they are continually bearing down on it by selling inferior grades of honey and also by selling the best grades at the cheapest price. The effort now being made through the Department of Markets will be a total failure unless the beekeepers get behind this effort and help in organizing the market at better prices.

The State Association and our local associations need to be reorganized, and unless they are reorganized and greater interest taken in the local associations, very little can be accomplished.

COLOR GRADING OF SAMPLES OF HONEY

By Inspectors of the Bureau of Agricultural Economics and by the Laboratory of Bee Culture Investigations

The following statement is made by the Laboratory of Bee Culture Investigations to correct a misunderstanding.

In the early stages of the work on honey grading, it was announced that samples of honey would be graded as to color, free of charge, by the offices of the Bureau of Agricultural Economics and by the Division of Bee Culture Investigations. Now that the United Standards for Honeys have been adopted, making it possible for full inspection service on honey to be given, the Bureau of Agricultural Economics can no longer make these color gradings free of charge but must charge for them at the regular hourly rate. This seems to be the only way to prevent the offices from having more of such work than can be done with the forces available for such duties. The following offices of the Inspection service of the Bureau of Agricultural Economics are therefore making charges at the rate of $2.00 per hour, either for full inspection service or for color grading of samples.

Room 2, Ferry Building, San Francisco, California.
Room 206, Wholesale Terminal Bldg., Los Angeles, California.
Room 902, 53 Park Place, New York City, New York.
Division of Fruits and Vegetables, Bureau of Agricultural Economics, Department of Agriculture, Washington, D. C.

Beekeepers desiring to have samples graded for color should take notice that the cost of grading a sample can be much reduced by having the sample in proper condition to be graded. That is, the sample should be in a wide mouthed bottle and should be liquid. Samples in granulated form or in narrow mouthed bottles require considerable time to put into proper condition and to remove from the bottle and place in the trough of the grader, necessitating a charge for all the time consumed. In a properly prepared sample, the time consumed in grading for color and making the records should not exceed one half hour.

The Laboratory of Bee Culture Investigations, Bureau of Entomology, Department of Agriculture, Washington, D. C., will, for the present however, continue to make determinations of the color grade of samples of ex-

tracted honey free of charge. Samples should, however, be in liquid form and in wide mouthed bottles as stated above.

It should be noted that a number of the State Universities are being equiped with honey graders and will make color determinations free of charge for citizens of the states concerned. Anyone desiring to have a sample of honey garded as to color should communicate with his State Specialist in Agriculture, or with such other person as may be in charge of the work for information as to whether this color grading service is available for his state. This will distribute the burden of grading and perhaps makes possible the continuance of color grading without charge by the Bee Culture Laboratory.

A recent letter from a firm of honey exporters contains the following interesting statement.

"We appreciate, very much indeed, the work the U. S. Department of Agriculture has done in inaugurating uniform methods for grading Honey, because heretofore, you never knew what you received when you bought a certain quantity of Honey; the opinions as regards color differed too much. We are now buying Honey from the producers, on basis of Department of Agriculture Certificate Final, and we are trying to make our European customers agree to the same terms."

NOW IS THE TIME TO ARRANGE FOR WINTER MEETINGS

Our marketing agent, Mr. Gwin, has already arranged for several meetings, and many more are planned for the winter. All of the local associations interested in hearing Mr. Gwin's message should get in touch with him immediately in care of the Department of Markets, and arrange for meetings.

BUZZES ABOUT WISCONSIN

GEORGE E. MARVIN

"The final average yield of honey was about 125 pounds per colony," reports Andrew Stevens of Stockbridge. He adds, "Most colonies have plenty of young bees, but they are not as good on stores as I wish they were. The hives are filled up with fall honey, the source of which is everything from white clover to honey dew. The market is fair. It ranges from 10 to 12 cents per lb. wholesale. Some bee men are peddling honey at 10 cents."

"Reports from several of the leading beekeepers in this vicinity indicates an average of 100 to 150 pounds of honey per colony besides winter stores", says Mr. H. H. Reim of Watertown. He continues, "Colonies are going into winter quarters in very good condition and with the excellent winter stores which they have, they should go through the winter in fine shape.

'How is the Market'? It depends on the price the beekeeper is asking for honey. It is impossible to sell honey at recommended prices or even at prices prevailing here last year. Reducing the price seems to stimulate the sales but very little. Evidently the people who are still using honey, and they seem to be getting fewer each year, have stocked up on honey at much lower figures. Apparently, quality no longer counts. People seem satisfied with any kind of honey as long as it is cheap.

Prices range from 13 to 18 cents per pound for white clover honey put up in 5 and 10 pound pails.

A rainy spell of several weeks duration is putting the honey plants in excellent condition for next year. A slight fall flow commencing about September 1 from sweet clover and fall flowers was just enough to color some of the last extracting of white clover honey.

We commenced to pack our bees for winter, but are being held up again

by rainy weather. We pack our bees outdoors in tar paper cases in two stories using planer shavings for packing. We have had very good success for a number of years with this method. The hives weigh 110 pounds on an average before packing or an equivalent of a full depth super filled with honey, which should be sufficient stores to carry them through nicely until next year."

Martin Krueger of Brillion, Calumet County, reports that the average yield per colony was 100 pounds of extracted and ¼ of that for comb honey.

He continues, "Most colonies have more stores than they should have for winter, otherwise they are fairly strong in bees.

The market is poor. Honey is selling all the way from 8 to 15c per pound in pails. We had a fall flow. The bees worked up to September 4th on red clover, alfalfa and wild aster.

I have sold most of my honey at wholesale. Fancy comb brought $5 per case; No. 1 comb, $4.50; 300 5 pound pails went at 65c per pail; 100 10 pound pails at $1.25 and 1000 pounds in 1 lb. glass jars at $5.00 per case. I still have 6,000 pounds left in 60 pound cans."

