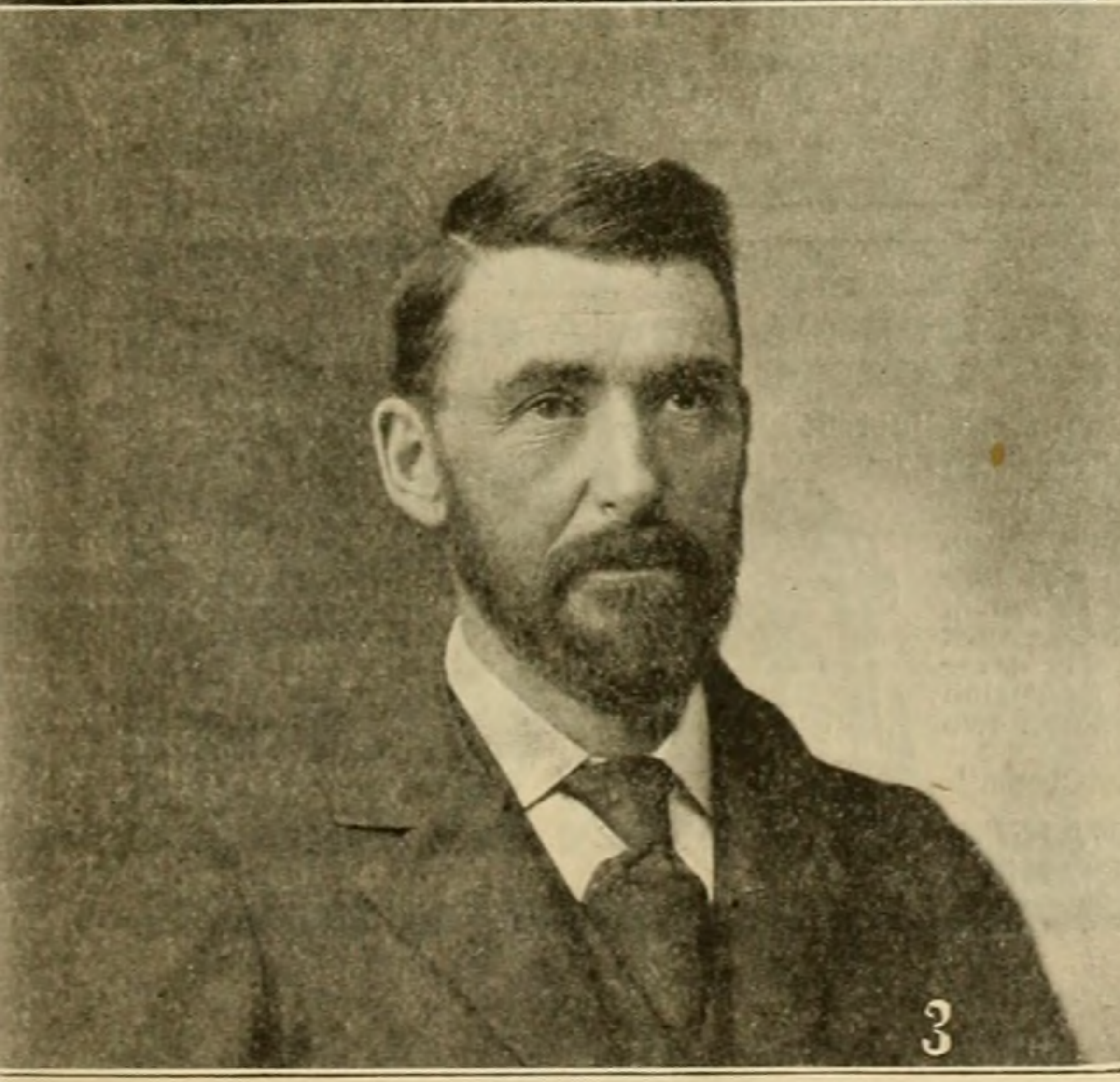
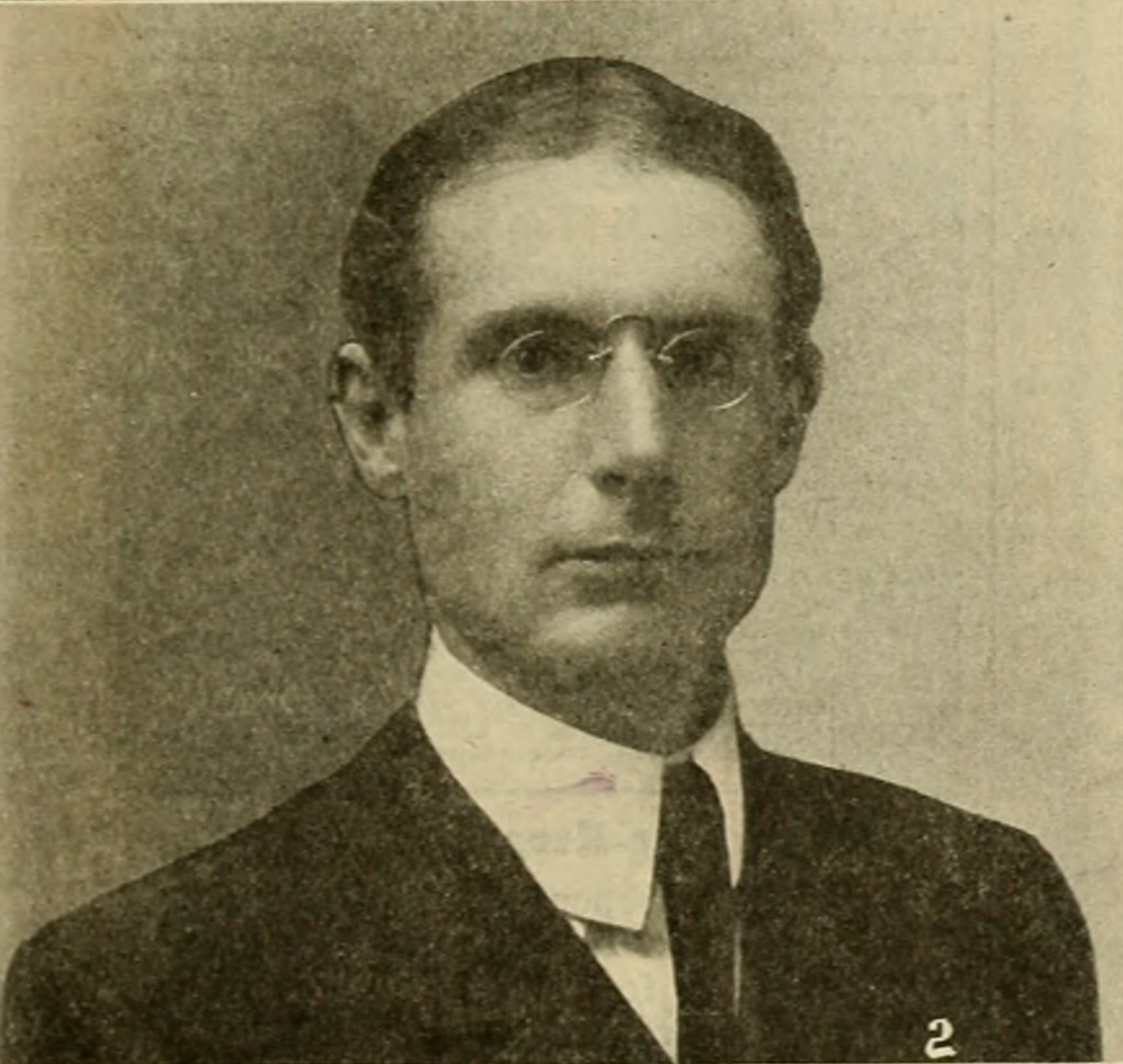
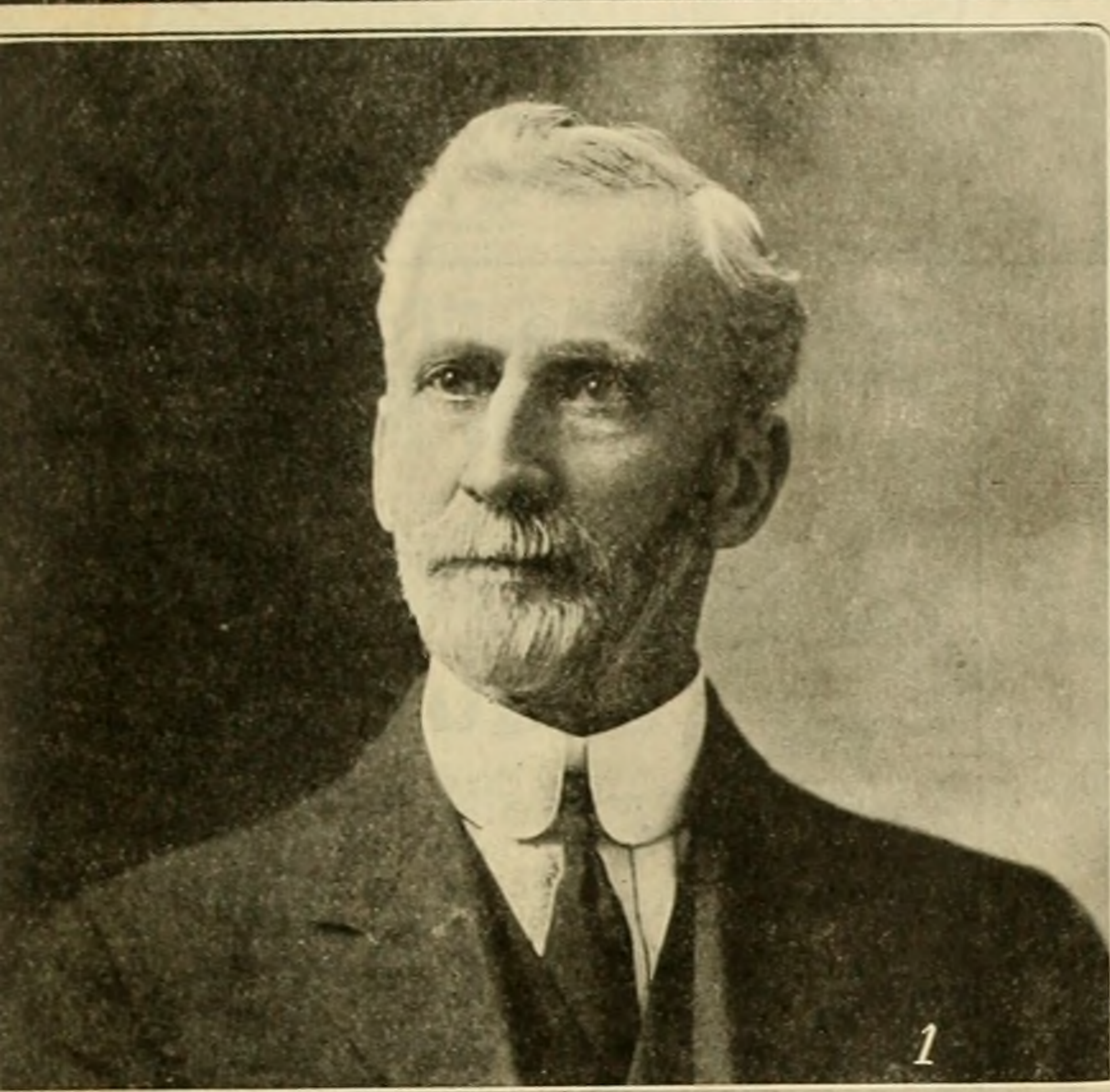


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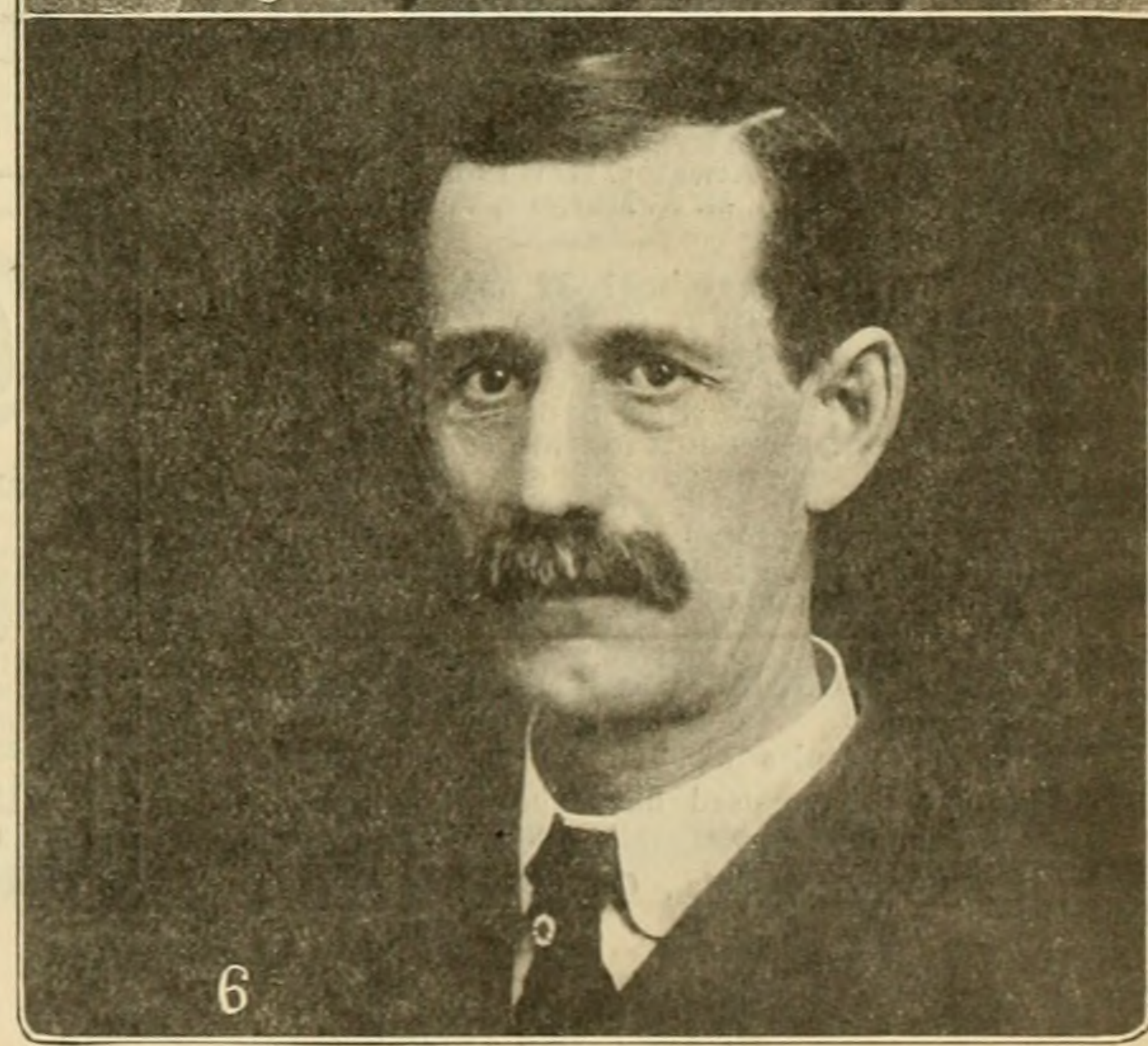
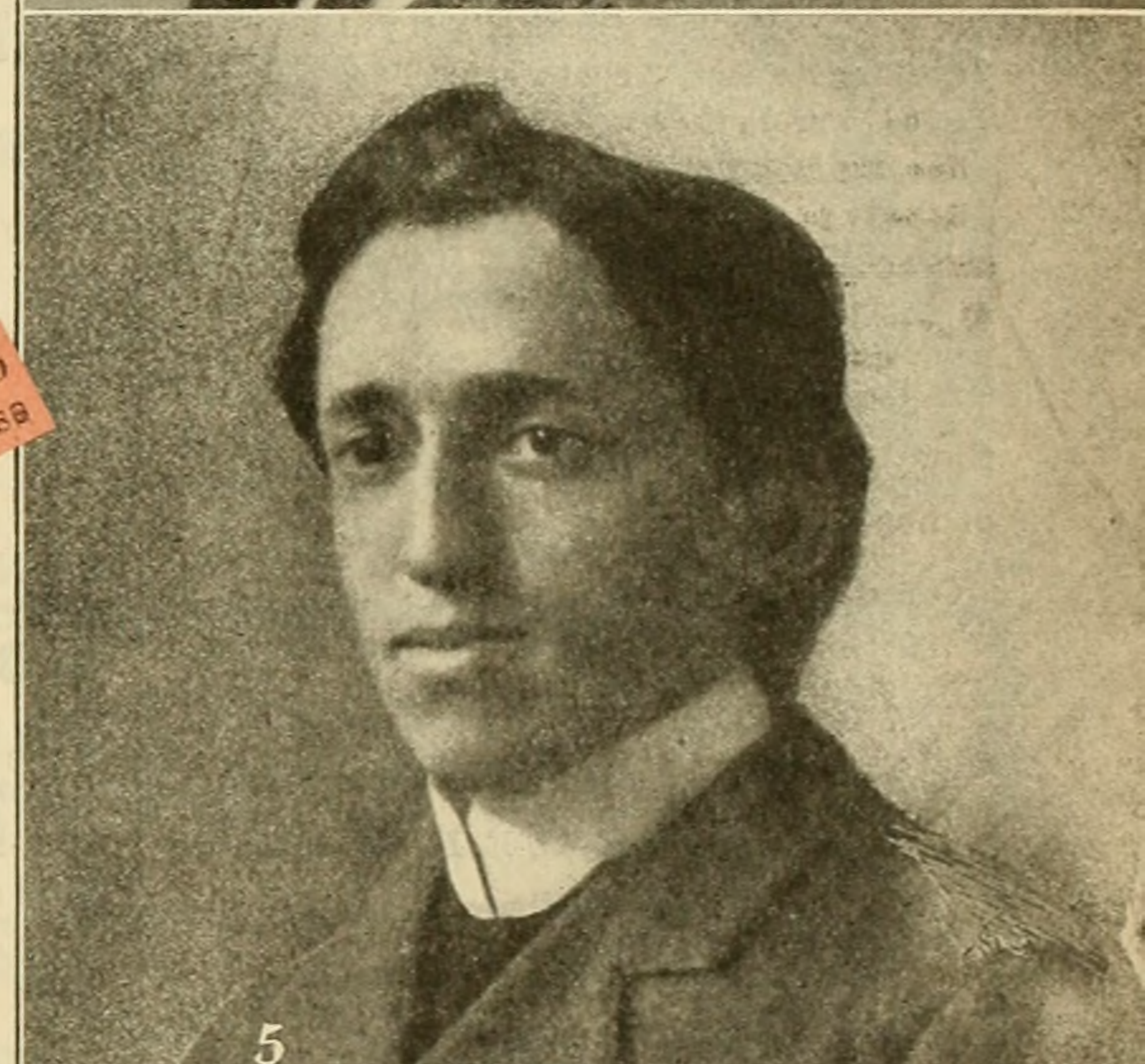
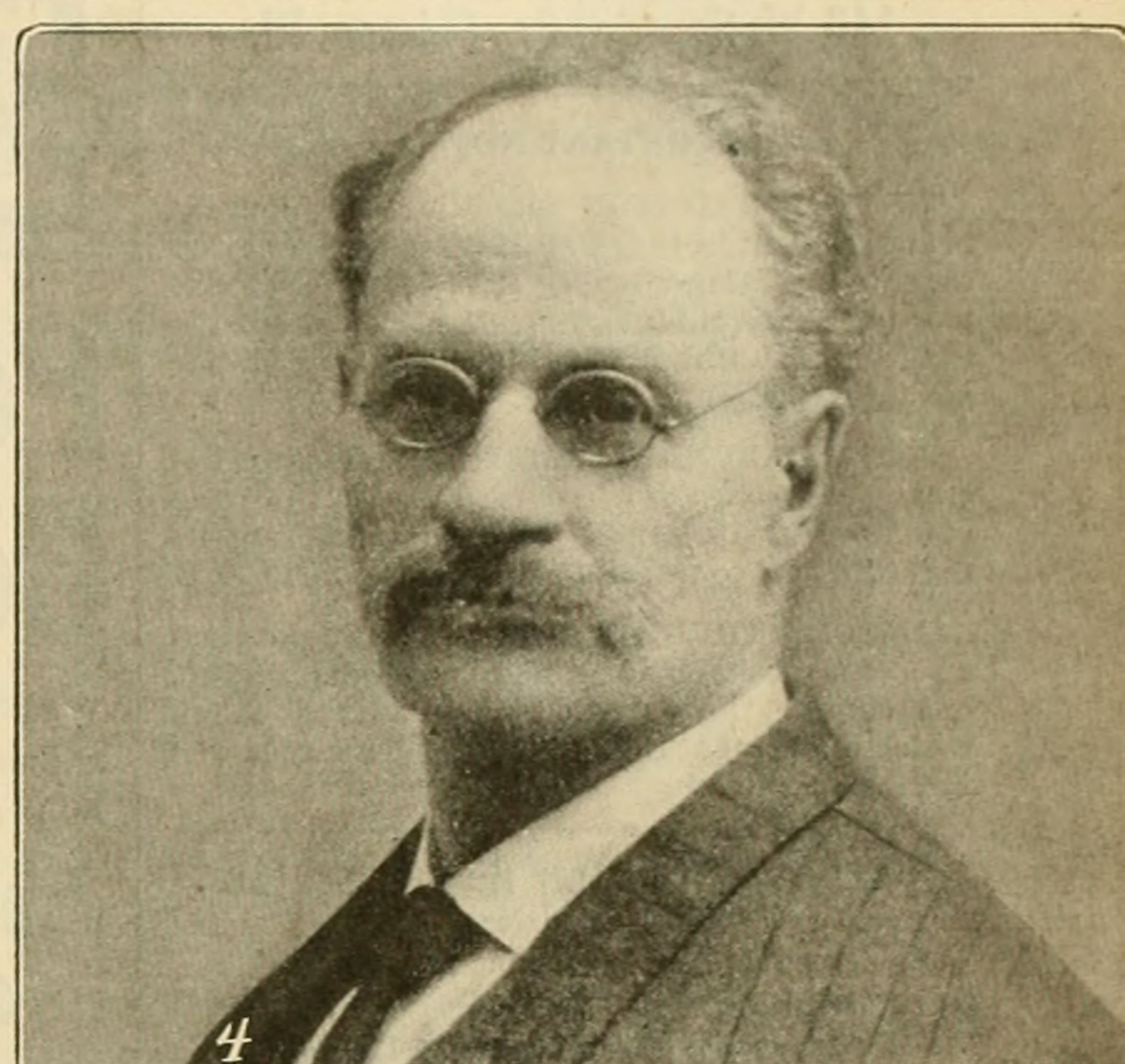
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FEBRUARY
1910

THE AMERICAN BEE JOURNAL

PUBLISHED MONTHLY BY
GEORGE W. YORK & COMPANY
146 W. Superior St., Chicago, Ill.

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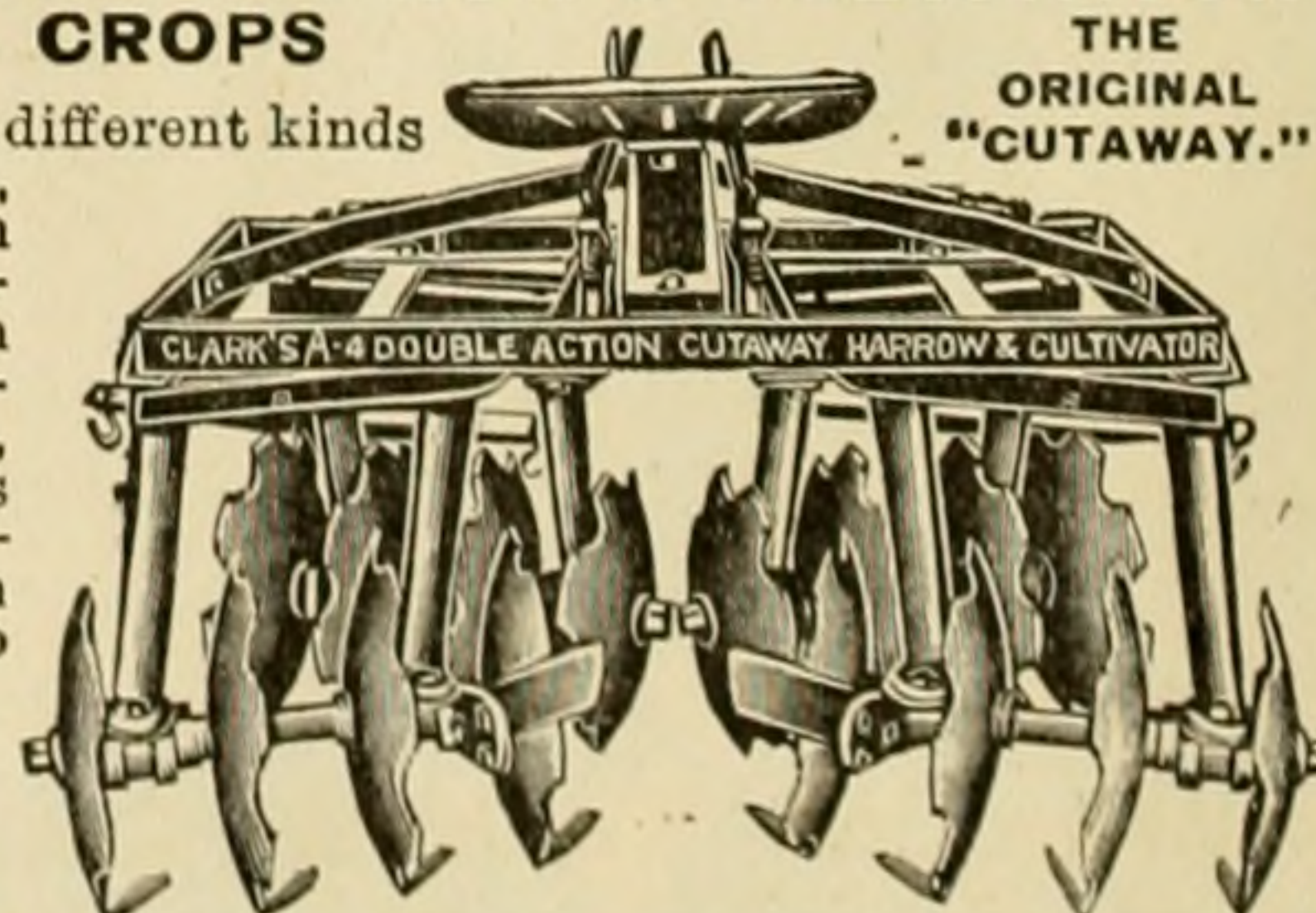


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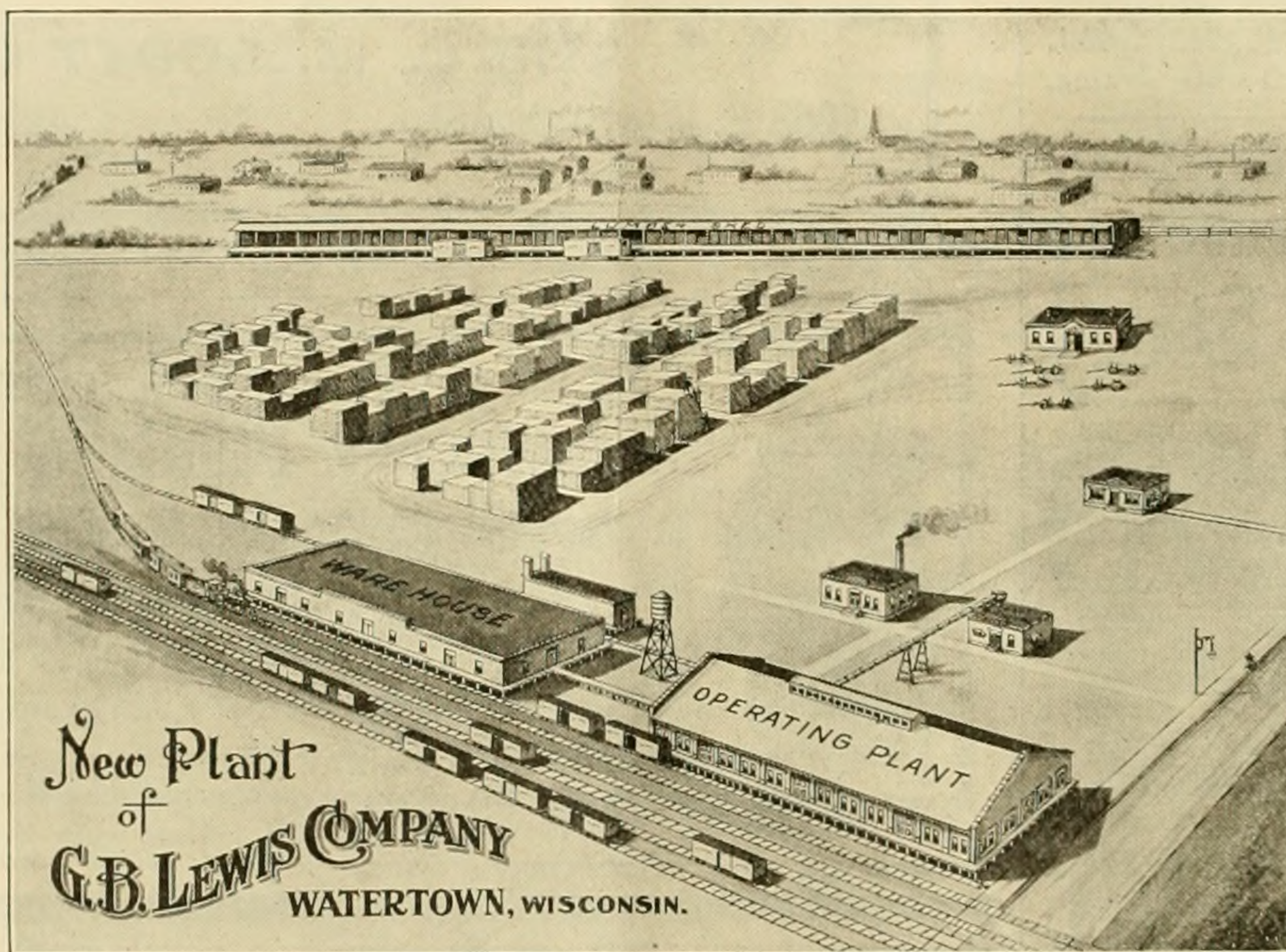
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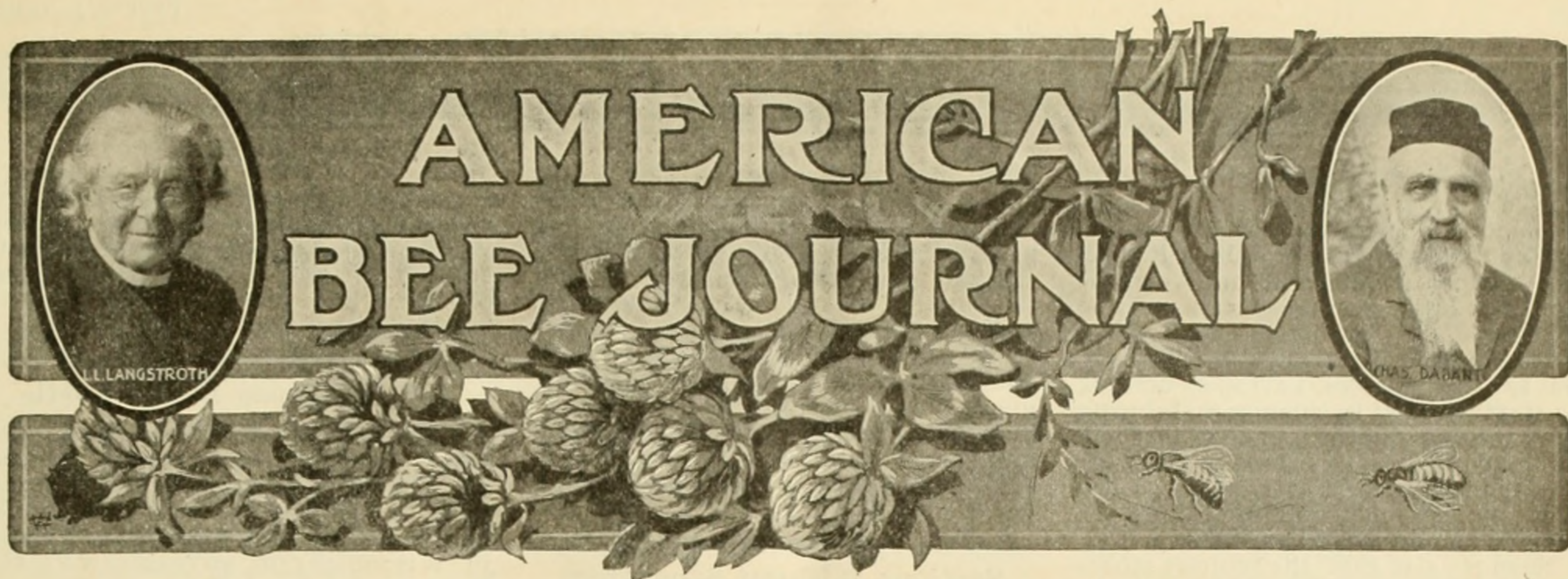
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GEORGE W. YORK, Editor.
DR. C. C. MILLER, Associate Editor.

CHICAGO, ILL., FEBRUARY, 1910

Vol. L---No. 2

Editorial Notes and Comments

Overstocking and Infringing

G. M. Doolittle having commended a man as conscientious who "would not think of locating in a territory already occupied by somebody else," Morley Pettit, in *Gleanings*, thinks the man is wise, rather than conscientious. He says: "The act of overstocking is a boomerang. Unlike mercy, it curses him who gives and him who takes." Of course the idea is that the man who infringes on the territory of another so as to cause overstocking has thrown a boomerang that will recoil upon himself. Editor Root footnotes the article by saying:

There can be no question but that, when a man brings a lot of bees into a locality that is already well stocked, he is working against his own interests. But the question is, "How are we going to educate him so that he will be 'wise' enough not to locate there in the first place?" Mr. Pettit has presented a phase of the question that has not been receiving the attention it should.

Now, who has the answer to the question as to how a man is to be educated to look out for his own interests? Very likely, Mr. Root, there are some who will suggest that in some cases where men can not be educated to become "wise" to their own interests, other steps are taken. The man who is "wise" will never steal, nor drink whiskey, but no system of education has yet been discovered so effectual but that there are still thieves and drunkards. But laws against stealing, with penalties attached, are supposed to be necessary for those who will not otherwise become "wise," and there are among bee-keepers some who are cranky enough to suppose that there ought to be laws to compel a man to be "wise" in the matter of infringing on another man's territory.

Advantage of Bulk Comb Honey

Among the advantages claimed for bulk honey by J. J. Wilder, in *Gleanings*, is this:

In the production of bulk comb honey all the surplus honey can be removed at the end of each flow, whether the frames are full or not, and the honey is as nice, for it can be saved and will bring its full market value.

The idea probably is that the honey may be extracted from the partly filled combs at the end of any particular flow, the combs to be used again in the next flow.

Variation in Basswood Bloom

That close observer, G. M. Doolittle, reports in *Gleanings*, that in his vicinity the very earliest blooming tree opened its buds last year July 12. Then other trees came into bloom on successive days until July 24, on which date the very latest opened its first bloom. Thus there was a variation of 12 days between the earliest and the latest bloomer. That would make it seem that the basswood harvest should be in any year more than 12 days in duration. But there are years of failure, when there is no basswood harvest; and it is not impossible that in other years the failure may affect all but the earliest or latest, thus cutting down the time of yield to less than 12 days. Possibly, too, in other localities the variation between earliest and latest may be greater or less than at Borodino, N. Y.

Flour Plan of Queen-Production

In England the plan of uniting colonies by sprinkling the bees with flour is quite in favor, although for some reason it has not been used much in

this country. But Elmer J. Weaver reports, in *Gleanings*, that he has been using it successfully in introducing queens. He says:

The method I employed with success was to remove the old queen, place the frames back in the hive, and dust several small handfuls of flour over the tops of the frames in such a manner that the flour got well mixed with the bees between the frames. The queen was then coated thoroughly with flour and run down between the combs, followed by a good sprinkling of flour.

This plan was not entirely successful when practiced with queens received through the mails, so was modified in the following manner: After removing the old queen, the bees were shaken from the combs into the bottom of a hive, dusted thoroughly with flour, and the queen coated with flour was dropped among them. The frames were then replaced carefully, and the hive not opened again for a few days.

In the same paper, Mel Pritchard, an experienced queen-rearer, thus reports his success with flour in introducing virgins:

At one time last summer I had quite a surplus of virgin queens that were about six days old; and, wishing to introduce them as quickly as possible, I decided to try the flour method. I took the virgins, one at a time, and threw them into a tin baking-powder can half full of flour, and shut them in. As six-day old virgins are very active they tried to fly around in the box, and in less than one minute they were so completely covered with flour that they could not fly at all. While in this condition I picked them up on the end of a small twig and ran them in at the entrance of the nucleus-boxes. Forty virgins were thus treated, and about 75 percent of them were successfully introduced. At the same time, three laying queens were successfully introduced to full colonies by the same plan.