"There was considerable variation in different localities as to the average yield of surplus honey per colony, but it was between 75 and 100 pounds," reports B. J. Thompson of Pierce County.

He adds, "Colonies are in good condition for winter but the market is dull. Five pound pails are bringing 65 to 75c, 10 pound pails are $1.25 to $1.50. Fifty pounds or more of extracted honey is being sold at 10c per pound, the producer furnishing the container. Comb honey is retailing at 18 to 20c per section.

There was a fair fall flow of honey from wild aster, golden rod and mint. One beekeeper reported second crop red clover yielding honey quite late in the season.

Those beekeepers whose bees were in good shape in the spring, secured good crops of honey. The white honey was from clovers almost entirely, very little came from basswood this year."

John Kneser of Hales Corners, Milwaukee County, reports that honey is moving better this fall than last year or the year before. He adds, "The market is good. Ten pound pails are bringing $1.90, 5 pound pails $1.00 with quart jars at 70c. Bees are in good condition. Here in this locality we have no fall flow."

"The fall so far has been very wet with rain almost every day for the past month," says C. W. Giauque of Stanley. He continues, "Bees are in fine shape for winter, being heavy with stores and young bees.

The market is pretty good. I have been getting 16c per pound in 5 and 10 pound pails and 12c in 60 lb. cans.

The average yield per colony was about 40 lbs. I had a very good fall flow from all kinds of fall flowers, with some white and red clover. The bees worked very hard on golden rod, which yielded very heavily for a few days, as long as the weather remained dry and hot. As soon as we had the first rainy spell, the flow shut off short and it has been wet ever since."

ONE CAUSE OF POOR HONEY MARKETS

Apropos of honey markets and price cutting, I feel moved to say a few words at this time.

For quite a number of years, I have been a producer of extracted honey, and I have always succeeded in getting a fair price for my product. My aim has been to put out a high grade article of uniform color and body and sell it at a uniform price. The most difficult part is to get this uniform quality from year to year. Being fortunately located, I usually get only white honey during the main flow and

by careful management in supering and taking off the crop, together with sorting and selection of combs before extracting, it is possible to have the larger part of the crop of good quality every year. There is, however, every season some off grade honey which cannot be put in as Grade No. 1 without endangering the quality of the whole output if run together. For instance, dark fall honey of various colors, unripe white honey gathered late and not sealed, overheated capping melter drainings, etc. Some years, there may be quite a considerable amount of this inferior honey and it has been a problem with me to find a way to dispose of it without hindering the sale of the better grade or reducing the consumption of honey, perhaps.

Two years ago, I had on my hands a couple of thousand pounds of honey that I considered undesirable for table use and acting upon the suggestion of a fellow beekeeper, I began looking up a demand for it for baking purposes. I called on a number of bakers and found only two who were using honey. These I gained the good will of and began supplying them regularly. Several others were induced to give honey a trial and later on I made regular deliveries to them. My price to bakers has been ten cents a pound, delivered, which price they were willing to pay and perhaps I could have had more by asking it. After a while my supply ran out, and, finding that the bakers were depending on me to keep on supplying them, I was obliged to buy honey in order to make the deliveries. One customer, when I hinted to him that I might not be able to furnish more for a while, said: "Say, you've got to keep us going now that you have got us started."

Well, I have been buying to keep them going and part of it has cost me so much that it leaves but a small margin for handling, and now comes the funny part of the story. One of my best customers told me a short time ago when I called with a 60-pound can of honey, that he was supplied and would not need any more for some time. He had bought five cans at a much lower price, 5 cents a pound. "Why', I said, "That is way below wholesale." "Yes, I know," he replied, "but this fellow was anxious to sell and offered it at 5 cents a pound. You can't blame me if I buy cheaply when I can do so."

"No," I said, "but I do not believe you will find many opportunities to buy so cheaply and if you want me to supply you again later on, my price will still be 10 cents a pound."

"That's all right," he answered, "if I have to pay that much, I will buy of you."

This all happened only a week ago, with last year's crop nearly cleaned up and with prospects of a lighter crop this season. Can you beat it? Evidently, there are some who keep bees just for pastime, and, for the sake of those who are trying to make a living out of it, it's too bad these others do not either take up some other form of diversion, or leave the honey on the hives.

A BEEKEEPER.

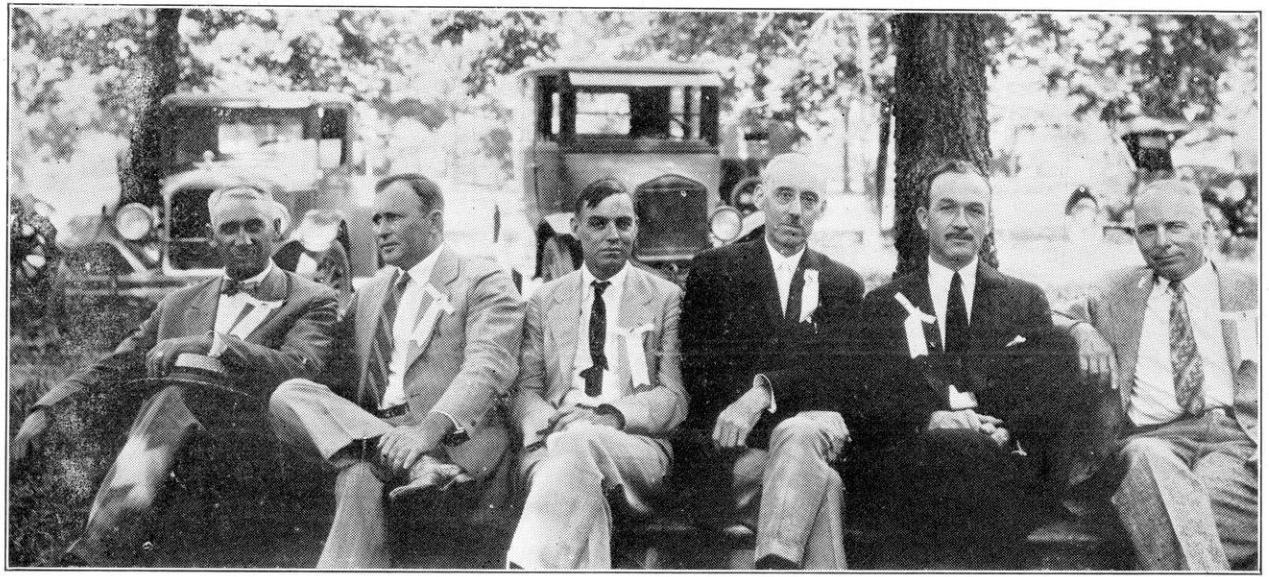
WINTER PRODUCTION FOR THE HONEY BEE COLONY

H. F. WILSON AND V. G. MILUM

(*An Abstract from Research Bull. 75 Wis. Agrl. Exp. Sta.*).

Winter protection for bees is a necessary part of general beekeeping methods in all parts of the world where freezing temperatures occur over any extended period of time.

In nature, bees establish themselves in cavaties in trees, rocks and other suitable places where space is available for brood-rearing and storage of honey. In choosing its home, the bee colony does not appear to show any discriminating choice as to the thickness of the surrounding walls for protection against climatic changes.



MR. ADAMS GOES A-VISITING

We could not refrain from printing this picture which we think is unusually kind to Mr. Adams. Incidentally, the picture also shows Mr. Hambleton in apparently the same mood as Mr. Adams, which would indicate that one or the other of them must have just told a lively story.

The same group contains Dr. Watson and Mr. Anderson, with whom only a few of our beekeepers are personally acquainted. We are sorry that this picture was not taken when Mr. Gwin and Mr. Marvin were present, so that we could have had a more complete representation of the Wisconsin delegation.

From left to right—H. F. Wilson, Mr. W. E. Anderson, Mr. J. V. Ormond, State Apiary Inspector of Arkansas, Dr. Lloyd Watson, of New York, Mr. J. I. Hambleton, and Mr. C. D. Adams.

Practical experience has taught the beekeeper the value of winter protection to conserve the strength of the colony and to reduce the consumption of stores.

Two general systems of winter protection are in use: bee cellars, and winter packing cases. Both methods are satisfactory but either may appear not to be, when the stores in the food chamber contain substances not easily digested by bees. Many types of bee cellars and winter cases have been devised to improve wintering but still the winter losses have continued to range from 5 to 30 per cent each year. Without understanding the necessity for having the colony in good condition and the winter stores free from honey-dew or other impurities, beekeepers have universally blamed the bee cellars and packing cases for their winter troubles. There is no doubt but that some bee cellars and packing cases are better than others, but since in the poorest of them some colonies live through the winter in good condition, there must be other important points concerned in successful wintering.

In a study of the conditions affecting bees during the period of confinement, at least three points must be considered:

1. *The health and age of bees*—There are no serious diseases or parasites which affect the health of the bees during the fall in Wisconsin; and bees reared in August, September and October have the health and vigor necessary to withstand the coldest temperatures of the northern United States, even without protection.

2. *The winter stores*—This is the most important point in the success or failure of bees to winter well. Good stores are said to be those which are free from foreign substances, such as gums and dextrins found in honey-dew or gathered in the fall by the bees from discarded fruit refuse. The condition of stores which make them unsuitable for bees to feed on in winter cannot be determined until a detailed investigation of normal winter stores for a period of years has been made.

3. *The winter home and the effect of temperature and atmospheric conditions on the colony in that home*—The winter home and the question of protection is also important, for bees may winter successfully in an ordinary single walled hive, yet the ratio of stores used by protected and unprotected bees indicates very clearly that an unnecessary amount of energy is used by unprotected colonies in keeping up the cluster temperatures.

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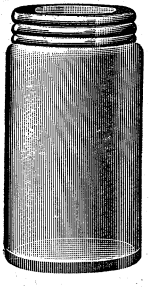