How Much Honey Does a Bee Gather?

In *Gleanings*, G. M. Doolittle makes an estimate of what a bee can do in the way of gathering in its lifetime, setting it at an ounce of nectar, or $\frac{1}{3}$ ounce of honey, with conditions most favorable for gathering. A *Stray Straw* in the same periodical, on the supposition that a colony with a field-force of 30,000 workers each day for 26 consecutive days (26 days being the field-life of a worker) gathers 15 pounds of honey, including the amount stored and the amount consumed by the colony, figures that a bee during that time may store one-fifth of an ounce of honey.

What a bee can do under the most favorable circumstances is quite a different thing from what the average bee

actually does do in its lifetime. It may not be without interest to make some attempt to answer the latter question. Of course, many a bee spends its lifetime when little or nothing can be done, and the average of all must be taken.

It is hard to have any positive data, but for the sake of having something to start with, let us suppose that during the season a queen lays eggs that will be the equivalent of 1000 eggs a day for half the year, or 182 days. That means that the season's gathering must be divided among 182,000 workers.

Suppose also that the colony stores 75 pounds of honey, to which must be added what the colony consumes during 12 months, 200 pounds, according to Adrian Getaz. This gives us 275 pounds, or 4400 ounces. Dividing that among 182,000 bees gives .02417, or about one-fortieth, of an ounce to be credited as the life work of each worker.

That may or may not be somewhere near the exact truth, but it is not hard to believe that there is a very wide difference between the average life work of a bee and what it can accomplish when it has the best chance.

Requeening for European Foul Brood

John T. Greene, who had about 300 cases of black brood, or European foul brood, reports in *Gleanings*, that becoming discouraged with shaking and disinfecting hives, he finally gave up all other treatment, and merely requeened with young Italian queens, leaving all the old combs in the hive, and was "greatly pleased to find about 95 percent of the colonies thus left, without a trace of the disease at the close of a very light buckwheat flow."

Measuring Cells in Honey-Comb

An easy way, partly copied from *L'Apiculteur*, is given in *Gleanings*. Lay upon the comb a rule marked with eighths or smaller measurements, with the end of the rule corresponding with the side-wall of a cell. Look along the rule until the wall of another cell corresponds with some mark on the rule, and count the number of cells thus enclosed. Thus, suppose $9\frac{1}{4}$ inches be the measurement, and 46 the number of cells. Divide $9\frac{1}{4}$ by 46, and you have .201087 of an inch as the diameter of a cell. Again, divide 46 by $9\frac{1}{4}$, and you have 4.9729 (practically 5) cells to the inch.

A mistake is sometimes made in estimating the number of cells in a square inch. Because there are 5 cells to the inch, it is at once taken for granted that there are 5 times 5, or 25 cells to the square inch. That would be correct if the cells were square; but being hexagonal there are, instead of 25, 28 13-15 cells to the square inch; quite a little difference when the number of cells in a whole comb is to be estimated.

It may be desired to measure the number of cells in a given surface without being obliged to figure on the size of the hexagons. Lay your rule on the comb, as before described, horizontally, and make your measurement.

Now measure vertically, having the end of the rule at a given point in a cell, and find where the corresponding point in another cell coincides with a mark in your rule. Multiply together the count of the cells in both directions, and you have the number of cells in the space measured, which will, of course, be found by multiplying the number of inches horizontally by the number vertically. Divide the total number of cells by the number of square inches, and you have the number of cells to the square inch.

Sections Without Separators

As heretofore mentioned, W. K. Morrison claims that section honey may be successfully produced without separators, the chief stipulation being narrow sections, and beside these there must be full sheets of foundation and level hives. Discussing the matter in the *Bee-Keepers' Review*, Adrian Getaz says that the bee-keeper who thinks that by fulfilling these conditions he will always be as successful as Mr. Morrison is likely to be woefully disappointed. Mr. Getaz sells his honey in the local market, so that absolute regularity is not necessary, and he has produced sections mostly without separators. He thinks that without separators four bee-way sections are best, and that the thickness of the sections makes only a little difference. In addition to the conditions mentioned, he adds as essential: a heavy flow, a strong colony, and warm weather. With either of these conditions lacking, there is likely to be more or less failure.

It is perhaps hardly worth while for any one to experiment with regard to

producing sections without separators if the honey is to be packed for shipping; for a home market it is possibly worth while, as, under some circumstances, if not under most circumstances, a little more honey may be obtained without than with separators.

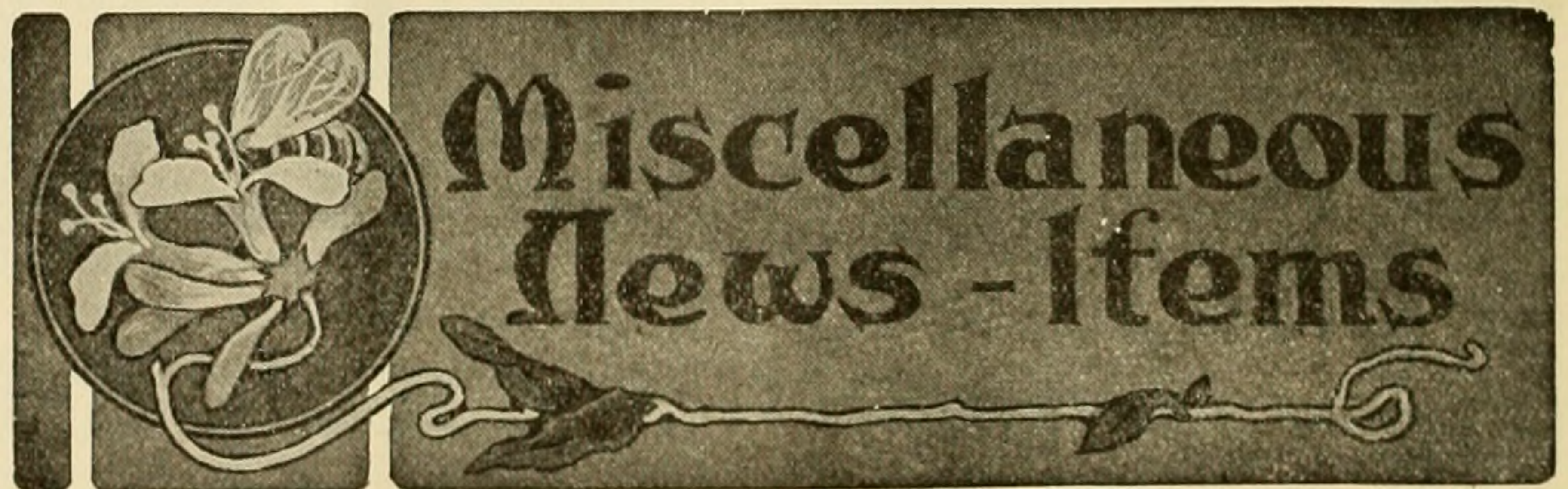
Chunk Honey in the North

M. P. Cady (in the *Bee-Keepers' Review*) reports that some half-dozen years ago he was quite taken with the idea of producing bulk, or chunk, honey, and gave it a trial (supposedly in Wisconsin) on an extensive scale. He says:

In order to test thoroughly the desirability of the "chunk" honey, and at the same time to develop a market for the new product, a good salesman was employed to solicit orders direct from the consumers. A fine sample in a flint glass pail was used in securing orders. The salesman explained the superior money value of the chunk honey, and, being a silver-tongued hustler, he made sales very readily at $12\frac{1}{2}$ cents per pound, at the same time selling, to those who preferred, extracted honey at 10 cents per pound, and section honey at 15 cents; however, most of the sales were "chunk" honey.

While the immediate results were very satisfactory, the final results were disappointing. An occasional patron was pleased with the chunk honey, but more than nine-tenths of the purchasers were emphatic in expressing their preference for either extracted or section honey; and finding it impossible to make sales of the chunk honey, I was obliged to discontinue its production.

Consumers objected that the honey was mussy, was not equal in flavor to section honey, and the candying of the extracted honey used to fill up the crevices spoiled it for table use. For some reason these objections do not prevent chunk honey from being popular farther south.



H. L. Jeffrey—An Old-Time Bee-Man

Mr. James McNeill, of Hudson, N. Y., has sent to this office a copy of the *New York Herald*, which contains an account of the interview of a reporter with H. L. Jeffrey, now 63 years of age, and known to the older readers as a former occasional contributor to bee-literature. Nearly a full page is occupied with the report, which is chiefly interesting as showing how much space can be occupied with so very little real information about bees. Mr. Jeffrey will probably smile when he reads that he "knows more about the savage little honey-gatherers than any other man on earth," and that not till he had solved such mysteries was any one able to answer the question, "Why were the cells of different size, and why did the bees build always on a plumb line, and why was there only one queen in a hive, and why were a lot of other

things?" If, instead of having the space filled by a man who cheerfully confesses "woful and utter ignorance concerning the insects," one-tenth of the space had been filled with matter directly from Mr. Jeffrey's pen, its readers would have had ten times as much real information about bees.

Young Bees for Queen-Rearing

The importance of having young bees for queen-rearing is not as generally understood as it should be. Sometimes queen-rearing nuclei are made up entirely of old bees, as when a nucleus is formed by moving a colony from its stand and depending upon the returning bees, which, of course, will all be field-bees. An article from the late E. L. Pratt, in the *British Bee Journal*, has the following:

I am entirely convinced that both the queen and the drones are stimulated to nuptial flight by the workers when they have

arrived at ripe age, not only by feeding, but by grooming and communication as well. I have been closely watchful of this, and have gathered some data which may be interesting to the student. By repeated experiment I have found that if a colony is entirely made up of old bees—so old that they are incapable of nursing—it becomes impossible for them to create in a virgin that desire to fly and mate. She may fly, but she does not seem to be attractive to the drones, as she repeatedly returns unsuccessful in her flights.

As a result of the above condition the virgin simply lives among the bees as a worker-member lives, not even becoming a drone-layer, owing to the lack of nurse-bees to develop her ovaries by feeding. Even young larvae given to such a colony will be neglected, and will frequently die of starvation. If emerging brood is given, however, young bees will hatch, and at length begin to feed the queen, and in time the queen may begin to lay; but, having passed the mating age, she will not mate, so becomes a drone-layer. These experiments have proved to me that it is necessary for even a drone-layer to be fed and nursed by workers before it is possible for her to produce eggs.

As a conclusion, I believe that young bees are absolutely needed at the three fundamental stages of a queen, viz.: First, to produce the abundance of food needed fully to develop their queen in her cell; second, properly to stimulate her to flight for the purpose of mating; third, to develop the eggs in her ovaries after impregnation. Further, as has been previously mentioned in the papers, it is also necessary for the drones to receive their share of attention from the nurse-bees in order that they may become at all potent.

Editor Hutchinson and His Bees

The editor of the Bee-Keepers' Review has a streak of poetry in him which frequently manifests itself in his writings. In his January issue he becomes enthused over the condition of the bees in his cellar, and breaks out in this strain:

"When I wake in the night there is actually a comfortable feeling comes over me when I think of those bees snuggled away there, sleeping away the winter with their heads pillowed on snowy combs of sweetness."

The brutally matter-of-fact bee-keeper will say, "My bees spend the winter with their feet resting on the combs, and the blacker the combs the better." But we may easily forgive the license of speech in one whose poetic soul thus lovingly expresses his feelings toward his little pets.

Slow Upward Ventilation for Winter

R. B. Ross, Jr., discussing the matter in the Canadian Bee Journal, is not in accord with those who advocate sealed covers in cellar-wintering. He asks Editor Root to make trial of 3 colonies varying in strength, with good stores, any kind of ventilation at the entrance, covers removed, and a heavy gunny-sack thrown over (with a newspaper loosely laid over, if the cellar is very cold.)

Spraying Fruit-Trees in Bloom

We have received the following from Dr. G. Bohrer, of Kansas:

On page 22, Mr. George W. Adams asks for information as to the laws in different States concerning the matter of spraying fruit-trees when in bloom. While here in Kansas we have no law upon the subject of spraying, we have a State Horticultural Society that holds annual meetings at which the matter of spraying is discussed every year. And while spraying is recommended, all agree that trees should never be sprayed while in bloom—for two reasons:

First, it destroys the fruit-germ to come in direct contact with spraying fluid.

Second, spraying-fluid will kill honey-bees—a thing well informed horticulturists do not wish to have occur, knowing that bees aid very materially in the pollination of fruit-bloom. They advise spraying *just before* the blossoms open out, and *soon after they drop off*.

While a number of our States have no law upon the subject of spraying trees, they are quite likely to enact such laws in the near future, as it is becoming more and more generally conceded that to spray is the only sure means of securing fruit free from injury by insects. And bee-keepers should make it a point to see their member of the Legislature and point out to them the importance of the law specifying that spraying must not be done when trees are in bloom, for the reasons above given.

Lyons, Kans., (DR.) G. BOHRER.

This is a *very* important matter, and one in which not only bee-keepers but horticulturists as well should be deeply interested. Spraying fruit-trees while in bloom is a two-edged sword—it is likely to injure the delicate and tender blossom, and also kills the bees that want to help Nature produce a bountiful crop of fruit.

Bee-keepers should pass the word along, that the only safe and proper time to spray fruit-trees is *just before* the blossoms open, and *just after* blooming is over. To do it during the time between is to risk killing the bees and ruining the prospects for a crop of fruit.

Honey-Yield and Cold Weather

A report is given in the British Bee Journal which rather upsets one's ideas as to the effect of cold weather on the honey-flow. It refers to the heather harvest, as follows:

September 3 was the best day, showing a gain of 10 pounds. The day began with a very heavy hoar frost, a shade temperature of 34 degrees Fahr., rising to 58 degrees Fahr. at midday. The wind was due north and very cold, so that in spite of a cloudless sky until 2 p.m., it was too cold to sit in the open air unless sheltered from the wind. The bees began gathering at 8 a.m., with a shade temperature of 48 degrees Fahr., a very heavy flow continuing until 10 a.m., when the temperature had reached only 52 degrees Fahr. After this the nectar intake rapidly slowed down, though carried on until 3 p.m. A suspicion of north wind or a hoar frost we had always regarded as fatal to heather-secreting.

To Help Our Advertisers Helps All

We want to invite our readers to patronize those who advertise in the columns of the American Bee Journal. Always be sure to mention the Bee Journal when writing to any of them. They want to know in what papers their advertisements were read. And such mention helps the American Bee Journal also, for when advertisers find that their announcements are read in this journal, they will not only continue to use its columns, but will often increase the space they use. And then we can have more money to spend on making the American Bee Journal better for you.

California State Convention

The California State Bee-Keepers' Association will meet at Los Angeles, Feb. 15, 16, and 17, 1910. It is expected to make this meeting the most interesting and instructive of any held in a long time on the Pacific Coast. Write to M. H. Mendleson, Ventura, Calif., for further information, if desired.

The Michigan State Convention

The annual meeting of the Michigan State Bee-Keepers' Association will be held at Hotel Wentworth, corner of E. Michigan St. and Grand Ave., Lansing, Mich., Wednesday and Thursday, Feb. 23 and 24, 1910. Rate, \$2.00 per day, and the use of the parlor free as the convention room.

A very interesting program has been arranged, containing, besides the question-box, the following papers:

"A New Method of Getting Rid of Foul Brood," by Ira D. Bartlett.

"Size, Ventilation, and Construction of Hives," by R. F. Holtermann, of Canada.

"The Bee-Keeper's Real Problem," by E. B. Tyrrell.

"Some of My Experience as a Farmer Bee-Keeper," by W. J. Manley.

"Science and Theory of Bee-Keeping," by Hon. Geo. E. Hilton, ex-president of the National Association.

"A Few Suggestions," by N. E. France, General Manager of the National Association.

George W. York, president of the National Association, has promised to be present, and many others that we have not room to mention, have signified their intention of attending.

Many prizes are offered for exhibits of honey and beeswax. Send for program and prize-list, if interested.

If for any reason you cannot attend this meeting, but would like to take advantage of the benefits derived from having your name appear in the Association's Annual Booklet, send \$1.00 to the Secretary, which will make you not only a member of the State Association, but also of the National, for one year.

E. B. TYRRELL, Sec.
230 Woodland Ave., Detroit, Mich.

The Wisconsin Convention

This was held at Madison, Feb. 2 and 3, 1910. While the attendance was not large, the interest was good. We were present and enjoyed meeting the representatives of Wisconsin beedom once more. The officers for the ensuing year were all re-elected, viz.:

President, Jacob Huffman, of Monroe; vice-president, F. Wilcox, of Mauston; secretary, Gus Dittmer, of Augusta; and treasurer, A. C. Allen, of Portage.

We expect to publish a brief report later, in these columns.

The S. E. Minn. and W. Wis. Convention

The Southeastern Minnesota and Western Wisconsin Bee-Keepers' Association will hold its annual convention Feb. 22 and 23, 1910, in the Court House at Winona, Minn. There will be some good speakers present. All bee-keepers are invited.

O. S. HOLLAND, Sec.

Route 1, Winona, Minn.

Worth Many Times the Price.

I appreciate the American Bee Journal very much, and don't see how I can very well do without it, as some of the articles are worth many times a year's subscription alone. I expect to be a subscriber to the "Old Reliable" as long as I keep bees, so you may count on me as a permanent customer.

Jackson, Mich.

H. A. RUSHTON.

Biographs of Beedomites

The New Officers of the National

With the exception of General Manager France, all the officers of the National Bee-Keepers' Association elected for 1910 are new ones. We thought our readers would like to know them better, so we put their pictures (excepting the president) on the front page this month, and herewith will be found their biographical sketches, which doubtless will be read with interest. Surely at the present time there is very little opportunity for criticism of the officers of the National Bee-Keepers' Association, on the grounds that they are not bee-keepers; most of them are rather extensively engaged in the business. Read the following sketches, and see if you do not feel that these are real men, and that you are proud of them as leaders in American beedom:

No. 1.—Vice-Pres. W. D. Wright, of Altamont, N. Y.

Wheeler D. Wright was born at Berne, Albany Co., N. Y., Oct. 3, 1851, and has been a resident of Altamont, N. Y., (formerly Knowersville) for more than 40 years. He purchased his first stock of bees in 1866, and has not been out of the business since. He built his first honey-extractor in 1870, of wood, coated inside with wax, as mentioned in the American Bee Journal for 1871, page 111.

In the 70's he reared Italian queens for sale, and issued a small catalog of bee-keepers' supplies; but soon concluded that there was more money for him in honey-production, which he made his sole business for several years. Later, on account of poor seasons, he concluded it was desirable to combine some other business with it, and for 12 years he conducted a local fire insurance business.

Having a general knowledge of carpentry and cabinet work, and being of a constructive turn of mind, Mr. Wright took up the study of architecture 20 years ago, and for 15 years has practiced that profession. Numerous buildings in Altamont and the surrounding country testify to his ability. He is a member of the Architectural League of America.

The largest number of colonies ever reached by Mr. Wright was 435. His number for 7 years was over 300 colonies; these were usually kept in two or three apiaries. In 1885, he produced over 24,000 pounds of surplus honey from 243 colonies, spring count, nearly all of which was in the comb. In 1887 his crop of surplus was nearly 22,000 pounds from 318 colonies. His total honey-production is over 100 tons; three-fourths of it in the comb. At present he keeps about 70 colonies.

Mr. Wright has been connected with the New York State Department of Agriculture for 10 years, in the capacity of inspector of apiaries. He has been thrice elected president of the young Eastern New York Bee-Keepers' Association. Twenty years ago he held the same office in a society with the same title.

Mr. Wright's life partner for 30 years was called to her Eternal home a year ago. A son and daughter also survive her.

It was our pleasure to meet Mr. Wright for the first time at the Detroit convention of the National, in 1908, where he appeared on the program and took an active part in the discussions. He is eminently qualified to fill the high position to which he has been

elected in the National Bee-Keepers' Association, and we are delighted to have him as one of the officers.

No. 2.—Secretary Louis H. Scholl, of New Braunfels, Tex

Louis H. Scholl was born at Hunter, Tex., Oct. 24, 1880, of German parents. Like Langstroth of old, he received no encouragement from his parents, but, in fact, almost every discouragement possible; and the bees which he had accumulated in his minority he purchased to save them from other hands when he attained his majority. This is according to an old German custom, that whatever earnings children may make before becoming of age, belong to the parents. He was told that bee-keeping was no occupation, and that he must take up some trade, but he couldn't see it that way, and so struck out for himself on the bee-line. He was about 21 years of age at this time, leaving home October, 1901, and landing in Southwest Texas, where he made a thorough study of bee-keeping conditions, and at one time was managing apiarist for a company owning 1150 colonies, distributed in several counties.

Taking an ardent interest in association work, Mr. Scholl, in 1899, was elected Secretary-Treasurer of the Texas Bee-Keepers' Association, and held it for a number of years. He has also had experience in experimental apiary work, having had charge of such a department in the Agricultural and Mechanical College, at College Station, Tex. At one time he was sent to Colorado to study bee-keeping conditions there, particularly as to foul brood. He was instrumental in securing the foul brood law for Texas, and in 1903 was appointed Apiarian Assistant in the Department of Entomology at College Station. The work of foul brood inspection throughout the State of Texas fell to him. In 1904 he lectured to 42 audiences, the main topic, of course, being bee-keeping. While at College Station he was elected to fill a position under the German Government, in East Africa, at \$3000 per year, but he felt it his duty to refuse the offer in order that he might stay with apiculture, saying that could he have taken Texas and his bees he would have gone.

The fall of 1904 Mr. Scholl attended the Ohio State University, and remained six months, returning in the spring to look after his apiaries. During his stay at the University he worked on his herbarium of Texas honey-yielding plants, and now has a collection of about 300 specimens, which is considered the best collection of its kind to be found in Texas.

Mr. Scholl resigned his position at College Station Dec. 1, 1905, in order that he might go back to his home in New Braunfels, to enlarge and build up his private bee-business.

June 20, 1906, Mr. Scholl married one of New Braunfels' favorite young ladies, Miss Emma Froelich, who has indeed been a helpmeet to him in every way.

Mr. Scholl now has about 20 apiaries scattered over the country, the nearest being 8 miles, and the farthest 197 miles from New Braunfels. He regards this stretch of territory as important, in that it gives a variety of flora, so that if there is a failure of the honey crop in one locality he may get it from another. In 1907 his honey crop aggregated over 20,000 pounds, or \$2000, exclusive of beeswax and vinegar.

As our readers know, Mr. Scholl is a specialist in bulk comb honey production, which is simply comb honey cut from shallow extracting frames and packed in various sized cans; then extracted honey is run in on the comb, which is cut so as to fit snugly on the inside of whatever sized can is used. The proportions are two-thirds comb and one-third extracted honey. From his apiaries in the season of 1909 Mr. Scholl secured

between 40,000 and 50,000 pounds of chunk honey.

Mr. Scholl is a prolific writer, and contributes not a little to the various bee-papers. His position as editor of "Southern Beedom," in the American Bee Journal, is too well known to require comment.

With Mr. Scholl's ability and experience in so many directions, it seems to us he ought to make one of the best secretaries the National has ever had. He stands over six feet in height, and if all the other officers expect to measure up to him, some of them will have to do considerable stretching, in more ways than one.

No. 3.—General Manager N. E. France, of Platteville, Wis.

The subject of this sketch was born July 24, 1857, on the wild prairies of Iowa, having Indians as neighbors. In 1862 his parents moved to Platteville, Wis., riding all the distance of 230 miles in the fashionable "automobiles" of the time—a covered wagon and ox-team—with a cow tied behind the wagon.

For some years his father, E. France, had bees in boxes, and by 1857 had succeeded in having all straight combs by the use of melted wax on the underside of the frames without any bottom-bars. Later, Langstroth used a frame of wood on all sides.

In 1865 to 1885 "N. E." went to school fall and winter, and was at home during the summer on a fruit and bee farm. In 1875 he owned his first 6 colonies of bees, which gathered a good honey crop, and in the fall filled the hives with honey-dew for winter stores. The next spring the bees were all dead, but the bee-keeper's hopes were not frosted. He bought more bees and built up another apiary, and by the fall of 1877 had 75 colonies. He heard of a machine to take the honey out of the comb and save the comb. He drove 40 miles, besides going some miles by railroad, to see the first honey-extractor. The whole can and stationary inside fixtures turned. In 1878 he extracted 5120 pounds of honey, and as it was work in those days to take the honey from the combs, it sold for 30 cents per pound, or 5 cents more than comb honey.

Since that time Mr. France has harvested 30,000 to 50,000 pounds of honey in a single season. In each of three years he sold a carload in one sale. For a number of years he has employed students attending the Normal School at Platteville, to help in caring for his several apiaries.

Mr. France has held a number of public positions in bee-keeping, as well as in public schools, etc. He served as secretary for 2 years, and as president for 4 years, of the Southwestern Wisconsin Bee-Keepers' Association; 2 years as secretary, and 8 years as president, of the Wisconsin State Bee-Keepers' Association; for 7 years as general manager of the National Association; and for 13 years as Wisconsin State Inspector of Apiaries. In the last two positions he is still serving.

Mr. France was principal of the same school for 10 years, and for 6 years was a student in the State Normal School located at Platteville. For 4 years he was Deputy United States Mail Carrier, and was superintendent of the bee and honey display at the Chicago Pure Food Show, in which the National Association won the highest award.

There probably is not another man who has done more in a general or public way for bee-keeping than has Mr. France; and he has done it all at much sacrifice, and so unselfishly. The general managership of the National Association means a great deal of work, and for very small pay. But Mr. France has done it all because his big heart was in it.

At the Harrisburg convention of the National, in 1907, a gold watch was presented to Mr. France, and a set of silver spoons to Mrs. France, all of which was only a slight token of the esteem in which Mr. France and his good wife are held by the bee-keepers of America.

No. 4.—Director J. E. Crane, of Middlebury, Vt.

Some 70 years ago there came a little stranger to a farmer in Western Vermont, to which the parents attached the name of J. E. He there watched the snow fall in winter, and saw the crows fly over in summer, and wondered at the fire-flies, and how the night-hawks should fly only at night, and heard in terror the thunder that rolled in the clouds. He went to a "district" school when old enough, and was, perhaps, one of the most stupid in his class, though he remembers once that he did get to the head of the class during one whole term. As he

thinks back he can but admire the patience of his teachers in trying to get him to learn the alphabet.

When 12 or 14 years of age his health became very poor, and, indeed, he has never been very well or strong since. When 16 to 20 he became interested in books and wanted to study, but the doctors said he should stay on the farm. So he graduated at the old brown school-house on the hill, and, to make it possible to live on a farm at the age of 26, he tried his hand at bee-keeping.

At 30 he bought a small farm, and moved on it, and with his bees and a wife tried to work out his salvation. It was up-hill business still, and after 10 years he rented his farm, and for the past 30 years has devoted his time to bee-keeping almost wholly.

For many years Mr. Crane kept about 500 colonies of bees, but for the last few years, since his son, P. E. has been in business with him, he has kept more. Their largest honey crop was in 1906, when they shipped of their own some 42,000 pounds to market.

They have marketed their honey, in years back, all the way from Chicago to Liverpool and London, England.

Mr. Crane was instrumental, with some others, in starting a State bee-keepers' association many years ago, that has held its meetings regularly, and many semi-yearly meetings. Of course, he has held all the various offices in this association, and is not without honor from the National Bee-keepers' Association, as (perhaps in 1893, it was) when he attended the meeting in Chicago of that year, he found when it came to the election of officers they were running him for president with two others, and as he did not care for the office, and the others seemed very anxious for it, he asked those voting for him to vote for one of the others, which they were kind enough to do. However, they had their revenge, and put Mr. Crane in as vice-president, and the next day, at a short adjourned meeting, he had the pleasure, or honor, of presiding over the National Bee-keepers' Association.

Mr. Crane has never been much of a politician, but many years ago was elected to the office of County Commissioner, whose duty, under the old prohibitory law, was to license agents to sell spirituous liquors for medical and mechanical purposes, and to look after them. When he came into the office he found the agent in his town was selling \$3600 value of liquor a year just for medicine, you know. In two years Mr. Crane succeeded in reducing those sales to \$1200, and he also compelled him to label every bottle filled correctly, on a blue label on which was printed in heavy type "Poison," with a skull and cross-bones. Of course, he was turned down at the next election, but the man who succeeded him did not dare to let the sales go as before.

When the Prohibition party came along, Mr. Crane found himself unexpectedly in that, and has been nominated to many important offices in that party, and has just as often been defeated at election time; but as he considered it a greater honor to be defeated on that platform than to be elected on any other, he has had a good many honors thrust upon him.

Mr. Crane has preferred to work for the upbuilding of society through church and Sunday-school work than through other channels. He has never found it easy to use a pen and express himself on paper. He did, however, some years ago, write a series of articles for *Gleanings*, entitled, "Uncle Lisha's Shop," under the *nom de plume* of "Uncle Lisha," in which he tried to show the value of careful breeding of bees, and how other races of animal life had been changed by the efforts of man. It was a great surprise, when some 2 or 3 years ago *Gleanings* wished him to take up a department. He begged off, but as its publishers seemed much interested in having him do so, he "gave in." He doesn't think it has been much of a success, at least not so much as he expected, or hoped it might be. Perhaps nothing in this line has given Mr. Crane more satisfaction than at a recent centennial celebration of the dedication of his church. He was one of six asked to prepare a paper to be read at that time.

Mr. Crane has many times wished he might give the bee-keeping world something to repay for the many inventions and other helpful things he has received, and by which he has secured such success as he has achieved; and he has been wondering in the last year or two if the improved paper shipping-case which he and his son the past season introduced, would not in some measure do so. They have now used these cases for four seasons, with increasing pleasure,

and rejoice that those who have adopted them regard them of great value. They have been adopted quite generally in the State of Vermont. Dealers are still willing to give them 5 cents extra per pound for honey in those cases; and dealers who get them seem to prefer them even at extra cost. Mr. Crane believes as soon as their value becomes known they will be very generally adopted.

Mr. Crane has been invited several times, during the past year or two, to speak at bee-keepers' conventions in other States. He was surprised to find himself nominated for director in the National Association, and at first thought he would write and have his name withdrawn, but did not just see how it could very well be done, and so let it stand. It was well that Mr. Crane did not withdraw his name, for bee-keepers need the wisdom and influence of just such men as he in their National councils.

No. 5.—Director E. F. Atwater, of Meridian, Idaho.

Mr. Atwater was born in Decatur, Nebr., and started with a few bees while attending school in Yankton, S. Dak., in 1896. In 1897 or 1898, there appeared in the *American Bee Journal* a report something like this, as near as he can remember:

"We started the season with 4 colonies,

increased to 8, and secured 300 pounds of honey."—E. F. ATWATER.

In 1901 Mr. Atwater moved to his present location, bought some bees, and for years past has operated from 500 to 700 colonies, last year having increased from 750 to 950 colonies. He has now bought more, so his company now has over 1000 colonies, and hopes to start the season of 1910 with 1200 or more.

No. 6.—Director R. A. Morgan, of Vermilion, S. Dak.

Mr. Morgan is 54 years of age, and has been in the bee-business since 1879, when he began in Buffalo County, Wis. He owned and operated 435 colonies there in 1884, and has had more or less bees ever since. He has been in South Dakota for 22 years, and now has 140 colonies, about one-half of which are Caucasians. When Mr. Morgan went to South Dakota there was not a head of clover to be found there, and he has lived to see the Southern part developed into a beautiful clover-producing section.

Mr. Morgan has had considerable experience in making bee and honey displays at fairs, has often been superintendent of such exhibits, and has held various official positions in the South Dakota Bee-keepers' Association. He was elected Secretary, *pro tem*, of the National convention held at Sioux City last September.



Shaking Energy into Bees--- [Chunk Honey, Etc.]

BY G. C. GREINER.

The October (1909) number of the *American Bee Journal* is so full of interesting bee-matter to think and talk about, that I hardly know where to strike first. Referring to shaking energy into bees, the Editor asks, "Has any one else made it a success?" I jump up and say, Yes, sir; I have.

When the idea of shaking bees for that purpose was first brought out in our bee-papers, undoubtedly it made some of the older bee-keepers smile, and I confess I was one among them. But after considering the matter a little more, and taking an investigating review of the past, I find that I have actually practiced the same thing for many years—not for the sole purpose of shaking, however, but severe shakings were necessary to perform certain operations. To explain just what I mean, I will give a brief review of last summer's management.

When the season of actual work in the apiary opened—about the middle of May—I found that I had from 12 to 15 weak colonies, the rest being medium and strong, about 50 percent of each. The rule I adopted for classifying was something like this: Two to 4 combs of brood—weak; 4 to 6 combs—medium; and 6 to 8—strong. With the exception of one or two examinations to determine their supply of honey, the hives of strong colonies were not opened for spring-management purposes, but the other two classes were

manipulated every week, and sometimes at intervals of from 5 to 6 days.

The weak colonies I kept for robbing purposes; I took from one comb, sometimes two of their most mature brood, weekly, giving them full sheets of foundation instead. These combs of mature brood I used to strengthen up the mediums, to prepare them for the coming honey-flow. Of course, all bees on those combs, taken from the weak colonies, were shaken off in front of their respective hives, and by so doing it gave them for about 5 or 6 weeks a continual shaking. The result was surprising. In spite of all this robbing and shaking, these weak colonies grew stronger from day to day, and by the time the white clover flow was in full swing, nearly all of them were in fair shape for the supers. Before the flow was over, they stored quite a little surplus honey—the weaker ones extracted, and the better ones comb honey.

In building up the "mediums," it was almost the same affair in regard to shaking. To make room for the combs of brood taken from the weak colonies, I took out such combs (generally side combs), that were the least desirable for brood-rearing. Here, too, the shaking process had to be resorted to, for all combs thus removed were more or less covered with bees, and had to be shaken off. I hardly need to say, that these colonies grew rapidly stronger, and were ready for the harvest when the flow began.

And did the remaining "strong" colonies have any shakings? Not for the purpose of shaking energy into them—they were doing their level best



NO. 1.—GENERAL VIEW SHOWING ENTIRE APIARIAN DISPLAY AT THE OKLAHOMA STATE FAIR.

without it. Nevertheless, they were severely dealt with. After the flow had nicely started, honey came so fast that I could hardly supply them with empty combs fast enough. For various reasons best known to myself, and not intended to be discussed in this article, I practice taking out full combs when necessary and replace by empty ones during the extracting season. Whenever this work is being done, all supers are generally crowded and combs completely covered with bees. According to the condition of the super, from 3 to 5 combs are exchanged at each operation, and, of course, that many combs have to be shaken off, or brushed off, every time.

It happened that the honey-flow was so profuse this season that I had to make the rounds every 3 or 4 days, making an almost continual shaking compulsory, and, it seemed, the more I shook the more honey they stored. Now, if Mr. Getaz failed to notice any beneficial results from shaking, it may be he did not shake in the right way.

CHUNK OR BULK COMB HONEY.

Then comes Mr. Scholl with his chunk-honey introductory. This opens up a long discussion—too long for this article, if indulged in, but a few brief comments may be admissible.

If the people in his locality are educated that way, and call for chunk honey, by all means produce it. It is by catering to the demand that we succeed in making sales. It is an unprofitable job to sell, or try to sell, what people don't want to buy; and it is the easiest thing in the world to dispose of anything they are looking for.

Some years ago, before I had my present trade established, a party used to call at my home and bought all the unfinished honey I would sell, paying me the same price per pound as I asked for my finished sections. In a round-about way I found out that he manufactured a sort of honey syrup, cutting up my unfinished honey and mixing it with I-don't-know-what, which he peddled from house to house, and sold by the pound. I cannot say whether he offered his mixture as honey-syrup or honey, but from the innumerable expressions of his former customers, I

should judge that he called it "honey."

When I first began to be known as a producer of honey at our city market, which I visit late years regularly once a week, people came to my wagon and expressed themselves something like this: "Some years ago a man used to call at our house and sold honey by the pound; he dipped it out of a crock, and we had to furnish a dish to put it in. He called it honey. It looked like honey, and tasted some like honey, but it was not like *your* honey. He doesn't call any more since you come to the market. We want *pure* honey, and we know what we bought of you before was fine."

This is a sample of the stories I heard, time and again, during the first years I visited our city market, and even now, after the reputation of my honey has become an established fact, I hear the same thing occasionally.

There is one serious objection to Mr. Scholl's chunk-honey management—he offers a helping hand to this nefarious business of adulteration. Not that I mean to say Mr. S. himself would be guilty of doing any mixing, but after his honey has left his hands, what is to hinder a dishonest dealer (and there are lots of them) to turn in a lot of glucose and sell it all as pure honey? How long would it be before consumers would find out the difference and refuse to buy chunk honey, saying, as some of my customers did, "We want pure honey." The chunk-honey idea will eventually become a sad setback on our honey-trade. This is my impression.