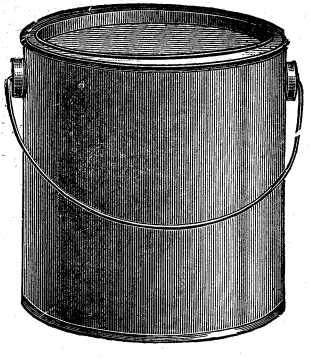

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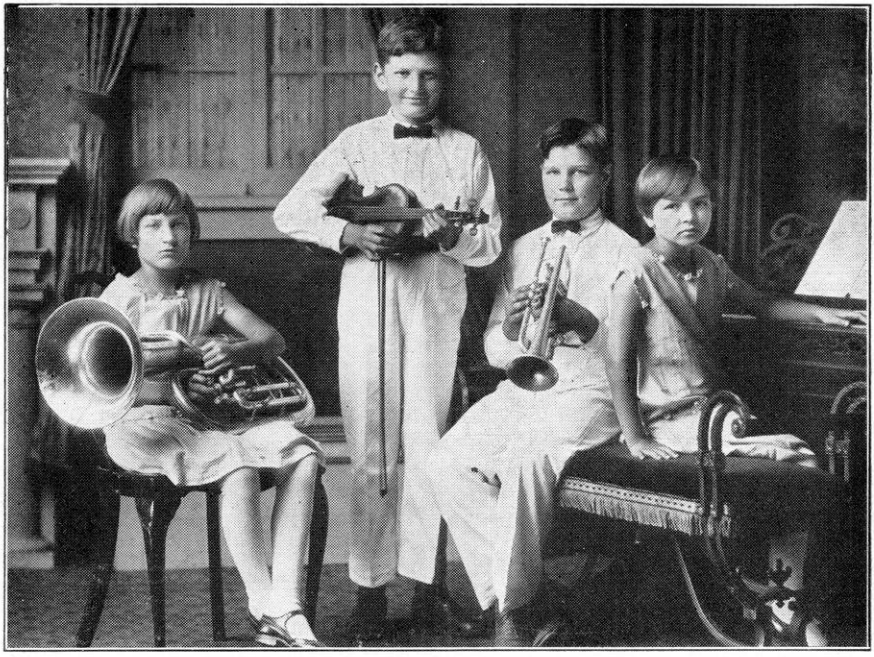
Wisconsin Beekeeping

Vol. IV DECEMBER, 1927 No. 12



THE HONEY-BUNCH ORCHESTRA

WISHING YOU A VERY MERRY CHRISTMAS

AND A HAPPY AND PROSPEROUS NEW YEAR

THE MILWAUKEE JOURNAL EXTENDS ITS SERVICE TO WIS. BEEKEEPERS

Below, we are printing a letter from the MILWAUKEE JOURNAL, offering the Association the free use of its public service facilities. Had we received this information at an earlier date, no doubt it would have been worthwhile to have held the convention in this building. But this should not keep any of our members who de desire to do so from visiting the Milwaukee Journal Building, and securing such aid as they may need.

Miss Arlene Weidenkopf, Secretary,
Wisconsin Bee Keepers' Association,
Madison, Wisconsin.

Dear Madam:

Will you extend to all members of the Wisconsin Bee Keepers' Association, The Milwaukee Journal's invitation to make free use of its public service facilities during your convention in Milwaukee, December 8 and 9?

Lounge and rest rooms, information service, a postal station, telephones, and a branch library will be at your disposal in The Journal building. Several meeting rooms, seating from a dozen to three hundred persons, are available free of charge if reservation is made in advance.

And for any who are interested in the processes involved in publishing a metropolitan newspaper, qualified guides will be furnished to show them through one of the largest and most modern newspaper plants in the northwest.

The Milwaukee Journal public address system, a novel sound amplifying device, is also available for use at your convention at a nominal rental. Many of the larger conventions in Milwaukee are improving their meetings through the use of this amplifying system. Your organization may also profit from its use.

If you will let us know in what way we can be of service to the convention delegates and guests during their stay in the city, it will give us pleasure to make arrangements accordingly. We are enclosing descriptive circulars to give you a more complete idea of the facilities The Journal offers.

With best wishes for a successful meeting, we are

Very truly yours,
THE MILWAUKEE JOURNAL
O. R. SMITH
Manager,
Public Service Bureau.

INFORMATION ON HONEY THROUGH GOVERNMENT SOURCES

The Bee Culture Laboratory has referred, occasionally, to the fact that many government agencies give some attention to bees and honey. A recent incident is to the point.

In the September 23rd issue of "FOODSTUFFS 'ROUND THE WORLD", a publication of the Department of Commerce at Washington, was a note that Norway had made regulations governing the importation of foreign honey as regards quality and packing.

A telephone call from the Bee Culture Laboratory to the Norwegian Legation found the officials there most considerate and interested in knowing that the Department of Commerce had this information. They courteously agreed to furnish the full text of the regulations.

On October 26th, this office received from the Norwegian Legation a translation of the Norwegian Royal Decree of June 16, 1927, whereby regulations governing the importation of foreign honey were issued. The substance of the regulations is as follows:

An article, designed as honey, or by any combination of words wherein honey appears, may only be sold or imported if it consists exclusively of the product the bees collect from the flowers and store in the bee-hive.

Honey must be free from foreign substances as, coloring, preserving mat-

Wisconsin Beekeeping

VOL. IV DECEMBER, 1927 No. 12

OFFICIAL ORGAN OF THE WISCONSIN STATE BEEKEEPERS' ASSOCIATION
H. F. WILSON, Editor.
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Annual membership fee, $1.00, which includes one year's subscription to "Wisconsin Beekeeping."

Please make remittance payable to Secretary.

ter, sugar or water, and must be fresh and pure.

If it does not satisfy the preceding requirements it is to be considered a substitute which may not be sold under the designation honey nor any combination of words in which honey appears. The containers of such a substitute and the business papers concerning same must not have on them the word honey nor any pictures of bees, bee-hives or wax combs, etc. For advertising purposes there must not be used any pictures or expressions which give rise to any confusion with honey.

The sale of honey-cakes is an exception from this rule.

Imported honey must be accompanied by an invoice with the declaration that it is pure honey and that it is free from foreign substances. It must also be marked "Foreign Honey" in visible and distinct letters adapted to the size of the containers, even though its labels already indicate the place of production.

For the retail trade, the packages must be labeled "Genuine Honey" and the label must contain the producer's name or the name of the person who sells the product.

It will be noted that not only is it forbidden to sell a substitute as honey but that neither the word "honey" nor anything that may connect the substitute with bees or honey is permitted to be used. Norway is evidently trying to protect the producers of honey in every possible detail.

MR. W. J. NOLAN WILL SPEAK AT CONVENTION

We are glad to be able to announce that Mr. W. J. Nolan, of the U. S. Bee Laboratory at Washington, D. C., will be present at our convention December 8th and 9th, and will discuss honey grades from the standpoint of the Government.