But why does Mr. Scholl so persistently advocate the production of chunk honey, enumerating the various advantages connected therewith, when the production of extracted honey would give him all those advantages and others besides? Put up in clean, labeled glass cans, it presents a neat appearance, which Mr. S. cannot say of his chunk honey. We are always urged and instructed to make honey displays at fairs, conventions, etc., for the furtherance of the honey demand; given frequently photographs of elaborate displays of prominent bee-keepers. Could Mr. S. rig up anything of that kind with his products?

The people here in the East are so used to seeing all our commodities put up in neat, attractive form, that they would rather pay a little more and have things to suit their fancy. If they want comb honey it cannot be disputed that a nice, white flake of section honey on a tasty desert dish presents a much more attractive, appetizing part of the table outfit than chunk honey in any form it can be served. There is only one class of people in this part of the world who would buy chunk honey, providing they could buy it for less money, and that is the laboring class of foreigners. The American laborer, as a rule, prefers his table-supplies just as neat, tasty, and up-to-date in every respect, as his employer.

More could be said on this subject, but the wise will take the hint.

La Salle, N. Y.

Apiarian Displays at the Oklahoma State Fair

BY J. C. FRANK.

The Oklahoma State Fair, held Sept. 29 to Oct. 8, 1909, at Oklahoma City, Okla., was a grand success. It was, of course, the sweetest and best exhibit on the grounds, and attracted considerable attention. It also proved very interesting to the thousands of people that visited the Apiarian Department.

The exhibitors were as follows: F. W. Van De Mark, of Stillwater; B. F. Bartholomew, of Norman; Geary & Geary, of Noble; Geo. H. Coulson, of Cherokee; Mrs. J. T. Wallace, of Oklahoma City; and The Golden Apiary of Dodge City, Kans.

Picture No. 1 is a general view, showing the arrangement of the entire display, consisting of bees, honey, beeswax, bee-keepers' supplies, and all other products of the apiary.

No. 2 is a view of B. F. Bartholomew's exhibit, showing the arrangement of bulk-comb designs in honey and beeswax. Also Mr. B. in the foreground; but the writer knew of no special premium being awarded to him for an exhibit of that kind!

No. 3 shows the exhibit of F. W. Van De Mark's, who was away eating ice-cream cones at the time this picture was taken.

No. 4 represents "The Alfalfa Apiary," with G. H. Coulson, the proprietor in the foreground. Mr. C. was the bee-man at the fair, talking bees to all the visitors.

No. 5 is a view of "The Golden Apiary," with the writer, who is manager, in the foreground. This was a part of the display from the Kansas State Fair, where it carried off nearly all the first premiums; the rest of this display was lost on the A. T. & S. F. railroad.

No. 6 is a general view of the Agricultural Building, where the apiarian displays were located.

The awards were made as given below by Prof. Wright, of Stillwater, Okla.:

Bulk comb honey in glass—1st, B. F. Bartholomew; 2d, F. W. Van De Mark; 3d, Geary & Geary.

Section honey, not less than 5 cases of 15 pounds each—1st, The Golden Apiary; 2d, Geary & Geary; 3d, B. F. Bartholomew.

American Bee Journal

Case of white honey from native flowers—1st, The Golden Apiary; 2d, B. F. Bartholomew; 3d, F. W. Van De Mark.

Case of amber honey from native flowers—1st, Geary & Geary; 2d, B. F. Bartholomew; 3d, F. W. Van De Mark.

Extracted honey—1st, The Golden Apiary; 2d, B. F. Bartholomew; 3d, Geary & Geary.

Samples of extracted honey in not less than one-pound bottles—1st, F. W. Van De Mark; 2d, Geary & Geary; 3d, B. F. Bartholomew.

Candied extracted honey—1st, Geary & Geary; 2d, B. F. Bartholomew; 3d, F. W. Van De Mark.

Samples of candied honey from different flowers—1st, Geary & Geary; 2d, F. W. Van De Mark.

Beeswax—1st, The Golden Apiary; 2d, B. F. Bartholomew; 3d, F. W. Van De Mark.

Designs in honey—1st, B. F. Bartholomew; 2d, The Golden Apiary; 3d, Geo. H. Coulson.

Designs in beeswax—1st, B. F. Bartholomew; 2d, F. W. Van De Mark; 3d, The Golden Apiary.

Sealed comb for table use—1st, F. W. Van De Mark; 2d, B. F. Bartholomew; 3d, Geary & Geary.

Sealed comb for extracting—1st, Geary & Geary; 2d, B. F. Bartholomew; 3d, The Golden Apiary.

Apiarian appliances—1st, F. W. Van De Mark; 2d, The Golden Apiary.

One frame of dark Italian bees in observatory hive, and queen—1st, Geary & Geary; 2d, Mrs. J. T. Wallace; 3d, Geo. H. Coulson.

One frame of golden Italian bees in observatory hive, and queen—1st, Geo. H. Coulson; 2d, F. W. Van De Mark.

One frame of black or native bees in observatory hive, and queen—1st, Mrs. J. T. Wallace; 2d, F. W. Van De Mark; 3d, Geo. H. Coulson.

saying, "I sell *all* of my section honey in the local or home market," my reply would be, that it mattered very little whether separators were used or not, for, in such a case, any person having a fair, average ability as an apiarist, could succeed without separators in producing section honey that would please, as in the home market, absolute regularity or straightness of combs is not necessary. While having the nice white capped sides of comb honey all straight and even as a board, is pleasing to the eye of prospective customers whether in the local market or otherwise, yet where honey is not cased, this pleasing-to-the-eye part would not be of sufficient value, in my opinion, to pay any one who had a quantity of supers and fixtures adapted to the production of section honey without separators, in casting them aside that they might adopt a system requiring the use of separators.

But, supposing the answer to the question, "What are the markets of the United States?" proves to be "a village or distant city market," or one which requires the casing of our product. And this is the answer any apiarist who in any way believes that in time he may become a specialist in the bee-keeping branch of agriculture, is sure to give sooner or later. With such an answer, a radical change from the non-separated plan is sure to come, for the reason that not one in ten of the section-honey producers of the United States have an average ability of high order enough to produce section honey that can be promiscuously cased, without there being more or less sections, the combs in which are so wavy or bulging that when placed in the case, some parts of their sealed surface will come in contact with their fellow sections, this causing the honey to leak and run down into the bottom of the case, if not through the case. Thus, on the arrival of such honey to the village or city to which it was shipped, it is in almost any other than a marketable shape. After one or two such experiences, any bee-keeper who has an "eye" to his calling, concludes

that he has sufficient reasons for casting aside all of his supers that will not allow of separators being used, and going to the expense of providing himself with suitable material so that the comb honey in no section used shall be built otherwise than between separators.

So far I have been considering the matter from the standpoint of the one who has from 20 to 500 colonies with hives and fixtures therefor, on the plan of non-separated section honey. But allow me to say further, any one beginning in apiculture cannot make any mistake if he starts out with fixtures adapted to the production of comb honey with separators, as such honey is equally as salable in the local or home market, as it is in any spot or place in the world, say nothing about the *United States*. The production of unseparated honey in marketable shape requires some things over which the apiarist has no absolute control.

Suppose the honey-flow is on and the bees have commenced to work in all parts of the super (as they must if we are to have reasonably decent combs in the sections for market), and at the end of these two days after starting, cool to cold weather comes on, the bees draw in the cluster until it may not occupy more than half of the super, when, if such weather holds on for 3 or 4 days, as is often the case, those sections clustered upon will become "fat," while those outside will be "lean." The weather now turns warm and then hot, so that the cluster again takes in all the sections in the super, or at first, when we have of necessity the fat ones with their cells lengthened out into the lean ones along the edges, where the bees left off clustering during the cool spell till these fat ones are nearly, if not quite, twice as thick as to combs of honey as are the others. This will entirely exclude them from being cased in any way, except by taking their places in the case in the identical position they occupied in the super, which it is not possible for them to do unless the super and the shipping-case are of equal dimensions in every way.

Then, to have anything like satisfactory results with unseparated supers, all colonies supered must be strong enough to enter and fill any one super at once; otherwise we have the same state of affairs as in the before-mentioned case, for should there be only bees enough to start work vigorously in the center of the super, each section, as we go farther and farther toward the outside of the super, will have one fat side and one lean side, this becoming more and more prominent as the sides, each way, are drawn the nearer to.

Again, there must be almost a "downpour" of nectar to secure good results, and that continued till the whole of the super is finished. With a light or an intermittent flow, many of the sections will be capped down a part of the way, and, on a "spurt" of honey coming, the uncapped cells just below will be lengthened out, some projecting into their neighbor sections, this way and that, until the "faces" of the combs will have become so uneven that casing them will be entirely out of the question.

Separators in Section Honey?

BY G. M. DOOLITTLE.

"Mr. Doolittle, won't you give us an article in the American Bee Journal relative to the use of separators in the production of comb honey for market? Shall we use them, or shall we not?"

Thus writes a correspondent who evidently is anxious, as all should be, to place their section honey on the markets of the United States in *the most marketable shape*.

In replying, I wish to say that the answer to this question depends quite a little upon what would be the answer received were the question, "What are the markets of the United States?" put to our correspondent or the readers of the American Bee Journal. To the one who would answer this question by



No. 2.—EXHIBIT OF B. F. BARTHOLOMEW AT THE OKLAHOMA STATE FAIR.—See page 42.



No. 3.—EXHIBIT OF F. W. VAN DE MARK AT THE OKLAHOMA STATE FAIR.—See page 42.

Then, if we wish to use "bait"-sections to start the bees to work in the supers, just as early in the season as possible, the profitableness of which is conceded by nearly every practical apiarist in the world—if done without separators, these baits will have their cells lengthened out before capping is commenced, so that they will bulge nearly into the center of those on either side.

If I am correct, this whole idea of producing section honey without separators originated with the idea that bees will store more honey in a super without separators than they will store in the same super with separators. But just how much more I have never heard any one attempt to say. I used to think just that way myself, but after 30 years of close watching, and trying the two plans side by side, I cannot tell how much more; but, my candid opinion is, that there might possibly be this difference; only 499 pounds being stored *with* the use of separators as against 500 pounds where separators *were not* used.

Borodino, N. Y.

Treating Bee-Fever—Chunk Honey

BY HARRY LATHROP.

If I were so minded I might advertise to sell a secret for one dollar, "How to cure the bee-fever." I would be compelled to state, though, that the cure would not be permanent in all cases, and could not be applied at all seasons. As I do not sell secrets, I will give the cure here. It is this:

Hard work in a bee-yard in hot weather, with more work than you can get through with, and many stings, the latter being especially good; and the hotter the weather the quicker the fever will abate.

For myself, I have a recurrence of the disease every winter, and no cure for it until the season arrives when I can procure the above prescription.

I do not have time during the summer to read the bee-papers carefully, but in winter I get them out and read

everything in them, whether I had previously read it or not. Then the fever rages, and I honestly believe I can keep as many bees on paper, or in my mind, as any living man.

Out of this fever usually grows some plans for the coming honey season. Just now I am greatly interested in the subject of bulk-comb or chunk honey. I never liked the pound-section way of producing honey, but feared that if we tried the Texas method of chunk honey, there would be too much granulated bulk honey, which would be a hard matter to handle. I now think that by keeping the honey in the frames in a suitable place as long as possible, then pack in receptacles, using extracted honey that had previously been treated by slow heat in a sun extractor or otherwise, we might obviate the difficulty of granulation.

Then there is the possibility of marketing comb honey neatly wrapped in paraffin paper, a certain weight to each package. It seems to me that such a method might become popular. Anyway, bee-keepers do not want the basswoods cut up into section wood, and consumers do not want to pay for this wood when they buy honey. The greatest items, however, are the saving of labor, and the increase in production.

The only trouble may be that some producers will sell this honey at the price of extracted. In that case there would be no advantage in it.

I am pleased that we are to have a series of articles on chunk honey production, in the "Old Reliable." But let us of the North try it next summer, and the experience gained, if given at the close of the season, will make good reading.

Bridgeport, Wis.

Shaking Energy into Bees

BY C. P. DADANT.

When something new is discovered, whether in the bee-business or in other lines, many enthusiasts are apt to overestimate the improvement, while others discourage it beyond reason. The idea of shaking the bees out of their hive to

give them more energy has been engrossed upon by the usual number of enthusiasts, and has been ridiculed by many others. I have been quoted as being in favor of this method; that is why I desire to discuss the pro and con.

It has been stated emphatically that a natural swarm works with more energy after being hived than its bees worked in their former abode, and this has been laid to some mysterious influence of the disturbance. The opposition, on the other hand, has explained that a new swarm, not having any brood to care for during the first few days in its existence, is in the best of conditions for amassing stores. To this might be added the statement that all the bees in a swarm, by the fact of their emigration, have become active workers. Those who are in the habit of watching swarms emerge from the hive have noticed that only such bees as are too young and too weak to fly remain in the hive, that many of the just-hatched bees nevertheless crawl out, carried by the whirl, only to fall helpless in front of the alighting-board, returning with great difficulty. Many of the more mature young bees, were it not for this pell-mell exit, would have remained a week or more within the walls of their home. Swarming evidently hastens their maturity. It is a case of necessity. Many of them, of course, will remain at home in the new abode for a few days, if their labor is needed inside, to build comb or nurse the young. So the working force of a swarm is greater than that of the old colony ever was, but this increase of ability is at the expense of the old colony, and the more thorough the exit has been the weaker the old colony has become, though it is usually somewhat replenished from the bees that were out foraging at the hour of the swarm issue.

The activity of the new swarm is also enhanced by the much greater amount of room which they find to be filled, especially if all, or a good proportion, of the combs have been furnished to them. However, in this case, breeding is more rapid, and the expenditure and time required to take care of the brood reduces the apparent activity that much.

The shaking process applied to the bees of a colony in working order has a somewhat similar influence on the young bees. Many that would have remained quiet for a week or more are thus compelled unceremoniously to take a flight. That it causes the young bees to start out earlier in life for the harvest field may very readily be proven if we Italianize a colony of common bees. The change of queens causing a change in the color of the hatching bees within 21 or 22 days, it becomes quite easy to see whether we can hasten the flying out of the young bees by positive disturbances. This is a very good reason for an increase of energy in the colony, if the weather is favorable to their flight and the presence of the young bees is not positively needed indoors to build combs or keep the brood warm.

In the breeding season there is another result secured by the disturbing of the hive from time to time. This result, however, is conditional upon the

quantity of honey which they may have in store. In an observation hive one will often notice that if any loaded bee passes by the queen, she will offer the queen honey. To lay thousands of eggs each day, the queen must eat a great deal—in fact, she must eat at all hours. When there is no crop, the offer of food to her by the bees is less frequent than when the crop is on. If we disturb the colony, the bees will fill themselves with honey from their stores. They do this whenever they are frightened from any cause. Naturally, before those stores are returned to the cells, many bees meet the queen and the offers of honey to her are more frequent than if the colony had remained quiet, especially if there is no honey in the fields. An increase of food for her means an increase of laying, and sooner or later an increase—an unusual increase—in the strength of the colony. The oftener this is repeated the more honey is consumed, but the greater the laying. This would, of course, do no good if the crop was already on; and if the crop was not to be over 4 weeks' duration, the increase of laying would mean the production of workers too late for the harvest, since it takes nearly a month to make a field-worker from the fresh-laid egg.

The two above-named reasons are to me very plain expositions of the cause of an increase of efficiency in colonies that are disturbed during the breeding season preparatory to the honey crop. There would be no increase and no benefits if the colonies in the case were short of stores. This is very evident.

Now, is there an apparent increase of efficiency in colonies that have simply been transported to our new pastures? Some persons will say that there is no such increase. But I have often noticed it, and so have others, among whom I will name my brother-in-law, E. J. Baxter, of Nauvoo, Ill., who has had oft-repeated experiences in transporting large apiaries.

The disturbance will, of course, cause an increase of consumption of honey and an active feeding of the queen, but this will be of very short duration, and

in return there is more or less loss of laying, for she cannot well busy herself at her duties while the colony is being shaken about. One will certainly offset the other. We must look elsewhere.

I believe the increase of efficiency from moved colonies is due to their having to learn a new location. In normal conditions each bee at its first flight turns and carefully examines the location before venturing in the fields. It does not learn the entire vicinity in one day, surely. Not long ago a French scientist ventured the assertion that bees could find their way home with their eyes bandaged, from any point of the compass. But he limits their range to two or three kilometers—less than two miles. I believe that they learn to find their way in the fields very much as we would find ours if we were provided with wings, by the configuration of the locality. Bees that have been brought to a new spot have to learn their location all over, every one of them, young or old. As soon as they find that they are in a new field, it seems reasonable to believe that they are eager to become acquainted with the range. Hence more active flight, more positive returns, than in the case of the bees which have been reared within this field of action, and find no change from day to day.

Many different opinions have been advanced as to the range of a bee in all directions. It is evident, from the testimonials given in this country as well as in Europe, that there is quite a difference in the distances according to the direction, the winds, the hills, the blossoms. But an old bee in a new field (new to her) will very probably develop an enthusiasm that she would not have experienced in a long-beaten track.

It seems to me that the above exposition of probabilities and deductions is sufficient to indicate that disturbances and transportation of bees can have only a limited influence on the success of the colony, and that we must not put too much stress on the benefit to be derived from such abnormal

operations. In many cases disturbance and transportation of bees will do more harm than good.

Hamilton, Ill.

2.---Bee-Talks for Beginners

BY JIMSON RAGWEED, OF INDIANA.

MOLDING BEESWAX INTO CAKES.

DEAR COUSIN JIMSON:—While attending the reunion I went through your shed and examined your bee-fixtures, and I saw some beeswax molded into cakes of about 3 pounds each, and free from dirt. How do you do it? Our drug and wall paper man says he will take all of my wax if I will mold it in cakes. I poured a lot of melted wax in Martha's cake-pans, but now we can't get the wax out, and it seems full of specks. Should I grease the pans with tallow, and should I strain the wax? We had intended going up to The Crossing this week, but Baby Sid is threatened with a cold, and Martha thinks best to wait till the weather gets better.

Your Cousin, CYRUS RAGWEED.

COUSIN CYRUS:—I am very glad you mentioned about the beeswax. Several little secrets in this line have been imparted to me, and I will try to explain. Do not grease your pans, and do not try to strain your wax through a cloth. In melting your wax use a double-boiler; that is, one pail placed in a larger one with water in the larger pail. This prevents overheating, which is injurious to wax, and it also overcomes the danger of having the wax boil over on the stove. Most impurities will settle to the bottom, but if some particles float they should be skimmed off while the wax is fluid. Now, do not attempt to pour in molds till the wax shows a congealed ring around the edge, and it will then be just right to pour, and when cool the cakes will drop from the molds by simply inverting. If molds are filled while the wax is too hot, the wax will cling to the molds after cooling. Wax could be improved still further if longer time could be given in the cooling process before pouring. These directions are not difficult to follow, and by using care one can realize a better price for his wax.

Thursea says to tell Martha that if she will apply goose-grease to Sid's chest and nostrils at night, he will be better by morning.

Your Cousin, JIMSON RAGWEED.

GETTING STRAIGHT BROOD-COMBS.

DEAR UNCLE JIMSON:—When we were at the reunion pa and Cyrus went through your shed looking at your bee-fixtures, and pa says he never saw such nice, straight brood-combs, free from drone-comb and no wire or splints used. Pa spoils so many nice new combs in extracting, and he wants me to write and ask how you manage.

Ma is going to send you a crock of our punkin butter by express.

Give our love to Aunt Thursea, to Sam and the twins. Write soon.

STELLA RAGWEED.

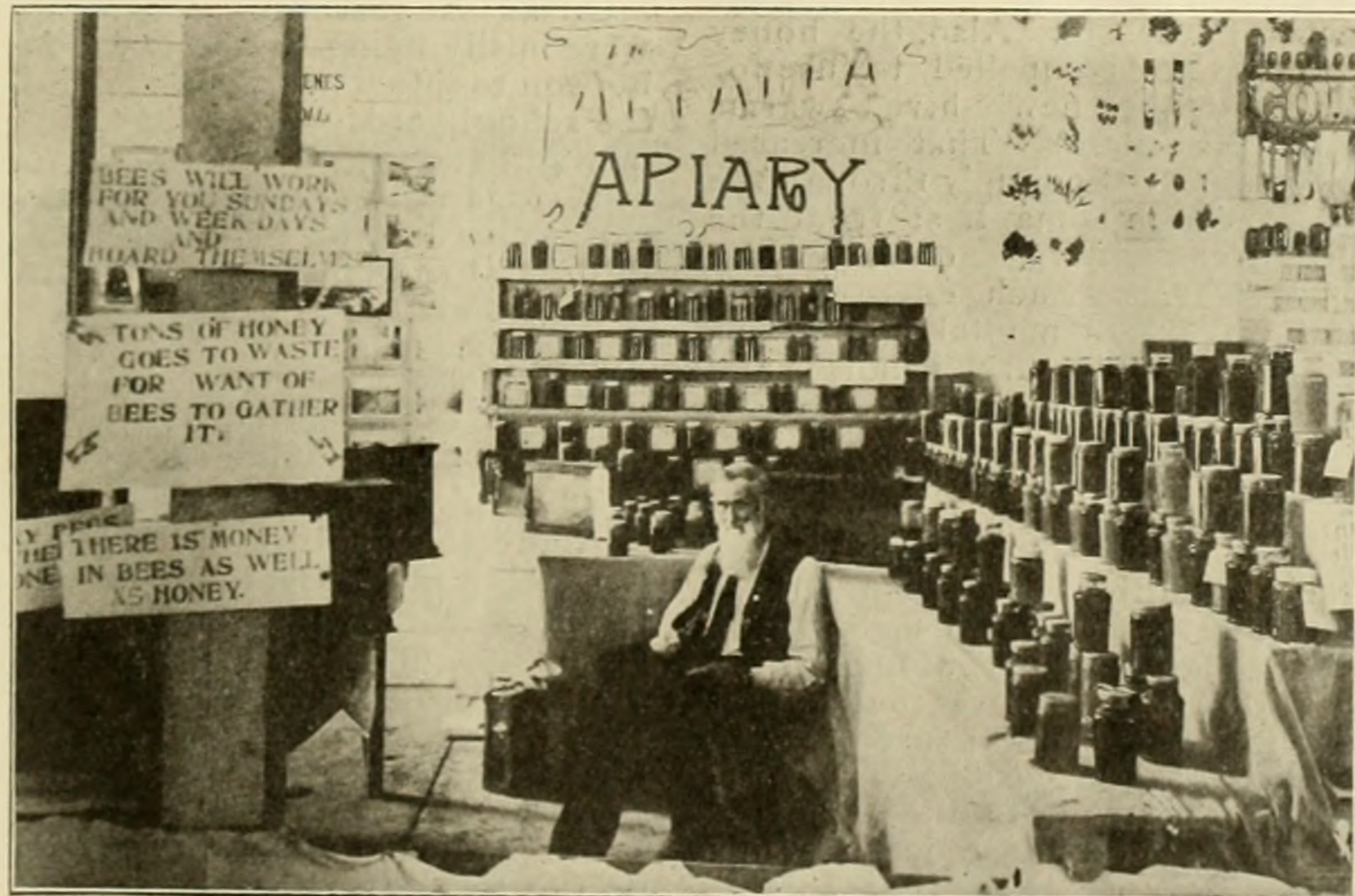
DEAR NIECE:—A great many good bee-men wire their frames, and others use splints, but for myself I find that I get more superior combs by using full sheets of medium-brood foundation without wire or splints. In extracting I use regular brood-frames in the second story, with a queen-excluding board, and I try to foretell how many combs I will require. In getting new combs drawn out I always place them about the center of the brood-chamber, exchanging for the same number of combs which I place in the upper story. I want to be sure that an equal force of bees work on both sides of the foundation at once, and if my hive is level, the combs will be straight. After being used for brood one season they are then sufficiently strong to be used for extracting. I would not attempt to extract from a newly-built comb.

Your Uncle, JIMSON RAGWEED.

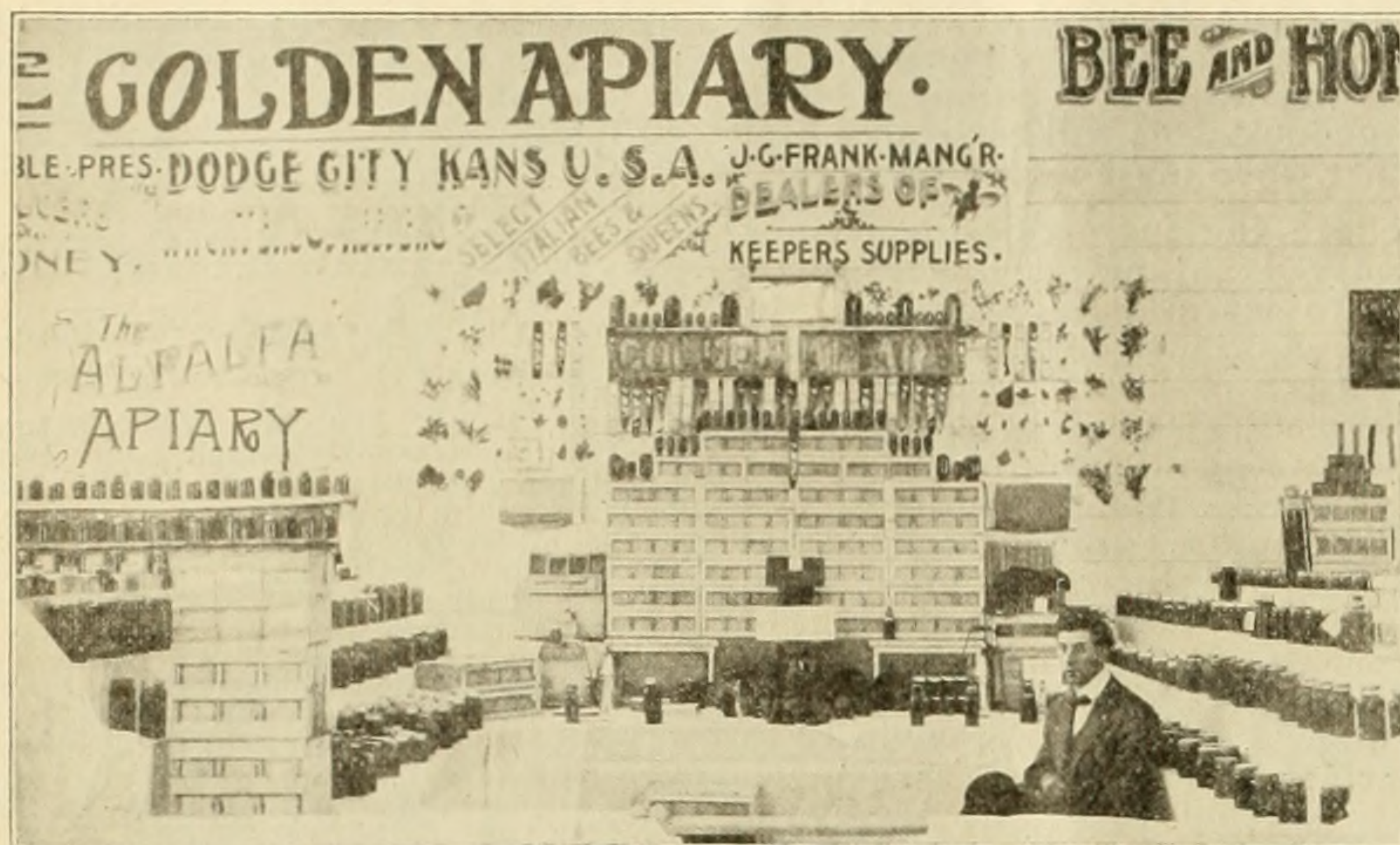
SHAKING BEES FOR WORK.

DEAR PA:—There are several good bee-men here, and of one them wants me to write and ask you about shaking bees. He says he cut out that article that you wrote for a farm paper on the subject some years ago, and he has lost the clipping, but he still has the paper.

Pa, when you write again I wish you would slip another 10-dollar bill in your letter. This is an awful good business college, but I must have a new tablet and some linen col



No. 4.—EXHIBIT OF GEO. H. COULSON'S ALFALFA APIARY AT THE OKLAHOMA STATE FAIR, See page 42.



NO 5.—EXHIBIT OF THE GOLDEN APIARY (J. C. FRANK, MGR.) AT THE OKLAHOMA STATE FAIR.—See page 42.

lars, for it seems that I am about the only one in Vincennes who is wearing celluloid collars.

They tell me that at the option election this county voted so wet that some of the people are actually getting to be web-footed. My love to ma, and to Steve and Eva.

Your son, SAMUEL RAGWEED.

DEAR SAMMY;—Tell your friend to go slow about shaking bees. In a good season excellent results can be obtained, while in a poor season the more they are "shook" the poorer the results. Those who undertake it should be thoroughly familiar with all details, and your friend could profit by reading the excellent articles that appear in the bee-publications from time to time.

Perhaps the most practical method of shaking is where one produces both comb and extracted honey, and permits swarming with his comb-honey colonies. When a swarm issues, hive it on the old location, using starters only in brood-frames, a queen-excluding honey-board, and the super from the parent hive, and then brush every bee in with the new swarm. The set of combs containing brood should then be placed over a honey-board on another hive for extracting. This method is thoroughly practical, and permits swarming without increase. Such newly-hived swarms will give better results than any normal hive in the same yard, for obvious reasons—storing goes right ahead in the super, no brood requiring the attention of workers, no danger of second swarms.

Sammy, I enclose two 5-dollar bills, and your ma says to ask you if linen collars are not pretty high in Vincennes.

JIMSON RAGWEED.

ITS QUALITY SELLS HONEY.

DEAR BROTHER-IN-LAW;—Knowing that you dispose of your honey by soliciting from house to house, I would like to ask what the tricks are in doing this kind of work. I will solicit French Lick and West Baden, and it will be necessary to go over the same territory about every 3 weeks.

I want to come over and visit with you a week or two about the first of the month, just to talk bees, and I want to go to Marengo, Ill., for a couple of weeks for the same purpose. Let me hear from you.

WINFIELD S. FESLER.

SIR:—There are no *tricks* in the work which you outline, but there is one secret, and I will confide it to you. *Keep up the quality.* I think most honey salesmen fail because they try to increase their profits by putting out inferior goods.

Thursea and I are to be away from home during the forepart of the month.

JIMSON RAGWEED.

(To be continued.)

Shaking Not a Stimulus to Bees

BY LEO E. GATELEY.

Without questioning the accuracy and good intent of the many recent reports seeming to show where bene-

ficial results emanated from shaking sleepy colonies of bees, I wish merely to draw attention to a prevailing error many are spreading through an erroneous belief in some mysterious cause, while all such benefits really spring from conditions brought about during such manipulations. Let us lay aside preconceived notions, tradition, and prejudice, and examine this subject with a desire to know the truth.

From the start the mistake in concluding that benefit can be derived purely through the act of dislodging bees from their combs into a pile in front of the hives, is obvious by the claim that such proceedings bring colonies into the same psychological condition characterizing newly-hived swarms. While newly-hived swarms do generally display a degree of energy impossible to be secured from old colonies, it has been conclusively shown that such energy is not the result of having swarmed, or the handling received through hiving, but wholly from certain conditions under which the bees labor in their new environments. The underlying cause, generally, will be found to lie principally in the broodless condition of such swarms, permitting a greater force of bees to engage in nectar gathering. Also, the honey old colonies are compelled to use for breeding purposes, newly-hived swarms store in the supers. That increased energy never arises simply through the act of swarming is manifest from the equally great energy displayed by brushed swarms. Such energy, then, is not the result of mental conditions, but of surrounding circumstances and influences.

Colonies during a good flow, that refuse to do super-work for reasons apparent only to themselves, can be often led into so doing by arranging more favorable conditions under which bees are naturally inclined to do such work—never through shaking alone. Good colonies that will ignore the surplus receptacles while others are busy in the sections, are occasionally of inferior stock, but are more often laboring under adverse circumstances. While shaking may correct the unfavorable conditions through breaking up and disarranging the order of things, whatever the cause may be, it is the bee-

master's business to locate the trouble, and remedy it effectually and intelligently. Certainly the mere manipulation of shaking bees on the grass and of shaking the bees out of their hive to causing them to crawl back into their hives is of absolutely no value, unless connected with a change of hive or of combs. Though it would be illogical and inconsistent to anticipate beneficial results from indiscriminate shaking, intelligent manipulation is imperative and indispensable to successful honey-production.

With sectional hives the purpose of shaking can, by the transposing of brood-sections, be accomplished scientifically in 5 minutes time. To create increased activity it is necessary only to interchange the two divisions of the brood-chamber. This operation practiced at the time of supering will cause the bees to begin work in the sections without delay.

Sebastian Co., Ark.

Are Bees "Wild" Animals?

Translated from the Bohemian in the "Vcela Moravska."

BY REV. ALOIS J. KLEIN, V. G.

In the village of Nemcice, near Netolice, in Bohemia, the principal teacher, Mr. Francis Jaros, an acknowledged authority in matters apicultural, keeps 16 colonies of bees in the school-garden, chiefly for educational purposes.

One day he was accosted by Mr. Schuster, the chairman of the village board, to present him with one of the hives. The principal having declined, the chairman issued a restraining order, enjoining the teacher from keeping bees within the limits of the village.

The captain of the political district overruled the prohibitory order, because, being unconstitutional, and in abeyance with certain school laws prescribing explicitly that school yards be, as far as possible, provided with hives as expedients of instruction.

This decision was upheld by all instances.

The chairman then resorted to some other mode of wreaking his anger upon the principal.

On an August forenoon, when bees were busily flying to the fields, he sent his son to plow the ground adjoining the school yard. As soon as the plowman got stung by a bee, a neighbor was sent for, and both men stationed themselves close to the fence on the divide, in order to be able to give optical testimony that the flying bees were coming exclusively from there, and from nowhere else. It so happened that the neighbor, too, received a sting, and the village chairman indicted the case to the county court in Netolice.

The county attorney, however, did not feel in the least inclined to institute proceedings in such an odd complaint, and hence conferred with the State's attorney at Pisek.

By order of a deputy State's attorney, Mr. Sebanek, action was brought against the principal, charging him with the alleged violation of article 388 of the Penal Code (keeping "wild" animals without the governmental license), and with violating article 388 of the Penal Code (failing to render

the said "wild" animals innocuous though cognizant of their dangerous habits).

The judge of the first instance handed down a decision of exoneration, upon the ground that bees must be considered domestic (tame) animals, and that there does not exist an arrangement by which bees could be rendered harmless so far as to prevent them from making use of their stings, when irritated. Neither can they be kept in an enclosed space, since their economical importance of honey-gathering would then be nullified.

Impelled by orders from higher places, the prosecutor of the State announced an appeal, and the gendarmes was assigned to investigate, whether the school-master's bees are vicious, and whether or not the chairman's field, adjacent to the school-garden, is really threatened to such an extent as to render all the field-work thereon next to impossible. In Austria anything may happen, and the gendarmes furnished evidence that the field-work is actually endangered. And this, too, was ascertained by them in the winter time!

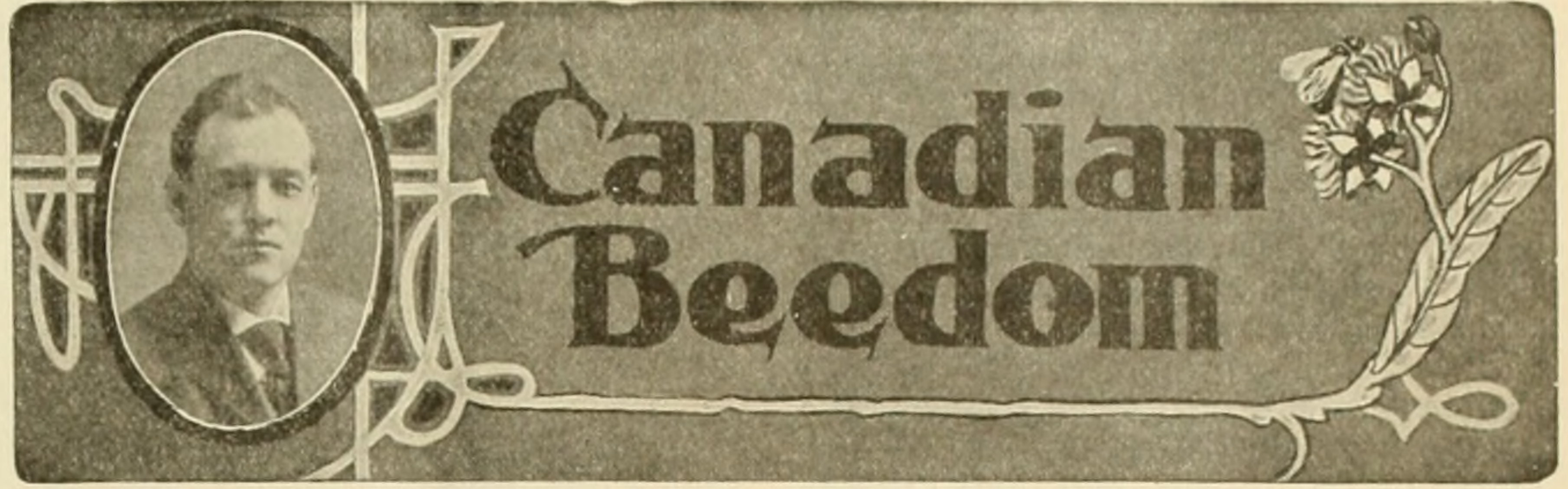
Consequently this peculiar case was up before the circuit court at Pisek.

The Bohemian National Bee-Keepers' Association, of which the principal was a member, furnished the defendant with a legal counselor in the person of Dr. Zmek, who, before the court of appeals, eloquently emphasized the importance of apiculture along the lines of national economy, besides setting forth its pedagogical value, and in his closing appealed to the still valid Patent of Empress Maria Teresa, in which the highest disfavor is put on those who would dare to commit an infraction against keepers of bees; remarking further, that it would be impossible to tie bees with a thread on their legs, or to provide them with a muzzle, he petitioned the court to affirm the verdict of the first instance.

The deputy State's attorney, Mr. Sebanek, contended in his lengthy plea, that the present case actually involves offences against both articles of law, and requested judgment against the defendant.

The Senate of Appeals sustained the ruling of acquittal, of the lower court, basing its opinion on the Patent of

Maria Teresa, already quoted, the validity of which was thus confirmed. Brainard, Nebr.



Conducted by J. L. BYER, Mount Joy, Ont.

Disposing of Comb and Honey in Foul Brood Treatment

A. R. Summers, of Missouri, asks as to what is done with the combs and honey put into the vat of boiling water as described in the McEwen treatment for foul brood in the December American Bee Journal. They are, of course, rendered into wax at once, and that is one of the main things in any of the different treatments of foul brood that is really necessary—getting the source of reinfection out of the way in a thorough manner. One of the most difficult things the inspectors meet with in their rounds is in seeing that all these old combs are out of the reach of the bees after other instructions have been faithfully obeyed. The matter of rendering the combs into wax is often put off till "a more convenient season," and they will be placed in some shed or other building where it is taken for granted that the bees will not find them. Judging from many experiences, some men seem to think that any place that will exclude a woodchuck, will also be proof against bees getting in, and, as a result, often the work done previously is rendered abortive because of gross carelessness in allowing the bees to gain access to these combs of honey.

Time and time again have I come to a place where the bees have been shaken from the old combs, and on asking if the latter were burnt or put into wax the answer would be, "No, but they are

away from the bees." Insisting on seeing where they had been placed, sometimes we would be taken to a building and find the combs of honey, etc., loosely stacked up, and many openings in the sides of the building that the bees could come through at will. The owners would express surprise that I thought the bees would ever come in such roundabout places, and really thought that I was a bit unreasonable in insisting that the combs be moved into a cellar or other secure place at once. Of course, it is only fair to say that this would be with men who kept but few bees, and gave them little care, at that, as any experienced bee-keepers soon learn that even when every possible crack is closed, in so far as can be seen, often after all our precaution we will find bees gaining an entrance in some out-of-the-way place that has been overlooked.

Sealed Stores for Spring Feed

There is some difference of opinion as to the quantity of honey a colony of bees should have in the spring in order to build up successfully.

The late E. W. Alexander stated that he would prefer to have the brood-chamber nearly empty when the first fresh honey came in, while many good bee-keepers think that it is a sign of prosperity if there are several combs of sealed stores in the hives when brood-rearing commences.

There is no doubt that this capped honey helps out in feeding the brood, but its presence in the hives at this time is a serious detriment to the growth of the colony. I have frequently seen a good queen greatly hampered in her egg-laying by the presence of capped honey at the tops of the frames and in the frames at the outside of the hive, and it is quite possible to have the frames in the hives so filled with honey in the spring that there is no chance of a colony getting in good shape for the harvest.

This condition is often brought about by a late fall flow, or by heavy feeding to a colony on its full set of brood-combs.

Any ordinary colony will winter well on 6 Langstroth combs, well filled with honey or sugar syrup, and by contracting down to this number and filling them up well, the honey or syrup is in the best shape possible to be used by the bees.

When brood-rearing is well advanced in the spring the empty spaces can be filled out with empty combs, and the queen given a better chance to go ahead with her egg laying.

I would much prefer empty combs on the outside of the brood-nest in the spring with a good feeder on the hive, to several solid slabs of honey in the brood-nest.

Bees will not use up sealed stores for brood-rearing to any extent, and the presence of this surplus honey in the hives is no indication of prosperity. It is rather the reverse.

The finest combs of brood that I ever saw were in empty frames given to fill out. In them the queen could lay unhampered by honey, and they were filled right out with



NO. 6.—GENERAL VIEW OF THE AGRICULTURAL BUILDING OF THE OKLAHOMA STATE FAIR, WHERE THE APIARIAN DEPARTMENT WAS LOCATED.—See page 42.

brood all nearly of the same age. Such a condition is not possible in combs that are partly filled with honey when the queen commences to lay in them.

Few people realize how a good, strong colony of bees will boom ahead under the stimulus of regular feeding in the spring, and at this time sugar syrup regularly fed is of ten times the value of capped honey to the bees.—F. P. ADAMS, in the *Canadian Bee Journal*.

Mr. Adams is one of our most successful bee-keepers, and also a queen-breeder on a large scale, hence anything from his pen is always worth our serious consideration,

What he says in the foregoing is, I believe, entirely correct in so far as the handling of pure Italians is concerned, but when Carniolans and their crosses are taken into consideration a lot of modification is necessary, of some of the statements made.

With me, the major part of my bees have Carniolan blood, and although the past few years have seen the large hives literally jammed with stores, yet so far the full combs have not bothered me any in the spring. Mr. Adams says:

"Bees will not use up sealed stores for brood-rearing to any extent, and the presence of this surplus honey in the hives is no indication of prosperity. It is rather the reverse."

Quite possibly so with the Italians, but pretty sure to be just the reverse with Carniolans. The past 3 springs have been classed as unfavorable for brood-rearing, judging from many reports to that effect, but in my own yards my experience has been that just such springs are the very best for Carniolans. Granted a big hive with abundance of stores early in the spring, even if the bees get only an occasional flight during weeks of bad weather, the result will be, every time, that all these sealed combs will be converted into bees, and the colonies will be boiling over with bees by fruit-bloom.

Before me I have a letter, sent me in the spring of 1908 from Mr. McEvoy, in reply to one I had sent him earlier, in which I stated that my bees were so heavy in stores after wintering that I did not know what to do to get rid of all the buckwheat in the hives before the clover flow came on, as I expected to be so busy as not to have time to follow out the known plans to carry out this purpose. Mr. McEvoy kindly sent me instructions as to how to proceed—methods that, in his judgment, would be the best, and I had decided to go by his advice in the matter, to the best of my ability.

Just a few days after this the weather turned cool and wet, and continued so almost continuously for weeks. Nothing was done at all, as it was rare that conditions were that a hive could be opened, and during this time many were heard to complain of starving bees. Of course, I did not fear that, anyway, and when at last the weather did clear, what was my surprise to find practically all of the stores used up and the hives boiling over with young bees. The result was that nearly all my bees had to be supered during fruit-bloom, and from the many adverse reports received that spring I am convinced that the Carniolan blood was responsible for the good results—certainly it was no credit to me, as I did nothing but smile over the fact that the bees were

so well supplied during all the bad weather.

Malign the Carniolan bees as much as you will, yet the most prejudiced Italian worshipper will have to admit, on trial, that for good wintering and for brood-rearing in the spring, under adverse conditions, the Italians are simply "not in it."

Let me add that I have no queens for sale, lest I be misjudged in my motives in thus writing.

Bait-Combs in Supers

Not being a comb-honey producer it seems like presumption on my part to make any comments on what others write on that subject. However, after glancing over the article of Mr. Doolittle's, on page 405 (1909), and noticing there, as I have often before in his writings, the great amount of importance he attaches to having bait-combs in comb-honey supers, I could not help but reflect how the great majority of our extensive comb-honey producers here in Ontario absolutely want none of these baits, and, in some cases, at least, they claim they are a decided detriment. That these same men "produce the goods" no one will deny who has a chance to see their product, and in the matter of quantity—well, it is just a chance if they will take second place in that matter, either. I happen to know that a number on the "other side" have no use for the baits, either, and indeed a couple of New Yorkers come to my mind who have expressed themselves on the matter very forcibly.

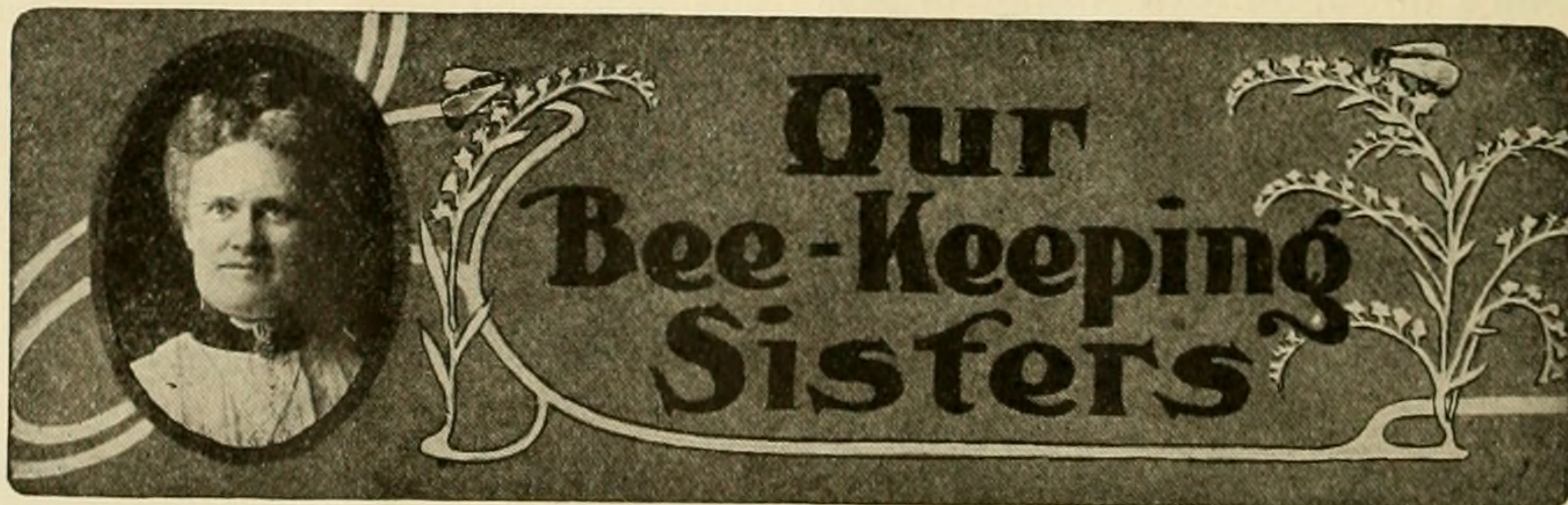
Mr. Doolittle certainly must have found the baits profitable else he would not advocate them so persistently; and, on the other hand, it seems a wonder that the many other comb-honey

men have failed to discover their value—if value they have. I do not attempt to solve the difference of opinion, and as the matter of "locality" does not seem to enter into this proposition, I will leave the subject for each one's individual solution.

Chunk Honey in the North

Louis Scholl may advocate the production of bulk or chunk honey as much as he likes, and for all that he says seems to make it clear beyond a doubt that the thing is and will be a success in the South, yet I feel confident that not much trade will ever be done in honey in that form here in the North. Why? Simply because of the matter of granulation, if for nothing else. Granulated extracted honey is one thing, but granulated extracted honey and comb honey mixed is a different proposition. When the purchaser tried to liquefy a mixture of this kind, he would wonder what he had discovered when the resultant product would be revealed, and quite likely one application would be sufficient for the customer.

We Ontario bee-keepers feel glad to know that at last extracted honey here has gained such an honorable status that there will be no trouble for years to come in disposing of all we produce, at a good figure. As to comb honey in sections, the price is so high that the producers can well afford to cultivate the market for the style in vogue, and it is doubtful if a comb-honey producer could be found at present who would seriously entertain the thought of producing chunk honey as a substitute. This being the case, we will be glad to leave to our Southern friends the monopoly of producing the mixed article.



Conducted by EMMA M. WILSON, Marengo, Ill.

Golden Wedding of Mr. and Mrs. J. L. Anderson

It is a pleasure to have the opportunity of presenting to the sisters Mr. and Mrs. J. L. Anderson, who have lately celebrated their golden wedding. Perhaps the sisters will remember Mr. Anderson as the man who recommended that each sister should have a hive-lifter similar to one he gave an illustration of.

Of the 30 or more who witnessed the marriage of Mr. and Mrs. Anderson 50 years ago, only one person now survives.

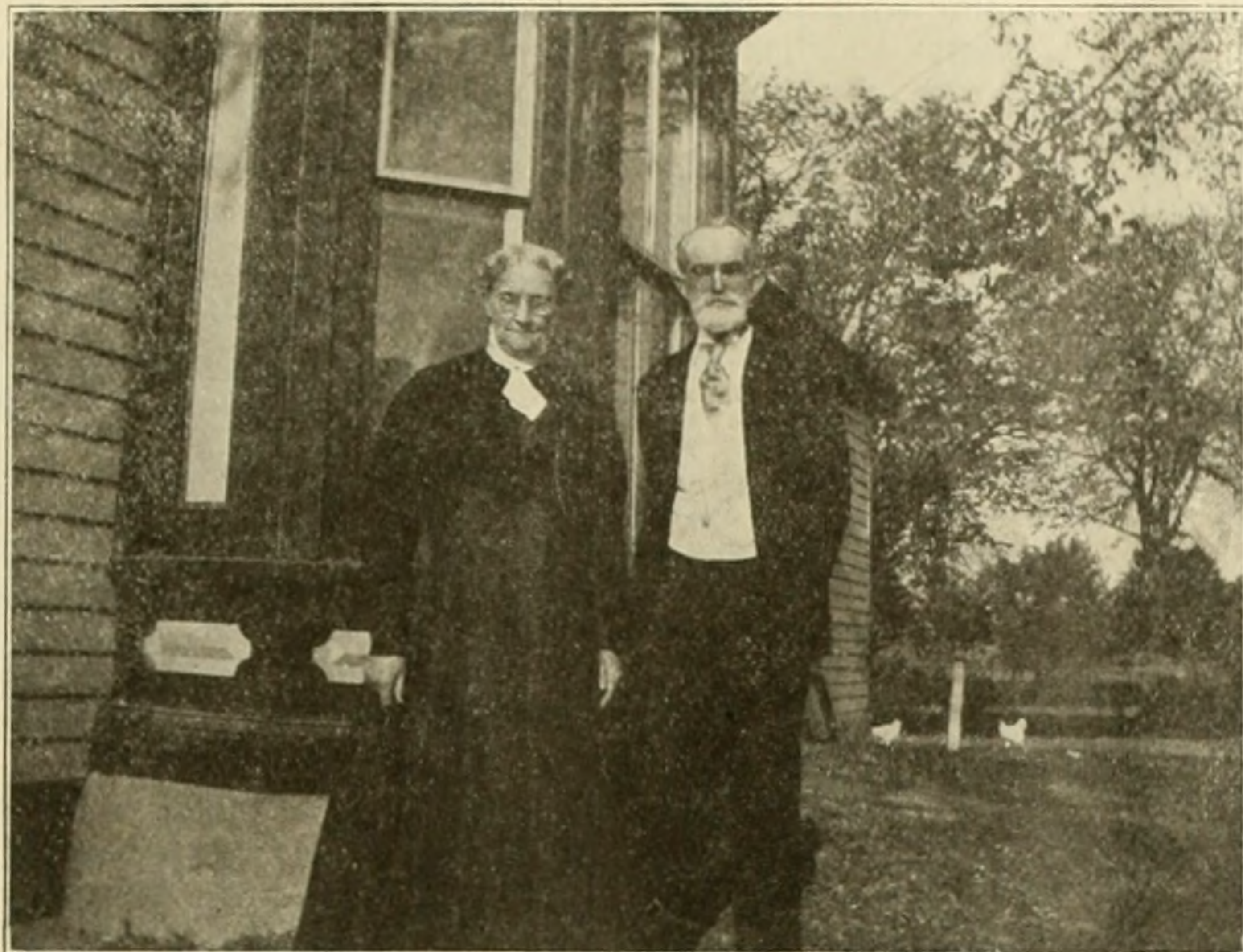
Mr. Anderson was born in E. Berkshire, Vt., April 12, 1836, and in 1856 came to the vicinity of Marengo, Ill. Mrs. Anderson was born June 12, 1831,

near Buffalo, N. Y., and in 1845, with her parents and nine sisters and brothers, came to the locality where she has lived ever since, being the only one now living of the early settlers who came to that vicinity.

In an account of the golden wedding, in the *Harvard Herald*, occurs the following:

To be married, live continuously and then have the opportunity to celebrate the golden anniversary of their wedding in the same neighborhood is a privilege not enjoyed by many, but this honor and distinction have been granted to Mr. and Mrs. James Lee Anderson, who were married at Lawrence, Ill., 50 years ago the 25th of this (December) month.

Mr. and Mrs. Anderson are well known in the community about Harvard, their home, having been at Lawrence for more than 50 years. Their acts of charity and good-will have made them popular with old and



MR. AND MRS. J. L. ANDERSON.

young. Mr. Anderson, a thorough gentleman of the New England type, was fortunate in the selection of his life partner, and to her is he indebted in a large measure for many of the excellent qualities with which his children and grandchildren are endowed. Mr. and Mrs. Anderson are the only surviving members of their fathers' families.

Mr. Anderson bought his first colony of bees in 1862, and has been a bee-keeper ever since, his apiary usually numbering 100 or more. At present 112 colonies are peacefully passing the winter in his cellar. He has been for nearly 40 years a subscriber to the *American Bee Journal*.

Although having lived for half a century in the same village where he was married, Mr. Anderson seems to be not without roving tendencies, for in a recent letter he writes:

"Mrs. Anderson and myself are quite well this winter for persons of our age. The hot weather is the hardest on myself. Possibly we may go to the North Pole next summer. If we do, we shall build a summer residence there, and hope you will all come and see us. I wonder if it will be a good place in which to keep bees! No danger of overstocking."

Coal-Oil as a Bee-Sting Cure

My cure for a bee-sting is to rub out the sting and apply coal-oil. I am a beginner, and have 77 colonies of bees.

Mrs. F. McLEOD.

Burnstown, Ont., Dec. 24.

Seventy-seven colonies! That's pretty good for a beginner. Why didn't you tell us what success you have had with your bees?

A Woman and the Bee-Sting Cure

About all the cures of rheumatism by bee-stings reported so far involve only the "lords of creation." Now comes one of another sort, reported by W. A. Pryal, in *Gleanings*. He says:

Mrs. Mary Ruttenbeck, something less than a year ago, became a sufferer from a very severe attack of articular rheumatism, the main point of attack being in her knees. The malady became so violent that she was not able to walk. The pain at times was excruciating. Her brother, Mr. Piercey, is employed at the Mare Island Navy Yard, this State, and is an ardent tender of a small apiary which he keeps on the island. Having read that bee-stings are a cure for the disease in question, he sent for his sister

and had her submit to the "honey-bee-sting" cure. The invalid was tenderly brought out to the apiary one fine spring day and seated in front of a bee-hive. A bee was deftly caught and made to jab its sting into the lady's knee. The insect performed its part of the operation in good style. Mrs. R. protested at being made a target for further stings. She thought the pain from one sting was sufficient for her for a lifetime—that it was enough to drive the disease from her. But Mr. Piercey thought otherwise. He was not planning to practice homeopathic bee-sting medicine—it was to be allopathic or nothing at all. So the stinging went merrily on, the patient all the while almost fainting with the added pain. Mr. Piercey was fast working his bees to death in this new-fangled occupation he had found for them, for he did not desist until 39 stings were duly planted in his sister's knees. Then she was carried away; but in leaving the apiary a bee, of its own free will, gave the patient a terrible jab in the neck—perhaps for good luck, or, may be, just to say that Mrs. Ruttenbeck "got it in the neck." Anyway, between getting it in the knee and in the neck she was a very sick woman for a few days. It looked for a time as if the cure were going to be worse than the disease.

The turning-point came; and after a few more applications of a less number of stings she was able to walk. She found that it was not necessary to take drastic doses of 39 stings at a time. In June last she came to Oakland. It was about this time that I became acquainted with her, for a friend of hers came to me to procure good, strong, healthy bees that could be vouched for to sting good and plentifully when occasion demanded. I found a colony of Spanish-blacks that had a small percentage of Italian blood. I gathered some three dozen of them into a cage and told the gentleman to instruct the patient that the bees should be "well shaken before being taken." The instructions must

have been followed, for in a few weeks the lady was able to walk from the electric-car line to my place, something like a third of a mile distant.

A Sister's Report for 1909

DEAR SISTER WILSON:—I thought I would write a few lines to let you know that I am

still in the land of the living. Last year was a tough one for the bees. In the spring it was so rainy and wet that they had a tough time. I fed the bees in May and June. In July we had a short honey-flow, and the bees went to swarming like everything. In September we had a dry spell; I had to feed the bees, and I lost 15 colonies by starvation. I still have 44 colonies left and 2 nuclei. So I still have plenty to start with in the spring. I have all the bees in the cellar now. They gathered 1262 pounds of honey in July, but did not get any fall honey. I have the honey all sold at home, at 12½ to 15 cents per pound. If I had not doubled the colonies I would not have had any surplus honey.

CATHARINE WAINWRIGHT.

Tilton, Iowa.

I am very glad to hear from you once more, but sorry you didn't have a better year; still, 1262 pounds is much better than no crop. You did much better than we did, as we got only 1000 sections; had to feed too, and fight European foul brood into the bargain. And as your bees seem to be in a healthy condition, that is much to be thankful for.

I wish more of the good sisters would follow your example, and let us hear how they prosper.

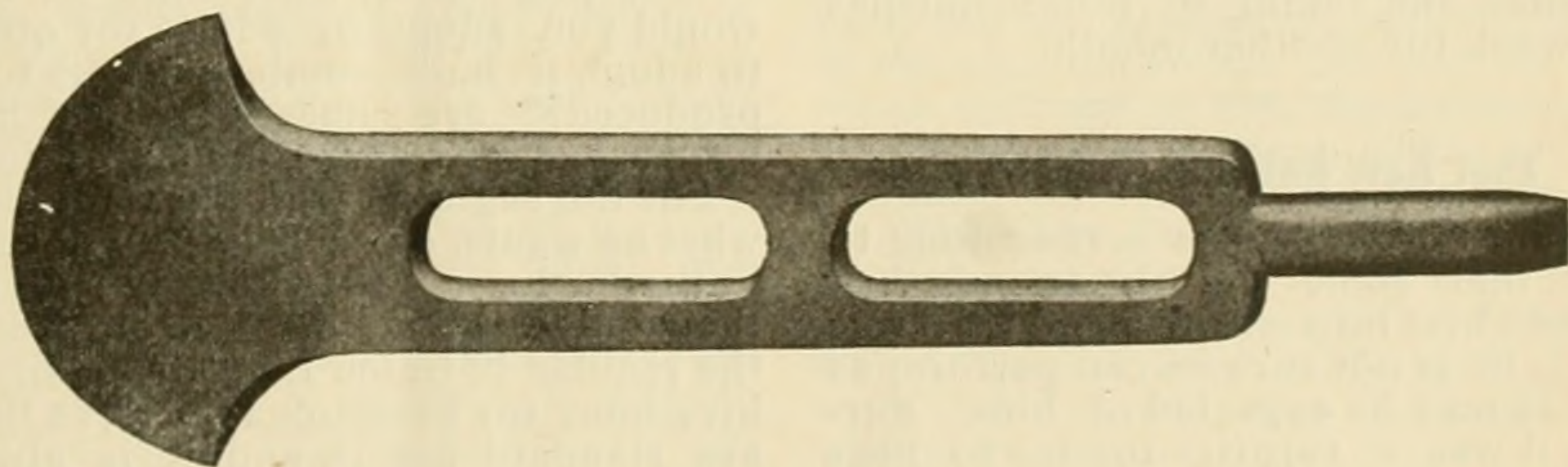
The Hive-Tool in the Apiary

In the work of the apiary every bee-keeper finds the need of some kind of a hive-tool. I do not think of anything at present that makes so much difference in the work as the tool one uses in taking off covers, prying up supers, and taking out dummies, loosening up frames, etc. Often, too, you want to clean out a hive, scraping it clean of propolis or bits of wax, cleaning the propolis out of the rabbets, etc. These different things need doing almost constantly, and if one hive-tool can be found that will answer all purposes, it will be indeed a treasure, and I just believe that we have found it.

The tool we have used in the apiary for the last 14 years is, we think, an ideal tool. In fact, I don't see how it could be improved upon. I am very sure we would feel utterly lost in the apiary without it. I wonder now how we were ever satisfied to get along with a screw-driver, which was the tool we formerly used.

The tool referred to was invented by the late Wm. Muench, of Minnesota, and patented, I believe, by him. It is made entirely of malleable iron.

The accompanying engraving gives quite a good idea of the tool, but you



THE "IDEAL" HIVE-TOOL.

will have to try one for yourself if you want to know its worth.

The larger end is wedge-shaped, having a sharp semi-circular edge, making it almost perfect in prying up covers, or in prying supers or hives apart, as it does not mar the wood; while with the screw-driver the sharp edge

often digs into the wood. This end of the tool is also fine in cleaning out a hive, scraping a cover, or cleaning off an excluder, or any work of that kind.

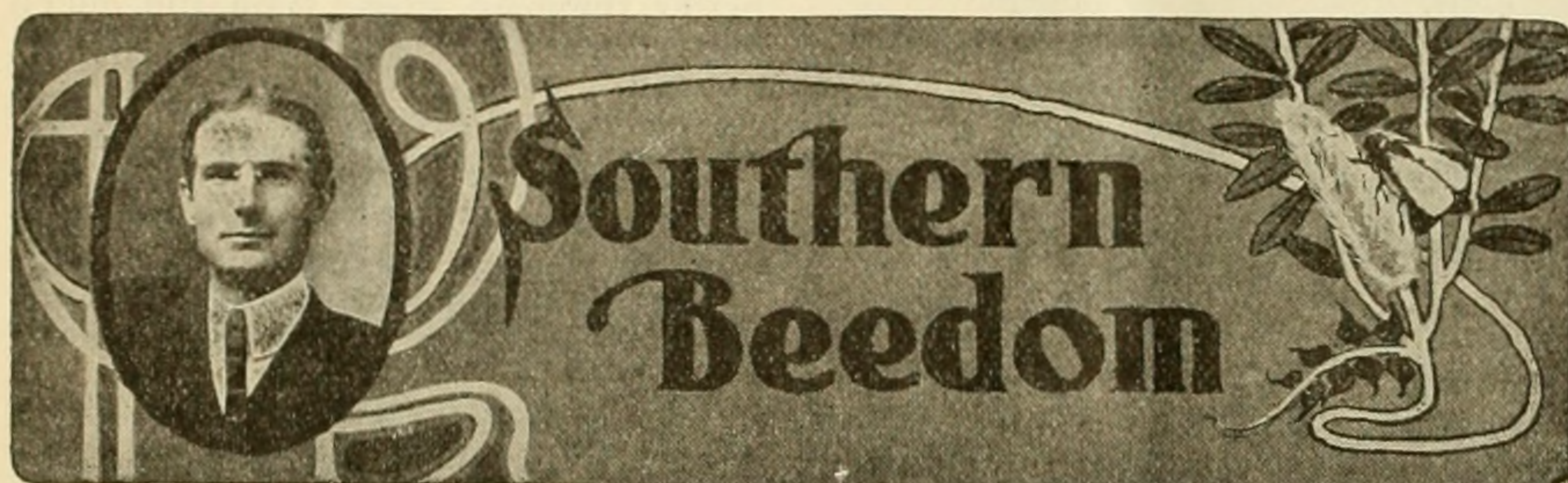
The middle part of the tool is 1 1-16 inches wide, and 7-32 thick. The smaller end is 1 7/8 inches long and 1/2 inch broad, with rounded edges, and 7-32 thick, terminating like a screw-driver. This end is excellent in taking out dummies, loosening frames, etc. In loosening up the frames just stick the end of the tool between the frames, give it a twist, and it pries the frames apart every time without marring the wood in the least, as it has no sharp

edges. This end of the tool is very handy when you want to destroy queen-cells, dig out a worm, or things of that kind.

Another score in favor of this hive-tool is that it is so light and easy to handle, the whole tool being only 8 1/8 inches long—just the right size to carry in my apron pocket.

If you think I am giving it too high praise, just get one and use it for a while, then try to get along without it, and if you feel as forlorn as I did when I lost mine for about a week, you will not think I have said any too much in its praise.

many advantages, to adopt such hives as well, instead of putting money into deep-bodied hives, which may be regretted later. (That is what I have done.) The advantages in the different manipulations of the shallow hives over



Conducted by LOUIS H. SCHOLL, New Braunfels, Tex.

Prospects for 1910

The 1910 prospects in Texas are better than they have been for many years. Lots of rain, cold weather, *snow* and *ice* have made the outlook fine for a bountiful crop of honey.

Spring Examination of Bees

Our spring examinations consist of visiting every yard the first warm days in January and February, and seeing that every colony has sufficient stores for the spring brood-rearing period until new honey can be had. To do this, the shallow supers that are on all of our hives at all times, are simply tilted up; a glance gives an idea of the condition of the cluster and the stores below, while we "feel" the amount of stores in the supers when they are tilted back. We leave part of the winter stores in a super on each colony. Some may not need this, while others may run short. It is thus easy for us to exchange the supers of the two, and, presto, how easy it is to feed the needy ones!

Caring for the weak and needless colonies, and taking of notes finishes this work for another month.

That New National Secretary

It did not take the writer long to hear that some of his friends had pressed him into service, and a service which he is not sure he can perform as well as may be expected of him. Further, it was a surprise for me to hear of such a thing, not even expecting that a fellow "way down South," and in such an out-of-the-way place, had the least bit of a "show."

Since it has happened, and since I know it was the wish of the members that I should serve as their secretary, and the place was not sought by myself in the least—especially since I have already too many irons in the fire—it

shall be my greatest pleasure to serve as well as I know how. Put me to work; tell me what you want me to do—why you wanted me in this place—and I shall be there, "Johnny-on-the-spot." I thank you all for the honor.

Bulk Comb Honey Production

Although *any* hive already in use can be used for bulk comb honey production, there are *some* that are *better* adapted for this than others. And since my object of this month's article shall

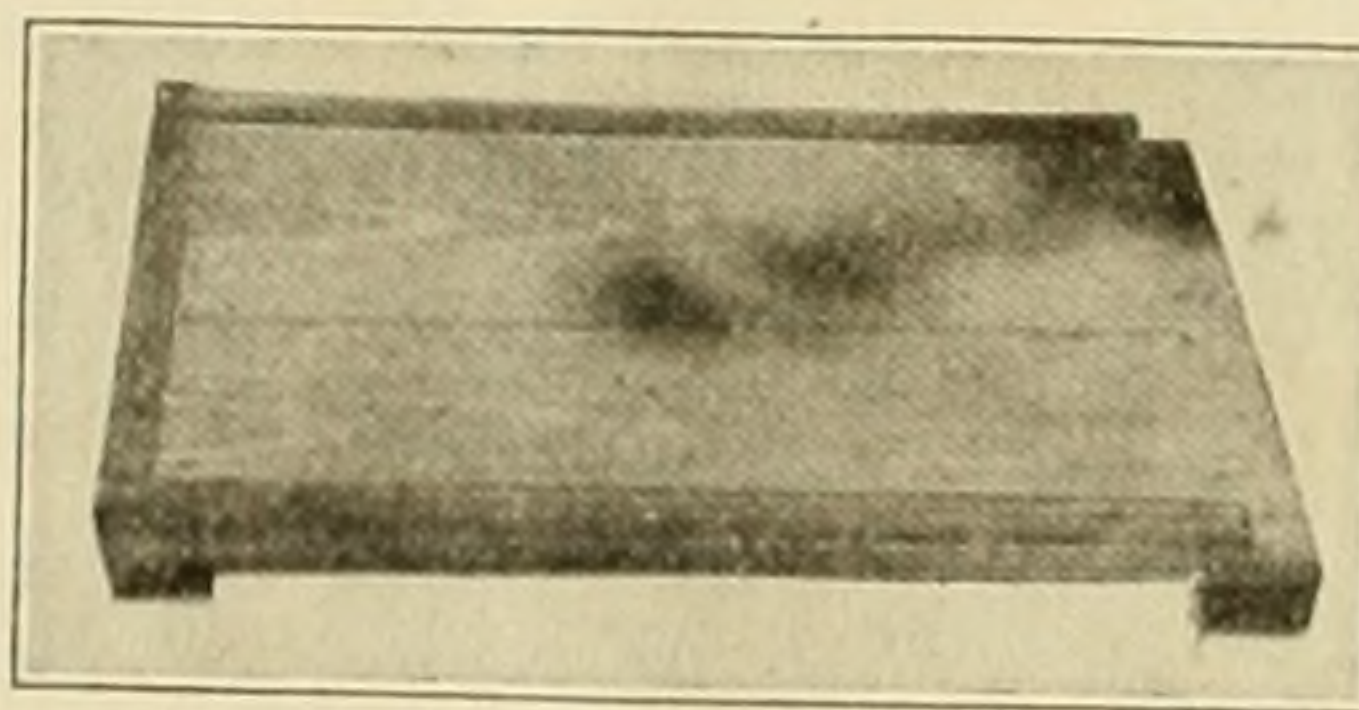


FIG. 1.—SCHOLL'S BOTTOM-BOARD.

be to answer a number of enquiries, I shall endeavor to explain in detail.

"Starting anew, what kind of hive would you adopt or advise for others to adopt, if bulk comb honey is to be produced?" are questions that have been asked me a large number of times.

For the beginner who does not know what he wants, or such as may not stay in the business, and who may later sell their outfit, it may be well to advise the regular 10-frame Langstroth size of hive-body for brood-chambers, as these are standard goods, and it is always easier to dispose of bees in such standard hives. I say it *might* be better. I am of the opinion that the time is not far away when certain *divisible brood-chamber hives* will be just as much standard hives as any other; and for this reason I am not sure but what it might be just as well for all who contemplate getting new hives, if they think they prefer the divisible hives with their

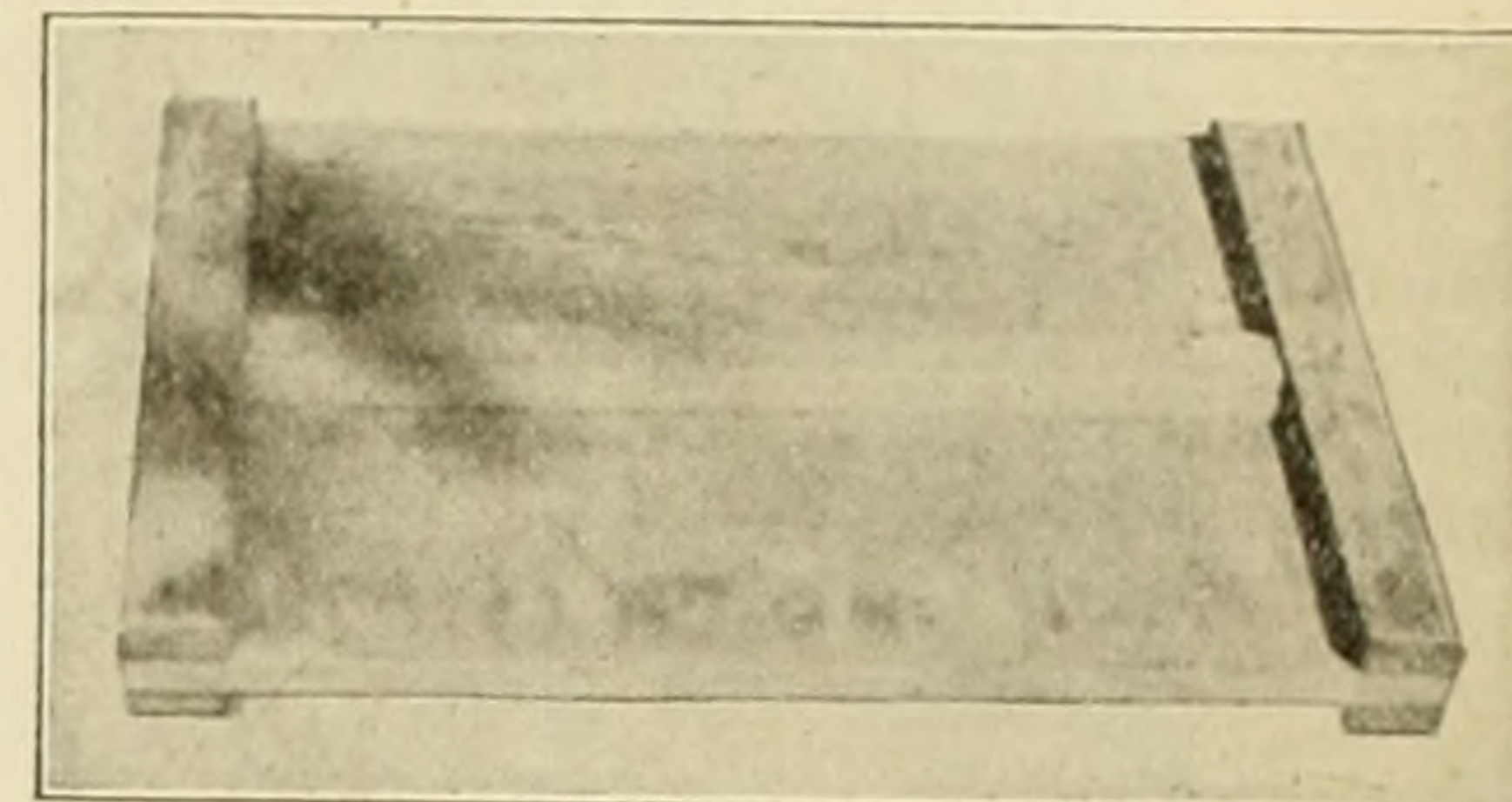


FIG. 2.—SCHOLL'S HIVE-COVER.

deeper ones are many, and one is enabled to accomplish things with much less labor and a saving in time that cannot be accomplished with deep-frame hives. And since this is especially true in bulk-comb-honey production this point has been mentioned, and it is a part of the answer to the question.