We are informed that Mr. Nolan will also be instructed to make an announcement at the meeting which, it is hoped, will prove highly beneficial to the beekeepers of Wisconsin, and will be in the nature of a surprise.

ANOTHER POSSIBLE USE FOR HONEY

While the beekeepers are looking about for ways in which to dispose of their honey, it might be worthwhile to consider the possible industrial uses.

It is known that honey can be used as a radiator solution, but no completely satisfactory manner of preparing the solution has so far been developed. The Bacteriologists of the University of Wisconsin have also developed a use for honey in preparing a sugar known as "Manatol." Manatol is used in prepairing bacterial cultures for the inoculation of clover, alfalfa and similar plants. The value of this substance is quite high, ranging from $4.00 to $6.00 per pound, and it is necessary to ship it in from Europe. Unfortunately, the amount used is rather small, and it is not likely that it would pay anyone to undertake to manufacture this sugar from honey. It requires only four pounds of honey to make one pound of manatol, and fermented honey can be used. However, this would immediately bring about a cheaper price for manatol, and since not more than one hundred thousand pounds are used per year in the United States, the amount of honey used would really be negligible.

There are probably a number of other ways in which honey can be used in industrial work, and when these are all worked out, we may find that a very large part of our crops is being used in other ways than as food.

NEWS NOTES FROM THE INSPECTION OFFICE

By E. L. Chambers

The progress made during the past summer toward eradicating American foul brood has been very promising. The results have been very gratifying to those of us who are responsible for carrying on the campaign against this serious hazard of the beekeeping industry. That the policy of cooperating with the countries in financing apiary inspection is proving popular and efficient is demonstrated by the growing number of demands the department is deceiving each year for this service. Beginning with a single county on this plan in 1921, when the legislature made the provision authorizing county boards to appropriate funds for the control of plant and animal diseases within the county, the number has increased until this year fifteen counties have taken advantage of the opportunity afforded them. Since one-third of the expense of apiary inspection, under this plan, is borne by the county and two-thirds by this division of insect and plant control of the state department of agriculture, it is possible to extend the appropriations for bee disease control over a larger territory than heretofore and thus accomplish much more effective work.

During the past year Barron, Dunn, La Crosse, Pepin and Pierce Counties made their first appropriation to assist the state in carrying on the work in their counties, appropriating a total of $900.00 with which approximately $2000 was spent from the state appropriation. Other counties continuing their appropriations this year were Clark, Dodge, Marathon, Outagamie, Ozaukee, Rock, Washington, Waukesha, Waupaca and Wood. These ten counties appropriated a total of $2,510 which was expended with approximately $6,000 of our state funds.

The inspectors who assisted in carrying on the work in the five new counties were: Messrs. Wm. F. Michaelsen, A. C. Mommsen, Nathan Paddock, H. A. Schaefer, and George Stowell. The following inspectors assisted in carrying on the area clean-up work in the ten counties in which appropriations have been made previously: Messrs. C. W. Aeppler, O. B. Dalton, C. P. DesBouillons, N. E.

France, Joseph Garre, H. J. Kuckuk, J. A. Lotz, J. H. McMurry, Wm. H. Montgomery, K. L. Outcelt, E. J. Rasmussen, W. A. Ross, A. H. Seefeldt, F. J. Walquist.

A complete report was mailed out to the county clerk, together with recommendations for the coming year, with the request that this information be brought before their county board meeting being held during November. At the present time the department has been advised by four additional counties that they desire to appropriate funds for area clean-up work in their counties but until word is heard from the counties in which the work is already in progress, nothing definite can be promised to new applicants since the state is now spending more than $8,000 of its total appropriation of $10,500 in the fifteen counties mentioned above.

During the past season 4306 apiaries, comprising 39,981 colonies of bees, were inspected of which 2,208 were found infected with American foul brood and practically all destroyed. In contrast with previous years, very few infected colonies were treated this year since the method of destroying is now generally conceded to be the most efficient and economical means of handling American foul brood in area clean-up work.

Many late inspections have been requested by bee owners who desired to dispose of their apiary and equipment at private or auction sales and were desirous of having the necessary permit required to comply with the statutes. These permits are issued without charge when the apiary is inspected, or has recently been, and found free from disease, or when for other reasons it appears unlikely to the state apiary inspector that bee disease will be distributed. The number of such permits issued since April 1 is 388. The number of applications which were referred to local inspectors for special inspections is 92.

Local inspectors who do this work are appointed as a result of a civil service examination. Many of them are employed only for a few days a year. There are now qualified inspectors at the following locations in the state: Amherst, Antigo, Arkansaw, Ashland, Barron, Belmont, Berlin, Bowler, Boyd, Bruce, Elk Mound, Elroy, Ft. Atkinson, Green Bay, Janesville, Kennan, Kewaskum, La Crosse, Loyal, Markesan, Medford, Milwaukee, Oconomowoc, Oshkosh, Osseo, Platteville, Plymouth, Portage, Poy Sippi, Reedsville, Richland Center, Ringle, Ripon, Spring Valley, Steuben, Superior, Viroqua, Warrens, Watertown, Waupaca, Wisconsin Rapids.

AN ATTEMPT TO DISCOURAGE THE IMPORTATION OF FOREIGN HONEY

From J. Earnest Black, American Vice Council, Bremen, Germany
September 26, 1927

According to the "Bremen Nachrichten" of September 23, 1927, the Beekeepers' Central Association of the Free State of Oldenburg, having at present a membership of 321, passed at its last meeting a resolution, which stated that the association agreed entirely with the decision of the "Deutscher Imkerbund" (German Beekeepers' Association), according to which anyone who buys, sells or uses foreign honey for the purpose of feeding bees, cannot become or remain a member of the association. This decision is considered to be a most extraordinary one, owing to the fact that this year's German honey crop appears to be very poor, as stated in the consulate's report of August 27, 1927, entitled "Serious conditions of Beekeepers in Bremen District."