My hive is one of the simplest. There are only 3 different parts—the floor, cover, and a shallow body with shallow frames. Of the latter, as many can be used to the hives as needed, yet they are always the same kind, whether used for brood-chambers or supers, for comb honey or for extracted honey. The hive is one of simplicity itself.

Although I am an advocate of factory-made goods, because they are so much more accurately made, fit better, and give better satisfaction all around, I have made my own bottom-boards and covers; this because I can make them much cheaper, cost less in the first place, and last longer in the second place. But all other parts are factory-made—supers and frames. I have made some, and have bought many home-made hives of various styles, but all have more or less defects, and I do not want these in my hive-bodies and supers.

The bottoms are made of our common native yellow pine lumber, which is much more durable than white pine, and is much cheaper. As made (Fig.

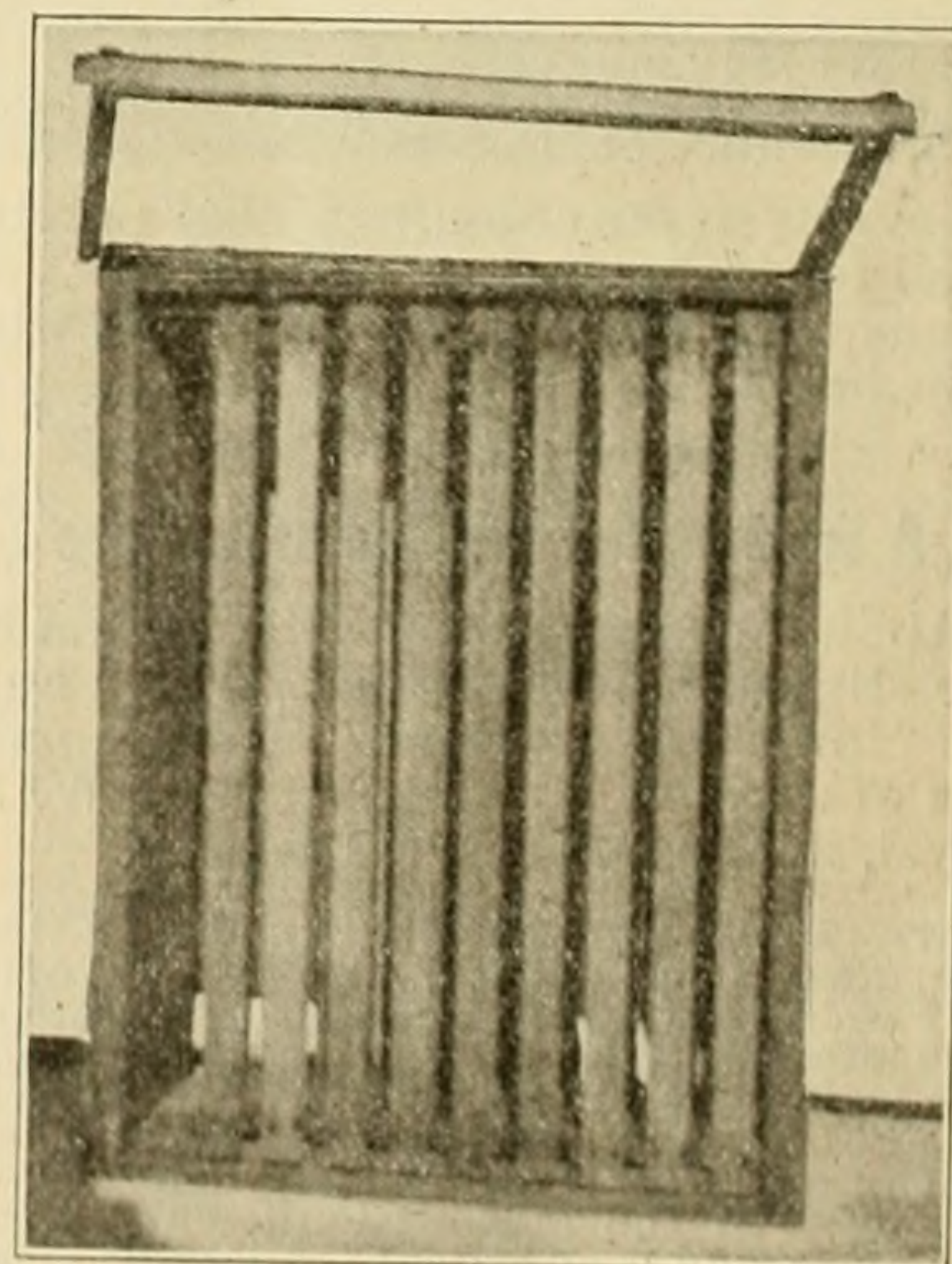


FIG. 3.—SCHOLL'S FRAME AND SHALLOW STORY.

1) it has two pieces 1x8x21 inches for floor. Two end cleats 1x2x16 inches are placed at each end. Six penny wire-nails, 6 at each end—3 to each end of a board—are driven right through these

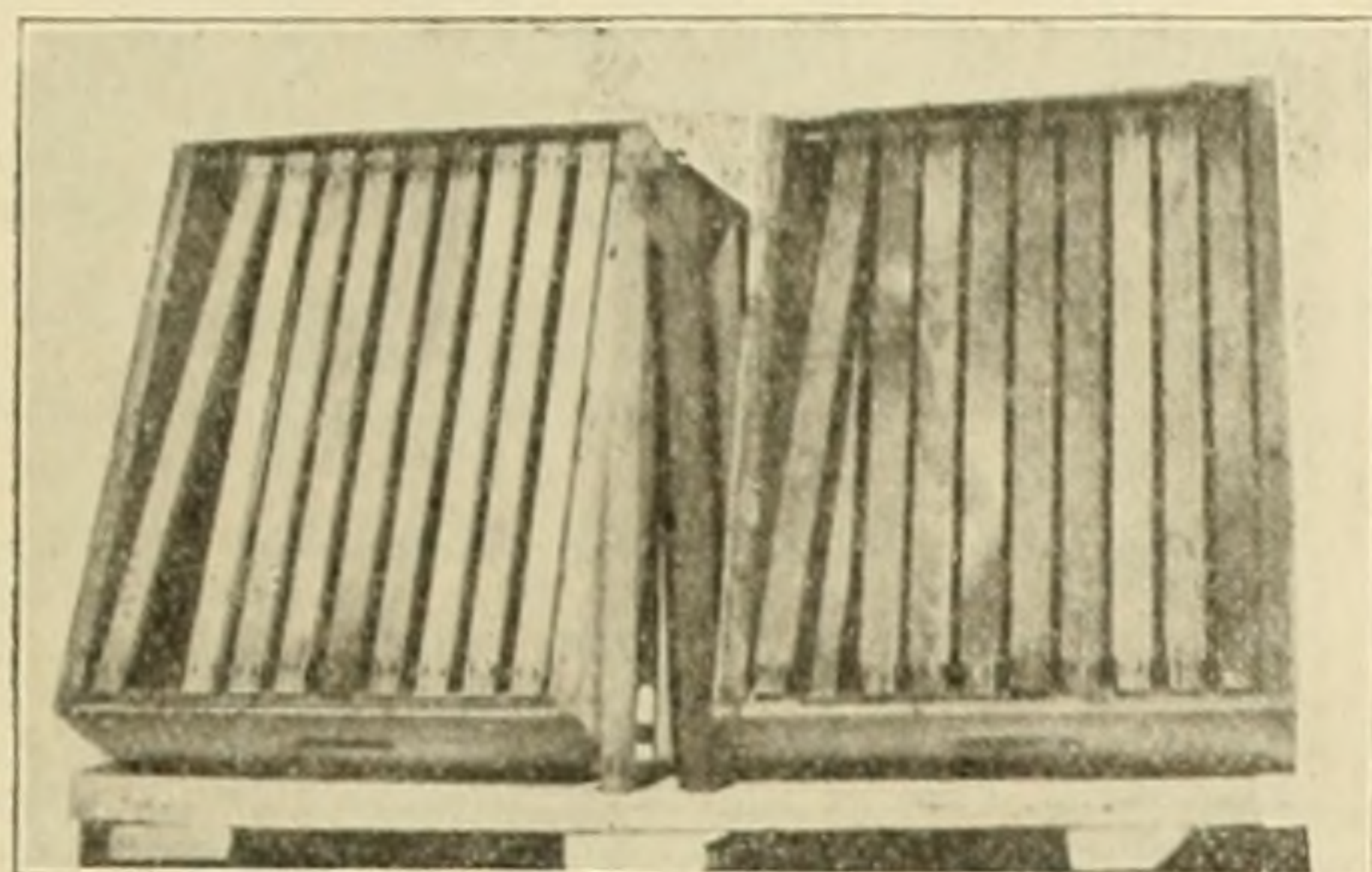


FIG. 4.—NARROW AND WIDE TOP-BAR FRAMES.

and the cleats, and are then clinched underneath. The $\frac{3}{8}$ thick cleats for the hive to rest on are then nailed on the upper surface as shown, and the whole receives thorough painting.

The cover (Fig. 2) is made of the same material, 1x8x24 inches long, and has the same kind of cleats at the ends, only that one is placed above as well as below the ends of the boards. Long, slim, 10-penny wire-nails are nailed through the ends, cleats, board and all, and then clinched underneath. To tighten these up they are placed on an anvil. This makes the strongest cover I know of, as the cleats hold the boards with such a grip that they *cannot warp* or twist in any way. With a piece of an "O. G." batten nailed over the central joint, and the whole well painted, I have the best cover I have had after trying nearly all.

Now for the hive or super—which? It is all the same. Fig. 3 shows one on end, and also the frames. I advocate the 10-frame size as the best for all purposes, especially for my purpose, as I have tried them side by side with 8-frame sizes; and I would not hesitate to advocate the 10-frame size with my system of management for *comb honey* in the North as well as here in the South, as I believe that I could get better results, with less swarming, even there, than are obtained with the too small 8-frame hives. These supers are nothing other than the standard $5\frac{3}{4}$ -inch deep shallow super with frames $5\frac{3}{8}$ deep of Hoffman self-spacing style. They are just ideal for bulk-comb-honey supers, for extracting supers, and for divisible brood-chamber hives.

My frames have narrower top-bars than the regular ones put out, and are

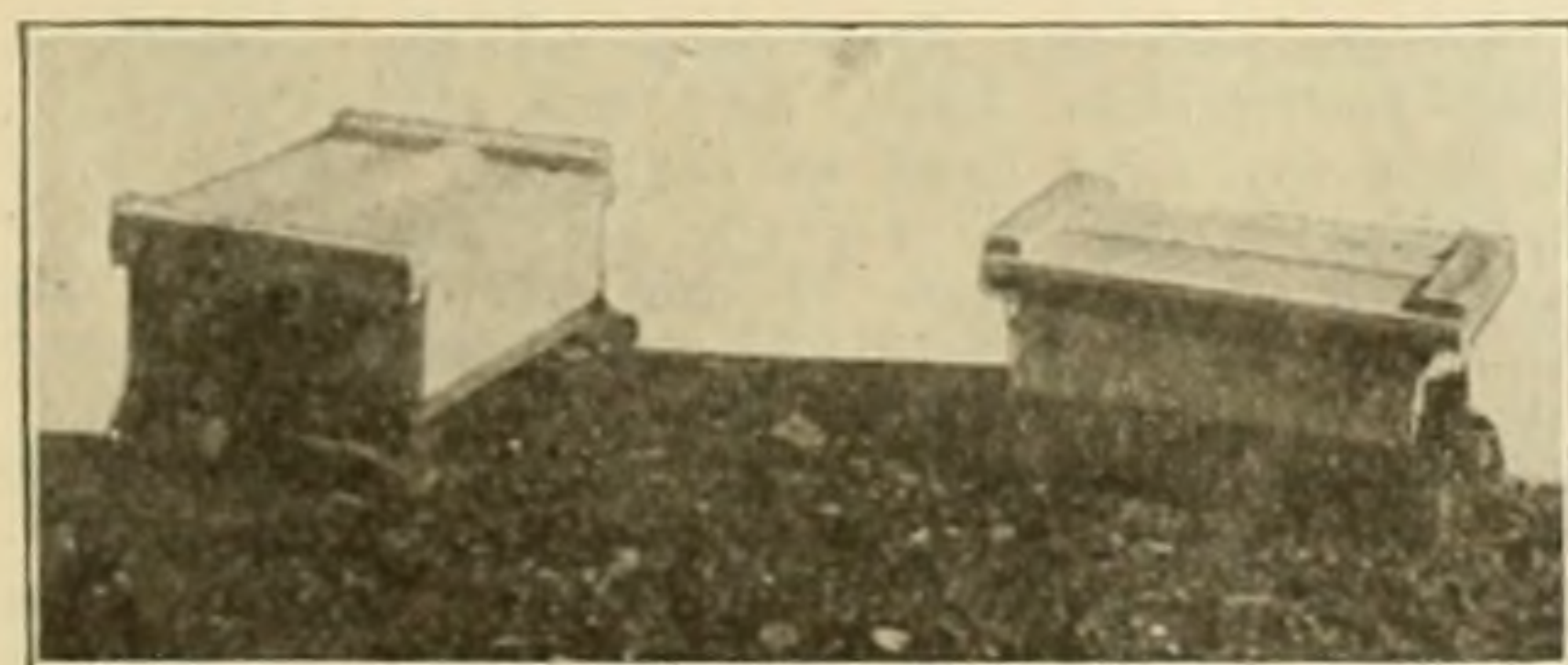


FIG. 5.—SCHOLL'S NUCLEI.

widely known as the "Scholl" frame, as has been mentioned before. The difference in the passage-way between the two kinds of frames is an important item, as one hinders the bees and queen passing from one story to another, while with my frames this is ob-

viated. The difference shows plainly in Fig. 4.

Now these shallow stories are not only used as supers; I use them singly with a bottom and cover for the nucleus of a colony. Add another to it later with empty combs or honey, and brood perhaps, and my, how they build up to full colonies! Then one story after another is piled on, as so many supers after the honey-flow has begun until I find that the colony, as shown in Fig. 5, has grown into that enormous stack of the finest sweetness on earth—280 pounds of the very prettiest bulk comb honey from one colony, in Fig. 6. That was the record kept of my best colony, and meant a surplus that brought \$33.60 from that one colony of bees.

So much for the description of the kind of hive I would adopt and advocate when starting anew for the production of bulk comb honey.

In the next issue will be shown what is in that stack of shallow stories.

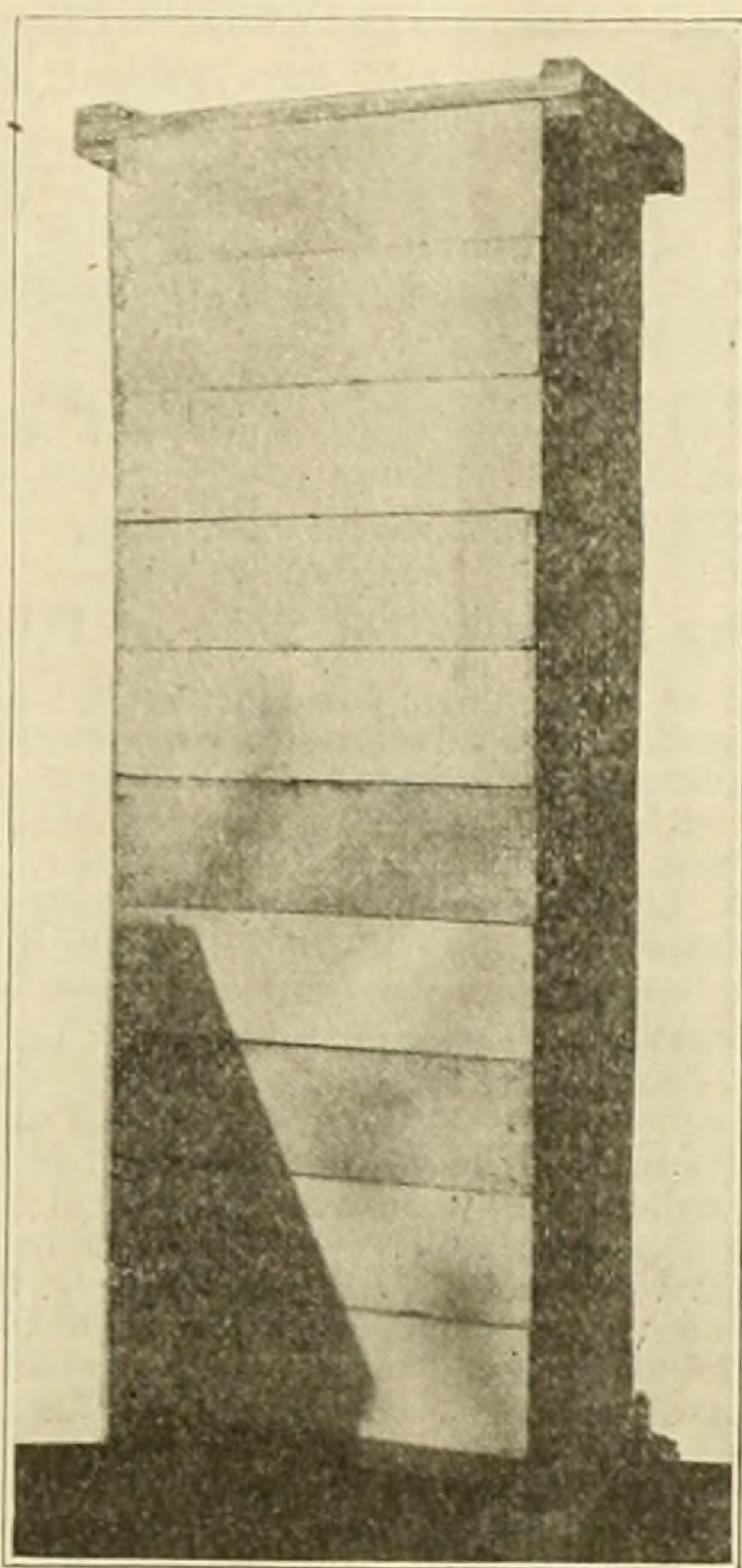


FIG. 6.—ONE OF SCHOLL'S SENTINELS.

No Advantage in Producing Bulk Honey

I have been reading and studying the writings on bulk comb honey, and I am not able to see any advantage in the production of it at all. We bee-keepers are not supposed to go back to where our forefathers stood, 75 or more years ago, before the movable-frame hive was known, when they kept bees in box-hives, and handled the honey in chunk, or bulk, as you may term it. If we are going to do away with our section-comb honey and produce bulk-comb honey, what do we want with the movable-frame hives? We are living up to a fast day now, and the industries of our country are progressing more and more each year. Then, why do we bee-keepers want to produce a cheaper grade of honey to take the place of our nice, attractive section-comb honey. I say, if our Southern bee-keepers want to cut their noses off to spite their own faces, let them go. Suppose the farmers of this country want to go back to the old way of farming, our country would be bankrupt within two years. So it would be if all of our bee-keepers were to produce bulk comb honey—our bee-industry would be ruined.

Then let us look at the disadvantage we would have in handling it over our section honey. We would have to cut the combs, so there would be a loss by the honey dripping from the combs where they were cut.

We also would have to handle it several times, which would be another loss, saying nothing about the smear we would have from beginning to end. We can take our section honey off the bees, case it, and haul it to market without getting one comb broken. I live 8 miles across two mountains to my nearest station and market, and if I were to produce chunk comb honey and take it to market, by the time I would get there with it you would not be able to tell whether I had comb, extracted honey, or what not, and I would not be able to sell one pound of bulk honey to where I sell 50 pounds of section honey. With section comb honey I can haul it 8 miles over the rough road to market without a single comb being broken.

So, my bee-keeping friends, it is no difficult matter to see the advantage we have of section comb honey over the old style of bulk honey. I think we bee-keepers should stick to the production of section comb honey, as we have an article we need not be ashamed of, and that we should go hand in hand to get our section honey to a higher standard, that we may be able to get better prices than we ever have had heretofore. I trust that we bee-keepers will take more interest in the production of section comb honey, that it may take the lead over all other grades of honey that are put on the market.

T. A. CRABILL.
St. Davids Church, Va.

If you had given my method of comb honey production a trial, Mr. Crabill, I believe you would have found that there are at least some advantages in it over the production of section honey.

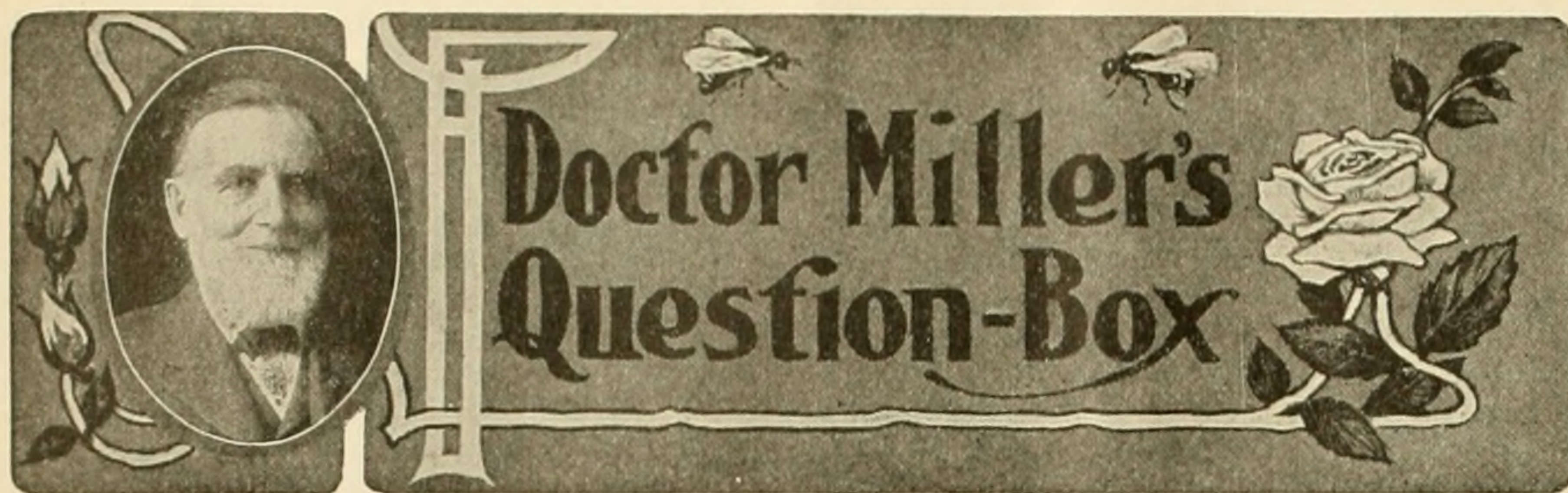
I am not surprised at the attitude you have taken, because there were many Texas bee-keepers who criticised the method, even denounced it with disfavor, when the production of "chunk" honey was first advocated. But do they still do so? Nay! Instead, some of them are today the most extensive producers of this article. Their claim, at first, was the same as yours, but finding that they would be left badly in the background, which, both from a social and financial standpoint, became very serious, bulk comb honey production soon became to them as *easy, if not an easier matter* than producing either section or extracted honey.

Neither does such a change mean going back to the ways of our forefathers. It involves just as much study and systematic work to attain the highest results in bulk comb honey production as in any other, and the movable-frame hive is just as essential.

Neither can it be said that the honey produced is of cheaper grade, for if gathered from the same source, it must necessarily be the same in quality, whether produced in sections or frames. Of the two, the comb honey in frames is only the better in that it is ripened better—the combs are thinner in this case, and the ventilation in the process of ripening the honey can only be better on account of the continuous passage-ways between the combs.

After I have described the methods I employed in bulk comb honey production, and given a better idea of it all, and the advantages, the demand, and the profits over other kinds, I am sure that you will also look upon it with more favor.

Of course, it is needless to say that it is not my object to drive sections entirely off the market, for there is a place for them that must be filled, and the same can be said of the place for extracted honey. At the same time I know that bulk comb honey will find a good place also in time, and it will replace section honey to a great extent just as it has in Texas.



Send Questions either to the office of the American Bee Journal or to
DR. C. C. MILLER, Marengo, Ill.
Dr. Miller does *not* answer Questions by mail.

Doolittle Division-Board Feeder.

1. In Doolittle's division-board feeder ("Scientific Queen Rearing," pages 68 and 69) are those partitions running lengthwise to keep the bees from drowning, as in the Simplicity and Alexander feeders?

2. If made wider than a frame (say 2 inches) would such partitions be necessary?
NEW YORK.

ANSWERS.—1. No, the inner width of the feeder is only 1 inch, so a bee can never have to swing more than half an inch to climb up one wall or the other.

2. I'm not sure, but I think 2 inches would be pretty safe. However, you can make safe for any width by putting in cork chips.

Feeding Granulated Honey in Combs.

Would combs in which honey was granulated before being extracted, and not taken out by the extractor, be all right for bees next summer, either for swarms or old colonies? Would the bees clean them out, or would it be an injury to them?
WISCONSIN.

ANSWER.—It will be all right so far as the bees are concerned, and will do them no harm. In giving such combs to the bees it will be well, just before giving them, to spray them with water. That will make it easier for the bees to use up the honey, and will also save some of it from being wasted, for bees are likely to throw out some of the grains. But you better not use the combs as they are in extracting-supers. The old honey may help to candy the new.

Colony Dwindling.

I have one colony of black bees which has 25 pounds of honey. The bees are dwindling away in large numbers. Can you help me out?
GEORGIA.

ANSWER.—I don't know whether I can. You see I don't know what the trouble is, or indeed whether there is any trouble. Foul brood or some other disease may be present, but that would hardly make the bees die off in unusual numbers at this time of the year. The colony may have been queenless for some time, having only old bees, which have attained such age that they are dying off rapidly, and there is nothing to be done, unless it be to kill them so they will not waste any more of their stores. There may be nothing wrong. Bees are constantly dying off from old age, and it would be nothing strange to have 100, 300, or more dying off daily in a strong colony.

Queen-Rearing Question.

I have now 100 colonies, and live in a good locality—horsemint. In "Simplified Queen-Rearing" (Swarthmore), I can not understand the following:

"If the pressed cups are first given to any colony of bees long enough for them to be polished on the inside, no failures in grafting will occur. Used cups are to be cleaned in the same manner, and new cups are first swabbed, as previously explained."

I have the Swarthmore series, but can not find the word *swabbed* explained. What does it mean, and how do I do it? My bees won't polish cups if I put them inside the hives.

I introduce fertile queens, virgins, and cells, without any trouble, failure, or loss of brood. I had no swarms, and had as fine a honey crop as possible.
TEXAS.

ANSWER.—Unfortunately I have not before me the text to which you refer, so as to find the word "as previously explained," but as the

cups are given in advance to the bees to be cleaned and polished, it is a pretty safe guess that the swabbing is to induce the bees to start the work of cleaning and polishing, and my guess would be that the cups are "swabbed" by being brushed out or moistened with honey or diluted honey. If that guess is correct, all you need to do is to daub with honey the entire inside surface of the cup.

Upward Hive-Ventilation.

I am a beginner and have packed my bees this winter in piano-boxes, 8 colonies in a box. They are packed very fine I think; sides, ends and bottom having about 4 inches of packing, the top having about 12 inches, with upward ventilation. Did I do right in giving them upper ventilation?
NEW YORK.

ANSWER.—Opinions are divided as to the matter of upward ventilation, but with the large amount of packing wisely given on top, your bees ought to be all right.

Why Entrance at Side of Hive?

What is the reason for placing the entrance at the end of the hive instead of the side? I contemplate building tenement cases to hold several colonies, and by setting the hives lengthwise of the case the frames can be handled much more easily, although it will bring the entrance at the side of the hive.
NEW YORK.

ANSWER.—In Europe, hives are used with frames running parallel with the entrance, called the "warm arrangement," and also with frames running at right angles to the entrance, called the "cold arrangement." I think the warm arrangement is in more common use there than the cold. In this country the cold arrangement is used almost altogether. It allows the bees more readily to reach each frame, and allows a better chance for ventilation. If any great gain were to be made by having frames run the other way, I would not hesitate to make the change.

Spanish-Needle — Winter Hive-Entrances — Do Bees Freeze?

In the spring of 1907 I started with 4 colonies, one of which was in a log from the woods. Now I have 51 colonies, all in good condition. I use the Langstroth hive.

The season of 1898 I sent for 7 Italian queens, and last year Italianized all my bees; I find it quite a task to get queens purely mated, on account of my neighbors' black bees. But on the queens I sent away for, I certainly got "stung." Out of the 7 I got only 4 good ones. The best of them all was the queen I received in a clubbing offer. I take the American Bee Journal, and could not, nor would not, think of doing without it while in the bee-business.

1. What kind of a flower is it that grows here in Southern Illinois? It starts blooming about September 1, and lasts until frost. The plant grows from 2 to 3 feet high everywhere in the fields, and every plant will have from 20 to 30 yellow flowers about the size of a half-dollar and larger. When in full bloom the fields look like a sheet of gold. When the seeds get ripe they stick to one's clothes, and are very annoying. We call them "bootjacks," as they resemble a boot-jack more than anything else. The leaf of the plant resembles the leaf of ragweed very much. We call it "Spanish-needle," but I don't think that is the proper name, for I never see it spoken of in the paper. If it were not for this plant, bees could not live

here, as it is a great honey-producer.

2. Are drones produced by a drone-laying queen or a drone-laying worker, capable of fertilizing a queen?

3. How old does a young queen have to be before she will turn to a drone-layer, if she is not mated?

4. What is the cause of ice gathering at the top of the frames just under the cloth?

5. I winter my bees on the summer stands. What size entrance do you advise for this locality? We don't often have any weather colder than zero.

6. Would too small an entrance have anything to do with the ice accumulating?

7. Do bees often freeze to death with plenty of stores?
ILLINOIS.

ANSWERS.—1. I hardly know how it has happened that you have seen no mention of Spanish-needle as a honey-plant. I'm afraid you haven't a bee-book. You cannot afford to be without one. Much has been written and said about Spanish-needle, which is also called boot-jack and golden coreopsis. In Root's "A B C and X Y Z of Bee Culture," J. M. Hambaugh reports that an apiary of 43 colonies averaged in 8 days 47 pounds each of Spanish-needle honey.

2. Yes, either of them. But I don't believe I would want them for best stock.

3. Three weeks or more.

4. The moisture from the breath of the bees. You probably need more or warmer packing on top of your bees. It should be warmer on top than at the sides. Moisture condensing on the sides of a hive does no particular harm, but on top it does. When it thaws it drops down on the cluster of bees.

5. An entrance $\frac{3}{8}$ -inch deep is good. The width depends upon the strength of the colony, perhaps an inch for each frame that is occupied by bees.

6. It might; for too small an entrance might prevent the escape of moisture.

7. No; unless the colony is too weak or a small cluster of bees get caught in a cold spell away from the main cluster.

Light Brood Foundation — Spring Requeening Queenless Colony— Queen-Excluders.

1. Do you consider light brood foundation sufficiently heavy to be used with your splints in regular Langstroth frames?

2. Is it possible, and advisable, to requeen a queenless colony in the spring by keeping them in the cellar longer than other colonies, and giving them a frame containing eggs from a colony which has started brood-rearing?

3. In your "Forty Years Among the Bees," you do not consider queen-excluders of much value to you. Would you consider them necessary if you were trying the method advocated in "A Year's Work in an Out-Apiary?"
ILLINOIS.

ANSWERS.—1. Yes, only in place of 5 splints, as with medium, 7 splints must be used with the light brood foundation. At least I did not feel safe to do with less than 7, and had good results.

2. Possible, but not advisable. It is not advisable to let a queenless colony rear a queen before there is a honey-flow, as the queen is likely to be very poor, and it would be still worse if the queen were reared in the cellar.

3. Yes, I think they are necessary in that. In some cases I think very highly of excluders, but they are not necessary to keep queens from going up into section-supers if the sections are filled with worker-foundation.

What Ailed the Bees?

I received my first copy of the American Bee Journal in 1879, and am still taking it. I kept my first bees in that year. I have 29 colonies in my door-yard, and some in other yards 3 miles away. I live in town on a lot 100 feet in front and 220 feet back. I secured about one-fourth of a honey crop this year (1909), of that black honey-dew. I sold it all at a fair price. I am expecting a good honey-flow next month (September) from heartsease or smartweed. My town is located on Big Raccoon, 18 miles north and east of Terre Haute, where heartsease grows abundantly. August has been very hot and dry. Last week it turned cool without any rain. We had 3 or 4 cool nights—very cool, but no frost. I noticed those cool mornings that my bees were dying very fast. Some of the hive-entrances would be filled full of dead bees, some of them very young, white brood taken from the comb. What is killing my bees? Is it the black honey-dew or foul brood? I thought they were

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starving at first, but when I looked in at them, I found them with plenty of honey. Then I feared it was foul brood. They have large brood-nests, and the brood looks nice and even, no sunken brood or bad odor in the hive. I found some drone-brood in the cells, and when I lifted it out with a tooth-pick, it was just the skeleton of a drone, and at the edge of the comb I found some worker-brood that was not capped. It looked like brood ready to come out of the cell, but when lifted with the tooth-pick, it was dead and looked dark. That colony was strong with bees, but the brood-nest was scattered. The bees have been very ill to handle this year. After the bees begin to fly on cool mornings, they would clean up all dead bees. Now, what shall I do? Your answers to others in the American Bee Journal have been a great help to me in the past.

INDIANA.

ANSWER.—I am extremely sorry to say that your letter dated Aug. 25 was in some mysterious way mislaid, not turning up again until the beginning of the New Year to reproach me with its presence, and to remind me that among New Year's resolutions there should be one reading, "Resolved, That I'll not again mislay a letter to be answered in this department, nor let any one else do so."

I am very much puzzled to know what to think about your trouble. Some things in the case look like disease, but a good many don't. There seems to be some trouble with the brood, but you say the entrance of the hive would be full of dead bees, and some of them would be young bees. That seems as if the dead bees were mostly mature bees, making the trouble with the bees rather than the brood. On the whole, I am more inclined to suspect poisoning, although it was not at a time of year when spraying poisons would be going on. Of course, there might be poisoning in some other way. It could not very well be the honey-dew. That kills bees in winter, not in August.

It is possible that before this time you may have informed yourself in the case so as to need no suggestions from me. If there was poisoning, the trouble probably disappeared in a short time. If there was disease, that also may have disappeared with the cessation of brood-rearing, only to reappear with the beginning of brood-rearing next spring. In that case the thing to do is to keep watch, and when the first sign of anything wrong with the brood appears, send a sample of it, (a piece of comb 2 or 3 inches square) to Dr. E. F. Phillips, Department of Agriculture, Washington, D. C. If you write for it, he will send you a box in which to send the sample. There will be no charge, and you will have the best expert advice possible to obtain.

Preventing Swarming—Amount for Winter Stores—Sour Honey—Foul Brood, Etc.

I have a small farm of 62 acres, and have always kept a few colonies of bees, or for at least 20 years. I remember very well my first bee-keeping, putting boxes in the trees and in that way capturing my swarms. My bee-yard at present consists of 18 Italian colonies, 10 spring count. I intend to winter the bees on the summer stands, in single-wall 8-frame dovetailed hives. I am at the third 100-pound sack of sugar, feeding the bees. Last fall I had 26 colonies, but reduced them to 18, thinking the stronger the colony the less feed it would take to winter them. I can not remember such a poor honey-crop as the past season, and with so many flowers in bloom. A good many bees in this country will certainly starve.

1. How long can a bee live?
2. Will bees rear brood sooner in spring when wintered in the cellar on the summer stands?
3. How can I prevent bees swarming? I am running for section honey.
4. In what way will bees do better in the cellar?
5. About how many pounds of honey less can be fed to bees when wintered in the cellar than on the summer stands?
6. How high should the summer stands be from the ground for the hives to rest on? And how will it be best to build them?
7. What is the cause of sour honey that was taken out of supers about the middle of June?
8. What is the first sign of foul brood?
9. Do you think a Danzenbaker hive is a preventive of swarming more than any other hive?

MISSOURI.

ANSWERS.—1. A worker-bee, in the busy season, lives about an average of 6 weeks. Some

think less. It depends much on the work done. A worker born in the fall, doing no work that fall, may live 7 or 8 months. A queen lives 2, 3 or more years, in rare cases 5 or 6. A drone lives till he dies from starvation, the workers declining to feed him when they feel they can no longer afford it.

2. They begin rearing brood as a rule sooner outdoors than in cellar. Even in the north brood-rearing outdoors begins often, if not generally, in February, and in the cellar generally not till March.

3. I don't know. I wish I did. Some pages of "Forty Years Among the Bees" are taken up with telling what I do in my struggle against swarming, but just the best way is still an unsolved problem. If you like the plan, however, you may avoid swarming by making a colony queenless 10 days before the harvest and then giving it a young laying queen. You can get the secret of Dr. Jones' plan of preventing swarming by sending 25 cents for his book. (See advertising columns.)

4. Almost any old way so there is abundant ventilation of both the hive and the cellar, with the temperature at about 45 degrees.

5. It depends upon localities and conditions. Perhaps generally about 10 pounds.

6. Where it is not necessary to take special precautions against ants, it is well to have hives near the ground, say 4 to 6 inches. Just now there is a decided tendency toward concrete stands, and it may be well to have the hive rest on only a small portion of the stand, as when it rests on a flat surface there is a tendency toward water remaining between the stand and bottomboard and rotting the latter.

7. I don't know. Likely some peculiarity as to the source of the honey.

8. Dead brood. If at any time you find dead brood and don't understand it, send a sample at once to Dr. E. F. Phillips, Department of Agriculture, Washington, D. C.

9. No, I don't think that is claimed.

Bees, Management, Wintering, and Locality.

I have so far received 3 copies of the American Bee Journal, and have during that time read some very interesting things in it. I am not in the bee-keeping business myself, but am very much interested in it, and would like to be, but there are certain things I can not understand about it as yet. In the first place, many people claim to have secured from one to 6 supers of honey from one colony in one season; others one to 2 supers of honey, and from 50 to 100 pounds of extracted honey from one colony in a season, and still others have secured a tremendous amount.

This town is located about 50 miles west of New York City, in the Ramapo Valley, and I should judge from the writings of others that this is a very good locality for bees, as there is plenty of dandelion, clover, sumac, goldenrod, asters, and some basswood, and several other honey-yielding plants, although the bees rarely made a living here last year. One colony did fill one super, but had a scant store for winter. There were about 50 colonies of bees here last summer, and years before that there were not so many owned by different men, say 5 or 6, each man owning only a few colonies, perhaps the owners were a mile apart. Now there is one man who received the best results from his bees. He started about 5 years ago with one colony that he got from a tree in the woods, and every year since he puts up hives in different places in the woods and catches swarms, sometimes catching a nice-looking yellow swarm, and more times catching black swarms, so naturally the bees are mixed, but the Italians seem to be a little the best, but not always, for sometimes he catches a real black swarm that stores equally as much as any other he has.

Commencing in the spring, his supers are ready with foundation, natural swarming is allowed, most colonies swarming twice, and some only once. He hives the swarms, giving them 8 Hoffman frames with foundation. After swarming is over he puts on one super apiece, and as soon as a colony fills its super he takes this off and replaces it with a new one, if the season isn't too late, and the bees will perhaps fill this with comb, and fill 2 or 3 sections with honey, but he never thinks of getting over one full 24-section super from one colony in one season; and some colonies will partly fill one super, and some will not go up into the super at all, and store only just enough for winter; and still some will not store enough for wintering. He never requeens any colonies, or catches any drones,

and, for wintering, the colonies are left outside on the east side of the hill. The hives are $\frac{7}{8}$ or one-inch wood, with just an extra cover on, and no extra packing on the outside. Has he right kind of bees? Does he not manage his bees properly? Is the wintering too much for them? Is the locality too poor? What do you think about it?

NEW YORK.

ANSWER.—Bunching your questions, I should say that the bees your neighbor has are probably not so very much to blame for his results, and from what you say about the flora, the pasturage is good. As to his management, he might do worse—if he tried hard enough. At any rate, if he had the best results, it must have been that his neighbors did worse. They must be experts at doing things the wrong way.

The man you speak of catches swarms in the woods every year. That's all right on his part, but some one must be doing pretty bad work to let so many swarms get away. Now let me recount some of the things that he does that are not good, and then tell how you will do when you get to be a good bee-keeper:

He puts supers on after swarming is over. You will put them on before there is any swarming, about as soon as you see the very first white-clover blossom.

He allows most colonies to swarm more than once. You will never allow any colony to swarm more than once, and will make some effort to keep them from swarming at all.

He does not give a second super until the first is removed, and appears never to have on a hive more than one super at a time. You will, as soon as the first super is about half filled, raise it up and put an empty one under it, and a third one under the second when the second is perhaps half filled, and sometimes you will have 4, 5 or 6 supers on a hive at one time.

He never requeens nor kills off drones. You will be likely to requeen a colony which doesn't do satisfactory work, unless you are satisfied the fault does not lay with the queen; and although you may not kill any drones you will take care that there is not a lot of drone-comb in every hive to rear unnecessary drones.

He winters outside with no protection. You will have your hives well packed, especially on top, or perhaps better still you will winter the bees in the cellar.

Now let me make up another thing out of my own head. He has no text-book on bee-keeping. You will have a bee-book—more likely two or more. You can get along without a bee-paper (but you won't), but you can't get along without a bee-book. Not unless you want to lose money on bees.

Getting Strong Colonies in South Africa.

I am an American far from home, and bee-keeping is a hobby of mine. I have about 30 colonies of bees, mostly Doolittle strain. I have a few native queens (5 or 6), but will supersede them with Italians, as the wild bees are too vicious. The wild bees are wonderful breeders, breeding practically the year through, and are good honey-gatherers, too, but are so cross that it takes all the fun out of it. I have known them to sting everything in sight within 100 yards from the hive. And it is a common thing for them to kill dogs and fowls.

The Doolittle Italians are as good, or better, honey-gatherers, and are very gentle, but I find trouble in keeping a big force of them ready for the harvest, for when the honey-flow slackens, the queens stop laying; while the natives, if there is honey in the hive, will keep right on breeding.

Our spring begins about August 1, and in September and early October, there is a light honey-flow. This year I took an average of 15 pounds of extracted honey. After this there is no honey or pollen until the rain comes in October or November. This year the rains came the last of November. Ten days ago none of my Italians were laying, although I gave them a little syrup each night for about 10 days. Now I find queens are just beginning to lay, and a little pollen is coming in. We have had 7 or 8 inches of rain, and the main honey-flow will come in about the New Year.

Remember, this is our summer. The temperature before the rain was around 90. Bees were as quiet as in the winter time and not breeding. I would like a suggestion as to how to get a hive full of bees in time for this main harvest. The harvest comes before the queen is laying to her full capacity, and with

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the colony none too strong, they are very inclined to fill the brood-nest.

How would it do in September, with our light honey-flow, when the bees are building up strong and rather inclined to swarm, to put on an upper story of full frames; put the queen in the story with a queen-excluder below this, and above the brood-nest, and in the brood-nest put a ripe queen-cell? Would the queen be accepted and in due course begin laying? If this would work, and I could have the two queens laying for a couple of weeks, and then kill the old queen just before the honey-flow stopped, I think I could keep a large force of the old bees over for the main flow, and the young queen would be more likely to lay during the dearth of honey, particularly if I left considerable honey in the hive.

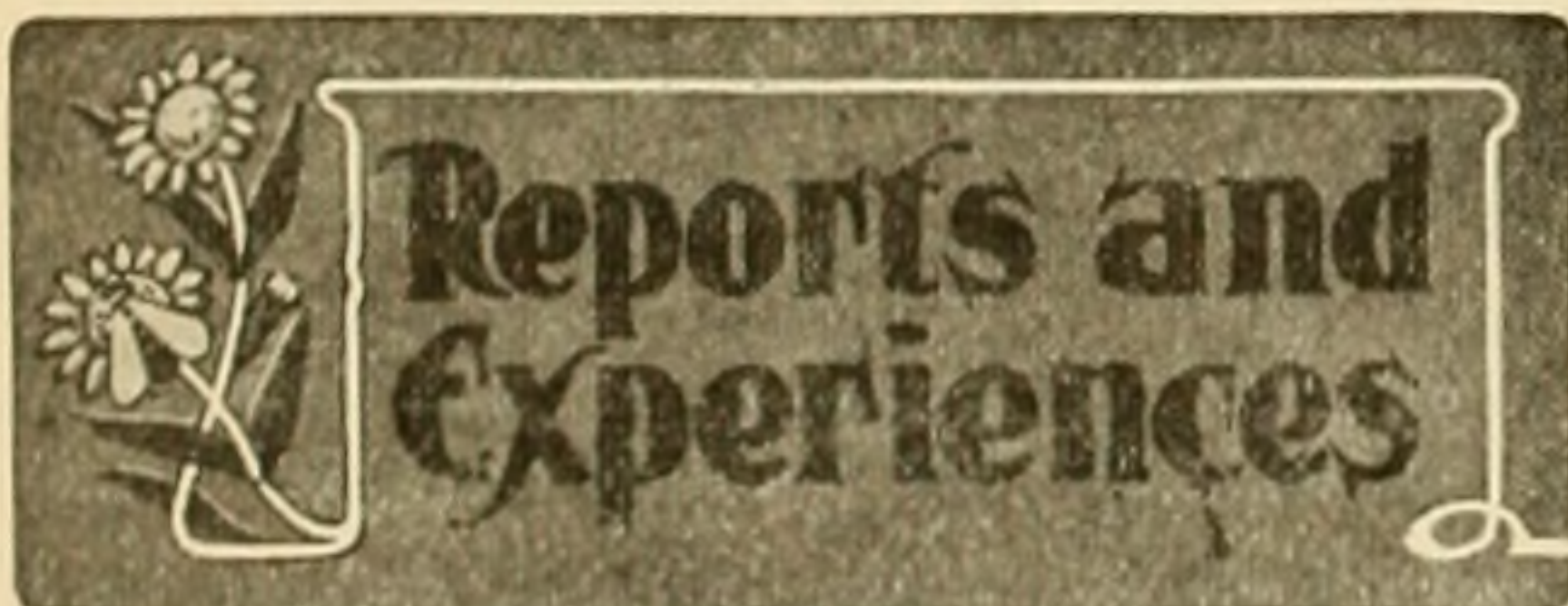
RHODESIA.

ANSWER.—You have just the problem I have to deal with every year—getting colonies strong enough for the first flow—only you have a very different climate. You are about as far south of the equator as Cuba is north. Thus you have a hot climate compared with mine, and with the seasons reversed; so I do not feel very competent to advise, but I can tell what I think.

If I begin feeding early I may do more harm than good, setting the bees to flying in weather too cool. I suspect you don't have that trouble. If I understand the matter correctly, your weather is favorable enough, only the lack of forage results in no breeding. The thing to do then is to come as nearly as you can to giving the bees an artificial pasturage by feeding. Two parts of water to one of honey ought to be an ideal food, although 8 parts water to 3 of sugar may answer. Feeding every other day may do, but feeding every day is better. Enough should be given so it will about all be worked up into brood. Try a pint or more daily, and increase until you find a very little is left unused in the combs. If too little is given, the bees will not feel they can afford to breed freely; if too much, the queen may be crowded; but better too much than too little. Of course, if you find too much is stored in the combs, you must decrease.

Now as to when to begin. As the honey-flow you have begins about New Year, and as it is about 37 days from the time the egg is laid until the worker reared from it becomes a fielder, it will be seen that if a lot of eggs are laid Nov. 25 they will give fielders for New Year. But if the laying begins only Nov. 25, then the field-force will only begin Jan. 1, and will be a feeble affair. Moreover, you say the queens do not begin laying until after you have been feeding about 10 days. So the feeding should begin some time before Nov. 25; just how long before, it may not be easy to say. Taking this into consideration, and remembering that it is easier to keep queens laying than to start them again after they have stopped, the wise course will probably be to begin feeding very shortly after the first flow ceases, and before the queens stop laying.

I'm afraid your plan of putting the queen over an excluder and a queen-cell below would not work to your satisfaction. It might induce swarming upon the emergence of the young queen. Moreover, you would probably have no greater force from the two queens than with one, for one queen would probably lay all the eggs the force of bees could take care of. The Demaree plan—the reverse of your plan—will work better, and is very satisfactory where extracted honey is in view. Put all but one frame of brood in the second story over an excluder, leaving the queen in the lower story with one frame of brood and empty combs or foundation, and destroy the cells in the upper story, if any, in 10 days.



Report for Season of 1909.

I started in the spring with 25 colonies, and out of the 25 only 14 produced any surplus. I took from these 14, 384 pounds of dark honey, an average of 20 pounds to the hive, while in 1908 the average was 53 pounds per colony. I have now 29 colonies, all packed in forest leaves, and in splendid condition for wintering.

About the middle of August I removed

all the supers, and what they gathered from then until frost they stored in the brood-chamber for winter supplies. When I weighed them, just before packing for winter, nearly all ranged in weight between 60 and 75 pounds per hive, so I estimate they have from 30 to 45 pounds each to winter on.

Gosport, Ind., Jan. 14. WALTER GOSS.

Bees Covered with Deep Snow.

I have 21 colonies, all in good condition for the winter. I winter them on the summer stands packed with straw. They are now covered with deep snow. We had heavy snowstorms for fully 3 weeks.

W. A. DAHLKE.

Ebenezer, N. Y., Dec. 29.

Bee-Industry in Mississippi.

The bee-industry is in a very primitive condition right in this locality. I have been South only four years, but believe it a good location, as I am only one mile from the great ti-ti swamp, which never fails to bloom early in spring. My bees did not store much surplus, but went into winter with an abundance of stores, and I hope for a good honey-year for 1910. I bought 5 new swarms of black bees and requeened with Italian stock. I now have 7 strong colonies.

Pecan, Miss., Dec. 30. J. D. GOULD.

Painted or Unpainted Hives.

In order to set you right on the subject of "Painted or Unpainted Hives," kindly permit me to remark what every one knows, that bees invariably coat the inner surface of their hives with an air-and-water-excluding substance. Get clearly in mind that the bees render the surface of their hives on the inside tight, so as to prevent the passage of air or water, either into the hive or out of it, and nothing is left but to paint the hive in order to lengthen its days of usefulness. There may be a question as to the proper color to paint the hive, but there is no question that the hive should be painted.

J. J. FOUTS.

Gonzales, Tex., Jan. 19.

Season of 1909 the Poorest.

My experience runs back about 35 years, and I owe what success I have attained, very largely, to the information I have received from bee-papers, and I feel even now that I cannot very well get along without them.

The year of 1908 was a splendid season here, but 1909 was one of the poorest seasons I have ever known; no surplus and only very late in the season did the bees get enough to winter on.

My bees are housed in a closed bee-shed packed in straw. I wintered them the same way last winter without the loss of a single colony.

G. T. WILLIS.

Hoopeston, Ill.

Not a Very Good Season.

I began the season of 1909 with 4 colonies of bees in the spring, and increased to 10 during the spring and summer. Some of the new swarms I found, some were given to me. I took about 200 pounds of comb honey from 5 or 6 colonies, the others barely storing enough to winter on. It was not a very good season.

In September I was appointed to this place. I chartered a car through, and having to put the team in the car with household goods, I decided to sell the bees, thus avoiding the danger of their getting out and stinging the horses. They brought \$3.50 per colony. I have no bees now but will stock up again next spring with a few colonies, as I have some empty 10-frame Langstroth hives, so I can look out for stray swarms.

(Rev.) J. W. STINE.

Sperry, Iowa, Dec. 31.

Poor Season in 1909.

The past season was a very poor one for bee-keepers in this section. No clover to speak of. We do not have a great deal of basswood here, but what we have was full of bloom. However, even the basswood bloom did not seem to furnish much nectar. Nevertheless, I secured a few sections of very fine basswood honey. The main part of our honey was from honey-dew, and very inferior at that. My bees went into winter quarters with plenty of the last-named stores, but as

the winter is severe and continuous, I am somewhat dubious as to the result. My bees have not had a flight for 7 weeks now, and no prospect for a flight soon.

The colonies all seem healthy up to date, and we are all hoping for the best.

Clover went into the winter in the best possible condition, and unless something unforeseen happens we will have plenty of clover-bloom the coming summer. Clover furnishes our main honey-flow here, although there are several other sources auxiliary, such as basswood, goldenrod, Spanish-needle and a few others.

Cromwell, Ind., Jan. 13. E. H. UPSON.

Extracted Honey.

"The Two Cans of Honey" in the November and December (1909) numbers, is a "corker" and hit the nail right on the head. For extracted honey I always have 2 full-size supers, and 3 for the most of them, although it is seldom necessary, as 100 pounds is generally the limit. But some exceptions happen, and I do like to see them 4 high, but the exception was the other way this year, although I have great hopes for 1910. But let it come. I am ready for it.

I do not see anything in the American Bee Journal that could be spared. It is about as good as it is possible to make it; at least, for a dollar a year, and as long as I can get the dollar, I intend to have the Journal.

O. K. RICE.

Gray's River, Wash., Dec. 27.

Dry and Poor Season.

The season of 1909 was very dry and poor for bees. I started with 4 colonies last spring, got 78 pounds of extracted honey, 43 sections, and increased to 7 colonies. I have bought 2 colonies, making 9 to begin with next spring. I hope next season will be much better, as I notice the honey-bearing plants are getting in a good start right now. We have had plenty of rains in November and December, and now. The last winter was very dry for the honey-plants to get a start.

Last spring I tried to transfer a colony from a box-hive to a frame hive, and I did it all right, at least I thought I did. When I got through I left the entrance full width, and honey smeared all about the hive, and there came the robbers, and took what little there was. Next day I looked in the hive and found that the bees had gone for good to the woods. So I see a person must be careful, and clean off all the spilled honey, and spill as little as possible, and not do the transferring too early in the spring—better to wait till the bees begin to store, then there will be no danger of robbing.

I reared a few Italian queens in the spring, and will try to rear more next spring, if my bees get through the winter all right. There are no modern bee-keepers in this settlement; some farmers have a few box-hives of bees, and some of them visited me. When I showed the queen in my frame-hive they wondered and said, "That is the first one I ever saw. Oh, is that the queen?"

I like the American Bee Journal fine. It contains so much good reading for the bee-keeper. I am inviting the Texas bee-keepers to write more for these columns.

Bellville, Tex., Jan. 12. JOS. JEZEK.

Keeping Bees in Washington.

I am located on a fruit-ranch in the beautiful Columbia Valley, near the mouth of the Okanogan River. We came here a little more than a year ago, from the Sunny South, and just as soon as we were settled in our new home, I began to look around for some bees, for I felt lost without them. There were none to be had in this part of the valley, but finally I learned the name of a bee-keeper at Wenatchee, and in a very short time I was in possession of one of his best colonies. They built up very rapidly despite the cool, backward spring, and the hive was soon boiling over with bees. As they were very dark hybrids, I decided to Italianize and divide them at the same time. So ordered a couple of queens, but they were probably chilled in the mails, for they both died soon after introduction, but not before one of them had laid the combs nearly full of eggs. In a few days there were 3 very fine queen-cells sealed; in fact, they looked so fine I could not bring myself to throw one of them away, so I just divided the strongest colony again and saved all three cells.

Happily each one hatched, and in due course of time were laying nicely. But as each colony

by this time was a mere nucleus, and I had no brood nor even drawn combs to give them, they were very slow building up. The weather was so cool and windy all summer the bees could not work more than half the time. There was not a day, however, that I can recall, suitable for bee-flight, that they did not bring in considerable honey, so I managed to get the combs built down and the hives heavy with stores for winter use. I have them in the cellar, but believe they would winter very well on the summer stands.

We have no alfalfa, no clover, nor any other artificial pasturage here. The entire valley, where susceptible to irrigation, is going into fruit, and the trees are too young to be any help to the bees.

I was in the bee-business in South Texas a good many years, but the seasons here are so different from what I have been accustomed to it is almost like starting over and learning everything anew.

Mr. Grigsby, of California, touched on a point of much interest to me, but his opinion differs from mine. I would say, if possible, give us more pictures. I always like a peep at the apiaries, if neatly arranged, no matter how few the hives. And if I might make another suggestion, give us more pictures and descriptions of honey-plants from different parts of the world.

J. D. YANCEY.

Bridgeport, Wash., Jan. 17.

Why Honey Brings the Same Price as 20 Years Ago.

In answer to the question, "Why Are These Things So?" by G. M. Doolittle, in the January number, I will try to give an answer why I think prices have not changed.

First, because we depend too much upon the commission merchant to sell our crop for us. Another thing is, the man who does not care how he puts his honey on the market. Then, honey is not used as other foods, but more as a luxury. Honey also has many substitutes, while other foods have not. If we would try to sell our honey by advertising in some good journal or paper, we soon find we have better prices. But in order to do this we must send out samples of what we have, and be sure it is all right. And after we get our customers we will have no trouble in keeping them and getting a good price for our product. That is, if we still give them good, ripe honey.

Mr. Doolittle said that honey does not advance in prices with other farm produce, but still takes a "slump" when those things do. I think he must be mistaken in this, for honey is governed as to the amount produced as are all other things which we raise. If Mr. D. had taken the market price on eggs and butter along in the month of May, he would find that eggs were not 40 to 50 cents a dozen, as stated here.

I will say again, put your honey up in good order; have it good and ripe; sell direct to the consumer, and it will not be long till we have better prices. There are now also 5 beekeepers to where there was one 20 years ago.

Now, I have told you how we can get better prices, and why I think they do not rise; I would like to hear from others on this question.

RAY A. HAMILTON.

Donovan, Ill.

Pictures of Apiaries—Non-Swarming.

EDITOR YORK:—I have read the November number of the "Old Reliable" with the usual pleasure, and the best of all was that nice, kind reproof you gave me concerning the little protest I offered regarding pictures of faces and apiaries. Although it made me feel just a little ashamed of myself, I must confess that it did me good to read it, in more ways than one. Mr. York, you are certainly an artist. Send on your pictures. I have no more to say. I suppose I have gotten myself into business by speaking of the compliments that have been passed on my apiary. I have received a number of cards and letters already urging me to send the picture of that beautiful apiary for publication.

One sister bee-keeper in Ohio says she wants "to see the photo of you," underscoring the word "you" twice, "and of your 164 colonies, in the American Bee Journal," signing her name. A lady bee-keeper in Texas writes: "I earnestly request you to send the photograph of yourself, family and apiary, to the editor of the American Bee Journal for reproduction," and solicits my subscription to another bee-paper.

Like the Feast at Cana, the best came last. It is a letter from Mr. B., a Minnesota bee-

keeper, who sent his picture and the picture of 20 colonies of his apiary, if I mistake not. He wrote me quite an extensive letter, and really he said so many kind things to me about it, and all he said was said so very courteously, and in such gentlemanly style, that I enjoyed it, and filed it away to look at later. It really made me love him, and I wish I could meet him.

I believe that bee-men are generally, above all, gentlemen. If I did misbehave a little, I must confess that Mr. B. made me feel just as if I had been a little rude. I offer my apologies to anyone whose feelings I may have touched.

Just a word to those good sisters who solicit my picture, and that of my apiary. If I should reconsider and send it (which I do not like to after all I have said, someone being sure to think I was simply seeking an invitation), it would be after I have made some changes in my apiary grounds, which cannot be done before the fall of 1910. I will in the near future write for publication in the columns of the American Bee Journal a plan I have discovered and put into practice, which has proven with me to be a sure and unmistakable preventive of swarming in an apiary run solely for extracted honey. I treated each and every colony (115) that I began with in the past spring, many of which had sealed queen-cells, and just on the verge of swarming, all of which cells I found cut down a few days later, and all ideas of swarming abandoned. While the past spring this part of Southern California seemed to be in the grip of a swarming epidemic, not one of my colonies showed any further disposition to swarm after being treated. It is simple and absolutely inexpensive. C. L. GRIGSBY.

El Casco, Cal., Dec. 6, 1909.

[We will be pleased not only to have the picture of Mr. Grigsby's apiary, but also the description of his non-swarming methods.—EDITOR.]

Moisture Above Brood-Nest, Etc.

I have watched the columns of three bee-journals to learn the thickness or thinness of lumber used to cover the brood-nest. I was using inch boards, until several of them warped, one allowing the condensed moisture to accumulate on the sawdust and run back into the hive, and chilled the queen into a drone-layer. Then I made all new covers of 1/2-inch lumber with three cleats nailed acrosswise. I just examined to see results. All lie flat and sealed. I believe much moisture will escape through this thin cover, and pass up through the 18 inches of sawdust above. I never want paint or any of its relatives, nearer than 3 inches of a brood-chamber where winter-cases are used. I used quilts until the bees gnawed through. A good queen crawled up between quilt and cover, and I found her dead. I generally lay a rock on the cover in summer, but if left on in winter it will condense moisture that will soak a cover in one spot where it touches. I give all hives one inch slant to the south, that accumulating moisture may run out of the entrance. There are very few days but that snow will pack here. No danger of entrances clogging with ice.

SEVEN TO ONE EGGS IN A CELL.

I received a queen August 13, 1909, that, to all appearances, was just a good, ordinary 3-banded producer. She had traveled about 2000 miles. I gave her to some good-positioned 3-banders to eat out of the cage. A sectional hive of 8 combs, 4 inches high, all honey but 3, that were partly filled, was her laying ground. I looked in 5 days after, and a very few cells had one egg in it, the rest had from 2 to 7. Then I found the queen. Of all the monstrosities in the shape of a queen, she "took the cake." Her body was longer from tip of wing back than toward the thorax, and distended like a Baltimore & Ohio locomotive. "Good young lady, you fill the bill." Then I gave her more bees and 6 empty combs that she filled one egg to the cell. Now some would condemn, but I reasoned she is healthy, prolific, and in a cooler climate, that she has acclimated to at once. Her bees hatched out one bee to a cell, 3-banded, gentle and good workers. I wrote to the man that sent her, but he misunderstood and offered to replace her, but I declined the offer. Such queens are good enough for me.

FEEDING BEES.

I have dropped onto a plan for feeding at anytime consistent with necessities, but am a little in debt to Dr. C.C. Miller for that almost indispensable 2-inch space under the bot-

tom-bars. I have the best success here in sight of snow-capped mountains, by keeping all hives in well-painted wintering-cases, packed with sawdust all the time. Many contrivances used in the single-walled hive I can not use.

I cut a slot 2 inches deep, and 12 inches long for an entrance. My hives sit on a rim 2 inches high. Here, where timber is plenty, I make a dummy to fill up to within 1/2-inch of the brood-frames. This dummy is slanted on the front end, the lower edge comes flush with the outside of the case. I drive 2 staples in on the front end, have 2 wire hooks, that I hang on the outside of the case, when not in use, on the back side of the case. I make an entrance-block to cover the opening 14x2 1/2x2, with a 2x3/8 notch cut out of the under side. With this device one can feed whenever consistent without danger of robbers, or bees rushing out, by closing the entrance tight. There will be sufficient air in this large space.

I use the unprecedented brood-comb of only 4-inch depth, Langstroth length the other way, and 16 combs in 2 sections completes a hive. For extracted, comb, or increase, the sectional hive for me. F. F. GEORGE.

Fraser, Idaho.

Eastern New York Bee-Keepers' Convention.

The second annual convention of the Eastern New York Bee-Keepers' Association was held December 8, 1909, in the Common Council Chamber of the City Hall, Albany, N. Y. The president, W. D. Wright, called the meeting to order. At the calling of the roll of 53 members, only 20 were found to be present.

The minutes of the last convention held at Catskill, N. Y., were read and approved. At the collection of dues, 20 members responded and paid their dollars.

A motion was adopted that all dues shall be payable from January 1st of each year.

The president presented an interesting and entertaining address.

The annual election of officers resulted as follows: President, W. D. Wright, of Altamont; Vice-President, T. D. Moores, of Athens; Second Vice-President, A. L. Fisher, of Central Bridge; Secretary, S. Davenport, of Indian Fields; and Treasurer, M. A. Kingsman, East Greenbush, N. Y.

The president, W. D. Wright, and secretary, S. Davenport, were elected delegates to the State Convention of Bee-Keepers' Societies.

The secretary suggested the propriety of taking a statistical report from members, of their bee-keeping and its results; but on soliciting the same, some discussion developed much opposition, and the subject was laid on the table.

Geo. B. Howe and Irving Kinyon, delegates to the State Convention, also Alden Hilton, made extended remarks on interesting topics.

The time of the convention was mostly taken up with routine business, as it was to be followed in the afternoon by the convention of the New York State Association of Bee-Keepers' Societies.

S. DAVENPORT, Sec.

Indian Fields, N. Y.

Honey as a Health-Food

This is a 16-page honey-pamphlet intended to help increase the demand for honey. The first part of it contains a short article on "Honey as Food," written by Dr. C. C. Miller. It tells where to keep honey, how to liquefy it, etc. The last part is devoted to "Honey-Cooking Recipes" and "Remedies Using Honey." It should be widely circulated by those selling honey. The more the people are educated on the value and uses of honey, the more honey they will buy.

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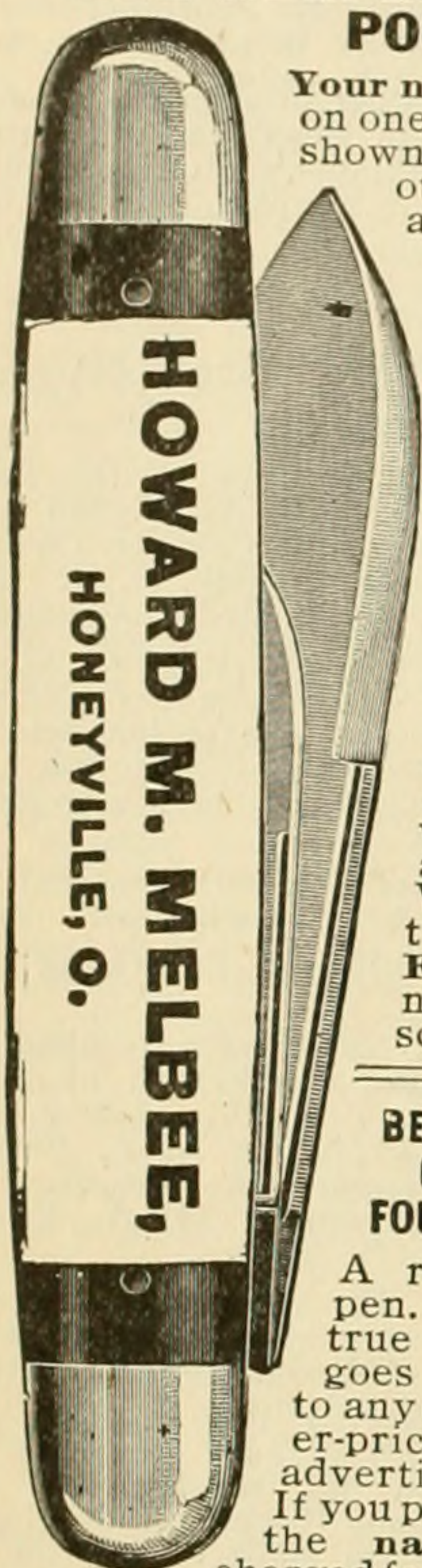
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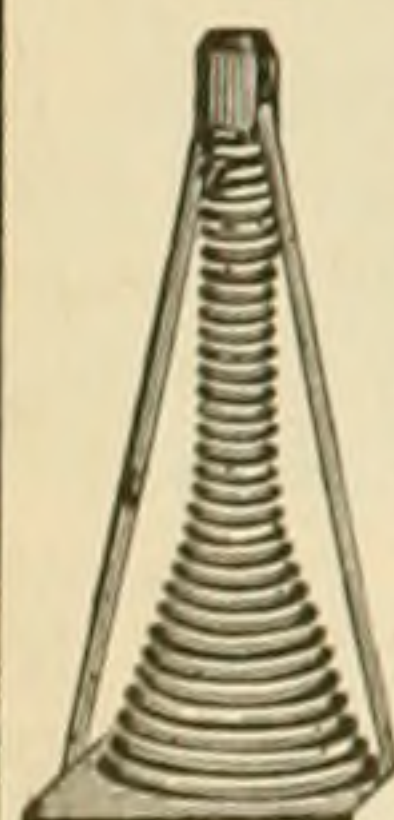
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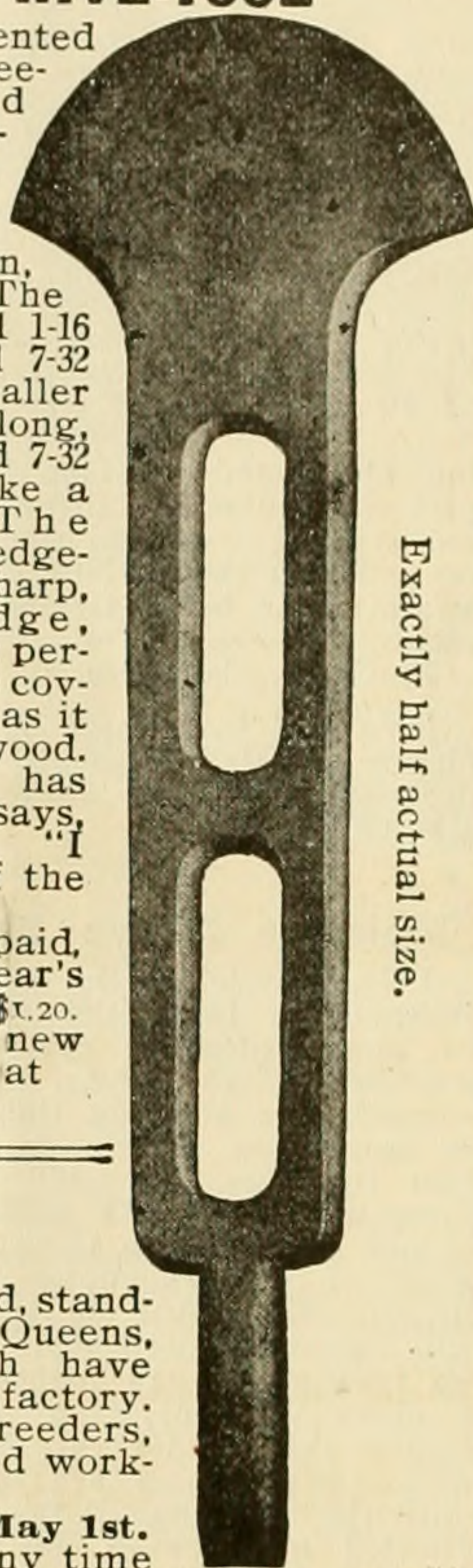
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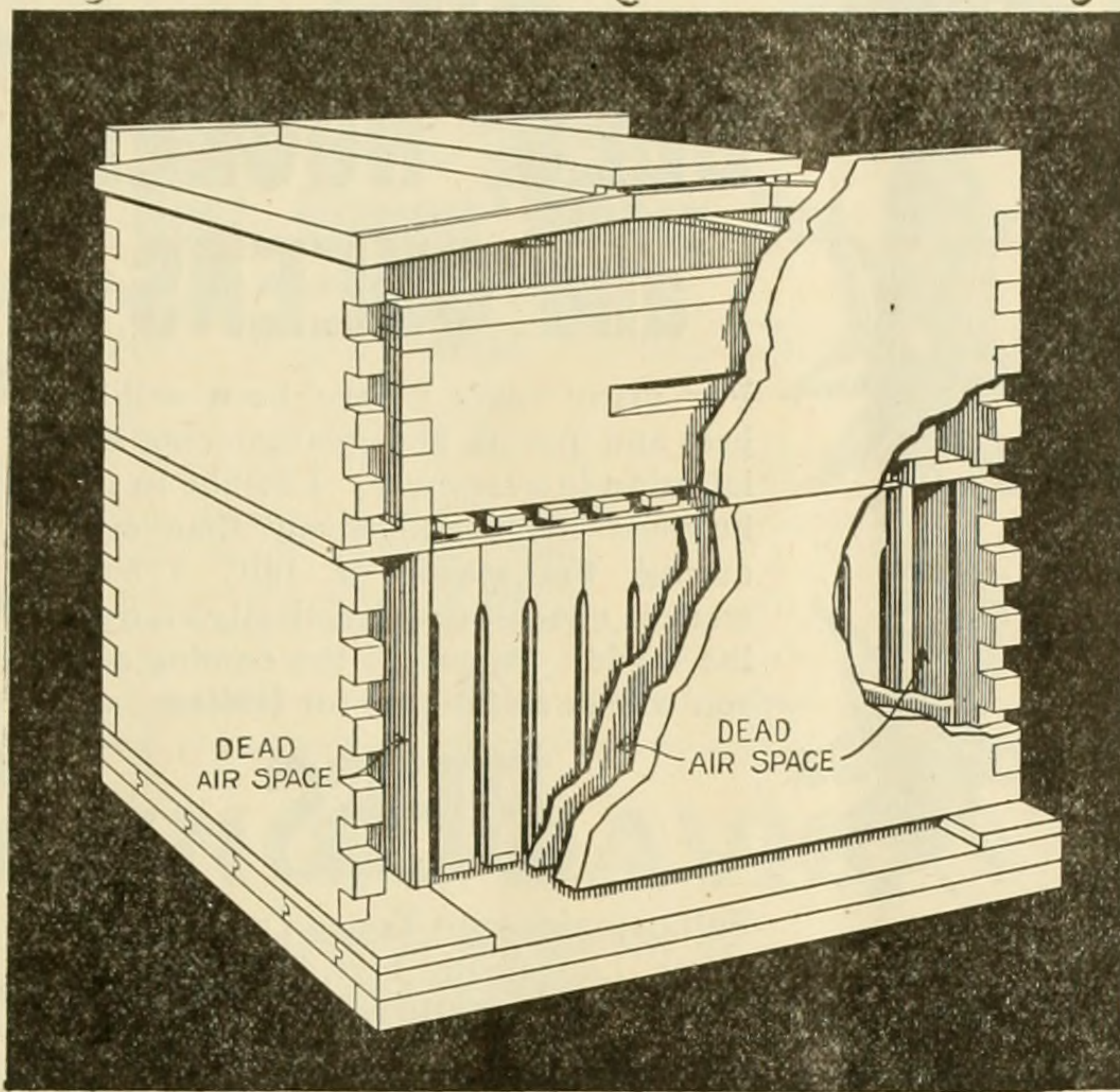
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25 Cents per Box; 6 for \$1.00.