This action on the part of the "Deutscher Imkerbund" will, no

doubt, affect the trade with the United States, which, in the course of the last few years, has developed considerably, the United States exporting mort honey to Germany in 1926 and the first six months of 1927 than any other foreign country. The following figures, taken from that "Statistik des Deutschen Reiches", an official publication of the German Government, show the proportion imported from the United States:

Total imports of honey into Germany

	100 Kg.	Lbs.
1927	38,897	8,575,233
1926	54,675	120,536,505
1925	44,835	9,884,324
1924	26,695	5,885,180

Imports of honey from the U. S.

	100 Kg.	Lbs.
1927	15,339	3,381,636
1926	12,478	2,750,899
1925	6,963	1,535,063
1924	2,416	532,631

EXTRACT FROM THE AMERICAN HONEY PRODUCER, SEPTEMBER, 1927

Giving Facts Regarding Honey Exposition at San Francisco.
Save Your Fancy Honey Now.

At the great San Francisco Convention of the League there will be held the first National Honey Exposition. This is the beginning of what may some day be made the greatest event of the beekeepers' year. Here are the outstanding features of such an exposition which are of real interest to every member of the League:

1. A certificate of award will be given to the first three placings in each class. This is a National Award, don't forget, won in open competition with the whole nation. Think what the winning of such an award will mean to you in your advertising program in selling your honey. Isn't it worth trying for?

2. An attempt will be made to interest honey buyers in this exposition, so that here will be the one place of the nation where they may come annually to actually see what the progressive beekeepers and beekeepers' organizations are offering.

3. When you go to convention, you may have a first-hand opportunity to make a study of the grades, methods of pack and methods of handling honey in its preparation for market. The exhibit will be a real education and a stimulus to the beekeeper who is constantly striving to put up a better and more marketable grade.

The organization of this first exposition is rather simple. No doubt as the thing grows, there will be a definite study given to the needs of its workings, in the smallest detail. For the start, the following is an outline of the manner in which the exposition will be handled.

1. Awards: First, Second and Third place National Certificates of Award, provided by the League and signed by its officials. These will be provided for each class.
2. Classification of Exhibits.
   A. Individual Exhibits, open to any member of the League.
      (1) Comb Honey: a. White; b. Amber, and c. Dark Amber.
      (2) Chunk Honey: a. White; b. Amber, and c. Dark Amber.
      (3) Extracted Honey: a. Water White; b. White; c. Light Amber; d. Amber, and e. Dark Amber.

   (This means that 36 awards will be made in the case of the individual exhibits.)

   B. Honey Marketing Organization Exhibit. Open to any honey marketing association. A $5.00 entrance fee will be charged.
   C. Organization Membership Exhibit. Open only to any beekeepers' association affiliated with the League.
3. Entrance Fees: In the event that an individual or organization exhibitor desires to retain the privilege of selling the exhibited honey himself, at his own stipulated price, there will be a

fee of 50 cents charged against the individual for each entry, and $1.00 against each organization. If the exhibitor does not avail himself of this privilege, the Honey Exposition Committee will endeavor to sell all of the honey exhibited, and in the event of a sale, the League will retain 25 per cent of the receipts from sales, the balance being forwarded to the exhibitor. If the committee fails to sell the exhibitors' honey, it will be returned, and no entrance fee will have been charged.

4. Basis of Judging: The awards will be given to those exhibiting the best quality in each class, the best honey containers and labels are judged upon a basis of sales appeal. Any exhibit of comb honey shall not be less than one case, and of a chunk and extracted honey, not less than 12 one-pound bottles or their equivalent. The judges will not consider great masses of honey exhibited to be in their favor, but will insist upon enough honey being displayed in each class to make it a creditable exhibit.

5. The Judges: To be selected by ballot vote by the voting members in the convention.

6. If you cannot bring your exhibit in person, send it express prepaid, to the American Honey Producers' League, Care of The Whitcomb Hotel, San Francisco, Cal. Be sure to send it in plenty of time so that it will arrive before January 25th. All entries will be closed by noon January 25. In the event that you send your exhibit, notifying Cary W. Hartman, if it will arrive before January 20th, and at San Francisco, Whitcomb Hotel, after that date. By writing such a letter, you will make sure that some one will be looking for your exhibit, and there will be less danger of its going astray.

Beekeepers supply houses which wish to make an exhibit (for which no awards are offered) may secure price of space for such upon application to the secretary.

PROFESSOR JAGER RESIGNS

We have just received a report that Professor Jager is to resign his position as Chief of the Apiary Department at Minnesota at the end of the next summer session. Professor Jager plans to engage in commercial beekeeping.

We are sorry to learn of this, and no doubt our Wisconsin beekeepers who have met Professor Jager will have a similar feeling. He has been an important figure in the upper Mississippi Valley beekeeping. And, while he will no doubt continue to carry on, he will probably not be able to extend his influence to the teaching of beekeeping as in the past. We certainly extend to Professor Jager our best wishes for a great success in the future.

Commercial beekeeping is not new to Professor Jager, for he has had a splendid yard for many years, and has regularly secured a good surplus.

THE HONEY BUNCH ORCHESTRA

Mr. C. A. Wood, one of our prominent beekeepers at South Wayne, Wisconsin has developed a fine orchestra composed of two boys and two girls; the oldest of which is eleven, and the youngest 8.

Mr. and Mrs. Wood are going to bring the orchestra to the convention and they will give us a fine entertainment. A plan is being considered whereby this orchestra will attend the next meeting of the Boys' and Girls' Clubs at the University, and this will give us an opportunity to do a little advertising for Wisconsin Beekeeping.