Barnes & Co., P.O. Sta. 1, New York, N. Y.
Please mention Am. Bee Journal when writing.

We have just received a Car of

! California Extracted Honey !

If in the market, write us for Sample and Price.

C. C. CLEMONS PROD. CO.

2Atf KANSAS CITY, MO.
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BIG PROFIT

In growing Catalpa Trees for Posts, etc. Big demand. Fast seller. No help required. Pays better than farming. BOOKLET FREE. Northern Illinois Nurseries, St. Charles, Ill. Please mention Am. Bee Journal when writing.

Our Book Notices.

By LEWIS EDWIN YORK,

Supt. Public Schools,

MARTINS FERRY, Belmont Co., OHIO.

Great Names and Nations.—By Harmon B. Niver. Illustrated. Chicago: Atkinson, Mentzer & Grover. 240 pages. Cloth. Price, 65 cents.

The purpose of this book is to give the youthful reader a clearer survey of the old world as a background for the study of American life. It is entirely unlike any other book written for boys and girls.

Boy Life.—By William Dean Howells. Stories arranged by Dr. Percival Chubb. Illustrated. New York: Harper & Brothers. 100 pages. Price, \$1.25.

All of Mr. Howells' work possesses charm and finish. In these selections he is at his best. "Boy Life" is a classic based on present day interests. "Tom Sawyer" and "A Boy's Town" will ever be favorites.

Adventures in Field and Forest.—By Spearman, Martin, Palmer, Drysdale and others. Illustrated. New York: Harper & Brothers. Cloth. 212 pages. Price, 60 cts.

The authors of "Adventures" have produced 15 charming stories that appeal to the young who have a love for the open. Animal nature and human nature are revealed in striking situations, and all is told with consummate skill.

The Social Spirit in America.—By Charles R. Henderson. Chicago: Scott, Foresman & Company. Cloth. 358 pages. Price, \$1.50.

In 17 chapters of inspiring, helpful, illuminating outlines, the author has produced a really modern text quite out of the ordinary in its inspirational quality. Mr. Henderson is an unusually close and careful observer, and he sees truth where others overlook it. To any one who is seeking a clear statement of modern life in all its variety, with its many new adjustments and relationships, this book will prove a joy and a blessing.

National Ideals Historically Traced.—By Albert Bushnell Hart. Illustrated. New York: Harper & Brothers. Buckram. 400 pages. Price, \$2.00.

This is volume 26 of the great series known as The American Nation, of which Dr. Hart is editor-in-chief. Though one of a series it is complete in itself, covering the period bounded by the dates of 1607 and 1907. This volume dedicated, "To Theodore Roosevelt, Practicer of American Ideals," is not a book for children; it makes its strongest appeal to mature judgment and ripe experience.

The Hero of Erie.—By James Barnes. 10 full-page illustrations. New York: D. Appleton & Company. 167 pages. Price, \$1.00.

Oliver Hazard Perry's name is familiar to every American school-boy, and few names are associated with more heroic adventures, more patriotic devotion, or more charming bravery. No boy will remain unchanged by the reading this book. It appeals to the red blood in one's makeup. It furnishes an outlet for the forces that need expression in every growing boy. It points the way to heroic achievement. It restores orientation to the lad who has lost his way.

Any of the above books may be ordered through the American Bee Journal, 146 W. Superior St., Chicago, Ill. Send us 60 cents in addition to the price of any book as given, and we will credit your subscription to the American Bee Journal for one year.

KITSELMAN BROTHERS, fence manufacturers of Muncie, Ind., have just completed their large catalog of fencing. Their prices are extremely low when you consider the high quality of their fencing. Prices range from 14¼ cents a rod up. See their advertisement elsewhere in this paper, and write them for catalog.

5 ACRES \$125
\$5 Down
\$5 Monthly

Only 10 miles from Atlantic City, N. J., within easy shipping distance of best markets in country—New York, Philadelphia, Baltimore, Washington and Jersey coast resorts. Good successes being made in Southern New Jersey raising berries, vegetables, fruits, squabs, broilers and eggs. Two main line railroads through property. Large manufacturing town near by. Title insured. White people only. Booklet free.
FRAZIER COMPANY,
 750 Bailey Building. PHILADELPHIA, PA.



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Bees, Fruit, Poultry

A GRAND COMBINATION AND A SURE MONEY MAKER—Poultry thrives on orchard insects and bugs; bees get honey from orchard blossoms and fertilize the fruit. No work, small expense and big profits from the honey, eggs and fruit you sell.

Fruit growing pays big! \$300 an acre is nothing unusual from Apples, Peaches, Plums, Blackberries, Raspberries, Strawberries, etc.

Let me send you, charges prepaid and free, my grand Combination Catalog on Orchard Trees, Small Fruit and Farm Seeds. I am giving away 20,000 live, hardy fruit plants, and you will get one of them in proper season if you ask for it now. Catalog free. Write to-day.

W. N. SCARFF,
 NEW CARLISLE, OHIO.

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14 3/4 Cents a Rod

For 22-in. Hog Fence; 15 3/4-c for 26-inch; 18 3/4-c for 31-inch; 22c for 34-inch; 25c for a 47-inch Farm Fence. 50-inch Poultry Fence 33c. Sold on 30 days trial. 80 rod spool Ideal Barb Wire \$1.55 Catalogue free.

KITSELMAN BROS.,
 Box 85 MUNCIE, IND.

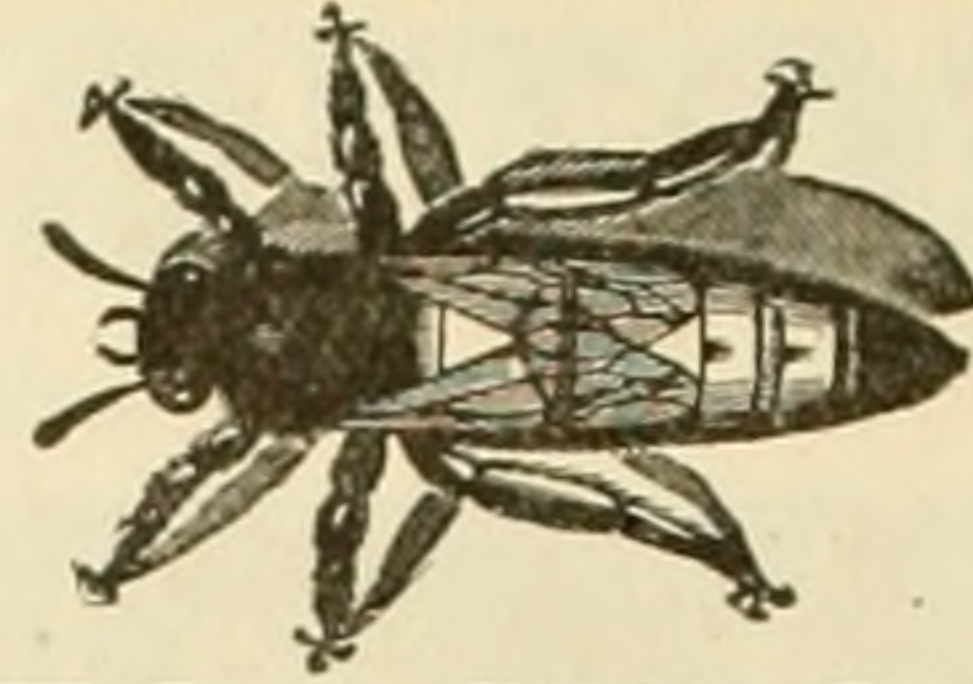
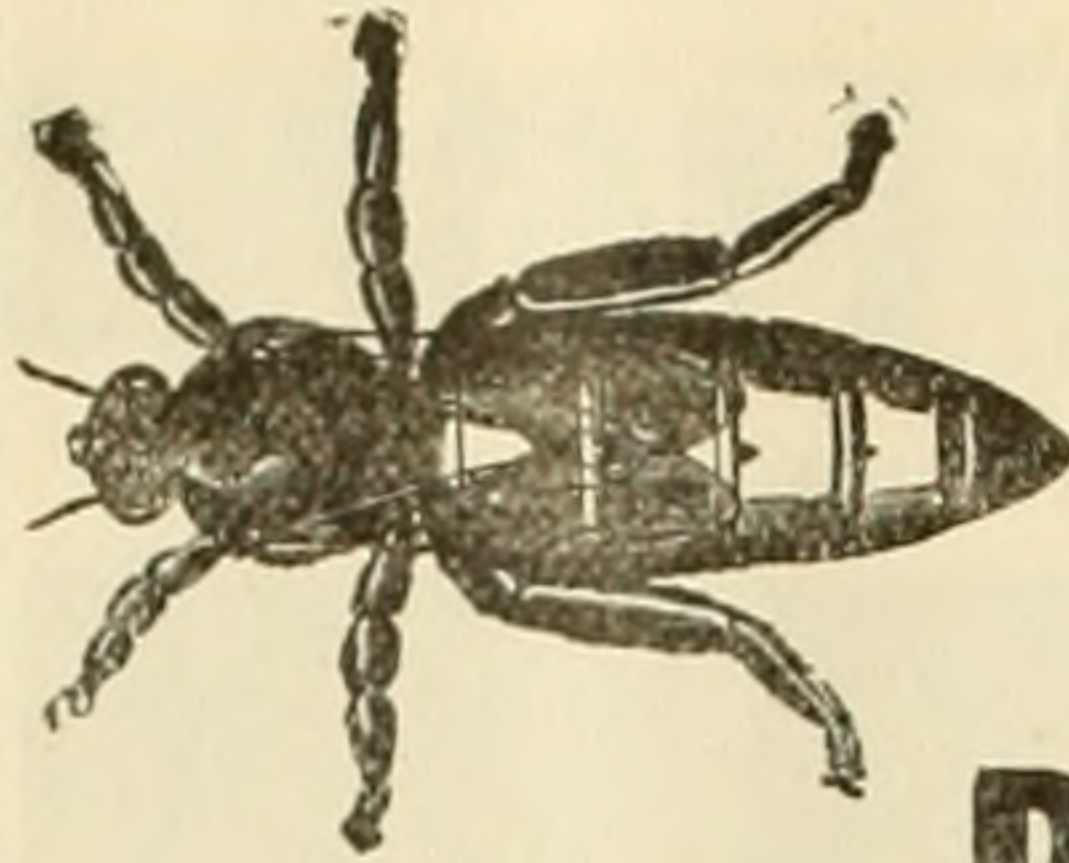
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Langstroth on the Honey-Bee
 Revised by Dadant. Latest Edition.

This is one of the standard books on bee-culture, and ought to be in the library of every bee-keeper. Bound in substantial cloth, and has nearly 600 pages. Revised by that large, practical bee-keeper, so well known to all bee-dom—Mr. C. P. Dadant. Each topic is clearly and thoroughly explained, so that by following the instructions of this book one can not fail to be wonderfully helped on the way to success with bees.

We mail the book for \$1.20, or club it with the American Bee Journal for one year—both for \$2.00. This is indeed a splendid chance to get a grand bee-book for a very little money.

GEORGE W. YORK & CO.
 146 W. Superior St. - CHICAGO, ILL.



BEES, NUCLEI, and QUEENS

For many years I have been selling bees and queens, and guaranteeing satisfaction in every way. I will be in the business more extensively than ever during the season of 1910. I have mailed queen-bees practically all over the world. My prices the coming season will be as follows, for **Italian**

BEES

Full colonies with Tested Queens, in 8-frame Langstroth hive, \$7.00 per col.; in same hive with 10 frames, \$7.50. Colonies in lots of 5 or more, 25 cents per colony less.

NUCLEI

One 3-Hoffman-Langstroth-frame Nucleus, \$2.50; in lots of 6 or more at \$2.25 each; price of queens to be added. Orders for nuclei filled about May 10th to 15th, and thereafter.

QUEENS

Tested Italian, each \$1.50; 6 for \$7.50; or \$13.00 per dozen.

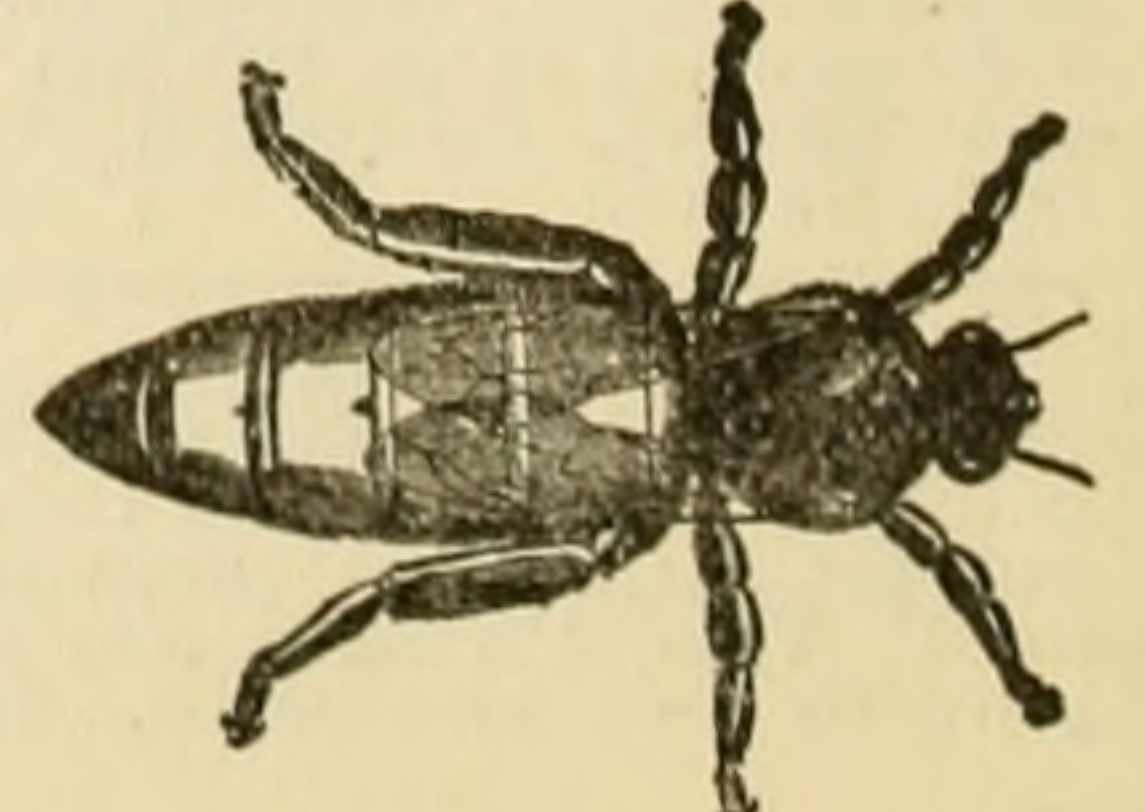
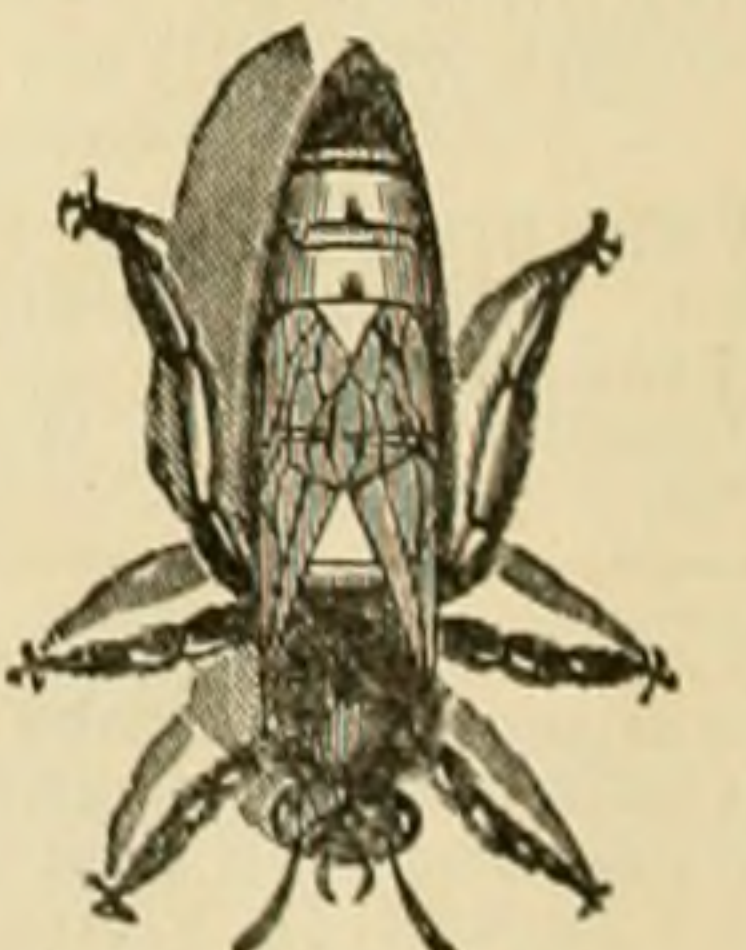
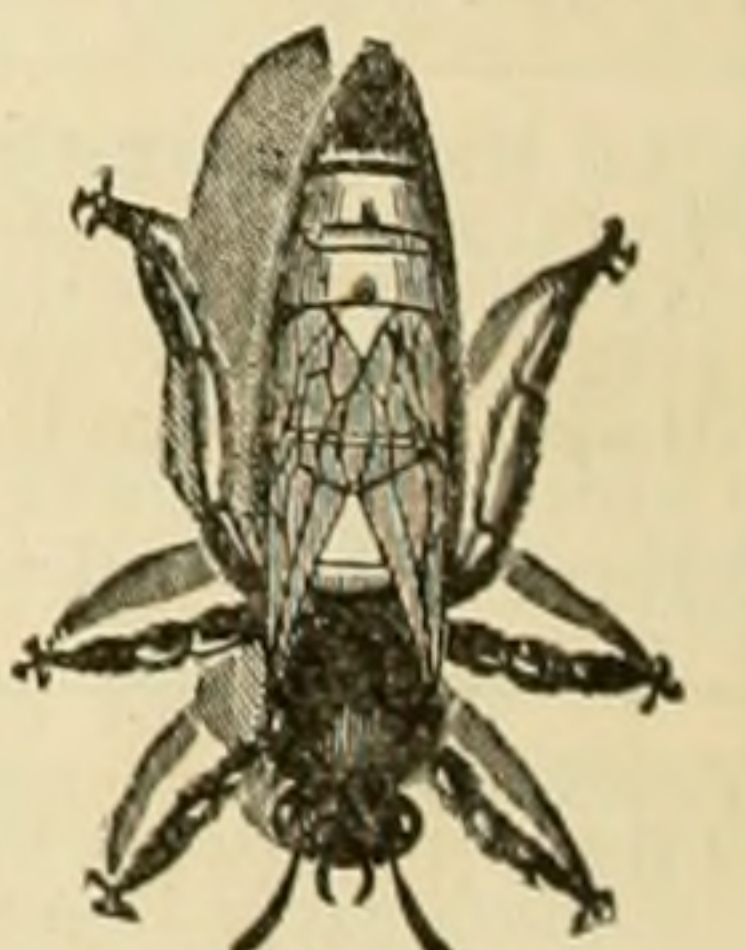
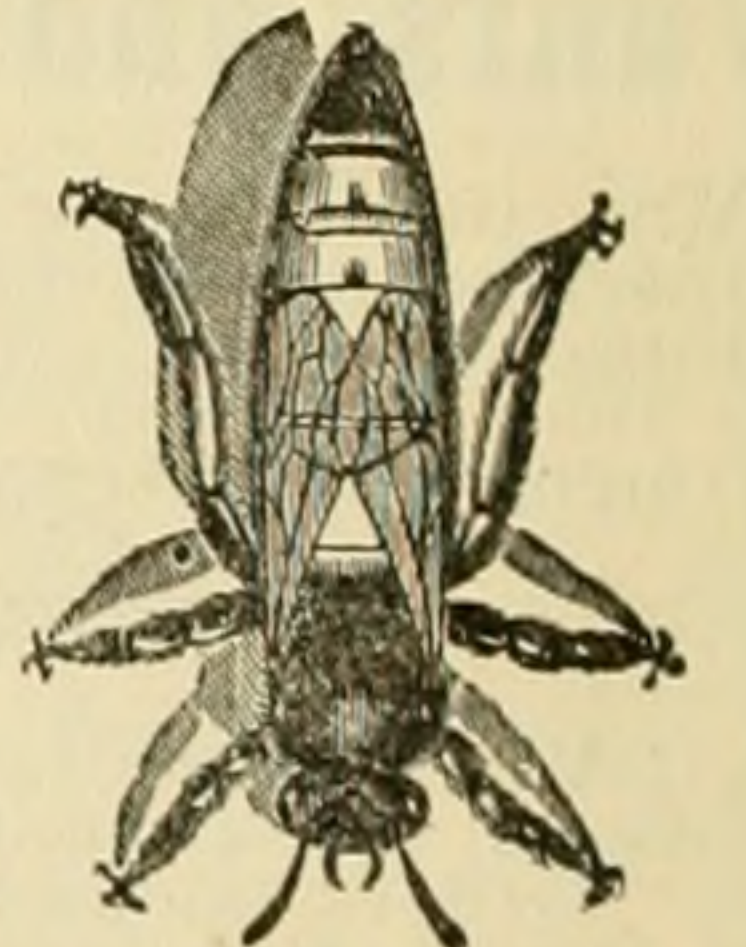
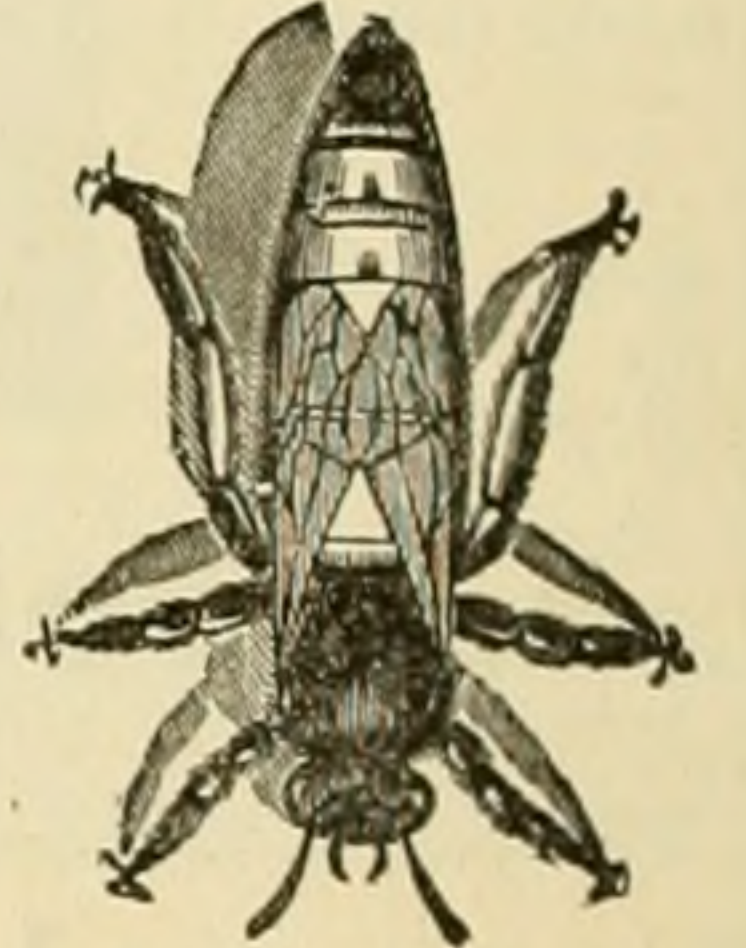
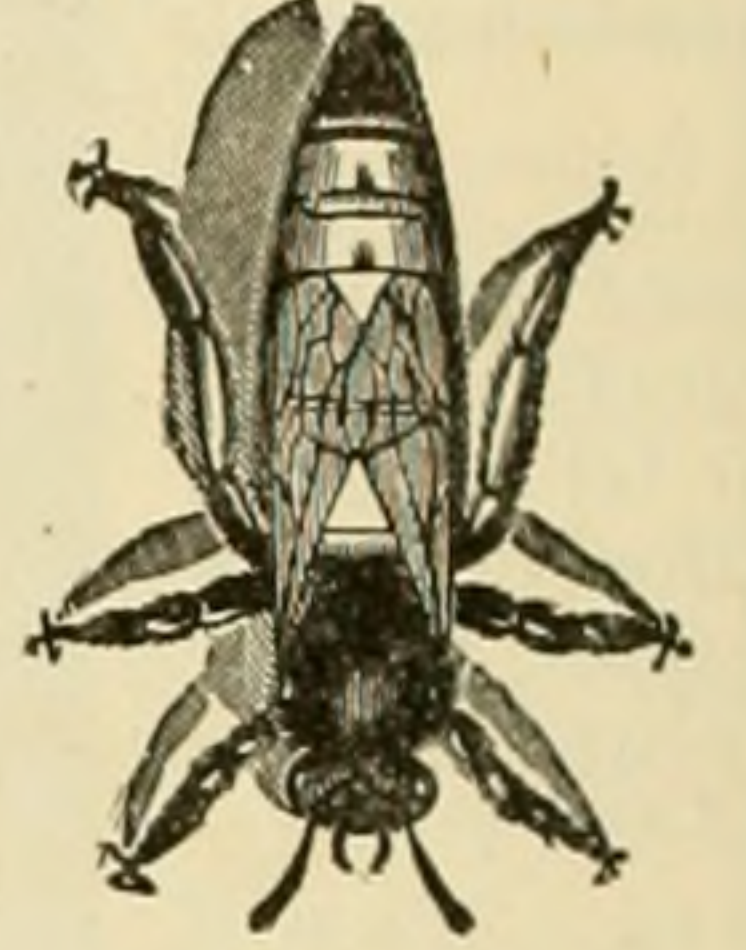
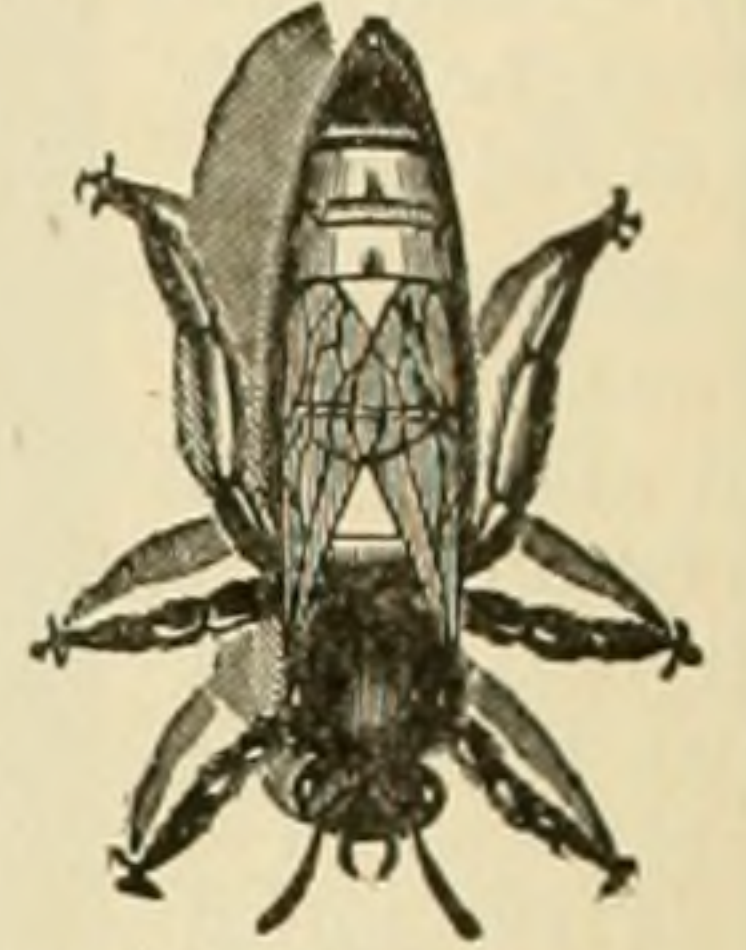
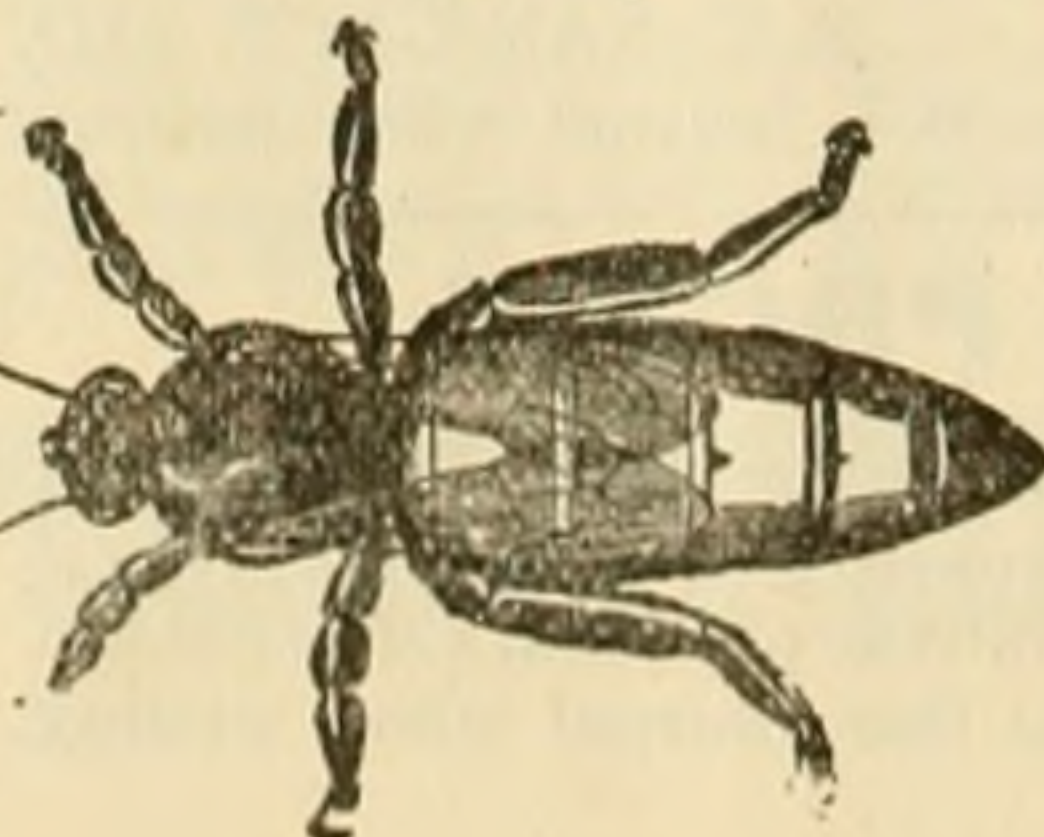
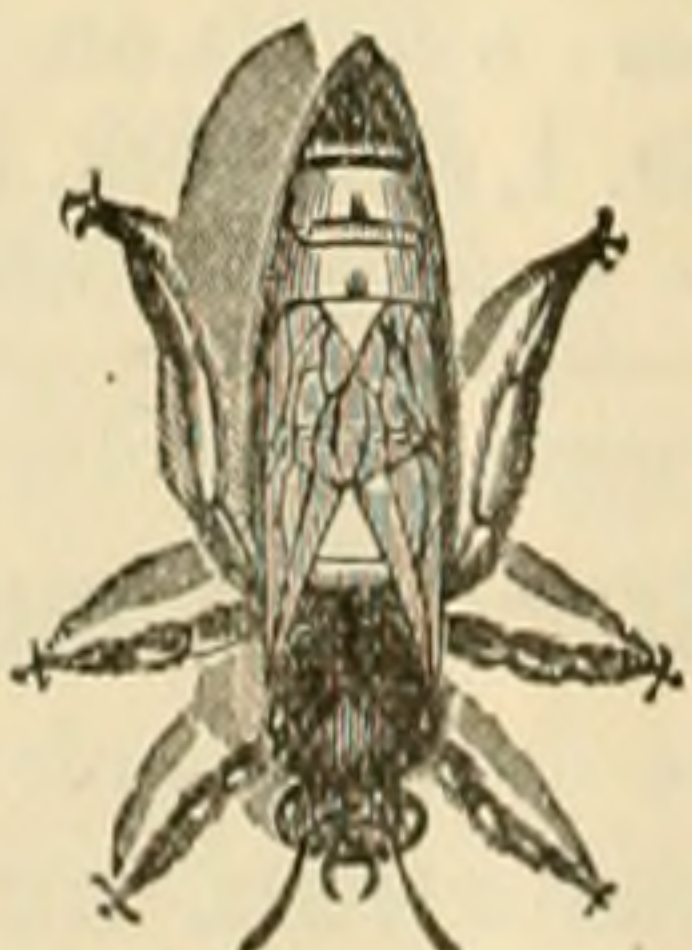
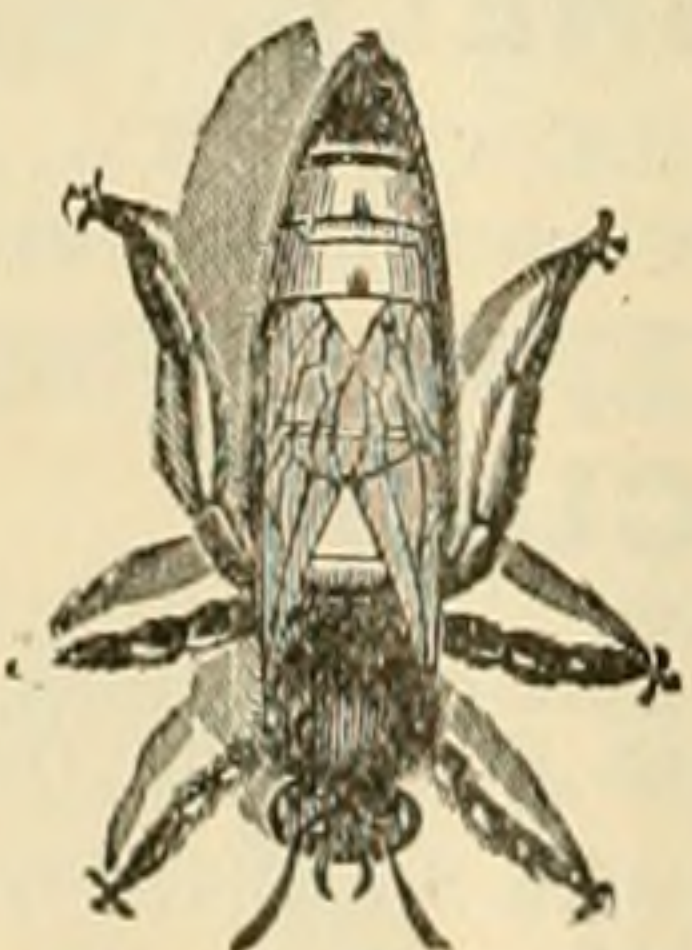
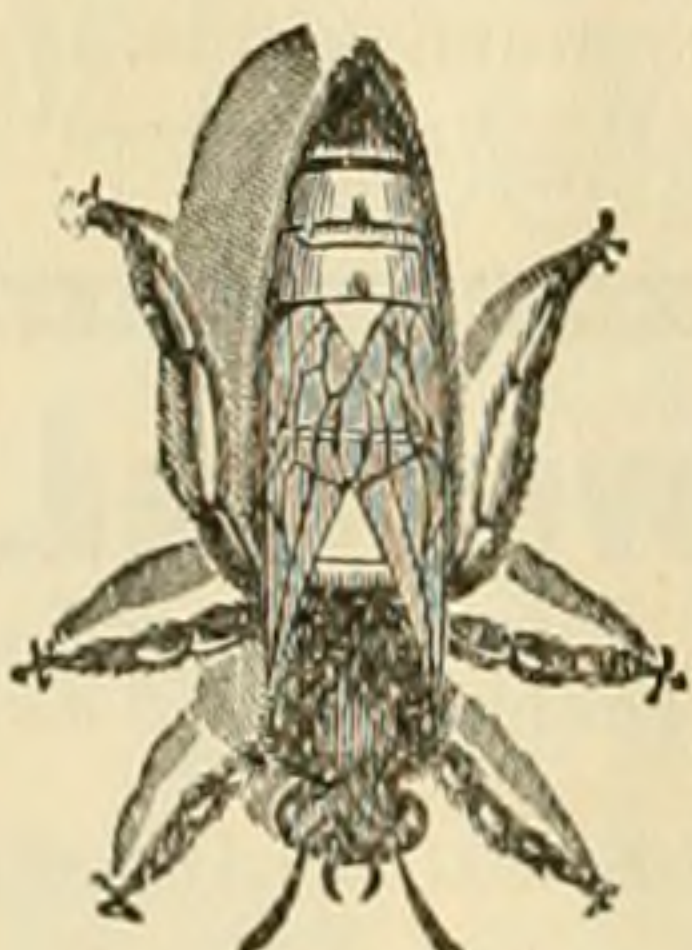
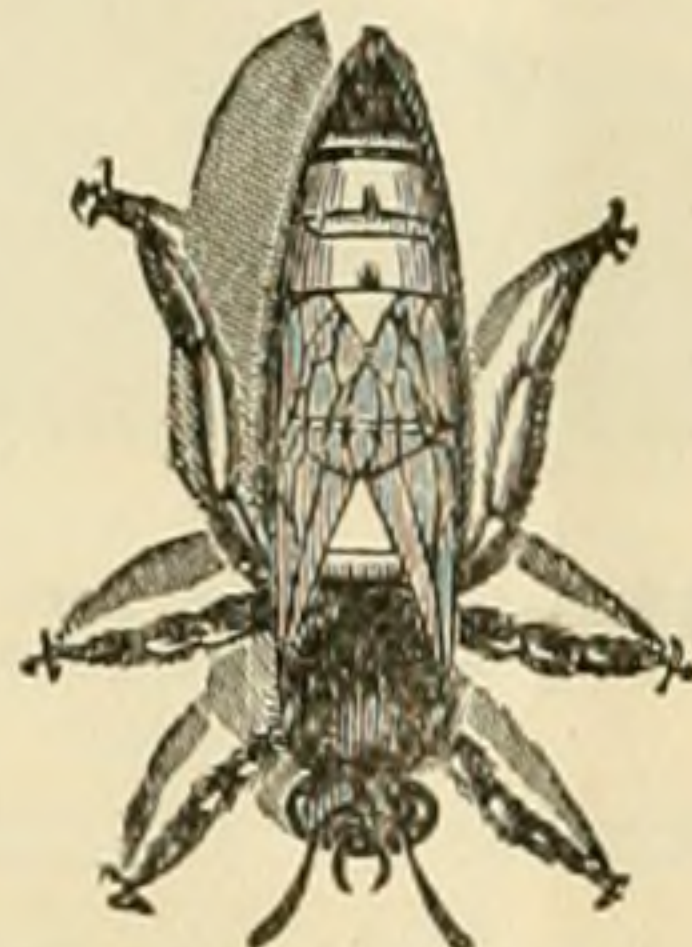
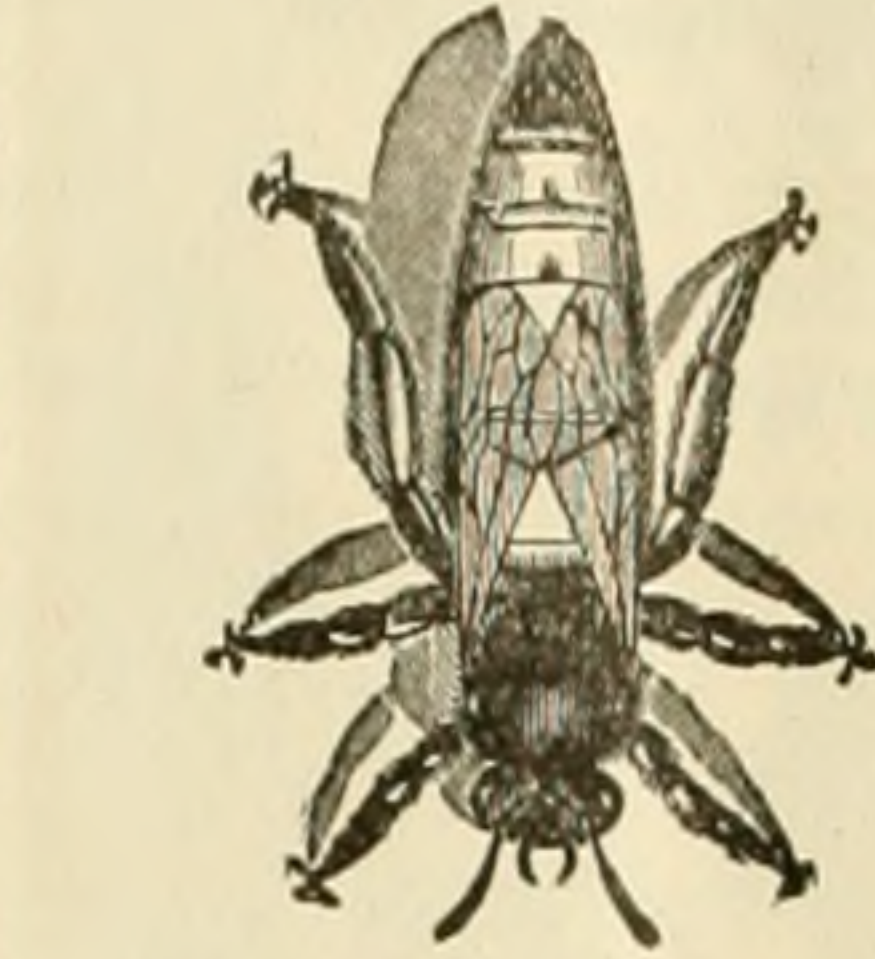
I have 50 choice Italian breeding-queens, either golden or leather-colored, at \$2.50 each. "First come first served."