GLEANINGS MAKES NEW OFFER OF TWO YEARS FOR $1.00

GLEANINGS IN BEE CULTURE, and the AMERICAN BEE JOURNAL, have both made exceptionally fine offers so that there is no

reason why every beekeeper should not be taking one or both of these journals.

GLEANINGS is offered at two years for $1.00, which really means a subscription rate of 50c per year, only that it is necessary to subscribe for two years at one time.

THE AMERICAN BEE JOURNAL is offered at 50c per year through the Association, so that the two magazines can now be secured for the previous rate of one.

These two journals are the main contact points between the beekeepers and the beekeeping industry and we hope that every member of the State Association will take advantage of this opportunity so that we can have a 100 percent subscription list for either one or both of these magazines. The information given in these journals is the very latest on the subjects on which they deal and are supplied by the leading beekeepers and specialists in America.

No beekeeper can make an investment that will be as much worthwhile as his subscription to these journals.

COMB HONEY PRODUCTION

C. A. WOOD—SOUTH WAYNE, WIS.
(1926 Convention—Madison)

As far back as I can remember, my Father kept bees and produced comb honey.

One time when I was quite small, a cousin of mine, about my own age, came to stay all night with me. Of course, I wanted to entertain him royally, so I took Father's fish spear and went along behind the row of colonies and gave each one several good hard bumps with the end of the 16 foot spear handle.

For several days after it was not safe to go out of the house in the daytime. Those bees stung the livestock, chickens, dogs and cats. I think some of them got into the house and stung the stove pipe. Father said I was not able to stand all whipping I deserved, and before he got through with me I fully realized that he meant what he said.

In those days Father made his own honey boxes, as I doubt whether there were any to be purchased. He secured clear, white pine lumber one-half inch thick and made boxes of a size that two would just fit on the top of a bee hive. The dimension of the boxes was about 8"x8"x20". Father had the blacksmith make him a tool to cut round holes about 3" in diameter in the boxes. He made a hole in each end of the box, two on the outside and two or three on the bottom, placing a piece of glass over each hole in the sides and ends so that one could see when the boxes were full—the holes in the bottom were left open so as to allow the bees to come up through to store their surplus honey. When the boxes were filled with honey, they were off, weighed and marketed.

Comb honey production is influenced by a large variety of factors, some of which are as follows:

1. Source of nectar.
2. Proximity of the colony to the nectar.
3. Climatic conditions.
4. Strength of the colony.
5. Breeding of the bees.
6. Care and management of the colony.

I will now take up these topics in order and discuss them in detail. First—the source of nectar. It is unprofitable to try to produce comb honey where plants do not secrete nectar freely. The source of nectar affects the cappings, also the flavor and color of honey.

Second—the proximity of the colony to the nectar. Bees will produce more honey when the source of nectar is near the apiary.

Third—climatic conditions. I think I can best make my points

clear by contrasting my experiences in Colorado and Wisconsin. In Colorado, we prepare our bees for the honey flow the same as in Wisconsin —that is, we see that they have good young queens the latter part of the summer, previous to the honey flow. Because of better spring weather in Colorado, bees being to raise brood much earlier than in Wisconsin, but the honey flow does not come on any earlier. Therefore, the percent of field bees in a colony in Colorado at the beginning of the honey flow is very large.

In Wisconsin, bees start broodrearing later in the spring and the honey flow comes as soon, or perhaps a little earlier, than in Colorado, so that a large percent of the young bees do not go to the field. This means a congestion in the brood-chamber, which is one of the main causes of swarming.

Now, let us see how climatic conditions influence swarming in the two localities. In the West, at the beginning of the honey flow, we have a colony with a large percentage of worker bees in the field during the day, and, of course, this relieves the congestion in the hive. Cool nights add a great deal to the comfort of the bees, so that they are not so apt to swarm as in Wisconsin, where due to the large percent of young bees at the beginning of the honey flow, the brood-chamber is crowded.

The altitude in Colorado is much higher and the air drier than in Wisconsin. This makes the nectar much thicker than that of Wisconsin, and helps comb honey production, as bees secrete wax much more freely on thick nectar than on thin. When plenty of wax is secreted, the combs next to the wood are built out better and capped thicker, making the sections stronger and better looking. This honey will stand shipping better than the eastern honey.

Feeding too thick a syrup when I first started to raise queens caused a great deal of trouble in comb building around the cells. My method of supering bees in Colorado was much different from that used here. At the beginning of the honey flow the colonies were reduced to one story and usually just one super was added. When the bees were well started in that super, another was put on top. The bottom super was removed and another added when the bees were well started in that super, another was put on top. The bottom super was removed and another added when the bees got pretty well along in the top super. This method of supering was used throughout the entire season. Extra strong colonies were allowed three supers at a time. This method of supering was practiced because the thick nectar required very little fanning, for the cells were capped as soon as drawn out and filled with nectar.

Crowding of bees in supers causes them to build heavier and better finished section honey and almost entirely does away with travel stain. We are told that the reason the western honey stands shipping better than Wisconsin honey is that the Wisconsin beekeepers do not know how to pack their honey. I do not believe it—the trouble is not with the beekeeper, but with the thin nectar.

Now let us see how climatic conditions affect the quality of honey in Wisconsin and the behavior of the bees. The colonies are requeened in late summer, previous to the honey flow, the same as in Colorado. The colony is given an extra hive body for broodrearing early in May. At the beginning of the honey flow the colony is reduced to one story and one or more comb honey supers are added. As previously mentioned, we have a large per centage of young bees, with what result? About the time the honey flow gets well started, the bees get the swarming fever, which is the

biggest problem the beekeeper has to contend with.