Untested Queens After May 15

Italian (warranted) 75 cents each; 6 for \$4.00; or \$7.50 per dozen. Carniolan or Caucasian at the same prices.

If you have never had any of my Bees or Queens, you should give them a trial. Satisfaction guaranteed. Address all orders to

ARTHUR STANLEY,
 DIXON, LEE CO., ILL.



American Bee Journal

Tennessee-Bred Queens!

**All from Extra-Select Mothers,
Davis' Best, and the
Best Queens Money Can Buy**

38 Years' Experience in Queen-Rearing.
Breed Three-Band Italian Queens Only.

November 1st to July 1st			July 1 to Nov. 1					
I	6	12	I	6	12			
Untested.....	\$1.00	\$5.00	\$ 9.00	\$.75	\$4.00	\$7.50	Select Breeder	\$4.00
Select Untested..	1.25	6.50	12.00	1.00	5.00	9.00	Nuclei; no queen 1 fr.	2.00
Tested	1.75	9.00	17.00	1.50	8.00	15.00	" " " 2 "	3.00
Select Tested....	2.50	13.50	25.00	2.00	10.00	18.00	" " " 3 "	4.00
							Colony, " " 8 "	8.00

Select queen wanted and add price to price of nucleus or full colony.
For queens to be exported, add 20 percent to these prices, except to Canada, Cuba or Mexico.

JOHN M. DAVIS,

Dealer in, Importer and Breeder of
ITALIAN QUEEN-BEES

Depot, Telegraph and Express Offices,
Ewell Station on L. & N. R. R. **SPRING HILL, TENN.**

Please mention Am. Bee Journal when writing.

ROOT'S GOODS

for 1910 are better than ever. We carry full line of them.

MR. BEEMAN, take notice! For low freight and quick service our location cannot be excelled in the State. Don't delay. Order now. You can be saving your honey crop while the tardy fellow is waiting for his goods to arrive.

Our 1910 Bee-Line

is of the best. We are making a specialty of high-grade untested queens from a famous strain of honey-gatherers, at \$1.00 each. Order now, and be sure to get one for our delivery after May 15, 1910. Remember that cheap queens and poor blood do not pay.

**Rea Bee & Honey Co.,
Reynoldsville, Pa.**

Please mention Am. Bee Journal when writing.

Standard-Bred Queens!

Reared from our Superior Golden and 3-banded Italian stock. The cells are all built in very strong colonies. Our Queens produce bees that store from 150 pounds in Colorado to 256 pounds in N. Y. State, with but little swarming. Queens ready April 1st: Untested, \$1.25 each; 6 for \$6.00; 12 for \$10. Tested, \$1.50 each; Select Tested, \$2.50; Breeders, \$5.00.

Full colonies and Nuclei for sale.
Mr. F. M. Jones, of Lockport, N. Y., writes as follows about our Queens and Bees:

LOCKPORT, N. Y., Sept. 9, 1908.
MR. T. S. HALL, Jasper, Ga.

Dear Sir:—Your letter of the 2d received. I have taken only a part of the honey. The bees are gathering honey very fast. The most of the colonies are yellow as gold and very gentle. I think your Italians are very gentle. I bought 2 dozen from another breeder 1st of July. They are not as gentle as yours. You must remember, I had only 45 colonies of bees last spring—7 strong ones and 38 very weak ones that I would have lost if the cold weather had lasted two weeks longer. Some of them did not have bees enough to cover one frame, and yet their crop will be about 3 tons of white honey. I know you would like to know how I increased to 134 colonies. I had 2 of them swarm out, and I made 14 nuclei from them, and put your young queens with them. I had 5 swarms of black bees come to me and go in the empty hives about the 1st of June. After they had been in the hives 3 weeks I divided them into 20 nuclei and killed the black queens and put in 20 of your nice young Italian queens with them. The rest of the colonies I made by taking frames of hatching brood from the old colonies and putting them in empty hives. I could not have made that increase without the aid of all drawn-out combs ready for the bees. The strongest colonies had 5 stories to the hive, 8 frames each—40 frames all together; 8 frames of brood, 32 frames of honey, 8 lbs. of honey to the frame, 256 lbs. of white honey from the strongest colonies. They have 2500 pounds of honey on their hives now, Sept. 9th. Our Fair was last week. I got \$38.50 in premiums on bees and honey; \$5 for the best Italian queen.

Yours truly, F. M. JONES.

Discount given on large orders. Price-list ready soon.

T. S. Hall, Jasper, Pickens Co. Ga.

Please mention Am. Bee Journal when writing.

M. H. HUNT & SON

The best time to buy your goods is during the fall and winter months. We are making **Liberal Discounts for Early Orders**, and would like to quote you **net prices** on your needs for next season.

—BEESWAX WANTED—
LANSING, - MICHIGAN.

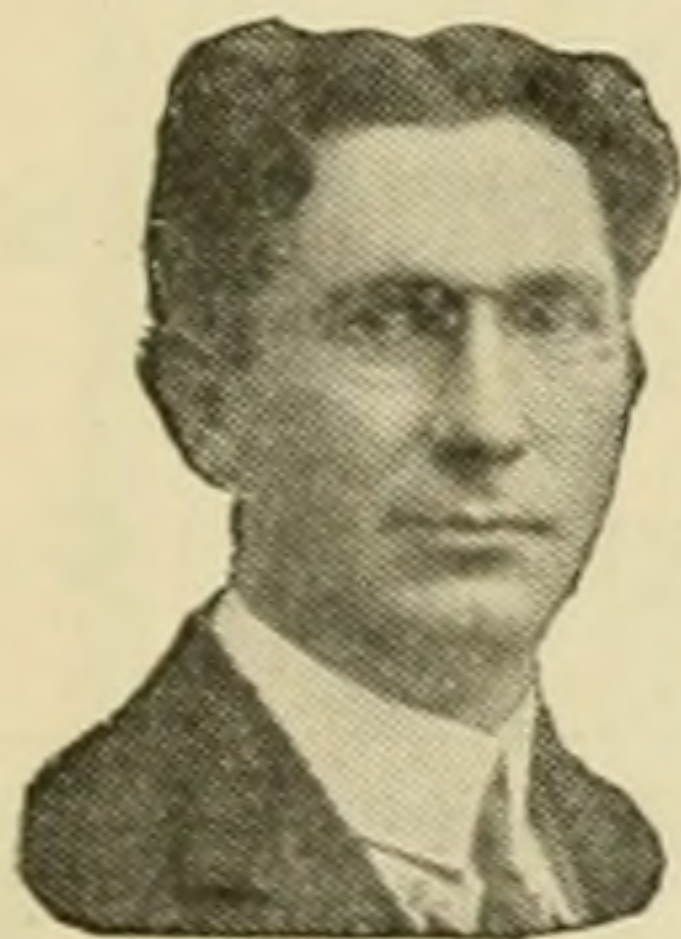
Bee-Supplies

**Lewis Goods in Iowa
at Factory Prices**

Write me for prices on Goods you need for 1910. **Discount for Early Orders.** Send for Catalog. It will be ready about January 1st.

—Beeswax Wanted—
W. J. McCARTY, Emmetsburg, Iowa

Split Hickory—Let Me Pay The Postage To You



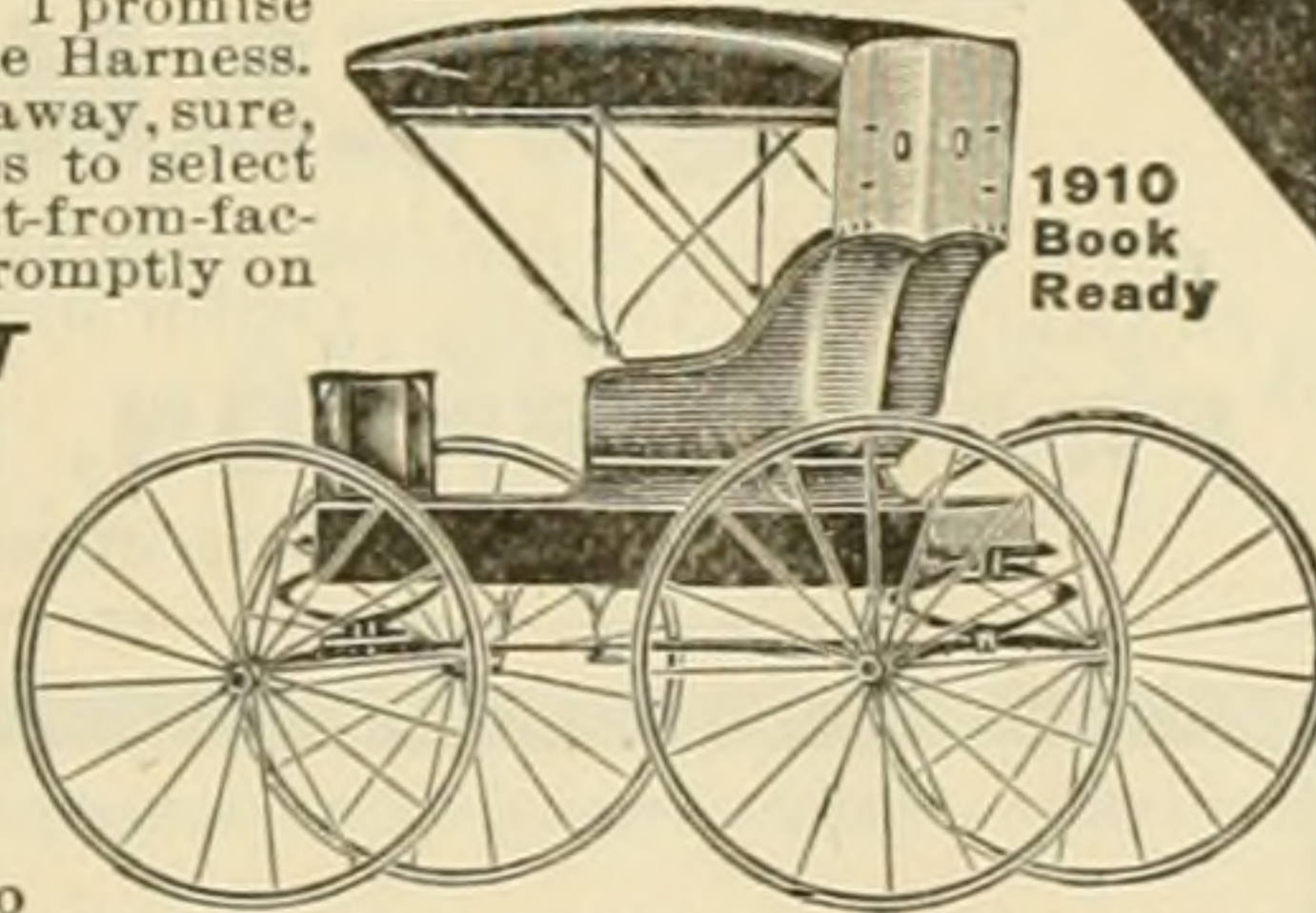
H. C. PHELPS
Manufacturer of
Split Hickory Vehicles

No year in history has seen such splendid Split-Hickory-Vehicle Styles as this—or such low prices. I promise you also just as great savings on high-grade Harness. Just send me your name this season—right away, sure, for my new, Big Free Book of over 125 styles to select from. Select just the made-to-order, direct-from-factory Split Hickory you want. I'll send it promptly on

**30 DAYS' FREE ROAD TEST
2 Years' Guarantee
You Save \$26.50 or More**

Make your own selection from my book—trimmings and finish to suit you best—all materials and workmanship and values just as represented or money back without question, from the largest exclusive carriage and harness factory in the world. Write for my Book, Free, today—personally to **H. C. Phelps, Pres. OHIO CARRIAGE MFG. CO., Station 322, Columbus, Ohio**

ON MY BIG BOOK



1910 Book Ready

"I save you \$30 to \$35 on this Split-Hickory Auto-Seat Buggy."

Over 125 other styles at even Bigger Savings—See Free Book.

Please mention Am. Bee Journal when writing.

Mr. Bee-Keeper:

Be wise and compare prices. My Catalog will tell you all; it is yours for the asking.

A Complete Stock on Hand

and **Two Carloads** on the way, with others to follow. **MY GOODS ARE THE BEST; MY PRICES THE LOWEST.**

H. S. Duby, St. Anne, Ill.

**BIG BARGAIN SALE
on Bee-Supplies**

I have bought all the bee-supplies and machines of the Minneapolis Wood and Machinery Co. Send me a list of what you need, and get the right price. Also **Adel, Carniolan, Italian, and Caucasian Queens.**

**CHAS. MONDENG, 4Atf
160 Newton Ave. N., Minneapolis, Minn.**

EXTRACTING MADE EASY

by using

MILLER AUTOMATIC DECAPPERS

\$5 to \$35. Catalog Free.

**APICULTURAL MANUFACTURING CO.,
Providence, R. I. 7Atf**

Good Queens

If you are going to want any Queens for increase, or replacing old queens next June, it is time to begin to think about it. I have been breeding leather-colored Italian queens for years, and they are giving excellent satisfaction. If you are interested, write. Good queens; no disease; prompt shipment, and absolute satisfaction guaranteed. Prices: June, one, 90c; three, \$2.50; six, \$4.75; doz., \$9.00; 20 or more at 60c each. 2A9t

S. F. Trego, Swedona, Ills.

— For the Best Goods —

and **LOW FREIGHT** send your orders for **BEE-SUPPLIES** to

The A. I. Root Company, Institute Place
CHICAGO, ILLINOIS



We carry on hand constantly a full line of bee-supplies. We have the best shipping facilities, and can fill your orders promptly the year round.

We have carloads coming from the factory constantly to replenish our stock, so that our goods are always bright and new, and we keep our assortments well up.

Send in your order now and take advantage of early order discounts.

Catalog on request. We will be glad to quote you delivered prices on any list you may send in. We have on hand now a large stock of Extracted honey. You will have to order quickly if you want some of this, as our honey always goes fast.

The A. I. Root Co., : : Chicago, Illinois

Institute Place

R. W. Boyden, Resident Manager.

Jeffrey Building

Take Elevator to Sixth Floor.

Telephone 1484 North.

We will Buy and Sell

HONEY

of the different grades and kinds. If you have any to dispose of, or if you intend to buy, correspond with us.

We are always in the market for

Beeswax

at highest market prices.

Hildreth & Segelken

265 & 267 Greenwich Street
NEW YORK, N. Y.

Please mention Am. Bee Journal when writing.

Western Bee-Keepers We Will Show You
how to save money. Send for our new catalog of the best Bee-ware made.

THE COLORADO HONEY-PRODUCERS' ASS'N, Denver, Colo.
Please mention Am. Bee Journal when writing.

IMPORTED QUEENS

**CARNIOLANS
BANATS
CYPRIANS**

I am wintering a fine lot, each Queen bred in 1909 in the native land of its race. Price, \$5; extra selected, \$6 each. Order now and have queen whenever desired.

FRANK BENTON, P. O. Box 17, Washington, D. C.

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MARSHFIELD BEE-GOODS

FRIEND BEE-KEEPER—We are prepared to fill your orders for **Sections**. A large stock on hand. Also a **Full Line of Bee-Supplies**. We make prompt shipments.

MARSHFIELD MFG. CO.,

Marshfield, Wis.

IOWA—J. W. Bittenbender, Knoxville, Gregory & Son, Ottumwa.
KANSAS—S. C. Walker & Son, Smith Center.
MICHIGAN—Lengst & Koenig, 127 South 13th St., Saginaw, E. S.
S. D. Buell, Union City.
NEBRASKA—Collier Bee-Supply Co., Fairbury.
CANADA—N. H. Smith, Tilbury, Ont.

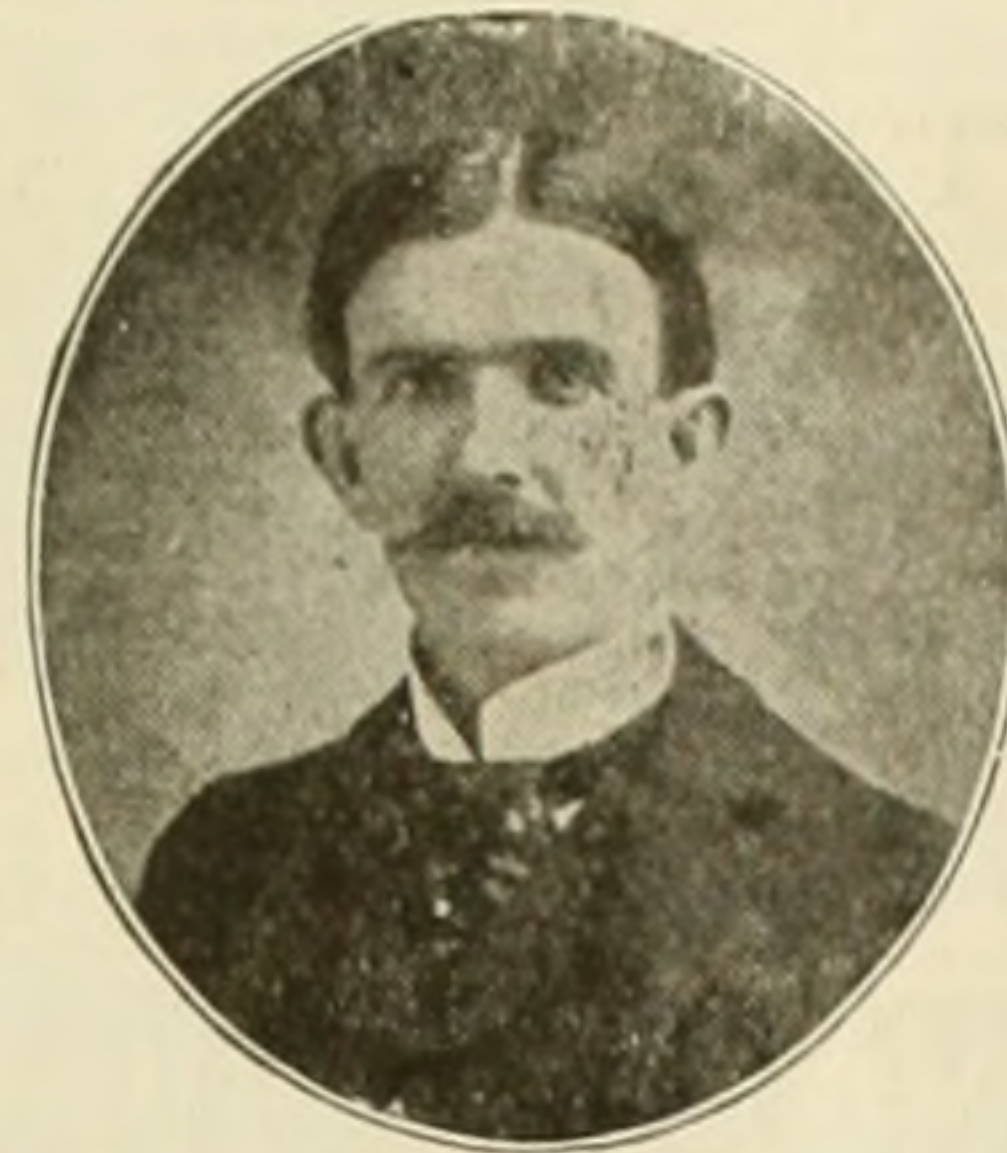
ARIZONA—H. W. Ryder, Phoenix.
MINNESOTA—Northwestern Bee-Supply Co., Harmony.
ILLINOIS—D. L. Durham, Kankakee.
OHIO—F. M. Hollowell Harrison.
TEXAS—White Mfg. Co., Blossom.
WISCONSIN—S. W. Hines Mercantile Co., Cumberland.
J. Gobeli, Glenwood.

CAPON TOOLS



CAPONS bring the largest profits—100 per cent more than other poultry. Caponizing is easy and soon learned. Progressive poultrymen use **PILLING CAPONIZING SETS** Postpaid \$2.50 per set with free instructions. The convenient, durable, ready-for-use kind. Best material. We also make Poultry Marker 25c, Gape Worm Extractor 25c, French Killing Knife 50c. Capon Book Free. G. P. Pilling & Son, Arch St., Philadelphia, Pa.

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"If goods are wanted quick, send to Pouder"

ESTABLISHED 1880.

BEE-SUPPLIES

Standard Hives with latest improvements; Danzenbaker Hives, Sections, Foundation, Extractors, Smokers, Veils, and a complete stock of

Root's Standard Goods at Factory Prices

My equipment, my stock of goods, and my shipping facilities, cannot be excelled, and I ship goods to every State in the Union. Illustrated and descriptive catalog mailed free.

Finest White Clover Honey

on hand at all times. I Buy Beeswax.

Walter S. Pouder, Indianapolis, Ind.

859 Massachusetts Ave.

HAND-MADE SMOKERS

Extracts from Catalogs—1907:

Chas. Dadant & Son, Hamilton, Ill.—This is the Smoker we recommend above all others.

G. B. Lewis Co., Watertown, Wis.—We have sold these Smokers for a good many years and never received a single complaint.

A. I. Root Co., Medina, Ohio.—The cone fits inside of the cup so that the liquid creosote runs down inside of the smoker.

All Bingham Smokers are stamped on the tin, "Patented 1878, 1892, and 1903," and have all the new improvements.

Smoke Engine—largest smoker made.....	\$1.50—4	inch stove
Doctor—cheapest made to use	1.10—3½	"
Conqueror—right for most apiaries	1.00—3	"
Large—lasts longer than any other.....	.90—2½	"
Little Wonder—as its name implies65—2	"

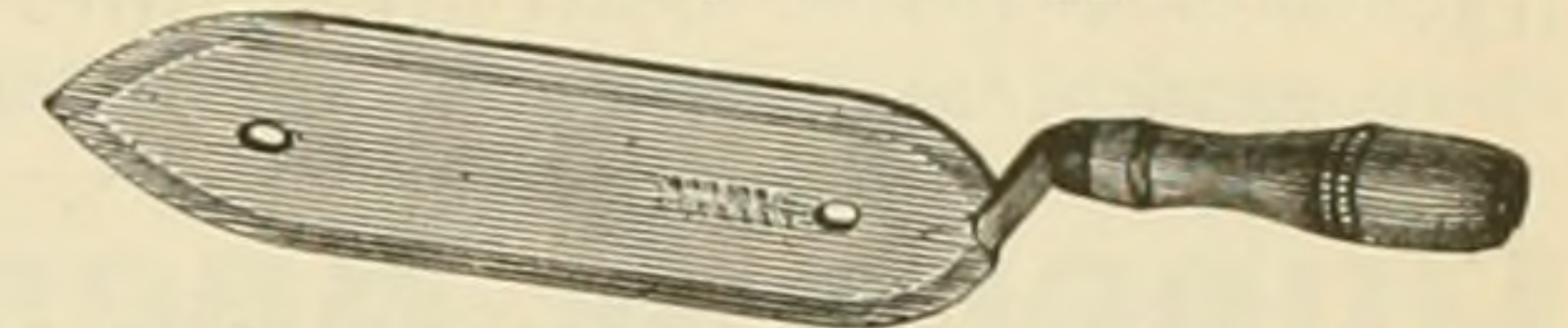
BINGHAM
CLEAN
BEE SMOKER



Pat'd 1878, '92, '92 & 1903

The above prices deliver Smoker at your post-office free. We send circular if requested. Original Bingham & Hetherington Uncapping-Knife.

T. F. BINGHAM, Farwell, Mich



Patented, May 20, 1879. BEST ON EARTH.

Bee - Supplies Shipped Promptly

—SEND FOR FREE CATALOG—

Honey for Sale.
(Ask for Prices.)

Extracted Honey Wanted.
(Send Sample and Price.)

ARND HONEY & BEE-SUPPLY CO. NOT INC.

(Successors to the York Honey & Bee-Supply Co.)

H. M. ARND, Proprietor.

148 West Superior St., CHICAGO, ILL.

BE E MEN WHO KNOW
 TELL US OUR MUTH SPECIAL IS THE ONLY HIVE ON THE MARKET WORTH WHILE. THE HONEY BOARD FEATURE (WHEREBY YOU CAN USE THE PORTER BEE ESCAPE TO REMOVE THE HONEY WITHOUT GETTING A STING) IS THE FEATURE. BESIDES, THE LUMBER AND WORKMANSHIP IS PERFECT. IT IS THE BEST OF ANY MAKE OF HIVE. IT IS MADE BY FALCONER, THE KING OF BEE HIVE MANUFACTURERS OF AMERICA, SEEING IS BELIEVING." SEND FOR OUR CATALOGUE AND LET US FIGURE WITH YOU FOR ANYTHING IN THE BEE LINE.
THE FRED W. MUTH COMPANY
 THE BUSY BEE MEN
 61 WALNUT STREET
 CINCINNATI, OHIO

BARNES' Foot-Power Machinery



Read what J. L. PARENT, of Charlton, N. Y., says: "We cut with one of your Combined Machines, last winter. 50 chaff hives with 7-in. cap, 100 honey-racks, 500 brood-frames, 2,000 honey-boxes, and a great deal of other work. This winter we have double the amount of bee-hives, etc., to make, and we expect to do it with this Saw. It will do all you say it will." Catalog and price-list free.

Address, W. F. & JOHN BARNES, 995 Ruby St., Rockford, Ill.

Baby Chicks 8 cts. each. Eggs for hatching, \$4 per 100. All kinds poultry at lowest prices. Guarantee safe arrival anywhere. Write for price-list. 10A6t

CULVER POULTRY FARM 1015 Reed, BENSON, NEBR.

BETTER FRUIT

The best fruit growers' illustrated monthly published in the world. Devoted exclusively to modern and progressive fruit growing and marketing. Northwestern methods get fancy prices, and growers net \$200 to \$1000 per acre. One Dollar per year. Sample copies free.

Better Fruit Publishing Co. HOOD RIVER, OREGON.

BEE-SUPPLIES.

40-page catalog free. Brimful of the latest make of hives, etc. Our supplies will please you in every way. Prices are right. We can make prompt shipments as we carry a full line of A. I. Root Co.'s supplies in stock. Don't fall to write us if you are in need of supplies. 8Atf

JOHN NEBEL & SON SUPPLY CO., High Hill, Montg. Co., Mo
Please mention Am. Bee Journal when writing.

FENCE Strongest Made

Made of High Carbon Double Strength Coiled Wire. Heavily Galvanized to prevent rust. Have no agents. Sell at factory prices on 30 days' free trial. We pay all freight. 37 heights of farm and poultry fence. Catalog Free.

COILED SPRING FENCE CO.
Box 89 Winchester, Indiana.

Honey and Beeswax

CHICAGO, Jan. 25.—There is quite a good demand for No. 1 to fancy comb honey at from 16@17c per pound, and very little of it on the market; the other grades are neglected and difficult to sell. Extracted clover and basswood are in good demand, with other white grades plentiful and easy in price. The range of the market is from 7@8½c. Beeswax is in good demand at 32c for prime yellow, with other grades about 2c less.
R. A. BURNETT & Co.

INDIANAPOLIS, Jan. 25.—There is a good demand for best grades of both comb and extracted honey, but jobbing houses are well supplied. Practically no honey is now being offered by producers, and jobbers are selling No. 1 and fancy white comb at 17@18c. Best extracted, 9@10c, according to quantity taken at one shipment. Poor demand for amber honey and no established prices. Producers are being paid 29@31 for good average beeswax.
WALTER S. POWDER.

DENVER, Jan. 25.—We quote our local market as follows: Strictly No. 1 white comb honey, per case of 24 sections, \$3.50; No. 1, light amber, \$3.25; No. 2, \$3.00. White extracted, 7@8½c; light amber, 6¾@7½c. We pay 25c per pound for clean yellow beeswax delivered here.

THE COLO. HONEY-PRODUCERS' ASS'N.
F. Rauchfuss, Mgr.

BOSTON, Jan. 26.—Fancy white comb honey at 16@17c; No. 1, 15@16c. White, extracted, 8@9c; light amber, 7@8c; amber, 6@7c. Beeswax, 30@32c.
BLAKE, LEE CO.

TOLEDO, Jan. 25.—The market on honey is rather quiet now, as is usual at this time of the year. Comb honey is moving very slowly and we are quoting as follows: Fancy white, 15@16½c; No. 1 white, 14@15½c; buckwheat, 13@15c, depending upon quality and grade. Very little demand for amber grades. Extracted white clover, 9@10c; white sage, 9c; Arizona white honey, 8½c. Beeswax is quite

firm at 28@30c. Owing to the high prices this season, honey is not moving as rapidly as expected. Some producers have been inclined to hold their crops for exorbitant prices, and they are now offering them at much less, which has a tendency to drop the market some. We look for a better demand later on.
THE GRIGGS BROS. Co.

CINCINNATI, Jan. 25.—The market on comb honey is almost bare. The demand is considerably lighter than it has been for the past few weeks. It is selling for about \$3.50 per case of 24 sections. Amber honey in barrels is selling at 6¼@6½c; sage honey in 60-pound cans, 8½c. Beeswax fair at \$33 per 100 pounds. These are our selling prices, not what we are paying.

C. H. W. WEBER & Co.

KANSAS CITY, MO., Jan. 25.—The receipts of both comb and extracted honey are light. We quote: No. 1 white comb, 24 sections to case, \$3.50; No. 2 white and amber, \$3.25 per case. Extracted, white per pound, 7½c. Beeswax, 25@30c.

C. C. CLEMONS PRODUCE CO.

ZANESVILLE, OHIO, Jan. 25.—There seems to be a slightly improved demand for honey, though there has not been complete recovery from the holiday slump. Very little, especially comb, is now being offered by producers. For No. 1 to fancy white comb producers should receive 14@15c, and for best white extracted 8@8½c, delivered here. Practically no sale for off-grades on this market. In a wholesale way, comb honey brings 2@2½c, and extracted 1@2c advance over these prices. For good clean beeswax, producers are offered 28c cash, 31c in trade.

EDMUND W. PEIRCE.

NEW YORK, Jan. 26.—Comb honey fairly well cleaned up, especially No. 1 and fancy white stock, while there are some off-grades still on the market. There is a fair demand for No. 1 and fancy white at 14@15c a pound; off grades 11@12c; buckwheat 10@12c, according to quality. We are now receiving new crop comb from Cuba, of very fine quality, which is selling at about the same prices as domestic. Extracted is in fair demand only, with sufficient supply of all kinds. We quote: California, water-white, 9c; white-sage, 8@8½c; light amber, 7½@8c; amber, 6½@7c. Southern and West India, in barrels, 65@75c per gallon, according to quality. Beeswax steady at 30c per pound.

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