One of the best comb honey producers in the United States figures that he loses at least two supers of comb honey per colony a season on account of loafing. I am of the opinion that the average beekeeper loses more.

Let us go back to management of the bees in Wisconsin. We have a colony of bees reduced to one colony, with one or two comb honey supers on it. We will call that colony No. 1. We have taken a hive of brood and young bees away from them and placed them beside No. 1. That is hive No. 2.

In a few days colony No. 1 swarms. The parent hive is taken away and another hive with frames of worker comb is given them. The parent hive is set on the other side of No. 1 and we will call it No. 3. We now have three colonies instead of one.

No. 1 has all worker bees and they go to work for two or three days, and, if the weather is favorable, they have the brood combs pretty well filled with honey, but haven't done much in the supers, so now they are all ready to swarm again. The cells they have started are all cut out and the swarm put back in No. 1 again. Maybe they will stay—maybe not. All this time remember that they are loafing. If they keep this swarming up very long, the result is that they will kill their queen and raise another.

Now, as bees will not work much in comb honey supers unless they have a laying queen, you can figure about how much honey you are going to get from this colony. The best thing to do when they are determined to swarm continually, is to unite all three hives together again and run them for extracted honey.

But suppose the same colony was satisfied with swarming—the queen laying well and the bees working in the supers. When most of the bees had hatched out of colony No. 2, the colony could be united with No. 1, by taking away the hive when the field bees are in the field and shaking the young bees at the entrance of No. 1. The combs with some brood from No. 2 could be put on a colony that has being run for extracted honey. In eight or ten days from the time colony No. 1 swarmed, No. 3 could be united with No. 1 in the same way as No. 2. This plan of management is considered very good by our best comb honey producers. I manage part of my apiary that way also, but we want to get away from swarming and loafing, so I use part of my yard as an experimental yard, trying different kinds of management. I believe I have made quite a little progress along that line—at any rate, the colonies that accepted a certain kind of management produced more honey than any of the colonies in the yard. The honey was of good quality because the bees worked instead of loafing, and did not stain what honey they produced.

I tried this experiment on a dozen or more colonies. In order to prevent bees from absconding they had already swarmed. About sixteen days previous to the swarming season, I started queen cells and every day for about two weeks, more cells were started, so that I would have ripe cells every day during the swarming season. In due time swarming started, and the queens were caught. Then they were introduced to a nucleus if I wanted to keep them; otherwise they were killed. The colony that had just swarmed was gone through while the swarm was out; all queen cells cut out and a ripe cell that would hatch the next day was given them. Every colony accepted the cell all right, but kept on building more cells, for this reason, they had to be gone through several times, and the cells cut out until the larvae were too old to start more. This kind of management put an end to

swarming, but it had one draw-back, and that was that the colony had a virgin queen for about ten days during the honey flow, so there was too much loafing during that time. But as soon as the queen began to lay, they worked with all the energy they had. During a short honey flow, I would consider this a poor plan, but for a long honey season it ought to be very good.

Putting an empty hive body under a colony, to prevent any more swarming, is a poor policy, as the bees quit work in the supers and start drone comb from the bottom bars to the upper hive. In a very short time they have the lower hive full of drone comb, so, in order to get them to work ine the supers, the lower hive body has to be taken away. Usually this seems to upset them and they swarm again, but not always. Cutting out queen cells to prevent swarming has very little effect; although if they are cut out at the beginning of a dearth of nectar, the bees seldom swarm and very often they will destroy their own cells under that condition.

Last, and also the most important is the breeding of the bees. When Mr. Adams was at my place last spring, I made the remark that it was a mistake to always raise queens from a colony that produced the most honey. He gave me an odd look and I said, "Wait until I get through."

Then I continued and this is what I told him—usually the colonies that produce the most honey are the strongest. Now—Why are they the strongest? One reason is this—When bees are taken from the cellar in the spring they drift badly, weakening some colonies and strengthening others. In my case they always drift to the southwest corner of the yard, so, of course, colonies in that part of the yard produce the most honey. Another reason for some colonies being strong is that sometimes during the swarming season four or five colonies swarm at once. The queens are caught, caged, and put at the entrance of their respective hives. But a large percent of bees, instead of going back to their respective locations, go to one certain hive. The result is that there is a tremendously strong colony which produce the most honey.

But, is that any reason why you should breed from that colony? Now let us go to an apiary where the beekeeper never does any requeening but leaves it entirely to the bees. Some colonies have queens which they have raised under the most favorable conditions. Naturally, they produce the most honey. Other colonies have little dwarf queens raised under very unfavorable conditions. They produce very little, if any, honey. This beekeeper says, "I am going to requeen all my colonies this summer." He hires an expert queen breeder to raise his queens. Mr. Queen-Breeder goes to one of the poor colonies and grafts his cells from them and raises his sueens under the most favorable conditions, which means a fine lot of queens. Mr. Beekeeper's colonies are all requeened at the proper time and, behold, the next season he produces three times as much honey as he ever did before.

If the cells had been grafted from the colony that had produced the most honey, the result would probably have been the same. We must not take production alone as a criterion to go by. If a queen-breeder would say to me—"I have been selecting my breeding queens from colonies that produced a fine quality of comb honey, were good cappers, of a good disposition, produced a good weight section of honey, were the least inclined to loaf, and produced the most honey according to the strength of the colony," and if he was an able and sincere man, and I was buying my queens, I would say to that man. "Book me for all my queens." Breeding bees is a big job as it takes years to breed an apiary up to the desired standard for producing comb honey.

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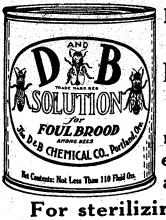

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